



**OTRS**  
Open Technology  
Real Services

## **Documentation**

# **OTRS 5 - Admin Manual**

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## OTRS 5 - Admin Manual

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Kazi hii ina hakimiliki ya OTRS AG

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The source code of this document can be found at [github](#), in the repository [doc-admin](#). Contributions are more than welcome. You can also help translating it to your language at [Transifex](#).



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# Utangulizi

Hiki kitabu kimelewa kutumiwa na Wasimamizi wa OTRS. Pia ni ki rejeo kizuri kwa watumiaji wapya wa OTRS.

Sura zinazofwata zinaelezea usakinishaji, usanidi, na usimamizi wa progwamu ya OTRS. Theluthi moja ya kwanza ya nakala hii inaelezea kazi za muhimu za programu, wakati zinazobakia inafanya kazi kama marejeo ya seti nzima ya parameta zinazoweza kusandwiwa.

Hiki kitabu kinaendelea kuwa kazi iliyo kwenye mwendelezo, ikiwa lengo ni matoleo mapya. Tunahitaji maoni yenu ili kufanya hii nyaraka ya marejeo kuwa ya hali ya juu: ambayo inaweza kutumika, iko sahihi, na kamili. Tafadhali tuandikie kama unakuta kuna kitu hakipo kwenye hiki kitabu, kama vitu havijaelezewa kikamilifu, au kuna makosa ya kiuandishi na kisintaksia. Aina yoyote ya maoni yanathaminiwa na yanatakiwa kuwekwa kwenye mfumo wetu wa kufwatilia makosa katika <http://bugs.otrs.org>. Tunatanguliza shukrani kwa michango yenu.



# Chapter 1. Utangulizi

## 1. Trouble Ticket Systems - Vya msingi

Hii sura inatoa utangulizi wa trouble ticketing systems kwa ufupi, pamoja na maelezo ya maana ya msingi ya trouble ticket. Mfano wa haraka unaeleza faida za kutumia mfumo kama huu.

### 1.1. Trouble ticket system ni nini, na kwanini unaihitaji?

Mfano ufwatao unaeleza trouble ticket system ni nini, na jinsi gani utafaidika na mfumo huu katika kampuni yako.

Let's imagine that Max is a manufacturer of video recorders. Max receives many messages from customers needing help with the devices. Some days, he is unable to respond promptly or even acknowledge the messages. Some customers get impatient and write a second message with the same question. All messages containing support requests are stored in a single inbox folder. The requests are not sorted, and Max responds to the messages using a regular email program.

Since Max cannot reply fast enough to all the messages, he is assisted by the developers Joe and John in this. Joe and John use the same mail system, accessing the same inbox. They don't realize that Max often gets two identical requests from one frustrated customer. Sometimes they both end up responding separately to the same request, with the customer receiving two different answers. Furthermore, Max is unaware of the details of their responses. He is also unaware of the details of the customer problems and their resolutions, such as which problems occur with high frequency, or how much time and money he has to spend on customer support.

At a meeting, a colleague tells Max about trouble ticket systems and how they can solve Max's problems with customer support. After looking for information on the Internet, Max decides to install OTRS on a computer that is accessible from the web by both his customers and his employees. Now, the customer requests are no longer sent to Max's private inbox but to the mail account that is used for OTRS. The ticket system is connected to this mailbox and saves all requests in its database. For every new request, the system automatically generates an answer and sends it to the customer so that the customer knows that his request has arrived and will be answered soon. OTRS generates an explicit reference, the ticket number, for every single request. Customers are now happy because their requests are acknowledged and it is not necessary to send a second message with the same question. Max, John, and Joe can now log into OTRS with a simple web browser and answer the requests. Since the system locks a ticket that is answered, no message is edited twice.

Tufikirie kwamba Mr. Smith ametuma ombi kwa kampuni ya Max, na meseji yake inafanyiswa mchakato na OTRS. John anatoa jibu fupi kwa swali lake. Lakini Mr. Smith ana swali linalofuata, ambalo analituma kama jibu kwa barua pepe ya John. Kwa kuwa John ametingwa, Max sasa anajibu meseji ya Mr. Smith. Kipengele cha historia kinamruhusu Max aone mtiririko mzima wa mawasiliano kwenye ombi hili, na anajibu kwa undani zaidi. Mr. Smith hajui kama watoa huduma zaidi ya mmoja wahehusika katika kutatua tatizo lake, na amefurahia maelezo ya majibu ya mwisho ya Max.

Bila shaka, haya ni mapitio mafupi ya viwezekanavyo na vipengele vya mifumo ya trouble ticket. Lakini kama kampuni yako inabidi ihudumie maombi mengi kutoka kwa wateja

kupitia barua pepe na simu, na kama watoa huduma tofauti inabidi wajibu kwa muda tofauti, tiketi itakuwa na usaidizi mkubwa. Inaweza kusaidia kurahisisha mtiririko wa kazi, kuongeza ufanisi, na kuboresha utendaji kwa ujumla. Mfumo wa tiketi unasaidia kutengeneza muundo rahisi wa mazingira ya usaidizi au meza ya usaidizi. Mawasiliano kati ya wateja na watoa huduma yanakuwa wazi zaidi. Matokeo ya mwisho ni ufanisi wa huduma. Na bila shaka, wateja walioridhika watabadilika kuwa matokeo mazuri ya biashara ya kampuni yako.

## 1.2. Trouble ticket ni nini?

Trouble ticket ni sawa na ripoti ya matibabu iliyotengenezwa kwa ajili ya mgonjwa. Mgonjwa akienda hospitali kwa mara ya kwanza, ripoti ya matibabu itatengenezwa kushikilia taarifa zote binafsi na za matibabu zinazomhusu. Baada ya kuhudhuria mara nyingi, na kuhudumiwa na daktari yule yule au wengine, daktari husika anasasisha ripoti kwa kuongeza taarifa mpya za mgonjwa na matibabu yanayoendelea. Hii inawezesha madaktari wengine na manesi kuweza kupata picha nzima ya kesi ya mgonjwa waliokuwa nayo. Mgonjwa akipona na kuruhusiwa kutoka hospitalini, taarifa zote za mgonjwa zinahifadhiwa kwenye nyaraka na ripoti inafungwa.

Mifumo ya trouble ticket kama OTRS inashughulikia trouble tickets kama barua pepe za kawaida. Ujumbe unahifadhiwa kwenye mfumo. Mteja akituma ombi, tiketi mpya inatengenezwa na mfumo ambayo ni sawa na ripoti ya matibabu inayotengenezwa. Majibu kwa hii tiketi mpya ni sawa na ingizo la daktari kwenye ripoti ya matibabu. Tiketi inafungwa kama majibu yametumwa kwa mteja, au kama tiketi imefungwa na mfumo. Kama mteja akijibu tena tiketi iliyofungwa, tiketi itafunguliwa tena na taarifa mpya zitaongezwa. Kila tiketi inahifadhiwa na taarifa kamili. Kwa kuwa tiketi zinashughulikiwa kama barua pepe za kawaida, viambatanisho na maoni ya muktadha pia yatahifadhiwa na kila barua pepe. Na pia taarifa za tarehe husika, wafanyakazi husika, muda wa kazi unaohitajika kushughulikia tiketi, na kadhalika vinahifadhiwa. Katika ngazi yoyote ya baadaye tiketi zinaweza kupangwa na inawezekana kutafuta na kuchambua taarifa zote kwa kutumia taratibu mbali mbali za uchujaji.

## 2. OTRS Help Desk

Hii sura inaelezea vipengele vya OTRS Help Desk (OTRS) Utapata taarifa kuhusu mahitaji ya programu na vifaa kwa ajili ya OTRS. Kwa zaidi katika sura hii utajifunza jinsi ya kupata usaidizi wa ki biashara kwa OTRS, ukihitaji, na jinsi ya kuwasiliana na jamii.

### 2.1. Misingi

OTRS Help Desk (OTRS) ni programu tumizi ya wavuti ambayo inasakinishwa katika seva ya wavuti na inaweza kutumika na kivinjari wavuti.

OTRS imegawanywa katika vijenzi tofauti. Kijenzi kikuu ni kiunzi cha OTRS ambacho kina kazi kuu zote za mfumo wa tiketi na programu-tumizi. Inawezekana kusakinisha programu-tumizi za ziada kama moduli za OTRS::ITSM, ushirikiano na ufumbuzi wa Ufuatiliaji wa Mtandao, msingi wa maarifa (Maswali yanayoulizwa mara kwa mara), na kadhalika.

### 2.2. Vipengele

OTRS ina vipengele vingi. Orodha ifwatayo inatoa mapitio ya vipengele muhim vilivyopo katika kiunzi cha OTRS.

#### 2.2.1. User Interface

- OTRS inakuja na wavuti za kiolesura mpya na tofauti kwa ajili ya wakala na wateja.

- Inaweza kutumika katika kivinjari wavuti kipywa, ikijumuisha utayari wa retina na jukwaa jongevu.
- Kiolesura cha wavuti kinaweza kugeuzwa kukufaa kwa dhima na dhamira zako
- Dashibodi ya wakala ina nguvu na uwezo wa kugeuzwa kukufaa pia ina mapitio ya tiketi zako na usaidizi wa takwimu za michoro.
- Injini panufu ya ripoti inatoa takwimu tofauti tofauti na chaguo la kuratibu ripori.
- Kwa kutumia MchakatoUsimamizi inawezekana kufafanua skrini za tiketi zako na michakato (tiketi za mtiririko wa kazi)
- OTRS ina usimamizi wa haki za ndani ambayo inaweza kupanuliwa na orodha dhibiti ufikivu (ACLs) zilizo hakikiwa.
- Ina msaada kwa zaidi ya lugha 30 na majira tofauti ya saa.

### 2.2.2. Email Interface

- Ina usaidizi wa barua pepe za MIME pamoja na viambatanishi.
- Ina geuza ki otomatiki HTML kwa ujumbe wa matini ghafi (ulinzi ulioongezeka kwa maudhui nyeti na inawezesha utafutaji wa haraka)
- Barua pepe zinazolingia zinachujwa na kufanyiwa mchakato na sheria ngumu, mfano kwa barua taka au ugawanyaji wa foleni.
- Msaada kwa viwango vya PGP na S/MIME kwa ajili ya usimamizi wa ufunguo/hati na uchakatishaji wa barua pepe.
- Majibu otomatiki, yana sanidika kwa kila foleni.
- Taarifa za barua pepe kwa wakala kuhusu tiketi mpya, vinavyofwatia au tiketi zilizo-fungiwa.
- Inawezekana kufafanua kitambulishi cha tiketi yako ili kutambua vinavyofuata, mfano. Piga#, Tiketi# au Ombi#. Kuna vizalisha tiketi namba vingi (vyenye msingi wa tarehe, nasibu na kadh.) Unaweza kuongeza yakwapo pia. Vinavyofwatia vinaweza kujulikana kwa kurejea kwenye vichwa au tiketi namba za nje.

### 2.2.3. Tiketi

- OTRS inatumia tiketi kukusanya mawasiliano yote ya nje na ndani yanayokaa pamoja. Hizi tiketi zinapangwa kwa foleni.
- Kuna njia nyingi za kuangalia tiketi kwenye mfumo (kwa kutegemea Foleni, Hali, Kupanda ma kadh.) katika ngazi tofauti za undani (ndogo/kati/kuhakiki).
- Historia ya tiketi inarekodi mabadiliko yote kwa tiketi.
- Tiketi zinaweza kubadilishwa kwa njia tofauti, kama kujibu, kutuma mbele, kudunda, kuhamia kwenye foleni nyingine, sasisha sifa (hali, umuhimu na kadh.), kufunga na uhasibu wa muda wa kazi. Inawezekana kubadilisha tiketi nyingi kwa mkupuo (vitendo vya mkupuo).
- Muda wa kusubiri na muda wa kupanda / usimamizi wa SLA unaruhusu ratiba na vizuizi vinavyotegemea muda.
- Tiketi zinaweza kuunganishwa na tiketi nyingine au vitu vingine mfano maswali yanayoulizwa mara kwa mara.
- Vitendo otomatiki na vya muda kwa tiketi vinawezekana na "WakalaWaKawaida"

- OTRS inakuja na injini tafuti yenye nguvu ambayo inaruhusu utafutaji tata na wa nakala kamili kwa tiketi.

## 2.2.4. Mfumo

- OTRS runs on many operating systems (Linux, Solaris, AIX, FreeBSD, OpenBSD, Mac OS 10.x) and supports several database systems for the central OTRS back-end (MySQL, PostgreSQL, Oracle, MSSQL).
- Kiini cha mfumo kinaweza kupanuliwa kwa ku sakinisha vifurushi vya OTRS. Kuna vifurushi vingi vya bure (mfano FAQ, OTRS::ITSM na vingine) na pia vifurushi vya FeatureAdd-on kwa wateja wenye mkataba wa huduma kutoka kundi la OTRS.
- Uunganishaji wa mazingira ya nyuma ya nje kwa ajili ya data za mteja, mf. kupitia AD, eDirectory au OpenLDAP. Wateja wanaweza kujithibitisha kupitia hifadhidata, LDAP, HTTPAuth au Radius.
- Kwa kiolesura cha ujumla ni rahisi kuunganisha OTRS na huduma nyingine za tovuti. Huduma rahisi za tovuti zinaweza kuunganishwa bila kuunda programu, mazingira changamano na viendelezi vya kawaida. Kiunganishi cha tiketi cha OTRS kinaruhusu utengenezaji, usasishaji na utafutaji wa tiketi, kupitia huduma za tovuti kutoka kwenye programu tumizi nyingine kuacha mbili zinazohusika.

Sasa tuangalie mabadiliko katika matoleo ya hivi karibuni ya OTRS.

## 2.2.5. New Features of OTRS 5

### 2.2.5.1. Uzalishaji

- OTRS is now optimized for use on different types and sizes of mobile devices.
- Single-select and multi-select input fields have been modernized and provide advanced searching and filtering capabilities (thanks to Dusan Vuckovic at Mühlbauer).
- Images can now be added/uploaded to the WYSIWYG editor using Copy&Paste and Drag&Drop from anywhere outside the application (in all browsers, without additional Add-On).
- Improved ticket notification system. It is now possible to configure own ticket notifications with own trigger conditions and recipients. With OTRS Business Solution™, notifications can also be delivered via SMS and/or Notification Web View. The latter is a special screen in OTRS that holds all notifications of the agent; with this OTRS can be used entirely without an email client.
- Statistics received a new graphical user interface which is much better accessible and helps to create great statistics quickly and easily.
- Additionally, statistics support the new time periods “quarter” and “half-year”
- It is now possible to group action menu items in the ticket zoom screen. Less often used items can be grouped in a submenu, improving screen usage and clarity.
- Ticket overviews can now display customer company data, thanks to Renée Bäcker.
- The ticket process TransitionAction “TicketCreate” can now create tickets without articles.

### 2.2.5.2. Scalability & Performance

- The new OTRS Daemon handles all asynchronous and periodic tasks and replaces all previous OTRS cron jobs. In a clustered environment the load is automatically distributed over the nodes.

- It is now possible to specify multiple readonly mirror (slave) databases for expensive computations such as statistics or fulltext searches to distribute the load among these database servers.

### **2.2.5.3. Security**

- A new two-factor authentication layer allows added login security.
- If entering a fixed username and password doesn't satisfy your requirements, you can now additionally use the open standard for time based one-time passwords ([RFC 6238](#), also known as Google Authenticator).
- After having enabled the two-factor authentication, agents and customers can add a shared secret to their preferences and immediately start logging in using one-time passwords created by a compatible method of their choice (e.g. the Android Google Authenticator app).

### **2.2.5.4. Working with External Systems**

- A new XSLT based GenericInterface mapping module allows for arbitrarily complex user-defined data mapping.

### **2.2.5.5. Usanikishaji & Usimamizi**

- The new OTRS console makes working on the commandline easy and fun. All commands have a consistent interface, useful documentation and provide helpful colored output.
- Administrators can now specify a minimum log level to reduce logging volume, thanks to Renée Bäcker.
- Overview screens in the admin area now show invalid entities in gray, making it easy to focus on active elements.

## **2.2.6. New Features of OTRS 4**

### **2.2.6.1. Uzalishaji**

- A new cleaner flat design has been implemented.
- Agents can now reply directly to a ticket note. The original notes body is quoted in the new note.
- Agents can now make use of templates in all screens with internal notes.
- Ticket action screens (such as note, owner etc.) now allow to do actions without always creating an article (configurable).
- New ticket overview based on "my services" that an agent can subscribe to. Notification options for new tickets and follow-ups can now be based on "my queues", "my services" or combinations of both.
- OTRS can now display tickets with thousands of articles.
- Customer online list in Dashboard now links directly to CustomerInformationCenter page for the customer.
- Agents can now persistently reorder their main menu with drag&drop.
- Agents and customers can now search tickets by attachment name.



- New Dashboard Widget for running process tickets.
- New search options for the last change time of the ticket.
- Added new screen for outgoing emails on a ticket that are not replies.

### **2.2.6.2. Scalability & Performance**

- OTRS 4 can handle more concurrent users/requests on the same hardware, and response times for single requests are shorter as well, especially for pages with lots of data.

### **2.2.6.3. Kufanya kazi na mifumo ya nje**

- The GenericInterface now also supports HTTP REST as network transport protocol.

### **2.2.6.4. Usanikishaji & Usimamizi**

- Postmaster filters are no longer limited to 4 match/set fields. They can now have a configurable amount of fields (default 12, up to 99).
- A new configuration option Ticket::MergeDynamicFields makes it possible to specify which dynamic fields should also be merged when a ticket is merged to another ticket.
- Added new options to check dynamic fields of type text on patterns relating to error messages (translated), if they do not match.
- Added new options to restrict dynamic fields of type date/datetime on future or past dates.
- OTRS can be configured to automatically unlock a ticket if articles are added and the owner is out of office.
- Linked tickets of a specific type (e.g. merged or removed) can now be hidden via SysConfig option.
- ACL handling has been improved, made more consistent and easier to debug.
  - Added new ACL option PossibleAdd to add items to a possible list without resetting (like Possible does).
  - Added new ACL value modifiers [Not], [NotRegExp], [Notregexp], for all ACLs parts.
- Process handling has been improved, made more consistent and easier to debug.
  - A new GUID-based entity naming scheme for the OTRS Process configuration makes it possible to safely transfer processes from one system to another without duplicating the entities.
  - Added new Transition Action to create a new ticket.
  - Added possibility to define variable Transition Action attributes based on current process ticket values.
- The possibility to schedule System Maintenance periods is available from the System Administration panel in the Admin interface.
  - A notification about an incoming System Maintenance period will be shown with some (configurable) time in advance.
  - If a System Maintenance is active, a notification about it will be shown on the Agent and Customer interface, and only admin users can log on to the system.

- An overview screen informs admins about active sessions, which can be ended all on one click or one by one.
- Added possibility to disable sysconfig import via configuration.
- Added Apache MD5 as a new password hashing backend, thanks to Norihiro Tanaka.
- Added the possibility to restrict customer self registration by email address whitelist or blacklist, thanks to Renée Bäcker.
- Added new dashboard module that shows the output of an external command, thanks to ib.pl.

### **2.2.6.5. Development**

- New powerful template engine based on Template::Toolkit.
- A central object manager makes creating and using global objects much easier (thanks to Moritz Lenz @ noris network).
- The OPM package format was extended to signal that a package has been merged into another package, allowing the package manager to correctly handle this situation on package installation or update.
- Caching was centralized in one global cache object which also performs in-memory caching for all data.
- Added cache benchmark script, thanks to ib.pl.

## **2.2.7. New Features of OTRS 3.3**

### **2.2.7.1. Uzalishaji**

- Dashboard ticket lists and regular ticket overviews can now be filtered by eligible ticket columns, and the shown columns are configurable.
- Chombo cha tiketi na mapitio ya kihakiki sasa yanaweza kupangwa.
- Imeongeza kifaa cha kalenda kwenye dashibodi ambacho kinaonyesha tiketi kama matukio.
- Imeongeza kifaa kwenye dashibodi ambacho kinaonyesha nambari ya tiketi kwa hali na kwa foleni katika mfumo wa matriki.
- Wakala sasa wanaweza kuweka alama kwa makala muhimu.
- Kifaa kipya cha uchaguzi wa mti inafanya ufanyaji kazi na data za mti (foleni, huduma na kadh.) kuwa wa haraka na rahisi.
- Imeongeza usadizi wa kutafuta tarehe zinazoendana (mf. zaidi ya mwezi 1 uliopita ) katika sehemu zinazobadilika za Tarehe na Tarehe/Muda.
- Sasa inawezekana kubainisha violezo (awali "majibu ya kawaida") pia kwa utengenezaji wa tiketi mpya na upelekaji mbele tiketi.
- Orodha ya michakato inayopatikana sasa inaweza kuchujwa na ACLs.
- Usaidizi umeongezwa kuanzisha mchakato kutoka kwa kiolesura cha mteja.
- Katika sehemu nyingi nakala hazifupishwi tena kwa idadi maalumu ya herufi ("Foleni1..."), lakini badala yake kwa hali za skrini zilizopo. Hii inawezesha kuona taarifa nyingi zaidi kwa mkupuo.

- OTRS sasa iko tayari kwa Retina. Taswira sasa zinaweza kukabiliana na muonekano wa juu na ikoni za taswira zimebadilishwa na fonti za herufi kutoka webfont ya FontAwesome .
- Kipengele kipya "usimamizi wa dashibodi" kimeongezwa. Hii inawezesha kuonyesha chati za takwimu kwenye dashibodi. Tafadhali tambua IE8 haina msaada kwa kipengele hiki.

### 2.2.7.2. Kufanya kazi na mifumo ya nje

- OTRS sasa inaweza kutumia hifadhidata nyingi za kampuni za wateja, shukrani kwa Cyrille @ belnet-ict.
- OTRS sasa inaweza kutunza data za mtumiaji katika maeneo yanayobadilika ya tiketi kwa hifadhi ya kudumu katika tiketi. Hii itakuwa na faida katika uarifu.
- OTRS sasa inaweza kuweka barua pepe zinazoingia kwa usahihi chini ya tiketi zilizopo kulingana na nambari ya tiketi kutoka mifumo ya nje.
- OTRS sasa inaweza kutafuta barua pepe kupitia miunganiko ya POP3/TLS.

### 2.2.7.3. Usanikishaji & Usimamizi

- Kisakinishi cha wavuti sasa kinaweza kuanzisha OTRS katika hifadhidata za Seva za PostgreSQL, Oracle na SQL mbali na MySQL.
- OTRS sasa ina usaidizi kamili wa MySQL 5.6
- Kazi za wakala wa kawaida sasa zinaweza kutekelezwa kwa matukio ya tiketi zilizosandiwa.
- Kihariri kipya cha michoro cha ACL kinafanya uhariri wa ACL kuwa rahisi.
- Vichujio vya mkuu wa posta sasa vinaweza kutumia masharti hasi ya kuchuja, shukrani kwa Renée Bäcker.
- Vichujio vya mkuu wa posta sasa vinaweka bayana tarehe za kusubiri na Mmiliki / Mhusika wa tiketi mpya kwa kutegemea data za barua pepe zinazoingia.
- Nywila za Wateja na Mawakala sasa zinaweza kufanyiwa usimbaji fiche kwa kutumia kanuni imara ya bcrypt, ambayo ni nzuri zaidi ya SHA.
- Icons nyingi sasa kutumia font icon ambayo inafanya rahisi kujenga ngozi desturi na rangi tofauti ya msingi. Hii pia inaboresha utendaji kwa ujumla kupitia ndogo kiasi cha (picha) mafaili kupakia.

## 2.3. Hardware and Software Requirements

OTRS can be installed on many different operating systems. OTRS can run on linux and on other unix derivates (e.g. OpenBSD or FreeBSD). OTRS does not have excessive hardware requirements. We recommend using a machine with at least a 3 GHz Xeon or comparable CPU, 8 GB RAM, and a 256 GB hard drive.

Kuanzisha OTRS, utahitaji pia kutumia seva ya wavuti na seva ya hifadhidata. Kuachana na hilo, unatakiwa kusakinisha perl na/au kusakinisha baadhi ya moduli za ziada za perl kwenye mashine ya OTRS. Seva ya wavuti na Perl lazima zisakinishwe kwenye mashine sawa na OTRS. Mazingira ya nyuma ya hifadhidata yanaweza kusakinishwa kwa ndani au kwenye mwenyeji mwingine.

Kwa ajili ya seva ya tovuti, tunashauri utumiaji wa Seva ya Apache HTTP, kwasababu moduli yake ya mod\_perl inaboresha kwa asilimia kubwa utendaji wa OTRS. Kuachana na hilo,

OTRS inatakiwa kufanya kazi katika seva yoyote ya tovuti ambayo inaweza kutekeleza hati za Perl.

You can deploy OTRS on different databases. You can choose between MySQL, PostgreSQL or Oracle. If you use MySQL or PostgreSQL you have the advantage that the database and some system settings can be configured during the installation, through a web front-end.

For Perl, you will need some additional modules which can be installed either with the Perl shell and CPAN, or via the package manager of your operating system (rpm, yast, apt-get).

Mahitaji ya programu

### 2.3.1. Usaidizi wa perl

- Perl 5.10 au zaidi

### 2.3.2. Usaidizi wa seva ya wavuti

- Apache2 + mod\_perl2 au zaidi (inapendekezwa)
- Seva ya wavuti yenye usaidizi wa CGI (CGI haipendekezwi)

### 2.3.3. Usaidizi wa hifadhidata

- MySQL 5.0 or higher (MySQL 8+ is [not supported](#))
- MariaDB
- PostgreSQL 9.0 or higher
- Oracle 10g au zaidi

Hiki kifungu katika mwongozo kuhusu usakinishaji wa moduli za Perl kinaelezea kwa undani jinsi unavyoweza kuanzisha vile vinavyohitajika na OTRS.

If you install a binary package of OTRS, which was built for your operating system (rpm), either the package contains all Perl modules needed or the package manager of your system should take care of the dependencies of the Perl modules needed.

### 2.3.4. Usaidizi wa kivinjari wavuti

To use OTRS, you'll be OK if you use a modern browser with JavaScript support enabled. Supported browsers are:

- Google Chrome
- Firefox version 10 and higher
- Safari version 5 and higher
- Internet Explorer version 10 and higher, Microsoft Edge

We recommend keeping your browser up-to-date. JavaScript and rendering performance in newer versions is always improved. Dramatic performance issues can be seen in larger systems when using older versions. We are happy to consult you on that matter.

## 2.4. Jamii

OTRS has a large user community. Users and developers discuss OTRS and exchange information on related issues through the mailing-lists. You can use the mailing lists to

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discuss installation, configuration, usage, localization and development of OTRS. You can report software bugs in our bug tracking system.

Kurasa ya nyumbani ya jamii ya OTRS ni: <http://www.otrs.com/open-source/>.

## 2.5. Huduma za kitaalamu za OTRS

Our **OTRS Business Solution™** offers you best professional support from the OTRS team, reliable OTRS security and regular free updates as well as an **exclusive set of additional Business Features** that you can flexibly activate or deactivate according to different deployment scenarios.

OTRS Group inatoa **programu maalumu za mafunzo** katika nchi tofauti. Unaweza kushiriki katika aidha moja ya mafunzo yetu ya umma ya Msimamizi wa OTRS ambayo hufanyika mara kwa mara, au kufaidika na mafunzo ya ndani ambayo yanapitia mahitaji yote ya kampuni yako.



# Chapter 2. Usanikishaji

This chapter describes the installation and basic configuration of the central OTRS framework. It covers information on installing OTRS from source, or with a binary package such as an RPM.

Mada zinazopitiwa hapa zinahusu usanidi wa seva za tovuti na za hifadhidata, kiolesura kati ya OTRS na hifadhidata, usakinishaji wa moduli za ziada za Perl, kuseti haki sawa za ufikivu za OTRS, kuanzisha kazi za mfumo zilizopangwa za OTRS, na baadhi ya mipangilio ya msingi katika mafaili ya usanidi ya OTRS.

Fuata hatua hizi za undani katika sura hii kusakinisha OTRS katika seva yako. Kisha utaweza kutumia kiolesura chake cha tovuti kuingia na kusimamia mfumo.

## 1. The Simple Way - Installation of Pre-Built Packages

If available for your platform you should use pre-built packages to install OTRS, since it is the simplest and most convenient method. You can find them in the download area at [www.otrs.com](http://www.otrs.com). The following sections describe the installation of OTRS with a pre-built or binary package on SUSE and Red Hat systems. Only if you are unable to use the pre-built packages for some reason should you follow the manual process.

### 1.1. Kusakinisha RPM katika seva ya Linux ya SUSE

This section describes the installation of our RPM package on a SUSE Linux server.

#### 1.1.1. Kuandaa hifadhidata kwa ajili ya OTRS

You can use OTRS using different database back-ends: MySQL, PostgreSQL or Oracle. The most popular database to deploy OTRS on is MySQL. This chapter shows the steps you need to take to configure MySQL on a SUSE-based server. Of course you can install the database on a dedicated database server if needed for scalability or other purposes.

#### Note

Kama ukifwatat sura hii katika openSUSE 12.3 na kuendelea hutaweza kusakinisha MySQL lakini MariaDB badala yake, uma wa MySQL tangamanifu wakanuni za MySQL. Hili sio tatizo, itafanya kazi vizuri tuu (na hata vizuri zaidi wakati mwingine).

Sakinisha MySQL kwa kutekeleza amri ifuatayo kama mzizi:

```
linux:~ # zypper install mysql perl-DBD-mysql
```

This will install MySQL with the default options on your system. You'll need to change the defaults in order to make it suitable for OTRS. With a text editor open the file `/etc/my.cnf` and add following lines under the `[mysqld]` section:

```
max_allowed_packet = 20M
query_cache_size = 32M
innodb_log_file_size = 256M
```

## Note

Please note that OTRS requires utf8 as database storage encoding.

Now execute **systemctl restart mysql.service** to re-start the database server and activate these changes. Then run **/usr/bin/mysql\_secure\_installation** and follow the on-screen instructions to set a database root password, remove anonymous access and remove the test database. Lastly, run **systemctl enable mysql.service** in order to make sure MySQL is automatically started at server startup time.

### 1.1.2. Kusakinisha OTRS

Install OTRS with via the command line using **zypper**. This will also pull in some dependencies such as the Apache web server and some Perl modules. Make sure you copied the OTRS RPM file to the current directory.

```
otrs-sles:~ # zypper install otrs*.rpm
....
Retrieving package otrs-x.x.x-01.noarch (1/26), 17.5 MiB (74.3 MiB unpacked)
Installing: otrs-x.x.x-01 [done]
Additional rpm output:
Check OTRS user ... otrs added.

...

otrs-sles:~ #
```

Now restart Apache with the command **systemctl restart apache2.service** to load the configuration changes for OTRS.

### 1.1.3. Kusakinisha moduli za perl za ziada.

OTRS needs more modules than can be installed via the package manager per default. You can post-install them manually. Running the `otrs.CheckModules.pl` script located at `/opt/otrs/bin/` will let you know which modules are missing, and must or can be installed. Optional modules may include those needed for communication with MDAs via IMAP(S) or generating PDF output.

On SLES you should add an external repository in order to get missing modules. Choose the repository needed for your OS version from here: <http://download.opensuse.org/repositories/devel:/languages:/perl/>. As an example, the repository for SLES 11 SP 3 would be added like this:

```
zypper ar -f -n perl http://download.opensuse.org/repositories/devel:/languages:/perl/
SLE_11_SP3 Perl
```

Kwenye openSUSE 12.3 hifadhi ya ziada inahitajika kwa ajili ya moduli Mail::IMAPClient tu, kama utahitaji kama unahitaji kukusanya barua kutoka kwenye seva ya IMAP inayolindwa na TLS. Mstari husika utaonekana kama hivi:

```
zypper ar -f -n perl http://download.opensuse.org/repositories/devel:/languages:/perl/
openSUSE_12.3/ Perl
```

Mara ya kwanza unatumia zypper baada ya kuongeza hii hifadhi, utaombwa kuweka ufunguo wake. Sasa unaweza kusakinisha moduli zinazokosekana kama hapa chini.

```
otrs-sles:/opt/otrs # zypper install -y "perl(YAML::LibYAML)"
Refreshing service 'susecloud'.
```

```
Retrieving repository 'perl' metadata [\]

New repository or package signing key received:
Key ID: DCCA98DDDF338C
Key Name: devel:languages:perl OBS Project &lt;devel:languages:perl@build.opensuse.org&gt;
Key Fingerprint: 36F0AC0BCA9D8AF2871703C5DCCA98DDDF338C
Key Created: Wed Oct 10 22:04:18 2012
Key Expires: Fri Dec 19 22:04:18 2014
Repository: perl

Do you want to reject the key, trust temporarily, or trust always? [r/t/a/?] (r): a
Retrieving repository 'perl' metadata [done]
Building repository 'perl' cache [done]
Loading repository data...
Reading installed packages...
'perl(YAML::LibYAML)' not found in package names. Trying capabilities.
Resolving package dependencies...

The following NEW package is going to be installed:
perl-YAML-LibYAML

The following package is not supported by its vendor:
perl-YAML-LibYAML

Retrieving package perl-YAML-LibYAML-0.38-12.4.x86_64 (1/1), 75.0 KiB (196.0 KiB unpacked)
Retrieving: perl-YAML-LibYAML-0.38-12.4.x86_64.rpm [done (55.7 KiB/s)]
Installing: perl-YAML-LibYAML-0.38-12.4 [done]
```

Hatua inayofuata ni kusanidi OTRS kwa kutumia kisanishi cha wavuti, kama ilivyoeleze-wa katika kifungu hiki.

Now you can start the OTRS daemon and activate corresponding watchdog cron job (this must be done by the otrs user):

```
shell> /opt/otrs/bin/otrs.Daemon.pl start
shell> /opt/otrs/bin/Cron.sh start
```

That's it, congratulations!

## 1.2. Kusanisha OTRS katika mifumo endeshi ya Red Hat Enterprise Linux au CentOS system

This section describes the installation of our RPM package on a Red Hat Enterprise Linux (RHEL) or CentOS server.

### 1.2.1. Preparation: Disable SELinux

#### Note

If your system uses SELinux, you should disable it, otherwise OTRS will not work correctly.

Here's how to disable SELinux for RHEL/CentOS/Fedora:

- Configure SELINUX=disabled in the /etc/selinux/config file:

```
# This file controls the state of SELinux on the system.
# SELINUX= can take one of these three values:
#     enforcing - SELinux security policy is enforced.
#     permissive - SELinux prints warnings instead of enforcing.
#     disabled - No SELinux policy is loaded.
```



```
SELINUX=disabled
# SELINUXTYPE= can take one of these two values:
#     targeted - Targeted processes are protected,
#     mls - Multi Level Security protection.
SELINUXTYPE=targeted
```

- Reboot your system. After reboot, confirm that the `getenforce` command returns Disabled:

```
shell> getenforce
Disabled
```

## 1.2.2. Kuandaa hifadhidata kwa ajili ya OTRS

You can use OTRS using different database back-ends: MySQL, PostgreSQL or Oracle. The most popular database to deploy OTRS on is MySQL. This chapter shows the steps you need to take to configure MySQL on a RHEL-based server. Of course you can install the database on a dedicated database server if needed for scalability or other purposes.

Install MySQL (or MariaDB) by executing the following command as root:

```
shell> yum -y install mariadb-server
```

This will install MySQL with the default options on your system. You'll need to change the defaults in order to make it suitable for OTRS. With a text editor create a new file `/etc/my.cnf.d/zotrs.cnf` with the following content:

```
[mysqld]
max_allowed_packet = 20M
query_cache_size = 32M
innodb_log_file_size = 256M
```

Now execute **`systemctl start mariadb`** to re-start the database server and activate these changes. Then run **`/usr/bin/mysql_secure_installation`** and follow the on-screen instructions to set a database root password, remove anonymous access and remove the test database.

### Note

Please note that OTRS requires utf8 as database storage encoding.

## 1.2.3. Kusakinisha OTRS

Install OTRS with via the command line using **`yum`**. This will also pull in some dependencies such as the Apache web server and some Perl modules. Make sure you copied the OTRS RPM file to the current directory.

```
shell> yum install --nogpgcheck otrs-x.x.*.rpm
```

```
...
Dependencies Resolved
```

Package	Arch	Version	Repository	Size
Installing:				
otrs	noarch	x.x.x-01	/otrs-x.x.x-01.noarch	74 M
Installing for dependencies:				
apr	x86_64	1.3.9-5.el6_2	updates	123 k

```

...
procmail                x86_64 3.22-25.1.el6          base                163 k
Transaction Summary
=====
Install                26 Package(s)

Total size: 80 M
Total download size: 6.0 M
Installed size: 88 M
Downloading Packages:
(1/25): apr-1.3.9-5.el6_2.x86_64.rpm | 123 kB    00:00
...
(25/25): procmail-3.22-25.1.el6.x86_64.rpm | 163 kB    00:00
-----
Total                                887 kB/s | 6.0 MB    00:06
Running rpm_check_debug
Running Transaction Test
Transaction Test Succeeded
Running Transaction
  Installing : apr-1.3.9-5.el6_2.x86_64                1/26
  ...
  Installing : otrs-x.x.x-01.noarch                    26/26
Check OTRS user ... otrs added.

...

shell>

```

Now restart Apache with the command **systemctl restart httpd.service** to load the configuration changes for OTRS.

## 1.2.4. Kusakinisha moduli za perl za ziada.

OTRS inahitaji baadhi ya moduli zaidi ya zilizosakinishwa na RPM. Unaweza kuzisakinisha baadaye kwa mikono. Unaweza kuona moduli gani unakosa kwa kuanzisha hati bin/otrs. CheckModules.pl iliyopo kwenye mpangilio orodha /opt/otrs. Baadhi ya moduli zinahitajika tu kwa ajili ya sifa za hiari, kama mawasiliano na seva ya (za) IMAP au uzalishaji wa PDF. Kwenye Redhat au CentOS tunashauri kusakinisha hizi moduli kutoka kwenye hifadhi ya EPEL, hifadhi inayodumishwa na mradi wa Fedora, ambayo inatoa vifurushi vya ubora wa juu kwa ajili ya RHEL na vipengele vyake. Kwa taarifa zaidi angalia [tovuti ya EPEL](#).

If you're on RHEL 7 or CentOS 7, you can get the latest package for EPEL from [this site](#). You can add this repository to yum it in one go by copying the RPM URL you find on this page and executing this command:

```

shell> yum -y install http://download.fedoraproject.org/pub/epel/7/x86_64/e/epel-release-7-8.noarch.rpm
...
Installed:
  epel-release.noarch 0:7-8
Complete!

```

Mara ya kwanza kutumia yum baada ya kuongeza hifadhi hii, utaombwa kuweka ufunguo wake. Sasa unaweza kusakinisha moduli zinazokosekana kama hapa chini:

```

shell> yum -y install "perl(Text::CSV_XS)"
...
Installed:
  perl-Text-CSV_XS.x86_64 0:0.85-1.el6

```

```
Complete!  
shell>
```

Hatua inayofuata ni kusanidi OTRS kwa kutumia kisaninshi cha wavuti, kama ilivyoeleze-wa katika kifungu hiki.

Now you can start the OTRS daemon and activate corresponding watchdog cron job (this must be done by the otrs user):

```
shell> /opt/otrs/bin/otrs.Daemon.pl start  
shell> /opt/otrs/bin/Cron.sh start
```

That's it, congratulations!

## 1.2.5. Usakinishaji wa kiendeshi cha hifadhidata ya Oracle kwenye Red Hat / CentOS

Kama unataka kutumia OTRS kwenye hifadhidata Oracle, utahitaji kukusanya-zalisha na kusaninisha kiendeshi cha hifadhidata DBD::Oracle. Hii ni ngumu kidogo kusaninisha zaidi ya vifurushi vingine; hii ni kwasababu Oracle ni hifadhidata inayomilikiwa kibinafsi na si mradi wa Red Hat wala Centos unaruhusiwa kusambaza viendeshi katika hifadhi zao za RPM.

Kwanza kabisa tutahitaji kusaninisha gcc, make na CPAN ili tuweze kukusanya-zalisha na kusaninisha kiendeshi. Chini unaona amri katika CentOS; katika matoleo mengine inaweza kuonekana tofauti kidogo.

```
shell> yum -y install gcc make "perl(CPAN)"
```

Hatua inayofuata ni kupata na kusaninisha programu ya hifadhidata. Kwa hili utahitaji kuji-unga kwa ajili ya akaunti ya bure katika tovuti ya Oracle. Unaweza kupakua viendeshi kati-ka ukurasa huu: <http://www.oracle.com/technetwork/database/features/instant-client/index-097480.html> Tafadhali chagua toleo la x86 au x86-64 la Linux kwa kutegemea na muundo wa mfumo wako. Unaweza kukagua hili kwa kutumia **uname -i**. Ni aidha 'x86\_64' kwa ajili ya x86-64 au 'i386' kwa ajili ya x86. Unatakiwa kupakua vifurushi 'Instant Client Package - Basic', 'Instant Client Package - SQL\*Plus', na 'Instant Client Package - SDK'. Zihifadhi mahali kwenye diski yako. Sasa kama mtumiaji mzizi unaweza kusaninisha vifu-rushi hivyo kwa kutumia amri ifuatayo:

```
shell> yum install oracle-instantclient*
```

Baada ya hii unatakiwa kuseti vishika nafasi vya mazingira viwili na kusanya-zalisha kien-deshi cha DBD::Oracle. Kwa mara nyingine, fanya kazi hizi kama mtumiaji mzizi. Hatua zimeorodheshwa chini. Tafadhali tambua kwa ajili ya ufupisho baadhi ya mistari iliyotole-wa na amri imeondolewa.

```
shell> export ORACLE_HOME=/usr/lib/oracle/11.2/client64  
shell> export LD_LIBRARY_PATH=$ORACLE_HOME/lib  
shell> cpan  
cpan[1]> look DBD::Oracle  
...  
Fetching with LWP:  
  http://www.perl.org/CPAN/authors/id/P/PY/PYTHIAN/CHECKSUMS  
Checksum for /root/.cpan/sources/authors/id/P/PY/PYTHIAN/DBD-Oracle-1.62.tar.gz ok  
Scanning cache /root/.cpan/build for sizes  
DONE  
...
```

```
Working directory is /root/.cpan/build/DBD-Oracle-1.62-ZH6LNy
[root@localhost DBD-Oracle-1.62-ZH6LNy]# perl Makefile.PL
...
[root@localhost DBD-Oracle-1.62-ZH6LNy]# make
...
[root@localhost DBD-Oracle-1.62-ZH6LNy]# make install
...
cpan[2]> exit
Terminal does not support GetHistory.
Lockfile removed.
```

Now you should edit the file `Kernel/Config.pm` to provide `ORACLE_HOME`. The next step is to configure OTRS using the web installer, as described in this section.

## Note

Please note that OTRS requires utf8 as database storage encoding.

## 1.3. Kusakinisha OTRS kwenye mfumo wa Debian au Ubuntu

### Important

Tafadhali sakinisha OTRS kutoka kwenye chanzo, na usitumie vifurushi vya OTRS ambavyo vinatolewa na Debian/Ubuntu.

The installation of required Perl modules is easier if you use the available packages:

```
apt-get install libapache2-mod-perl2 libdbd-mysql-perl libtimedate-perl libnet-dns-perl
libnet-ldap-perl \
    libio-socket-ssl-perl libpdf-api2-perl libdbd-mysql-perl libsoap-lite-perl libtext-csv-
xs-perl \
    libjson-xs-perl libapache-dbi-perl libxml-libxml-perl libxml-libxslt-perl libyaml-perl \
    libarchive-zip-perl libcrypt-eksblowfish-perl libencode-hanextra-perl libmail-
imapclient-perl \
    libtemplate-perl
```

## 2. Installation From Source (Linux, Unix)

### 2.1. Preparation: Disable SELinux

#### Note

If your system uses SELinux, you should disable it, otherwise OTRS will not work correctly.

Here's how to disable SELinux for RHEL/CentOS/Fedora:

- Configure `SELINUX=disabled` in the `/etc/selinux/config` file:

```
# This file controls the state of SELinux on the system.
# SELINUX= can take one of these three values:
#     enforcing - SELinux security policy is enforced.
#     permissive - SELinux prints warnings instead of enforcing.
#     disabled - No SELinux policy is loaded.
SELINUX=disabled
# SELINUXTYPE= can take one of these two values:
#     targeted - Targeted processes are protected,
```

```
# mls - Multi Level Security protection.  
SELINUXTYPE=targeted
```

- Reboot your system. After reboot, confirm that the `getenforce` command returns Disabled:

```
shell> getenforce  
Disabled
```

## 2.2. Step 1: Install .tar.gz

If you want to install OTRS from source, first download the source archive as .tar.gz, .tar.bz2, or .zip file from <https://www.otrs.com/download-open-source-help-desk-software-otrs-free/>

Pakua nyaraka (kwa mfano, kwa kutumia **tar**) kwenda kwenye mpangilio orodha /opt, na upa mpangilio orodha jina jipya kutoka otrs-x.x.x kuwa otrs (ona Hati chini).

```
shell> tar xzf /tmp/otrs-x.x.x.tar.gz  
shell> mv otrs-x.x.x /opt/otrs
```

## 2.3. Step 2: Install Additional Perl Modules

Use the following script to get an overview of all installed and required CPAN modules.

```
shell> perl /opt/otrs/bin/otrs.CheckModules.pl  
o CGI.....ok (v3.60)  
o Crypt::PasswdMD5.....ok (v1.3)  
o Crypt::SSLeay.....Not installed! (Optional - Required for Generic Interface  
SOAP SSL connections.)  
o CSS::Minifier.....ok (v0.01)  
o Date::Format.....ok (v2.22)  
o Date::Pcalc.....ok (v1.2)  
...  
...
```

### Note

Please note that OTRS requires a working Perl installation with all "core" modules such as the module version. These modules are not explicitly checked by the script. You may need to install a perl-core package on some systems like RHEL that do not install the Perl core packages by default.

To install missing Perl modules, you can:

### 2.3.1. a) Install the packages via the package manager of your Linux distribution

- For Red Hat, CentOS, Fedora or compatible systems:

```
shell> yum install "perl(Digest::MD5)"
```

- For SUSE Linux Enterprise Server, openSUSE or compatible systems: first determine the name of the package the module is shipped in. Usually the package for My::Module would be called "perl-My-Module".

```
shell> zypper search Digest::MD5
```

Then install:

```
shell> zypper install perl-Digest-MD5
```

- For Debian, Ubuntu or compatible systems first determine the name of the package the module is shipped in. Usually the package for My::Module would be called "libmy-module-perl".

```
shell> apt-cache search Digest::MD5
```

Then install:

```
shell> apt-get install libdigest-md5-perl
```

Please note that it might be that you can't find all modules or their required versions in your distribution repository, in that case you might choose to install those modules via CPAN (see below).

### 2.3.2. b) Install the required modules via the CPAN shell

Note that when you're on Linux you should run CPAN as your superuser account because the modules should be accessible both by the OTRS account and the account under which the web server is running.

```
shell> perl -MCPAN -e shell;
...
install Digest::MD5
install Crypt::PasswdMD5
...
```

Any optional modules listed by the script should be installed depending on the special requirements of the target system.

## 2.4. Step 3: Create OTRS User

Create user:

```
shell> useradd -d /opt/otrs -c 'OTRS user' otrs
```

Add user to webserver group (if the webserver is not running as the OTRS user):

```
shell> usermod -G www otrs
(SUSE=www, Red Hat/CentOS/Fedora=apache, Debian/Ubuntu=www-data)
```

## 2.5. Step 4: Activate Default Config File

There is one OTRS config file bundled in \$OTRS\_HOME/Kernel/Config.pm.dist. You must activate it by copying it without the ".dist" filename extension.

```
shell> cp /opt/otrs/Kernel/Config.pm.dist /opt/otrs/Kernel/Config.pm
```

## 2.6. Step 5: Check if all needed modules are installed

```
shell> perl -cw /opt/otrs/bin/cgi-bin/index.pl
/opt/otrs/bin/cgi-bin/index.pl syntax OK

shell> perl -cw /opt/otrs/bin/cgi-bin/customer.pl
/opt/otrs/bin/cgi-bin/customer.pl syntax OK

shell> perl -cw /opt/otrs/bin/otrs.Console.pl
/opt/otrs/bin/otrs.Console.pl syntax OK
```

"syntax OK" tells you all mandatory Perl modules are installed.

## 2.7. Step 6: Configuring the Apache web server

Kwanza kabisa, unatakiwa kusanidi seva ya wavuti ya Apache2 na mod\_perl; utafanya hivi kutoka kwenye meneja kifurushi. Hapa chini utakuta amri zinazohitajika kuseti Apache kwenye usambazaji wa Linux maarufu.

```
# rhel / centos:
shell> yum install httpd mod_perl

# suse:
shell> zypper install apache2-mod_perl

# debian/ubuntu:
shell> apt-get install apache2 libapache2-mod-perl2
```

Most Apache installations have a conf.d directory included. On Linux systems you can usually find this directory under /etc/apache or /etc/apache2. Log in as root, change to the conf.d directory and link the appropriate template in /opt/otrs/scripts/apache2-httpd.include.conf to a file called zzz\_otrs.conf in the Apache configuration directory (to make sure it is loaded after the other configurations).

OTRS requires a few Apache modules to be active for optimal operation. On most platforms you can make sure they are active via the tool a2enmod.

```
shell> a2enmod perl
shell> a2enmod version
shell> a2enmod deflate
shell> a2enmod filter
shell> a2enmod headers
```

Now you can restart your web server to load the new configuration settings. On most systems you can do that with the command **systemctl restart apache2.service**.

## 2.8. Step 7: File Permissions

File permissions need to be adjusted to allow OTRS to read and write files:

```
otrs.SetPermissions.pl [ --otrs-user= OTRS user, defaults to 'otrs' ] { --web-group= group
of the web server user }
```

For example:

- Web server which runs as the OTRS user:

```
shell> bin/otrs.SetPermissions.pl --web-user=otrs
```

- Webserver with wwwrun user (e. g. SUSE):

```
shell> bin/otrs.SetPermissions.pl --web-group=wwwrun
```

- Webserver with apache user (e. g. Red Hat, CentOS):

```
shell> bin/otrs.SetPermissions.pl --web-group=apache
```

- Webserver with www-data user (e. g. Debian, Ubuntu):

```
shell> bin/otrs.SetPermissions.pl --web-group=www-data
```

## 2.9. Step 8: Database Setup and Basic System Configuration

Please use the web installer at <http://localhost/otrs/installer.pl> (replace "localhost" with your OTRS hostname) to setup your database and basic system settings such as email accounts.

### Note

The following configuration settings are recommended for MySQL setups. Please add the following lines to `/etc/my.cnf` under the `[mysqld]` section:

```
max_allowed_packet = 20M
query_cache_size   = 32M
innodb_log_file_size = 256M
```

### Note

Please note that OTRS requires utf8 as database storage encoding.

## 2.10. Step 9: First login

Now you are ready to login to your system at <http://localhost/otrs/index.pl> with the credentials you configured in the web installer (User: `root@localhost`).

With this step, the basic system setup is finished.

## 2.11. Step 10: Start the OTRS Daemon

The new OTRS daemon is responsible for handling any asynchronous and recurring tasks in OTRS. What has been in cron file definitions previously is now handled by the OTRS daemon, which is now required to operate OTRS. The daemon also handles all GenericAgent jobs and must be started from the `otrs` user.



```
shell> /opt/otrs/bin/otrs.Daemon.pl start
```

## 2.12. Step 11: Cron jobs for the OTRS user

There are two default OTRS cron files in `/opt/otrs/var/cron/*.dist`, and their purpose is to make sure that the OTRS Daemon is running. They need to be activated by copying them without the ".dist" filename extension.

```
shell> cd /opt/otrs/var/cron
shell> for foo in *.dist; do cp $foo `basename $foo .dist`; done
```

To schedule these cron jobs on your system, you can use the script `Cron.sh` with the `otrs` user.

```
shell> /opt/otrs/bin/Cron.sh start
```

Stopping the cron jobs is also possible (useful for maintenance):

```
shell> /opt/otrs/bin/Cron.sh stop
```

## 2.13. Step 12: Setup bash autocompletion (optional)

All regular OTRS commandline operations happen via the `otrs Console` interface `bin/otrs.Console.pl`. This provides an auto completion for the bash shell which makes finding the right command and options much easier.

You can activate the bash autocompletion by installing the package `bash-completion`. It will automatically detect and load the file `/opt/otrs/.bash_completion` for the `otrs` user.

After restarting your shell, you can just type `bin/otrs.Console.pl` followed by `TAB`, and it will list all available commands. If you type a few characters of the command name, `TAB` will show all matching commands. After typing a complete command, all possible options and arguments will be shown by pressing `TAB`.

## 2.14. Step 13: Further Information

We advise you to read the OTRS performance tuning chapter.

If you encounter problems with the installation, you can send a message to our mailing list `otrs@otrs.org` (<http://lists.otrs.org/>).

You can also ask the OTRS Group to either help you in planning or deploying OTRS, or review your installed OTRS system. Our [professional services](#) are designed to help you deploy OTRS faster and to get the most benefit out of OTRS.

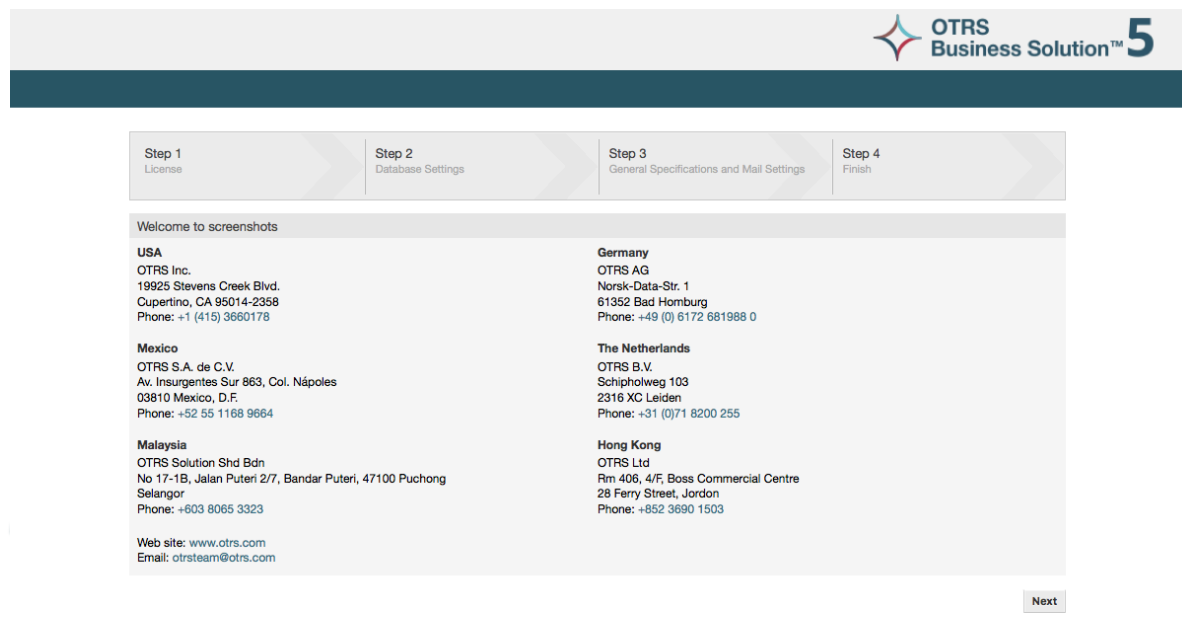
## 3. Using the Web Installer

Unaweza kutumia Kisakinishi cha Wavuti cha OTRS, baada ya kusakinisha programu ya OTRS, kuseti na kusanidi hifadhidata ya OTRS. Kisakinishi cha Wavuti ni ukurasa wa tovuti ambayo unaweza kuitembelea kwenye kivinjari chako. URL ya hicho kisakinishi cha wavuti ni <http://localhost/otrs/installer.pl> .

Pale kisakinishi cha wavuti kinapoanza, tafadhali fuata hatua zifuatazo kuseti mfumo wako:

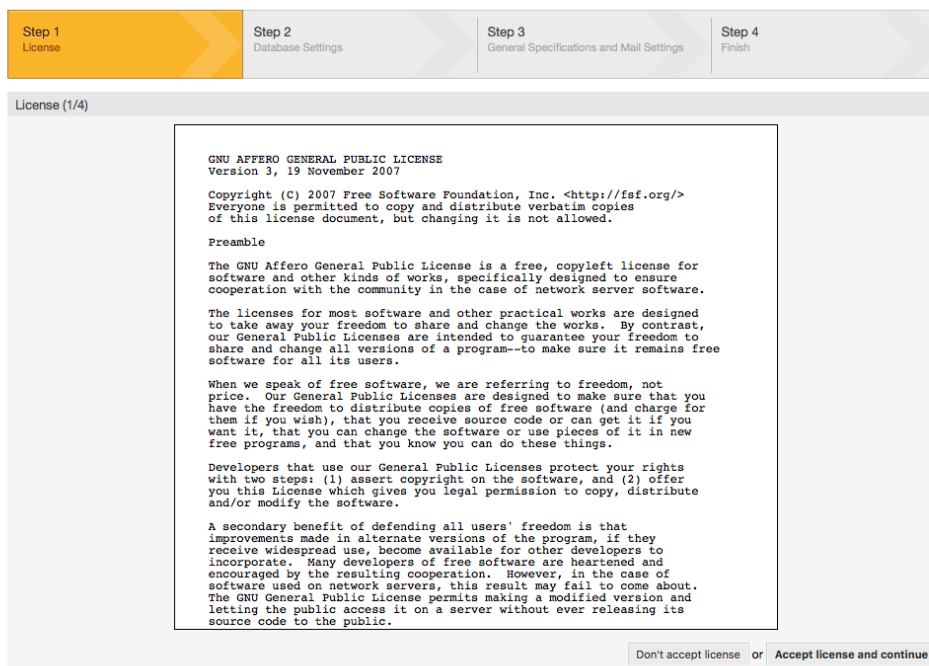
1. Check out the information about the OTRS offices and click on 'Next' to continue (see figure below).

**Figure 2.1. Welcome screen**



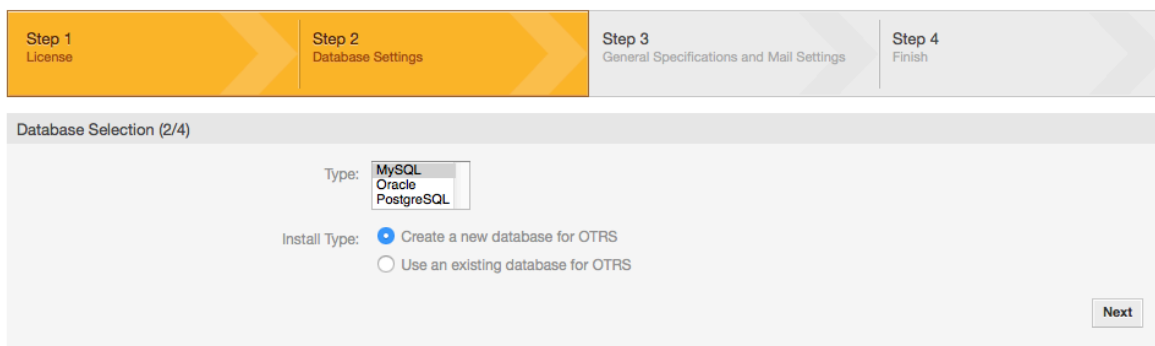
2. Read the GNU GENERAL PUBLIC LICENSE (see figure below) and accept it, by clicking the corresponding button at the bottom of the page.

**Figure 2.2. GNU GENERAL PUBLIC LICENSE**



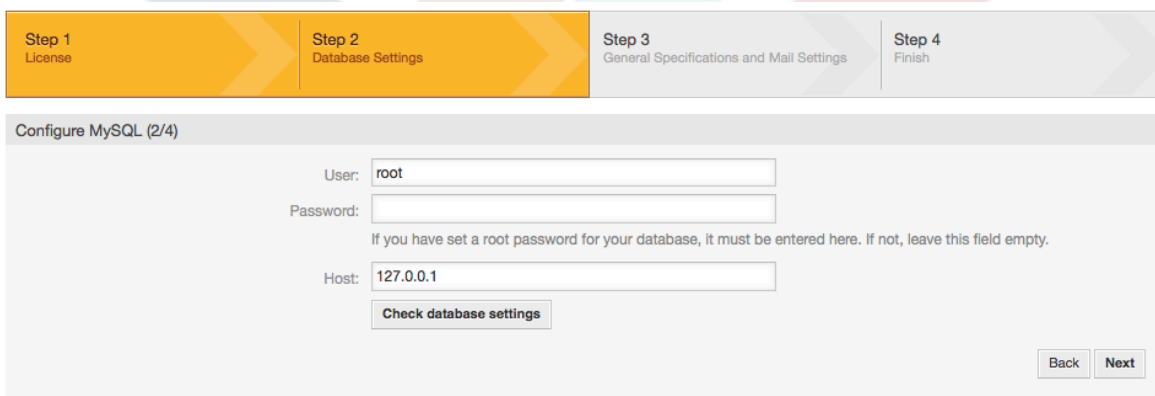
3. Choose the database that you want to use with OTRS. If you choose MySQL or PostgreSQL as a database, you can also select here if you want the web installer to create a database for you or if your database administrator has already created an empty database for you that you would like to use. After that, click the 'Next' button (see figure below).

**Figure 2.3. Chaguo la hifadhi data**



4. Hii skrini inaweza kuwa tofauti kidogo kutegemeana na hifadhidata uliyochagua na kama ulitaka kisakinishi cha mtandao kutengeneza hifadhidata au kutumia iliyopo katika hatua iliyopita. Ingiza hati tambulishi za hifadhidata kwenye hii skrini.

**Figure 2.4. Database credentials**

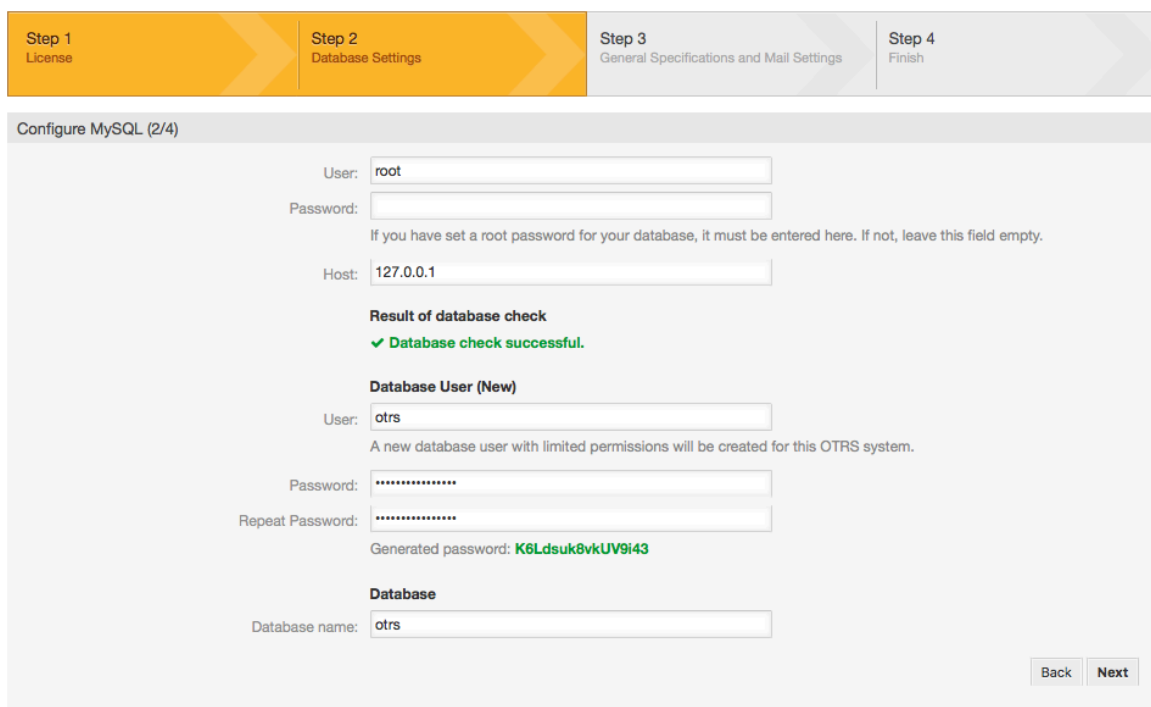


5. Create a new database user, choose a name for the database and click on 'Next' (see figure below).

## Warning

OTRS itatengeneza nywila imara kwa ajili yako. Inawezekana kuweka nywila yako mwenyewe kama ukitaka. Nywila itaandikwa kwenye faili la usanidi Kernel/Config.pm kwahiyu hakuna haja ya kukumbuka nywila hii.

**Figure 2.5. Database settings**



Step 1 License | **Step 2 Database Settings** | Step 3 General Specifications and Mail Settings | Step 4 Finish

Configure MySQL (2/4)

User:

Password:

If you have set a root password for your database, it must be entered here. If not, leave this field empty.

Host:

**Result of database check**  
 ✓ Database check successful.

**Database User (New)**

User:

A new database user with limited permissions will be created for this OTRS system.

Password:

Repeat Password:

Generated password: **K6Ldsuk8vkUV9i43**

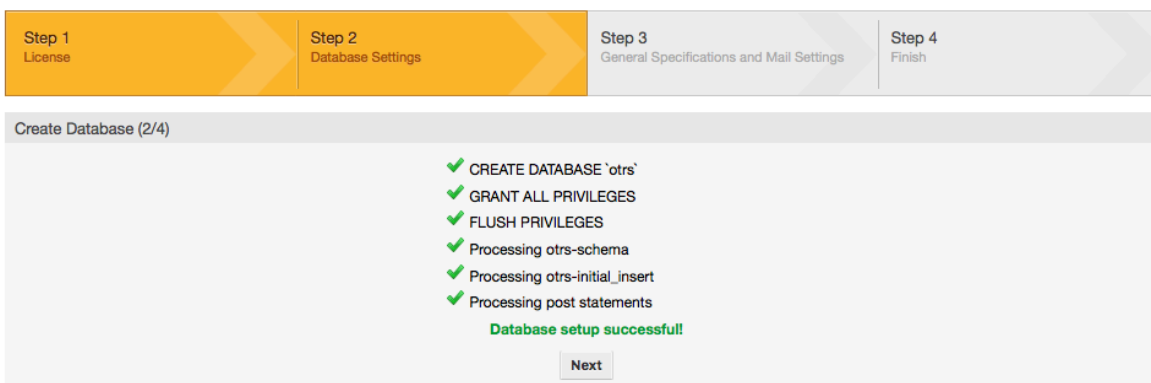
**Database**

Database name:

Back Next

6. Hifadhidata itatengenezwa kama itahitajika, na kujazwa, kama ilivyoonyeshwa kwenye hii taswira. Bofya kitufe cha kuendelea kwenda kwenye skrini inayofuata.

**Figure 2.6. Successful database setup**



Step 1 License | **Step 2 Database Settings** | Step 3 General Specifications and Mail Settings | Step 4 Finish

Create Database (2/4)

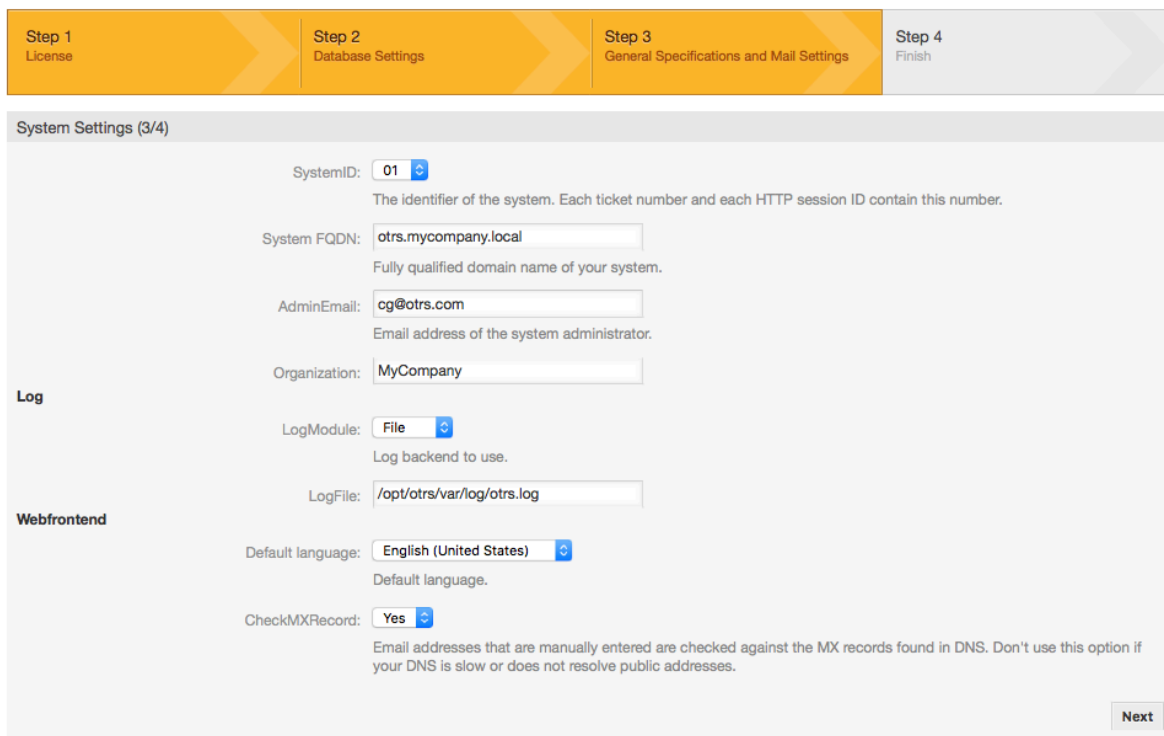
- ✓ CREATE DATABASE 'otrs'
- ✓ GRANT ALL PRIVILEGES
- ✓ FLUSH PRIVILEGES
- ✓ Processing otrs-schema
- ✓ Processing otrs-initial\_insert
- ✓ Processing post statements

**Database setup successful!**

Next

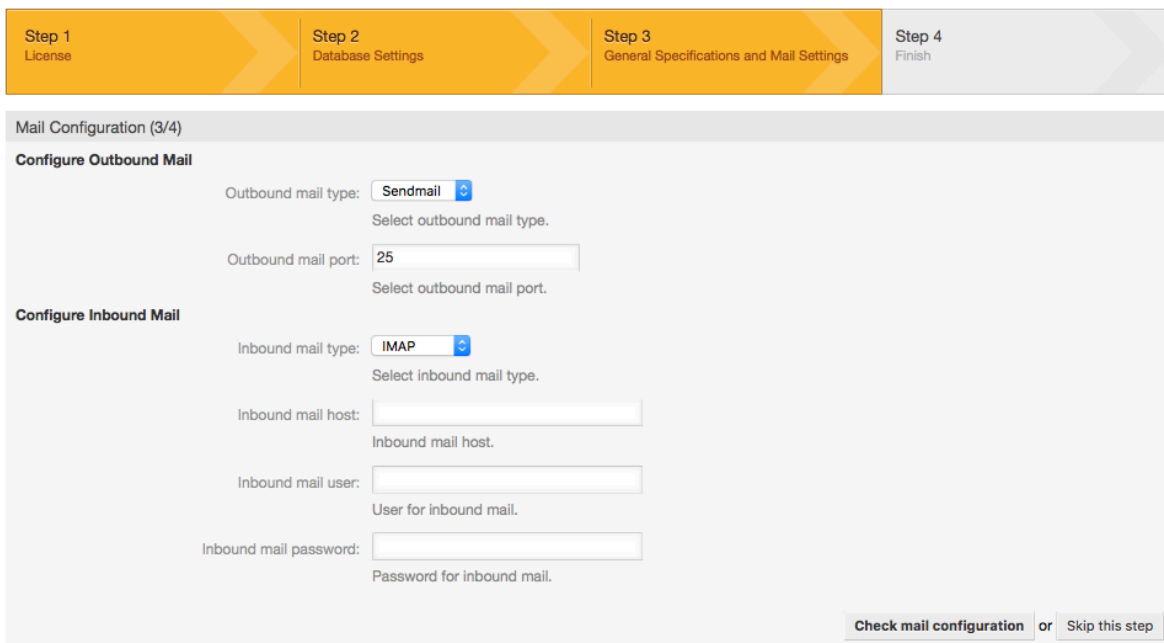
7. Provide all the required system settings and click on 'Next' (see figure below).

**Figure 2.7. System settings**



8. If desired, you can provide the needed data to configure your inbound and outbound mail, or skip this step by pressing the right button at the bottom of the screen (see figure below).

**Figure 2.8. Mail configuration**

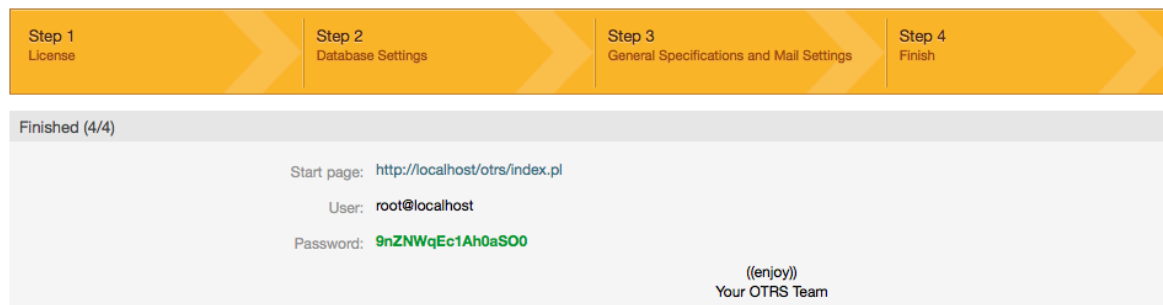


9. Congratulations! Now the installation of OTRS is finished and you should be able to work with the system (see figure below). To log into the web interface of OTRS, use the address <http://localhost/otrs/index.pl> from your web browser. Log in as OTRS administrator, using the username 'root@localhost' and the generated password. After that, you can configure the system to meet your needs.

## Warning

Tafadhali andika nywila iliyozalishwa kwa ajili ya akaunti ya 'root@localhost'.

**Figure 2.9. Web installer final screen**



## 4. OTRS on Windows

OTRS can be run on a wide range of system platforms, including Enterprise Linux Platforms such as Red Hat Enterprise Linux, and SUSE Linux Enterprise Server, as well as a series of other Linux derivatives.

However, when running OTRS on Windows platforms we have encountered repeated performance losses, and despite an exhaustive analysis, it has not been possible to solve these issues to our satisfaction due to technical differences. It is thus with a heavy heart that we have ceased development on our Windows Installer and the OTRS Appliance due to the currently limited availability of necessary third-party components offered by other vendors.

Under these circumstances, we are not able to guarantee the continuing operation of OTRS on Windows platforms, and therefore recommend migrating to one of the Linux platforms mentioned above or recommend using our **OTRS Business Solution™ Managed**.

To make it easier for you to migrate from Windows to Linux and to offer you the best OTRS performance, we have prepared detailed instructions for you here.

### 4.1. How to migrate existing Windows installations to Linux

#### 4.1.1. Introduction and preparation

If you have a Windows based installation and you would like to change to a Linux based system you will need to setup a Linux server or virtual machine and install OTRS there (see the installation instructions). This will be the target system for the migration.

#### 4.1.2. Get OTRSCloneDB script to clone databases

Please go to the admin menu of the Windows based system and install the newest version of OTRSCloneDB package into your OTRS:

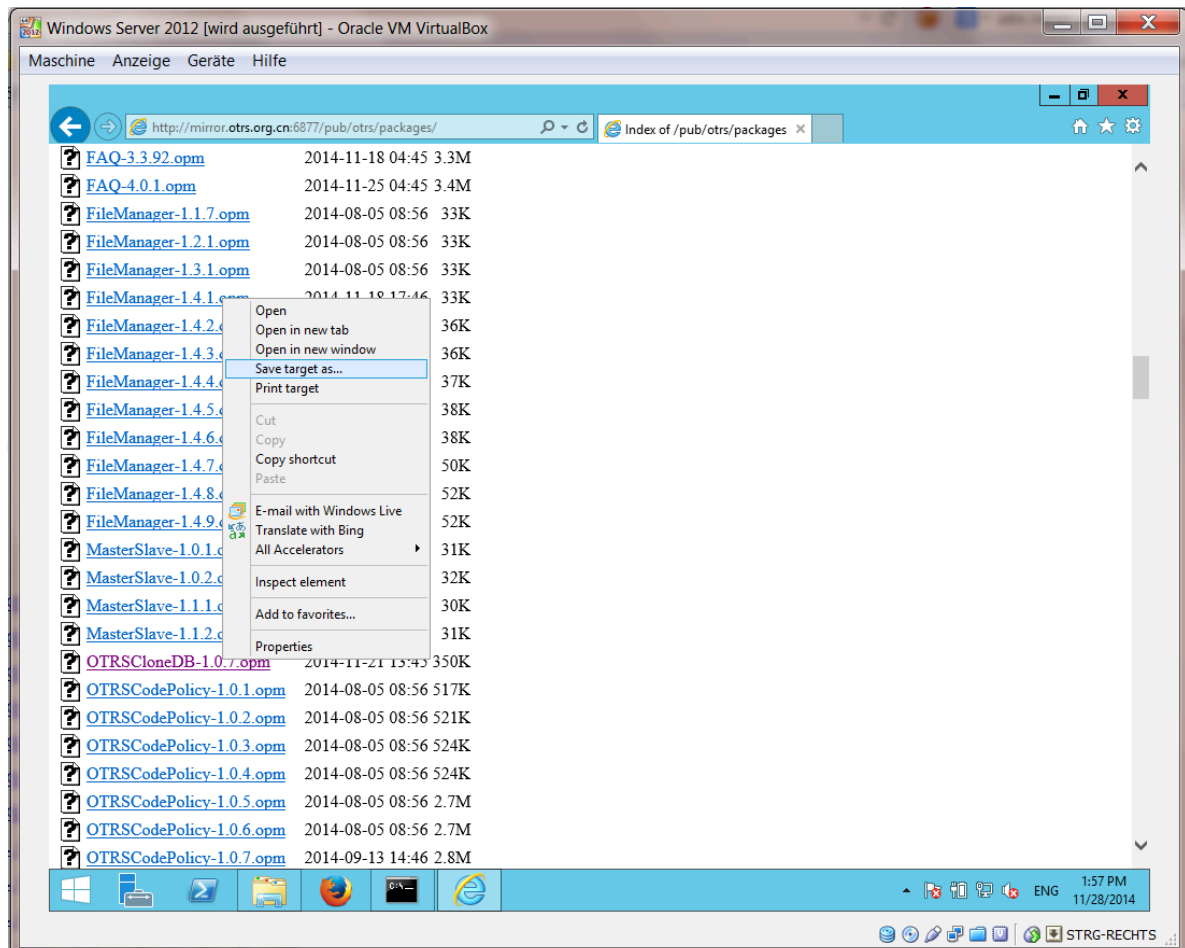
You can install the OTRSCloneDB package directly from the package manager. Select "OTRS Extensions" from the dropdown list on the left and click on the button "Update repository information" below. Then the OTRSCloneDB package will be shown in a list where you can click on "Install".

You could also download the package manually from the OTRS FTP server and install the package manually as described below. <http://ftp.otrs.org/pub/otrs/packages/>

Please download the package with the highest version number:

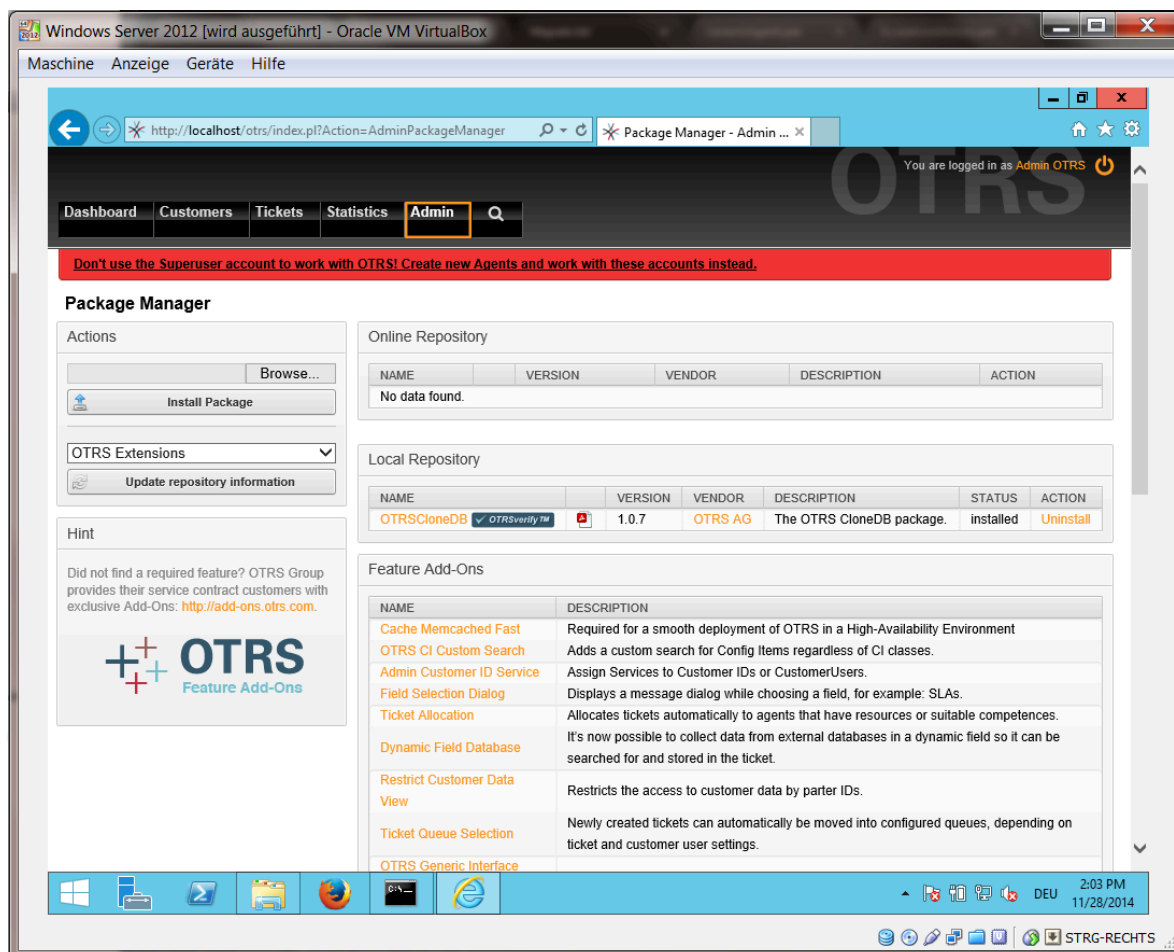
```
OTRSCloneDB-1.0.13.opm
```

**Figure 2.10. Download OTRSCloneDB - screenshot**



and install it to your Windows based installation:

**Figure 2.11. Install OTRSCloneDB - screenshot**



It is also no problem if you have installed some additional features or custom developments on your OTRS. You just need to take care that all of your installed packages are also compatible with Unix based systems. For packages provided by OTRS this is the case.

### 4.1.3. Enable remote access for the PostgreSQL database of target system

The OTRSCloneDB script will copy the database data over the network, so we need to enable remote access to the database. The setup is different for the different databases, we will describe opening remote access for a PostgreSQL database here.

After logging into your target system via SSH you need to change into the postgresql directory:

```
shell> cd /etc/postgresql/9.4/main
shell> vi postgresql.conf
```

Add the following line at the end of the file:

```
listen_addresses = '*'
```

Save the file.



```
shell> vi pg_hba.conf
```

Add the following line at the end of the file:

```
host all all 0.0.0.0/0 md5
```

Save the file.

Restart your PostgreSQL server:

```
shell> service postgresql restart
```

#### 4.1.4. Stop OTRS services

Stop all running services of your target system:

```
shell> service cron stop
shell> service apache2 stop
shell> su - otrs
shell> cd /opt/otrs/
shell> bin/Cron.sh stop
shell> bin/otrs.Daemon.pl -a stop
shell> exit
```

#### 4.1.5. Drop the existing database of your target system to have an empty database for the clone data

The OTRSCloneDB script will not remove the data in the existing otrs database of the target system, so we need to do this manually:

Change the user to the postgresql user:

```
shell> su - postgres
```

Drop the existing otrs database:

```
shell> dropdb otrs
```

Create a new otrs database for the otrs user:

```
shell> createdb --owner=otrs --encoding=utf8 otrs
```

Go back to root user:

```
shell> exit
```

#### 4.1.6. Get the PostgreSQL password of your database

Change into the OTRS directory of your target system:

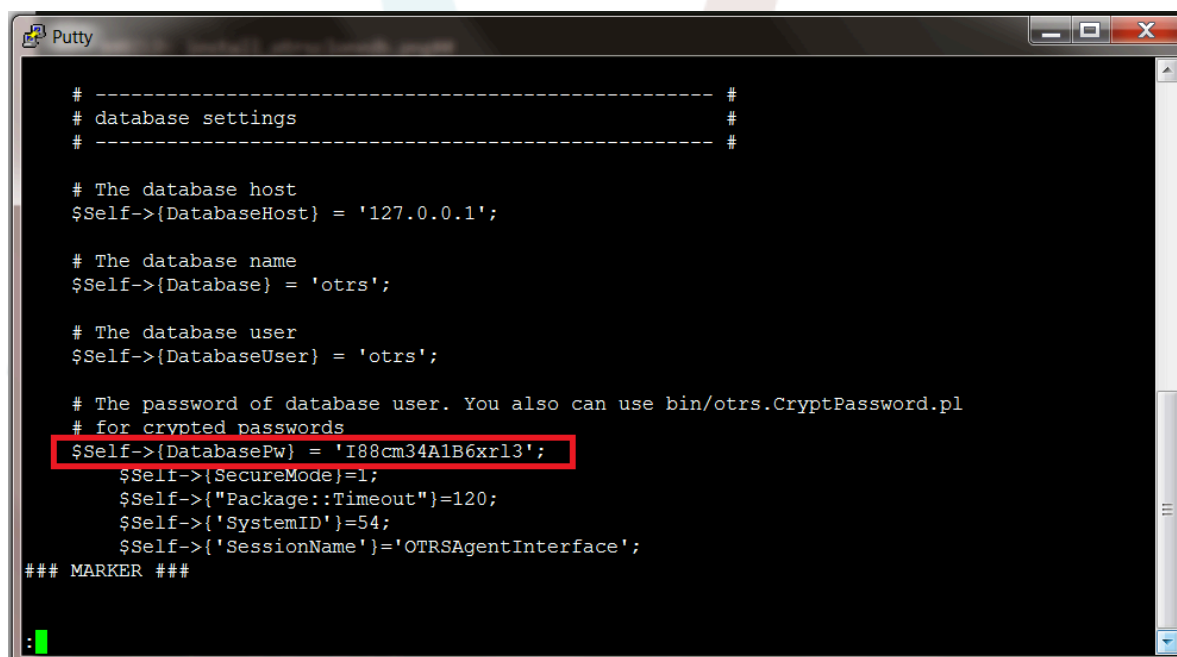
```
shell> cd /opt/otrs
```

and take a look at the configuration file of your target system:

```
shell> less Kernel/Config.pm
```

You will find your database password if you scroll down a bit:

### Figure 2.12. Get target database password - screenshot



In our example:

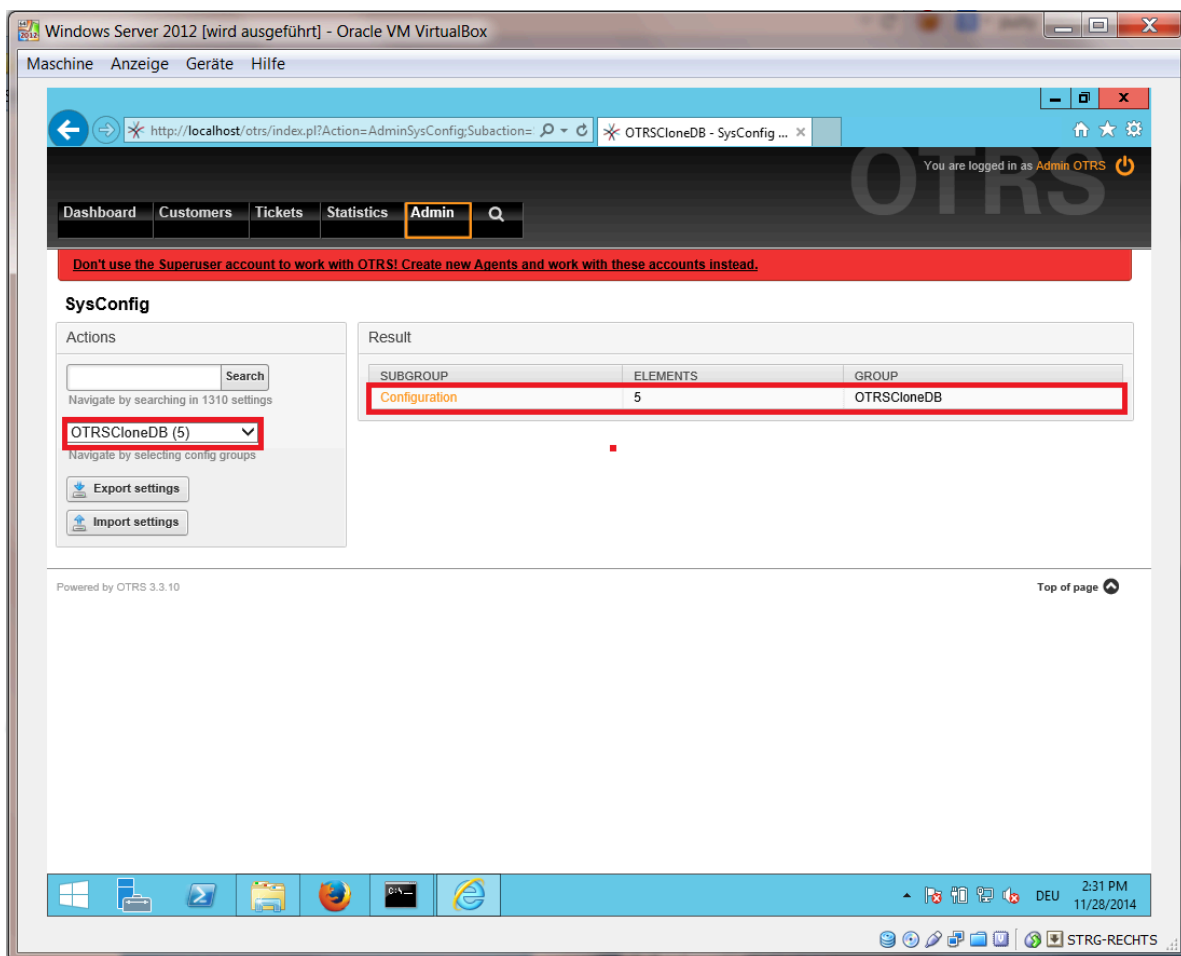
```
I88cm34A1B6xrl3
```

Write the password down on a piece of paper.

#### 4.1.7. Clone your database into the target system

Switch back to your Windows based installation and open the SysConfig admin menu. Please select the group "OTRSCloneDB" and the subgroup "Configuration":

**Figure 2.13. Configure OTRSCloneDB SysConfig 1 - screenshot**

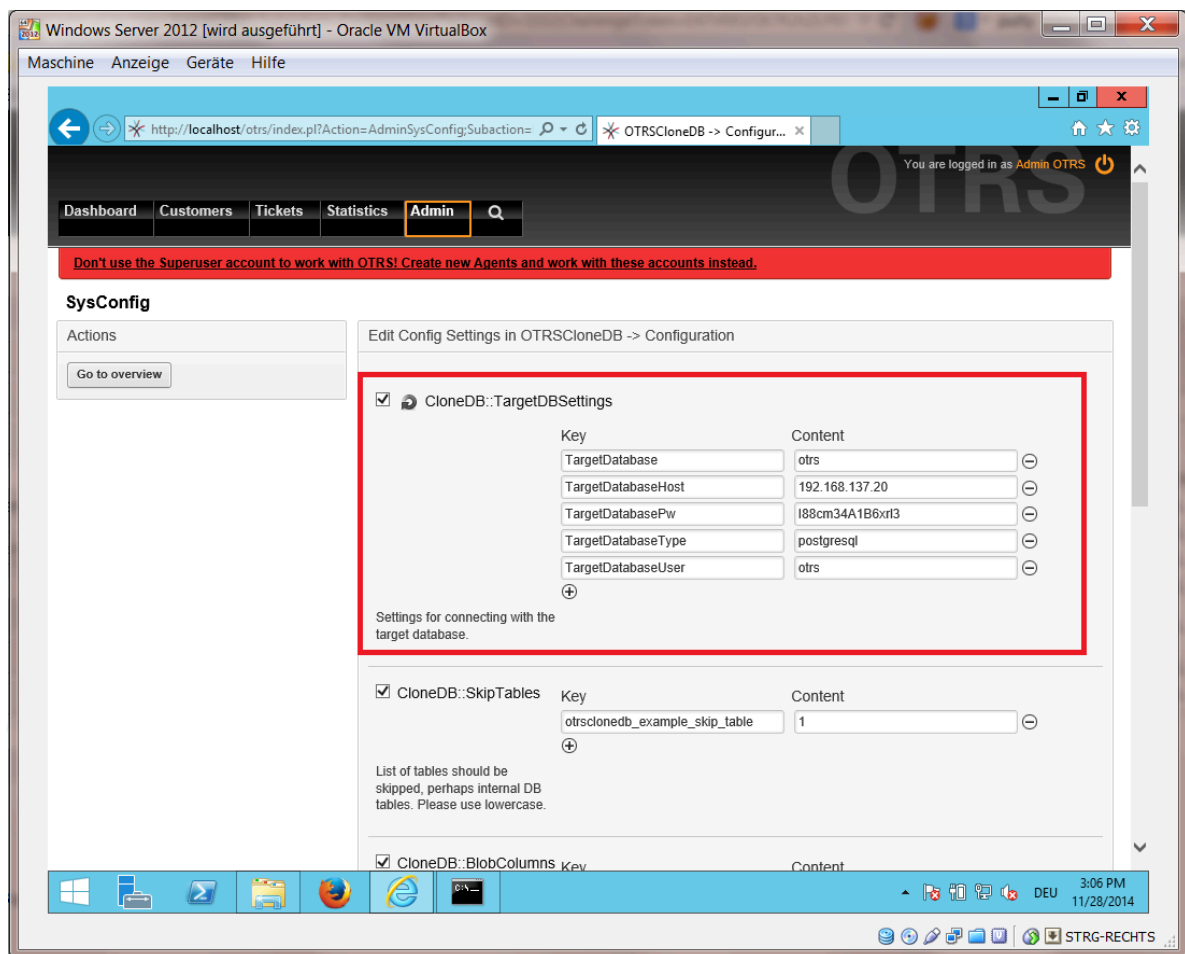


We need to configure the SysConfig option OTRSCloneDB::TargetSettings with the following values:

```

TargetDatabaseHost => 192.168.137.20 (Here you need to enter the ip address of your target
system)
TargetDatabase => otrs
TargetDatabaseUser => otrs
TargetDatabasePw => I88cm34A1B6xrl3 (Here you need to set the password of your target
system)
TargetDatabaseType => postgresql
  
```

**Figure 2.14. Configure OTRSCloneDB SysConfig 2 - screenshot**



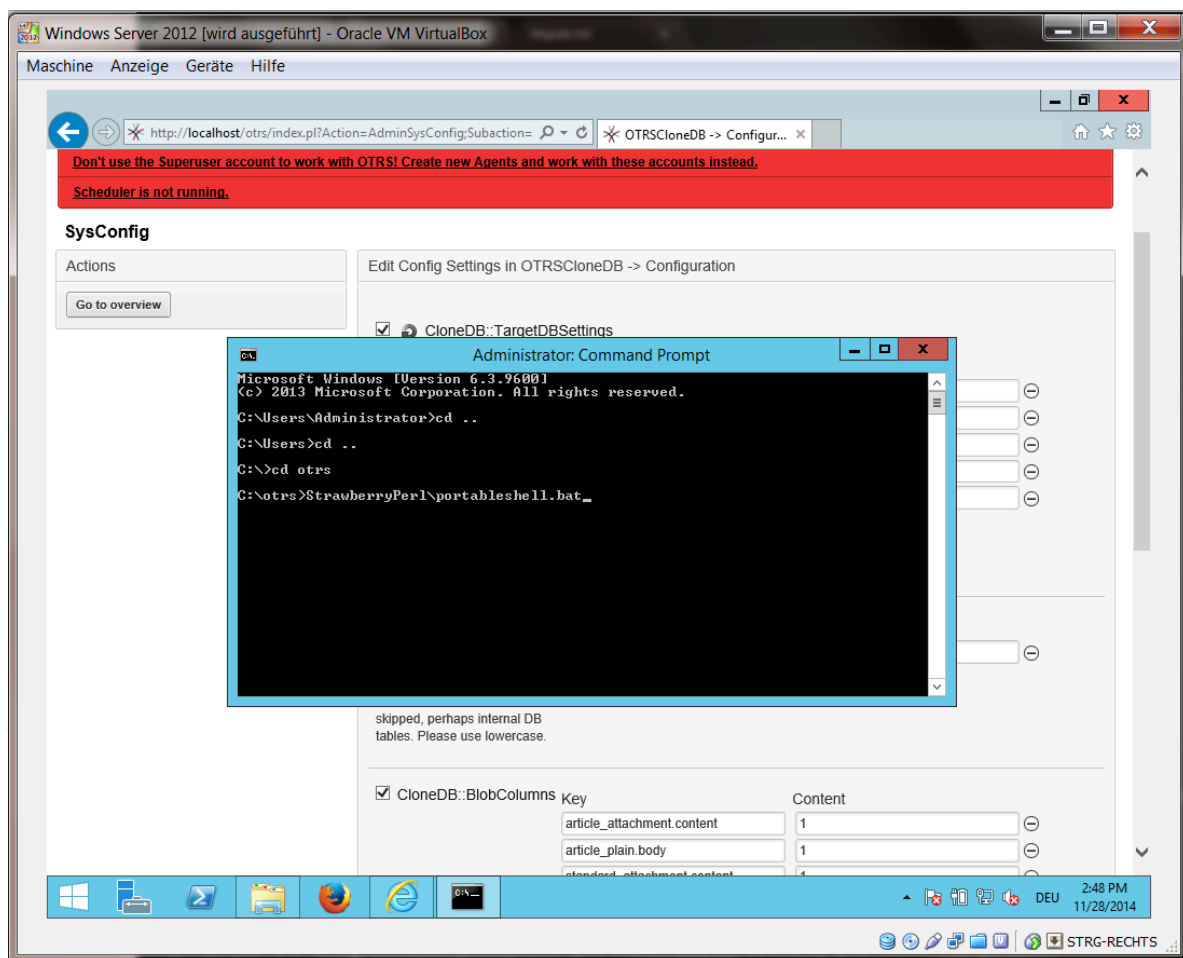
To run the OTRSCloneDB script we need to switch to the command prompt of our Windows based OTRS and to change into the base directory of our OTRS installation:

```
shell> cd "C:\otrs"
```

If you are using StrawberryPerl, then you maybe need to activate your shell for Perl:

```
shell> StrawberryPerl\portableshell.bat
```

**Figure 2.15. Run OTRSCloneDB script 1 - screenshot**



The OTRSCloneDB script is located in the bin directory of the OTRS directory.

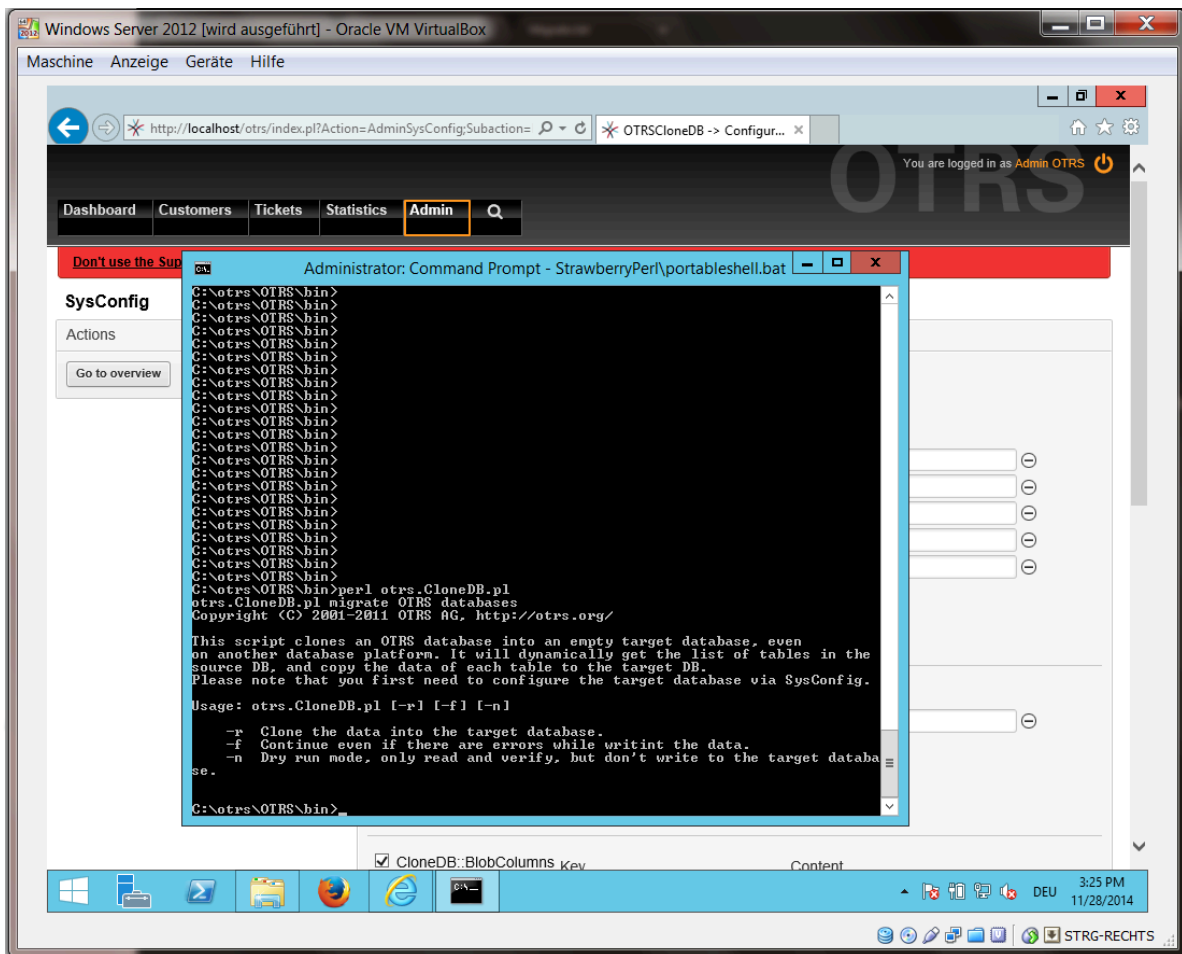
```
shell> cd "OTRS\bin"
```

Run the OTRSCloneDB script:

```
shell> perl otrs.CloneDB.pl
```

Now you should see some information about the script and its parameters.

**Figure 2.16. Run OTRSCloneDB script 2 - screenshot**

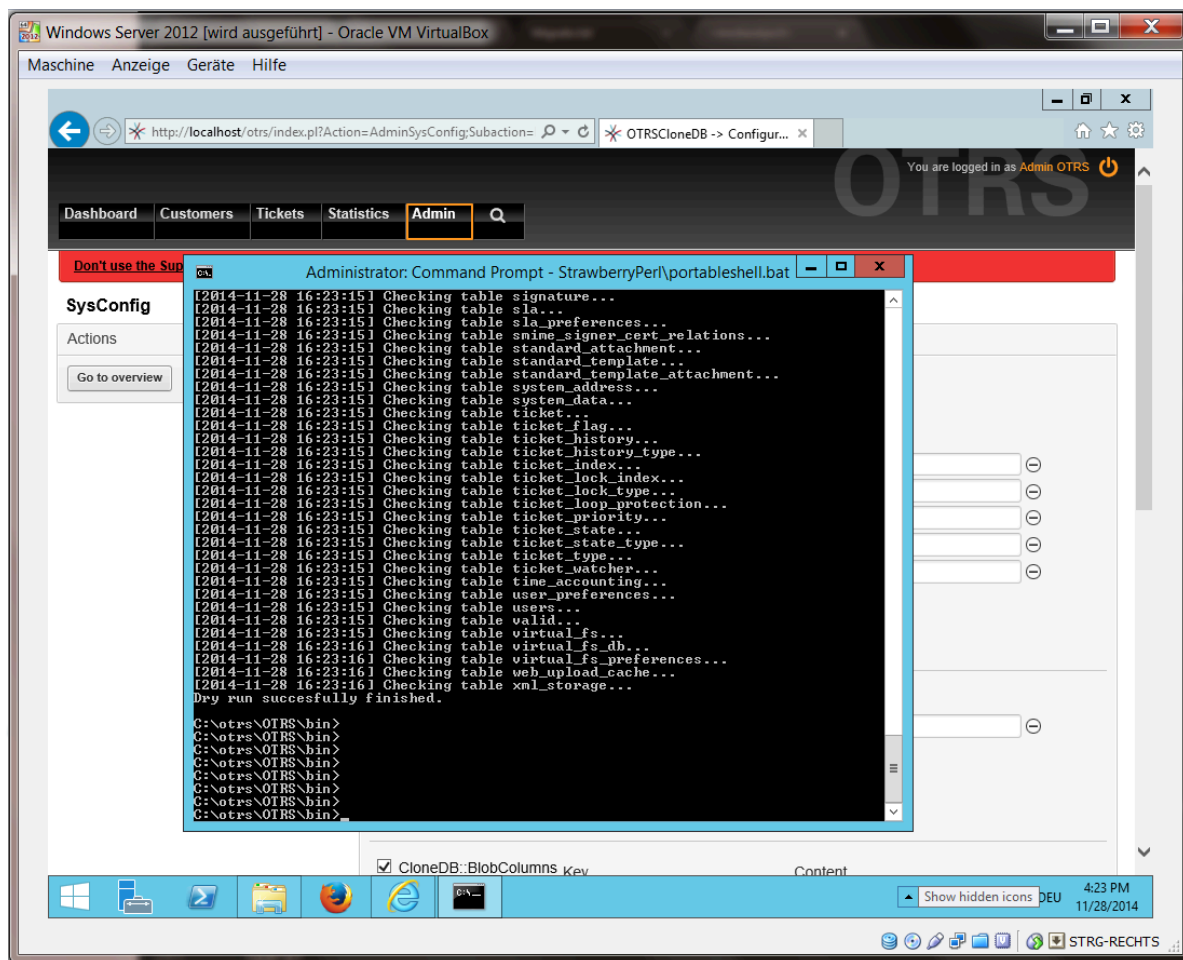


Note... Errors which occur at running without any parameters could relate to wrong login data for the database or problems with the database connection.

If no errors occurred, check if the dry run is successful:

```
shell> perl otrs.CloneDB.pl -n
```

**Figure 2.17. Run OTRSCloneDB script 3 - screenshot**



Start the cloning of your database and cross your fingers:

```
shell> perl otrs.CloneDB.pl -r
```

An example of a successfully run look like this:

```
Generating DDL for OTRS.
Generating DDL for package OTRSCloneDB.
Creating structures in target database (phase 1/2)
...
...
Creating structures in target database (phase 2/2)
...
done.
```

#### 4.1.8. Copy the following files from your Windows based system to the target system

You need to copy some files from your Windows based system to the target system. You can do this for example with a free tool like "WinSCP" (just search the internet for "WinSCP"). Copy the following files from your Windows based system:

```
C:\otrs\OTRS\Kernel\Config\GenericAgent.pm
```

```
C:\otrs\OTRS\Kernel\Config\Files\ZZZAuto.pm  
C:\otrs\OTRS\var\article\  
C:\otrs\OTRS\var\log\TicketCounter.log
```

to your target system:

```
/opt/otrs/Kernel/Config/GenericAgent.pm  
/opt/otrs/Kernel/Config/Files/ZZZAuto.pm  
/opt/otrs/var/article/*  
/opt/otrs/var/log/TicketCounter.log
```

Open the file `/opt/otrs/Kernel/Config/Files/ZZZAuto.pm` on the target system and replace all paths like `"C:/otrs/OTRS/"` with `"/opt/otrs/"`!

If you have manually changes in your `Kernel/Config.pm` then please copy these changes to the target system's `Kernel/Config.pm`. Don't copy it 1:1 because you will now have different database settings and the file paths on the target system are different from Windows!

### 4.1.9. Reinstall all packages

Reinstall all packages with the package manager to get all custom files back.

```
shell> bin/otrs.SetPermissions.pl --otrs-user=otrs --otrs-group=otrs --web-user=www-data --  
web-group=www-data /opt/otrs  
shell> su - otrs  
shell> cd /opt/otrs  
shell> perl bin/otrs.Console.pl Maint::Cache::Delete  
shell> perl bin/otrs.Console.pl Maint::Loader::CacheCleanup  
shell> perl bin/otrs.Console.pl Admin::Package::ReinstallAll  
shell> exit
```

Fix all permissions in your OTRS system again:

```
shell> bin/otrs.SetPermissions.pl --otrs-user=otrs --otrs-group=otrs --web-user=www-data --  
web-group=www-data /opt/otrs
```

### 4.1.10. Disable remote access for the PostgreSQL database of your target system

Undo all steps you did to enable the remote access for the PostgreSQL database to your target system.

Change into postgresql directory:

```
shell> cd /etc/postgresql/9.4/main  
shell> vi postgresql.conf
```

Remove the following line at the end of the file:

```
listen_addresses = '*'
```

Save the file.

```
shell> vi pg_hba.conf
```



Remove the following line at the end of the file:

```
host all all 0.0.0.0/0 md5
```

Save the file.

Restart your postgresql server

```
shell> service postgresql restart
```

### 4.1.11. Start OTRS services

Start services of your target system:

```
shell> service cron start
shell> service apache2 start
shell> su - otrs
shell> cd /opt/otrs/
shell> bin/Cron.sh start
shell> bin/otrs.Daemon.pl -a start
```

Now you should be able to open the OTRS of your target system in the browser with the imported data of your Windows based system.

## 5. Upgrading OTRS from 4 to 5

These instructions are for people upgrading OTRS from 4 to 5 or from a 5 to a later patch-level release 5 and applies both for RPM and source code (tarball) upgrades.

If you are running a lower version of OTRS you have to follow the upgrade path to 4 first (1.1->1.2->1.3->2.0->2.1->2.2->2.3->2.4->3.0->3.1->3.2->3.3->4)! You need to perform a full upgrade to every version in between, including database changes and the upgrading Perl script.

Please note that if you upgrade from OTRS 2.2 or earlier, you have to take [an extra step](#).

Within a single minor version you can skip patch level releases if you want to upgrade. For instance you can upgrade directly from OTRS 5 patchlevel 2 to version 5 patchlevel 6. If you need to do such a "patch level upgrade", you should skip steps 6, 10, 11, 14, 17 and 18.

It is highly recommended to perform a test update on a separate testing machine first.

### 5.1. Step 1: Stop all relevant services

Please make sure there are no more running services or cron jobs that try to access OTRS. This will depend on your service configuration, here is an example:

```
shell> /etc/init.d/cron stop
shell> /etc/init.d/postfix stop
shell> /etc/init.d/apache stop
```

Stop OTRS cron jobs and the scheduler or daemon (in this order) depending on the OTRS version you are updating from:

```
shell> cd /opt/otrs/  
shell> bin/Cron.sh stop  
shell> bin/otrs.Scheduler.pl -a stop
```

Au

```
shell> cd /opt/otrs/  
shell> bin/Cron.sh stop  
shell> bin/otrs.Daemon.pl stop
```

## 5.2. Step 2: Backup everything below /opt/otrs/

- Kernel/Config.pm
- Kernel/Config/GenericAgent.pm (only for reference, this file is not needed any more)
- Kernel/Config/Files/ZZZAuto.pm
- var/\*
- as well as the database

## 5.3. Step 3: Make sure that you have backed up everything ;-)

## 5.4. Step 4: Install the new release (tar or RPM)

### 5.4.1. Step 4.1: With the tarball:

```
shell> cd /opt  
shell> mv otrs otrs-old  
shell> tar -xzf otrs-x.x.x.tar.gz  
shell> mv otrs-x.x.x otrs
```

#### 5.4.1.1. Rejeshwa usanidi wa ma faili ya zamani

- Kernel/Config.pm
- Kernel/Config/Files/ZZZAuto.pm

#### 5.4.1.2. Rudisha TicketCounter.log

In order to let OTRS continue with the correct ticket number, restore the TicketCounter.log to /opt/otrs/var/log/. This is especially important if you use incremental ticketnumbers.

#### 5.4.1.3. Rejeshwa data za makala

If you configured OTRS to store article data in the filesystem you have to restore the article folder to /opt/otrs/var/ or the folder specified in the SysConfig.

#### 5.4.1.4. Set file permissions

Please execute

```
shell> cd /opt/otrs/  
shell> bin/otrs.SetPermissions.pl
```

with the permissions needed for your system setup. For example:

- Web server which runs as the OTRS user:

```
shell> bin/otrs.SetPermissions.pl --web-group=otrs
```

- Webserver with wwwrun user (e. g. SUSE):

```
shell> bin/otrs.SetPermissions.pl --web-group=wwwrun
```

- Webserver with apache user (e. g. Red Hat, CentOS):

```
shell> bin/otrs.SetPermissions.pl --web-group=apache
```

- Webserver with www-data user (e. g. Debian, Ubuntu):

```
shell> bin/otrs.SetPermissions.pl --web-group=www-data
```

#### 5.4.2. Step 4.2: With the RPM:

```
shell> rpm -Uvh otrs-x.x.x.-01.rpm
```

In this case the RPM update automatically restores the old configuration files and sets file permissions.

### 5.5. Step 5: Check needed Perl modules

Verify that all needed Perl modules are installed on your system and install any modules that might be missing.

```
shell> /opt/otrs/bin/otrs.CheckModules.pl
```

### 5.6. Step 6: Apply the database changes

#### 5.6.1. Step 6.1: Database schema update

##### 5.6.1.1. MySQL:

###### Note

Note: new tables created in the MySQL UPGRADING process will be created with the default table storage engine set in your MySQL server. In MySQL 5.5 the new default type is InnoDB. If existing tables, e.g. "users", have the table storage en-

gine e.g. MyISAM, then an error will be displayed when creating the foreign key constraints. In this case we recommend to switch all tables to InnoDB with the console command **bin/otrs.Console.pl Maint::Database::MySQL::InnoDBMigration**.

Any problems with regards to the storage engine will be reported by the `bin/otrs.Console.pl Maint::Database::Check` command, so please run it to check for possible issues.

```
shell> cd /opt/otrs/  
shell> cat scripts/DBUpdate-to-5.mysql.sql | mysql -p -f -u root otrs  
shell> bin/otrs.Console.pl Maint::Database::Check
```

### 5.6.1.2. PostgreSQL:

```
shell> cd /opt/otrs/  
shell> cat scripts/DBUpdate-to-5.postgresql.sql | psql --set ON_ERROR_STOP=on --single-transaction otrs otrs
```

## 5.6.2. Step 6.2: Database migration script

Run the migration script (as user `otrs`, NOT as `root`):

```
shell> scripts/DBUpdate-to-5.pl
```

Do not continue the upgrading process if this script did not work properly for you. Otherwise data loss may occur.

## 5.7. Step 7: Refresh the configuration cache and delete caches

Please run (as user `otrs`, *not* as `root`):

```
shell> cd /opt/otrs/  
shell> bin/otrs.Console.pl Maint::Config::Rebuild  
shell> bin/otrs.Console.pl Maint::Cache::Delete
```

## 5.8. Step 8: Restart your services

e. g. (depends on used services):

```
shell> /etc/init.d/apache start  
shell> /etc/init.d/postfix start  
shell> /etc/init.d/cron start
```

Now you can log into your system.

## 5.9. Step 9: Check installed packages

### Note

The OTRS packages of 4 are NOT compatible with OTRS 5, so you have to perform a package upgrade!

Vifurushi vifuatavyo vinasakinushwa kiotomatiki baada ya mchakato wa uboreshaji (kama zilisakinishwa kabla):

- OTRSGenericInterfaceMappingXSLT

## 5.10. Step 10: Configure NodeIDs (only for multi-frontend clustered setups)

### Note

This step is only needed if you have a clustered setup with several frontend machines.

From OTRS 5 on, every frontend server needs to have its own unique NodeID. This defaults to 1 and thus does not need to be configured for single-frontend setups. If you have more than one machine, each machine needs to have this value set to a unique value between 1 and 999. This configuration needs to be done in the file `Kernel/Config.pm`:

```
$Self->{'NodeID'} = '2'; # assign a unique value for every frontend server
```

## 5.11. Step 11: Check follow-up detection configuration

The follow-up detection settings were reorganized. Now OTRS searches by default in email subject and references to detect follow-ups. Please check in `AdminSysConfig Ticket -> Core: :PostMaster` if you need to make any changes to the follow-up detection configuration (for example to search in body, attachments or raw email content).

## 5.12. Step 12: Start the OTRS Daemon

The new OTRS daemon is responsible for handling any asynchronous and recurring tasks in OTRS. What has been in cron file definitions previously is now handled by the OTRS daemon, which is now required to operate OTRS. The daemon also handles all GenericAgent jobs and must be started from the `otrs` user.

```
shell> /opt/otrs/bin/otrs.Daemon.pl start
```

## 5.13. Step 13: Update and activate cron jobs

There are two default OTRS cron files in `/opt/otrs/var/cron/*.dist`, and their purpose is to make sure that the OTRS Daemon is running. They need to be activated by copying them without the ".dist" filename extension.

```
shell> cd /opt/otrs/var/cron  
shell> for foo in *.dist; do cp $foo `basename $foo .dist`; done
```

To schedule these cron jobs on your system, you can use the script `Cron.sh` with the `otrs` user.

```
shell> /opt/otrs/bin/Cron.sh start
```

Please note that if you had any custom cron jobs, you should consider moving them to SysConfig (Daemon -> Daemon::SchedulerCronTaskManager::Task) to have them executed by the OTRS daemon as well. You might also need to adapt your custom scripts, because now most OTRS commands are managed by bin/otrs.Console.pl instead of single scripts.

## Note

The console command Dev::Code::Generate::ConsoleCommand can help to create new console commands for your custom scripts. This command creates a template where the script logic and its parameters can be adapted.

## 5.14. Step 14: Review your ticket notifications

With OTRS 5 ticket notifications are configured differently than in previous versions. They are now part of the "Event Notifications" that were previously available as well (now called just "Ticket Notifications"). Your existing ticket notifications have been migrated into the list of ticket notifications, but deactivated. You have also received the new default ticket notifications, active by default.

In case you did not modify the old ticket notifications you don't have to do anything. If you have made local modifications or translations, you have two choices: a) you can migrate your modifications to the new ticket notifications (recommended) or b) you can deactivate the new notifications and activate the old notifications again.

Please also review the escalation notification recipient settings and see if they match with your expectations (agents who have the ticket in one of their custom queues vs. all agents with read permissions). This was configured via a setting in the file Kernel/Config/GenericAgent.pm (now obsolete) previously and can now be controlled via the GUI for each notification separately.

## 5.15. Step 15: Update system registration (optional)

If the system is already registered with OTRS Group, it is strongly recommended to update the registration information at this time. This will update the registered version of the system (among other changes) in the OTRS Group records, in order to get much accurate information from the cloud services.

If you don't update the registration information manually, it will be done automatically on a regular basis, but this could happen some hours or days after. During this period it might be possible to get wrong information from cloud services like **OTRS Business Solution™** updates.

```
shell> cd /opt/otrs/  
shell> bin/otrs.Console.pl Maint::Registration::UpdateSend --force  
shell> bin/otrs.Console.pl Maint::Cache::Delete
```

## 5.16. Step 16: Migrate custom Perl based GenericAgent jobs (optional)

This is only relevant if you had any custom GenericAgent jobs in Perl OTRS 4 configuration files such as Kernel/Config/GenericAgent.pm that cannot be handled with the regular

ticket notifications. Such jobs now need to be registered as OTRS Daemon cron tasks in the SysConfig (Daemon -> Daemon::SchedulerCronTaskManager::Task), in order to be executed on a regular basis.

There are 5 settings in the SysConfig prepared for this purpose (Daemon::SchedulerCronTaskManager::Task###GenericAgentFile1 to Daemon::SchedulerCronTaskManager::Task###GenericAgentFile5). If more settings are needed they can be added in a custom SysConfig setting file.

Please replace "<ModuleName>" with the file that contains the custom GenericAgent jobs configuration, e.g. Kernel::Config::GenericAgent for the file: Kernel/Config/GenericAgent.pm, set the schedule to match the periodicity as it was executed before, mark the setting as active and save the changes.

## Note

To get more information about other parameters that can be used while running the GenericAgent jobs, please execute:

```
shell> bin/otrs.Console.pl Maint::GenericAgent::Run --help
```

## 5.17. Step 17: Setup bash autocompletion (optional)

All regular OTRS command line operations now happen via the OTRS Console interface `bin/otrs.Console.pl`. This provides an auto completion for the bash shell which makes finding the right command and options much easier.

You can activate the bash autocompletion by installing the package `bash-completion`. It will automatically detect and load the file `/opt/otrs/.bash_completion` for the `otrs` user.

After restarting your shell, you can just type `bin/otrs.Console.pl` followed by TAB, and it will list all available commands. If you type a few characters of the command name, TAB will show all matching commands. After typing a complete command, all possible options and arguments will be shown by pressing TAB.

## 5.18. Step 18: Review ticket action screen configurations (optional)

Some ticket action screens like "Note" had default subjects in OTRS 4 (configurable via SysConfig, `Ticket::Frontend::AgentTicketNote###Subject` in this case). These default subjects have been removed to reduce the amount of potentially redundant/meaningless data. You might want to re-add them if they are mandatory for you.

## 5.19. Step 19: Review Ticket Event Module Configurations

Because of a [bugfix in OTRS 5s](#), configuration names for a few ticket event modules had to be changed. Any possible customizations need to be re-applied. Please review your settings in SysConfig -> Ticket -> `Core::Ticket` and check all settings that start with `Ticket::EventModulePost` to see if your customizations have to be re-applied. This could be the case if you had activated and configured the event handler to save customer data in ticket dynamic fields, for example.

---

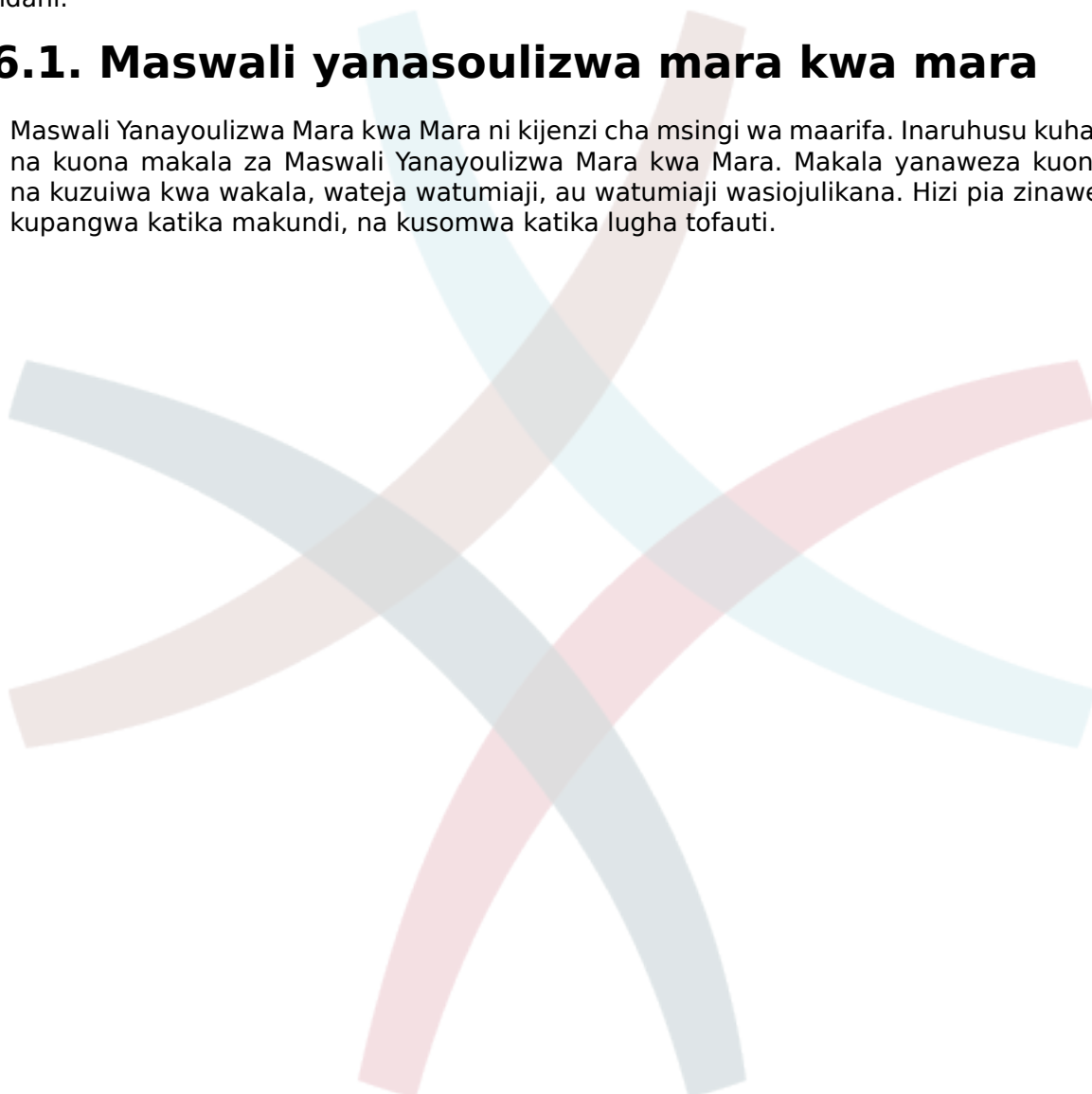
## 5.20. Step 20: Well done!

# 6. Additional Applications

Unaweza kusakinisha vifurushi vya ziada vya programu tumizi kupanua sifa za kiunzi cha OTRS. Hii inaweza kufanyika kupitia meneja vifurushi kutoka kwenye kurasa ya Msimamizi, ambayo inapakua programu tumizi kutoka kwenye hifadhi ya mtandaoni na kusimamia utegemezi wa vifurushi. Pia inawezekana kusakinisha vifurushi kutoka kwenye mafaili ya ndani.

## 6.1. Maswali yanasoulizwa mara kwa mara

Maswali Yanayoulizwa Mara kwa Mara ni kijenzi cha msingi wa maarifa. Inaruhusu kuhariri na kuona makala za Maswali Yanayoulizwa Mara kwa Mara. Makala yanaweza kuonwa na kuzuiwa kwa wakala, wateja watumiaji, au watumiaji wasiojulikana. Hizi pia zinaweza kupangwa katika makundi, na kusomwa katika lugha tofauti.





# Chapter 3. First Steps

Lengo la sura hii ni kutoa mapitio mafupi ya OTRS na muundo wa kiolesura chake cha tovuti. Misemo 'mawakala', 'wateja', na 'wasimamizi' imetambulishwa. Pia tunaingia kama msimamizi wa OTRS na kuangalia kwa karibu mapendeleo ya mtumiaji yanayopatikana kwenye kila akaunti.

## 1. Agent Web Interface

### Note

Before logging on for the first time, please consider activating the HTTPS on your web server in order for OTRS to be served as a secure app over SSL/TLS protocol. For detailed instructions on how to do this, please consult the documentation of your web server (e.g. Apache2).

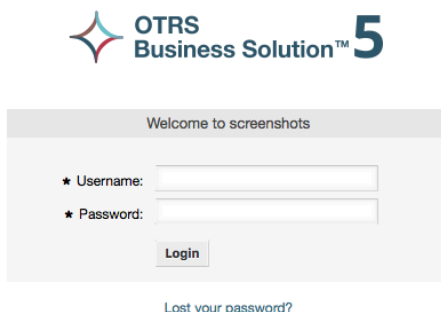
After you activate HTTPS, please set the configuration option `HttpType` to `https` in `SysConfig`. This will make sure that all internal links in OTRS are indeed using HTTPS.

Good practice is to also redirect all HTTP traffic to HTTPS, in case someone tries to access the OTRS via an insecure link. This should be done on web server configuration level for maximum effect.

Kiolesura cha tovuti cha wakala kinamruhusu wakala kujibu maombi ya wateja, kute-geneza tiketi mpya za wateja au mawakala wengine, kuandika tiketi kuhusu simu zilipig-wa na wateja, kuandika maingizo ya maswali yaliyoulizwa mara kwa mara, kuhariri data za wateja, na kadh.

Supposing your OTRS host is reachable via the URL <http://www.example.com>, then the OTRS login screen can be reached by using the address <http://www.example.com/otrs/index.pl> in a web browser (see figure below).

**Figure 3.1. Login screen of the agent interface**

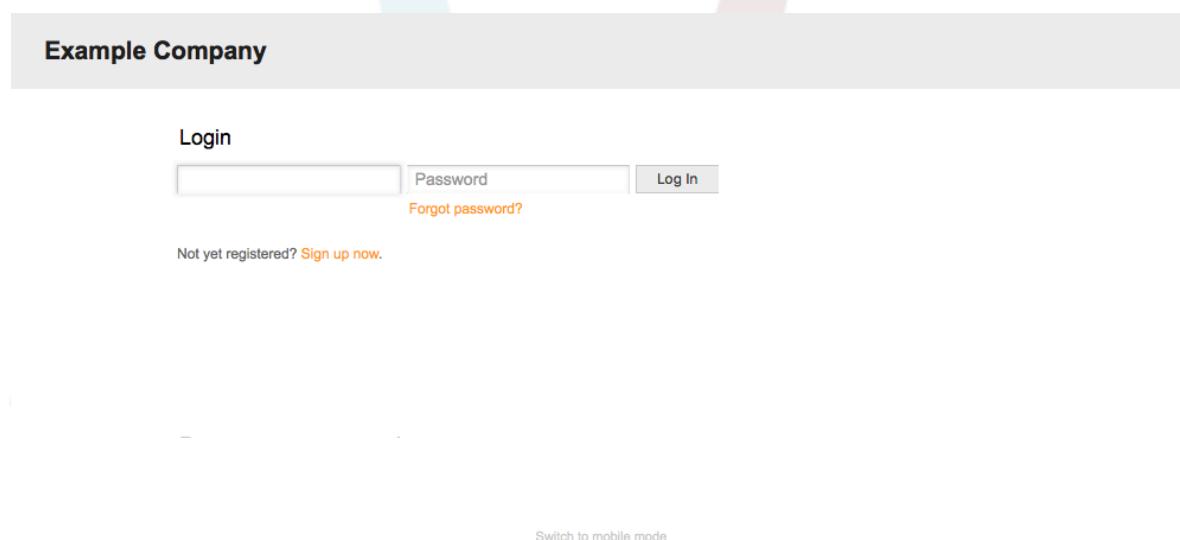


## 2. Customer Web Interface

Wateja wana violesura tofauti vya tovuti katika OTRS ambavyo wanaweza kutengeneza akaunti mpya, kubadilisha mipangilio yao ya akaunti, tengeneza na kuhariri tiketi, kupata mapitio ya tiketi walizotengeneza, na kadh.

Continuing the above example, the customer login screen can be reached by using the URL <http://www.example.com/otrs/customer.pl> with a web browser (see figure below).

**Figure 3.2. Login screen of the customer interface**



Example Company

Login

Password

[Forgot password?](#)

Not yet registered? [Sign up now.](#)


[Switch to mobile mode](#)

## 3. Public Web Interface

Kwa nyongeza kwenye violesura vya wavuti kwa ajili ya mawakala na wateja. OTRS pia ina kiolesura cha umma ambacho kinapatikana kupitia moduli ya maswali yanayoulizwa mara kwa mara. Hii moduli inahitaji kusakinishwa pekeyake. Inatoa ufikivu wa umma kwa mfumo wa maswali yanayoulizwa mara kwa mara na inaruhusu wageni kutafuta kwenye maingizo ya maswali yanayoulizwa mara kwa mara bila uidhinishaji wowote maalumu.

Katika mfano wetu, kiolesura cha tovuti cha umma kinaweza kufikiwa kwa kupitia aidha ya URL zifuatazo: <http://www.example.com/otrs/faq.pl> , <http://www.example.com/otrs/public.pl>

**Figure 3.3. Kiolesura cha tovuti cha uma**

**Example Company**


---

### FAQ Explorer

**Subcategories**

NAME	COMMENT	SUBCATEGORIES	FAQ ARTICLES
Bugzilla	Reporting bugs	0	1
Feature AddOns	FAQs	0	1
OTRS Framework	Questions and answers about OTRS	0	1

**FAQ Articles**

FAQ#	TITLE	CATEGORY	LANGUAGE
No FAQ articles found.			

**Search**

Wildcards are allowed.

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[Advanced Escalations](#)  
 Feature AddOns - en - public (all) - 12/03/2014 00:54  
[Framework bug](#)  
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[Test Uno](#)  
 OTRS Framework - en - public (all) - 12/03/2014 00:51

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 Feature AddOns - en - public (all) - 12/03/2014 00:54  
[Framework bug](#)  
 Bugzilla - en - public (all) - 12/03/2014 00:53  
[Test Uno](#)  
 OTRS Framework - en - public (all) - 12/03/2014 00:51

**Top 10 FAQ articles**

## 4. First Login

Access the login screen as described in the section Agent web interface . Enter a user name and password. Since the system has just been installed and no users have yet been created, login as OTRS administrator first, using 'root@localhost' for username and the generated password in the last step of the installer.

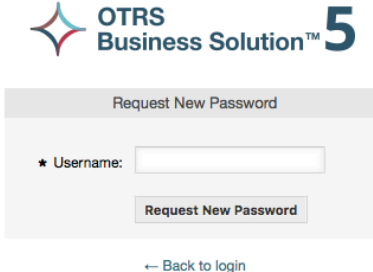
### Warning

Hii data ya akaunti ni halali kwa kila usakinishaji mpya wa mfumo wa OTRS. Unatakiwa kubadilisha nywila ya msimamizi wa OTRS mapema iwezekanavyo! Hii inaweza kufanyika kupitia skrini ya mapendeleo kwa ajili ya akaunti ya msimamizi wa OTRS.

If you don't want to login as OTRS administrator, just enter the username and password for your normal agent account.

In case you have forgotten your password, you can request the system for a new password. Simply press the link below the Login button, enter the username that is registered for your OTRS account into the input field, and press the Request New Password button (see figure).

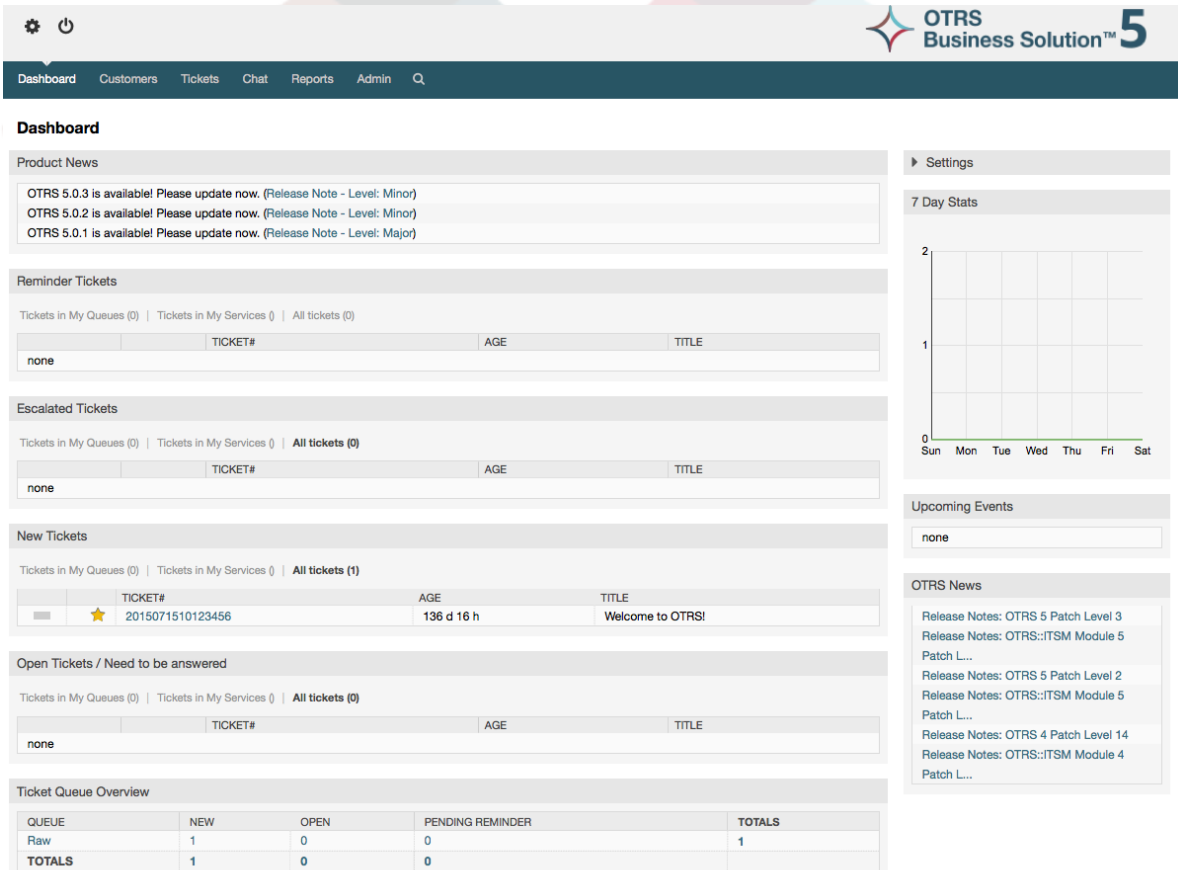
**Figure 3.4. Ombi la neno la siri jipya**



## 5. The Web Interface - an Overview

Upon successfully logging into the system, you are presented with the Dashboard page (see figure below). It shows your locked tickets, allows direct access through menus to the queue, status and escalation views, and also holds options for creation of new phone and e-mail tickets. It also presents a quick summary of the tickets using different criteria.

**Figure 3.5. Dashboard of the agent interface**



**Dashboard**

Product News

- OTRS 5.0.3 is available! Please update now. (Release Note - Level: Minor)
- OTRS 5.0.2 is available! Please update now. (Release Note - Level: Minor)
- OTRS 5.0.1 is available! Please update now. (Release Note - Level: Major)

Reminder Tickets

Tickets in My Queues (0) | Tickets in My Services (0) | All tickets (0)

TICKET#	AGE	TITLE
none		

Escalated Tickets

Tickets in My Queues (0) | Tickets in My Services (0) | All tickets (0)

TICKET#	AGE	TITLE
none		

New Tickets

Tickets in My Queues (0) | Tickets in My Services (0) | All tickets (1)

TICKET#	AGE	TITLE
★ 2015071510123456	136 d 16 h	Welcome to OTRS!

Open Tickets / Need to be answered

Tickets in My Queues (0) | Tickets in My Services (0) | All tickets (0)

TICKET#	AGE	TITLE
none		

Ticket Queue Overview

QUEUE	NEW	OPEN	PENDING REMINDER	TOTALS
Raw	1	0	0	1
<b>TOTALS</b>	<b>1</b>	<b>0</b>	<b>0</b>	

Settings

7 Day Stats

Upcoming Events

OTRS News

- Release Notes: OTRS 5 Patch Level 3
- Release Notes: OTRS::ITSM Module 5 Patch L...
- Release Notes: OTRS 5 Patch Level 2
- Release Notes: OTRS::ITSM Module 5 Patch L...
- Release Notes: OTRS 4 Patch Level 14
- Release Notes: OTRS::ITSM Module 4 Patch L...

To improve clarity, the general web interface is separated into different areas. The top row of each page shows some general information such as the logout button, icons listing the number of locked tickets with direct access to them, links to create a new phone/e-mail ticket, etc. There are also icons to go to the queue, status, and escalation views.

Chini ya safu mlalo za ikoni kuna mwambaa wa uabiri. Inaonyesha menyu ambayo inakuwezesha kwenda sehemu tofauti au kuona moduli tofauti za mfumo, ikikuruhusu kutekeleza baadhi ya vitendo vya ujumla. Kubofya kwenye kitufe cha Dashibodi inakupeleka kwenye dashibodi. Kama ukibofya kwenye kitufe cha Tiketi utapata menyu ndogo yenye machaguo ya kubadilisha muonekano wa tiketi, tengeneza tiketi mpya (simu/barua pepe) au tafuta tiketi fulani. Kitufe cha Takwimu kinakupa menyu inayokuruhusu kuchagua kutoka kwenye mapitio ya takwimu zilizosajiliwa, kutengeneza mpya au kuagiza iliyoopo. Kitufe cha Wateja kinakupeleka kwenye skrini ya Usimamizi wa Mteja. Kwa kubofya kitufe cha Msimamizi, unaweza kufikia moduli zote za msimamizi, ambazo zinakuruhusu kutengeneza mawakala wapya, foleni na kadh. Pia kuna kitufe cha kutafuta tiketi.

Kama programu-tumizi zozote zinazohusika zimesakinishwa pia, mf. maswali yanayoulizwa mara kwa mara au Utafiti, vitufe kufikia hizi programu-tumizi pia vinaonyeshwa.

In the area below the navigation bar, different system messages can be shown. If you are logged in as the default OTRS administrator user, you get a red message warning you not to work using this system account.

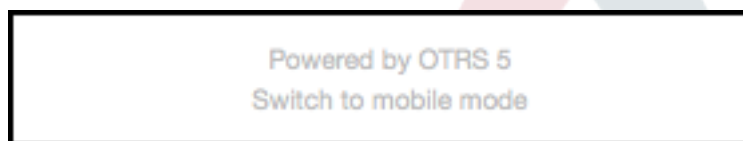
Chini ya kichwa cha habari cha kifungu ulichopo sasa, kuna vifungu vidogo tofauti vyenye taarifa husika kuhusu skrini unayofanya kazi, kila moja katika kisanduku tofauti.

Haya maboksi yana sehemu muhimu ya kila skrini, kwa kawaida yanaonyeshwa katika safuwima moja au tofauti, kila boksi linaweza kuhifadhi taarifa husika kuhusu skrini ya sasa kwa mfano maelekezo, ushauri, mapitio, na kadh. Pia inaonyeshwa fomu au kifaa muhimu cha kutekeleza kitendo kinachohusika kwa kila skrini, kama kwa mfano, ongeza, sasisha au futa rekodi, kagua batli, badilisha mipangilio ya mabadiliko, na kadh.

Finally at the bottom of the page, the site footer is displayed (see figure below). It contains a link to directly access the OTRS official web site, or switch to mobile mode.

Kwa kawaida safu mlalo ya ikoni, mwambaa wa uabiri na kijachini ziko hivyo hivyo katika skrini zote kwenye kiolesura cha tovuti.

### Figure 3.6. Kijachini



## 6. Dashibodi

Dashi bodi ndiyo kurasa kuu ya mfumo, hapa unaweza kupata kitufe cha mapitio ya tiketi na vitu vingine vyenye uhusiano na shughuli za tiketi. Inafikiria kuwa sehemu ya kuanzia kazi za kila siku za wakala, kwa kawaida inatoa ufupisho wa haraka wa tiketi ambazo zinasubiri, zimepandishwa, mpya na zilizofunguliwa, kuachana nataarifa nyingine.

Moja ya sifa kubwa za Dashibodi ni kwamba inaweza kugeuzwa kabisa kukufaa. Hii inaamaanisha unaweza kusanidi kila upande kadri utakavyo, kuonyesha au kuficha elementi. Pia inawezekana kuhamisha makazi ya hizi elemnti katika safuwima moja kwa kubofya na kukokota kichwa cha elementi, na kuzidondosha mahali pengine. Kila elementi ina jina "Kifaa", mfumo una baadhi ya vifaa vya kutumia nje ya boksi, lakini usanifu uliojiki-ta kwenye moduli wa skrini ya dashibodi umeandaliwa kuunganisha vifaa vingine vya kawaida kwa urahisi.

Maudhui ya hii skrini imepangwa katika safuwima mbili kuu muhimu, kwenye safuwima ya kushoto unaweza kuona taarifa kuhusu tiketi zilizopangwa kwa hali zake kama: kikumbusho, iliyopandishwa, mpya, na wazi. Katika kila kifaa unaweza kuchuja matokeo kuona tiketi zote ambazo unaruhusiwa kufikia, tiketi ulizofunga, zile ambazo zipo kwenye foleni iliyofafanuliwa na wakala, pamoja na vichujio vingine. Pia kuna aina nyingine za vifaa katika hii safuwima na vimefafanuliwa chini.

**Figure 3.7. Vifaa vya dashibodi**

**Dashboard**

Product News  
Can't connect to Product News server!

Reminder Tickets  
Tickets in My Queues (0) | Tickets in My Services (0) | All tickets (0)

TICKET#	AGE	TITLE
none		

Escalated Tickets  
Tickets in My Queues (0) | Tickets in My Services (0) | All tickets (0)

TICKET#	AGE	TITLE
none		

New Tickets  
Tickets in My Queues (0) | Tickets in My Services (0) | All tickets (1)

TICKET#	AGE	TITLE
★ 2015071510123456	136 d 16 h	Welcome to OTRS!

Open Tickets / Need to be answered  
Tickets in My Queues (0) | Tickets in My Services (0) | All tickets (0)

TICKET#	AGE	TITLE
none		

Ticket Queue Overview

QUEUE	NEW	OPEN	PENDING REMINDER	TOTALS
Raw	1	0	0	1
<b>TOTALS</b>	<b>1</b>	<b>0</b>	<b>0</b>	

Vifaa vya dashibodi vya safuwima ya kushoto.

- Vifaa vya Orodha ya Tiketi

Widgets under this category share same overall behavior, look and feel. This widget shows a list of tickets on a determined state. The amount of tickets display on each list page can be configured in widget options (they appear when you hover the mouse pointer over the top right part of the widget). This widget supports the following filters:

- Tiketi zangu zilizofungwa  
Tiketio ambazo wakala aliyeingia amezifunga.
- Tiketi zangu zinazoangaliwa

Tiketi ambazo wakala aliyeingia kwenye mfumo anazo kwenye orodha yake ya zilizo chini ya uangalizi, zinahitaji mpangilio wa Tiketi::Muangalizi kuwashwa ili kuonyeshwa.

- Majukumu yangu

Tiketi ambazo wakala aliye kwenye mfumo amewekwa kama mhusika, mpangilio Tiketi::Jukumu unatakiwa kuwashwa ili kufanya hiki kichujio kuonekana.

- Tiketi kwenye Foleni Yangu

Tiketi ambazo zipo kwenye foleni ambazo wakala amefafanua kama "Foleni Zangu".

- Tiketi zilizopo kwenye huduma

The tickets that are assigned to services where the agent define as "My Services" and are on queues with at least read-only permissions.

- Tiketi zote

Tiketi zote ambazo wakala ana ufikivu.

Vifaa hivi ni:

- Tiketi za kumbukumbu

Tiketi zilizosetiwa kama zinazosubiri na tarehe ya kikumbusho imefikwa.

- Tiketi zilizopandishwa

Tiketi zilizopandishwa

- Tiketi Mpya

Tiketi zenye hali "Mpya".

- Tiketi Wazi / Zinahitaji kujibiwa

Tiketi zenye hali "Wazi" na ziko tayari kufanya nazo kazi.

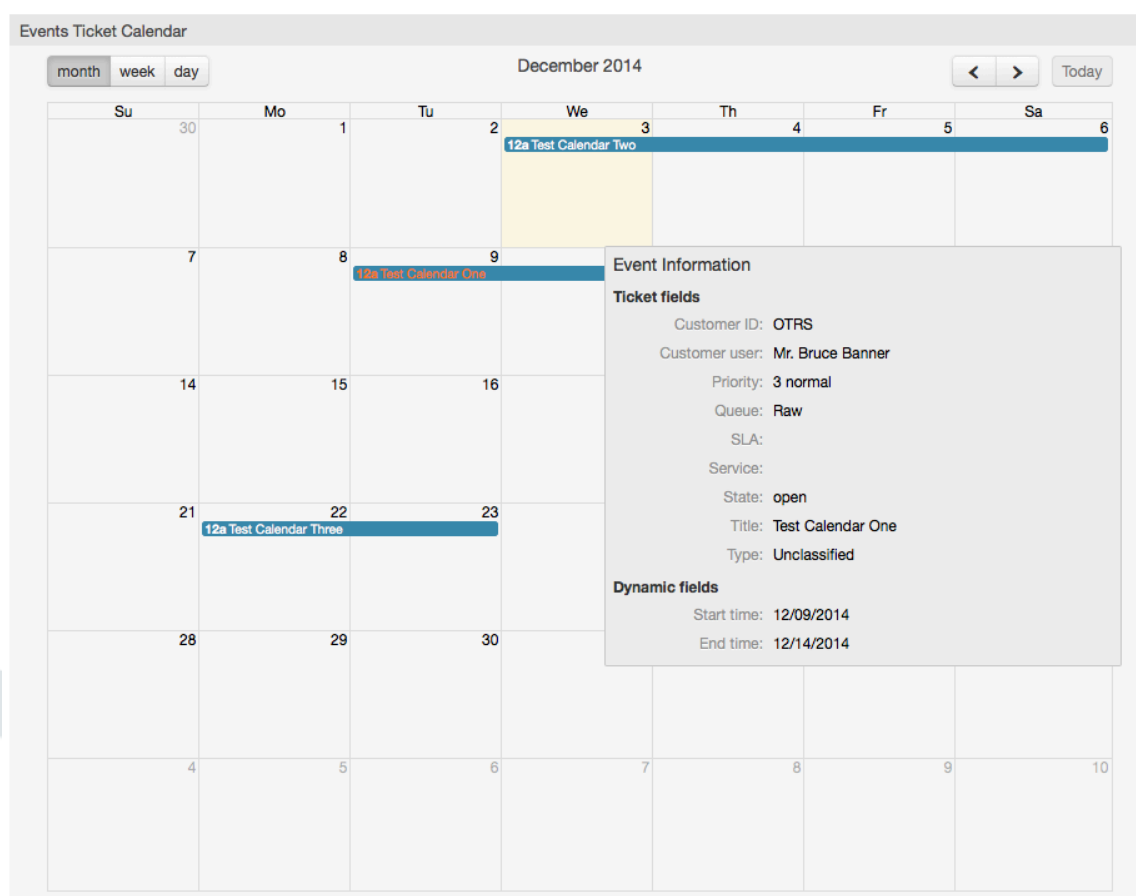
- Matukio Tiketi Kalenda

Tukio la kalenda (kwa kifaa hiki) linafafanuliwa pale tiketi mpya inatengenezwa, kipengele cha Matukio Tiketi Kalenda inabidi kiwezeshwe, na kinahitaji sehemu mpya mbili kuonyeshwa kwenye skrini za kutengeneza tiketi, moja kwa ajili ya muda wa kuanza tukio la tiketi na nyingine kwa ajili ya muda wa kumaliza, hii mida inaelezea muda unao-tumiwa na tukio.

This widget includes the following views: month, week and day. Agents can scroll through the pages by using the right and left arrows.

Kama ilivyosemwa kabla kulemaza tuu vifaa haitoshi, baadhi ya sehemu zinazobadilika za "Tarehe/Muda" kwa ajili ya tiketi inabidi ziongezwe kwenye mfumo (kupitia kiungo cha Sehemu Zinazobadilika katika paneli ya "Msimamizi") na kuziseti katika SysConfig kwa ajili ya hiki kifaa, Sehemu Zinazobadilika zote mbili lazima zisanidiwe ili zionyeshwe katika skrini za kutengeneza tiketi, zinatakiwa zijazwe wakati wa kutengeneza tiketi au katika skrini ya vitendo nyingine yoyote (mf. Sehemu Huru) kuelezea itakaochukua muda wa tukio la kalenda (muda wa kuanza na kumaliza), skrini ya kuza tiketi inaweza kusanidiwa kuonyesha hii sehemu inayobadilika pia, kama ukiifikiria kama muhimu.

**Figure 3.8. Kifaa cha Matukio ya Kalenda ya Tiketi**



Zaidi usanidi wa hiki kifaa unaweza kupatikana chini ya "Mazingirayambele::Wakala::Dashibodi::MatukioTiketiKalenda" KundiDogo katika SysConfig:

- UpanaWaKalenda

Inafanua upana wa kalenda kwa asilimia. Chaguo-msingi ni 95%.

- SehemuInayobadilikaMudaKuanza

Inafanua jina la sehemu inayobadilika kwa ajili ya muda wa kuanza.

- SehemuInayobadilikaMudaKumaliza

Inafanua jina la sehemu inayobadilika kwa ajili ya muda wa kumaliza.

- Foleni

Tiketi za kwenye foleni zilizobainishwa kwenye huu mpangilio tu ndiyo zitawekwa maanani kwenye muonekano wa kalenda.

- SehemuZinazobadilikaKwaajiliyaMatukio

Inafanua sehemu zinazobadilika ambazo zitaonyeshwa katika madirisha ya kufunika ya kalenda ya matukio.

- SehemuZaTiketiKwaajiliyaMatukio



---

Inafafanua sifa za tiketi ambazo zitaonyeshwa katika jalada la windows la tukio la kalenda.

- Mapitio ya Foleni ya Tiketi

Hiki kifaa kinaonyesha katika matriki ya idadi ya tiketi wapi safu mlalo zinawakilisha foleni na safuwima zinawakilisha hali za tiketi, kisha katika kila seli idadi ya tiketi katika hali iliyofafanuliwa ambayo ni ya foleni fulani imeonyeshwa.

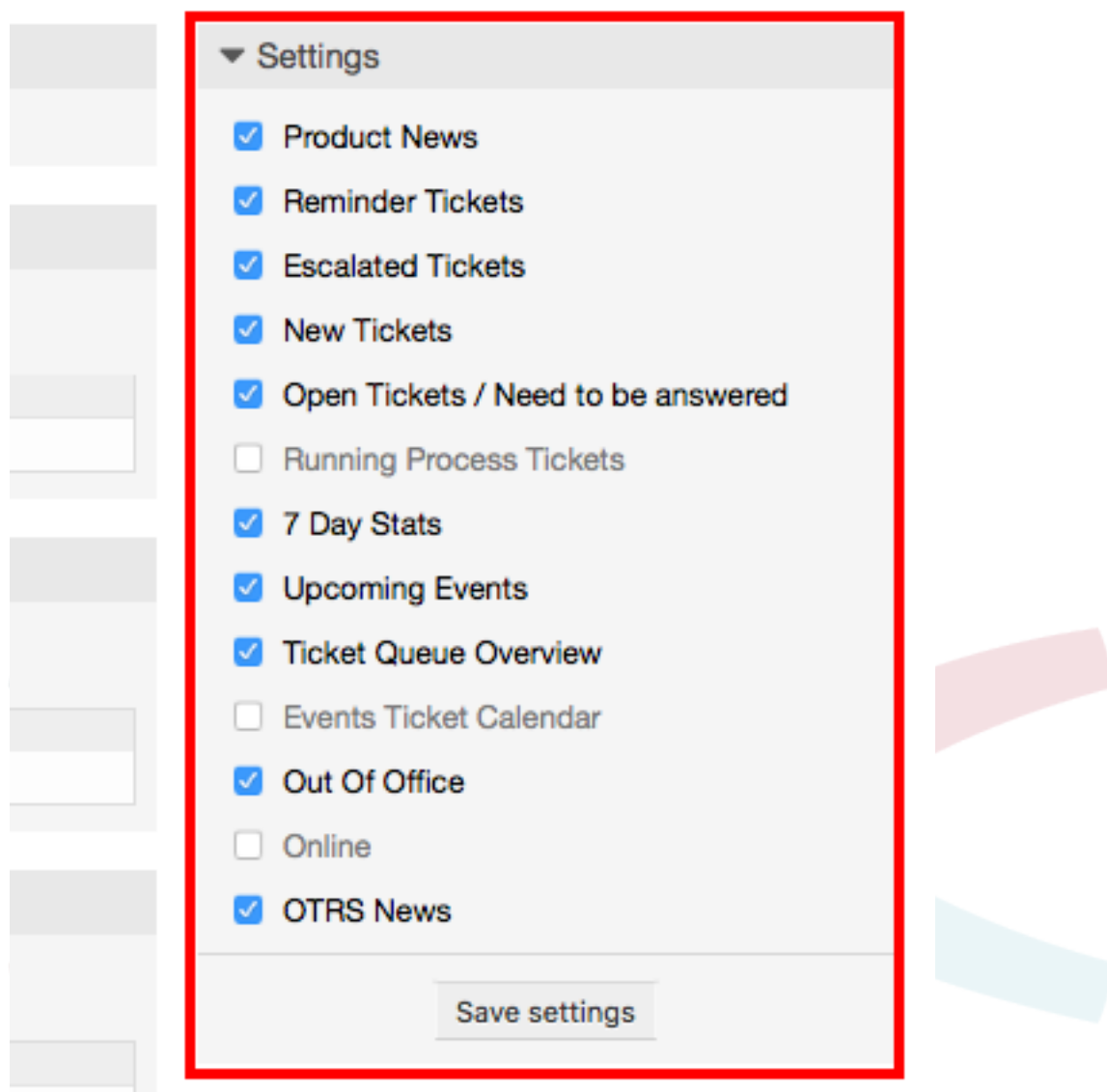
Kifaa pia kinaonyesha Jumla ya safumlalo na Jumla ya safuwima, Jumla ya safumlalo inaonyesha jumla ya tiketi kwa kila hali kwenye foleni zote zilizoonyeshwa, wakati Jumla ya safuwima inawakilisha jumla ya tiketi kwa kila foleni kwenye foleni zote zilizoonyeshwa.

Foleni na hali ambazo zimeonyeshwa zinaweza kubadilishwa kupitia Sysconfig.

Kwa kubofya kwenye yoyote kati ya nambari ya idadi ya tiketi ukurasa wa matokeo ya utafutaji watiketi yatafunguliwa kuwezesha mawakala kuwa kuona undani wake zaidi .

In the right column is located a special widget that allow you to control the widgets you want to show or hide. This is the Settings widget. Click on it's header to expand the section and see all available widgets, as shown in Figure. Each widget name has a checkbox. Use this checkboxes to define the visibility of the widgets in the dashboard (unchecked widgets will not be shown) after you define the visibility options and click on 'Save' for storing your changes. This section is fixed on the screen, this means you can't drag and drop it, or close it.

**Figure 3.9. Dashboard Settings**



Vifaa vya dashibodi ya safuwima ya kulia.

- Takwimu za siku 7

Inaonyesha grafu ya shughuli za tiketi kwa siku 7 zilizopita ambayo inajumuisha mistari 2. Mmoja ambao kwa kawaida ni rangi ya bluu, unawakilisha idadi ya tiketi zilizotengenezwa kwa siku na ya pili, kwa kawaida rangi ya machungwa na unawakilisha tiketi zilizofungwa kwa siku.

- Matukio Yajayo

Tiketi kwa ajili ya kupandishwa au tayari zilizopandishwa zinaorodheshwa hapa, taarifa kutoka kwenye hiki kifaa ni ya muhimu sana kwa kuwa una nafasi ya kujua kuhusu tiketi inahitaji umakini wako na unaweza kuamua ni zipi unataka kuweka bidii yako, seti vipaumbele au angalia kirahisi kinachokuja.

- OTRS Habari

Orodha kamili ya shughuli za OTRS na taarifa muhimu kuhusu matoleo mapya ya bidhaa au viraka.

- Mtandaoni

Hapa ni ufupisho ulioonyeshwa kuhusu mawakala walioingia kwenye mfumo kwa sasa, pia inajumuisha kifungu cha wateja walio mtandaoni, tafadhali tambua hiki kifaa kinafichwa kwa kawaida, kinaweza kuonyeshwa kwa kutumia kifaa cha Mipangilio kili-choelezwa hapo juu.

## 7. What is a Queue?

Katika mifumo mingi ya barua, ni kawaida kwa ujumbe wowote kuingia kwenye faili la kisanduku pokezi, ambapo zinabaki zimehifadhiwa. Ujumbe mpya unaongezwa mwishoni mwa faili la Kisanduku pokezi. Programu ya barua ya mteja inayotumika kusoma na kuandika barua inasoma hili faili la Kisanduku pokezi na kupeleka maudhui kwa mtumiaji.

Foleni katika OTRS ni karibu inafanana na faili la kisanduku pokezi, kwa kuwa yenyewe nayo inahifadhi ujumbe wa aina nyingi. Foleni pia ina vipengele kuzidi vile vya faili la kisanduku pokezi cha barua. Kama mtumiaji au wakala wa OTRS, mtu inabidi akumbuke foleni gani tiketi imehifadhiwa. Mawakala wanaweza kufungua na kuhariri tiketi katika foleni, na pia kuhamisha tiketi kutoka foleni moja kwenda nyingine. Lakini kwanini zihamishe tiketi?

Kuelezea kwa vitendo zaidi, kumbuka mfano wa Kampuni ya Max iliyoelezwa katika mfano wa mfumo wa tiketi. Max alisakinisha OTRS ili kuruhusu timu yake kusimamia vizuri usaidizi wa wateja wa kampuni wanaonunua rekoda za video.

Foleni moja inayoshikilia maombi yote inatosha kwa hii hali. Hata hivyo, baada ya muda Max anaamua pia kuuza rekoda za DVD. Sasa, wateja wana maswali sio tu kuhusu rekoda za video, lakini pia kuhusu bidhaa mpya. Barua pepe zaidi na zaidi zinaingia kwenye foleni moja ya OTRS ya Max na ni ngumu kupata picha kamili ya kinachoendelea.

Max anaamua kuunda upya mfumo wake wa usaidizi, na kuongeza foleni mpya mbili. Kwa hiyo sasa foleni tatu zinatumiwa. Ujumbe mpya unaoingia katika mfumo wa tiketi unahifadhiwa kwenye foleni ya zamani iitwayo "mbichi". Kati ya foleni mpya mbili, moja inaitwa "rekoda ya video" ni kwa ajili ya maombi ya rekoda za video tu, wakati nyingine "rekoda ya dvd" ni kwa ajili ya maombi ya rekoda za dvd tu.

Max anamuomba Sandra kuangalia foleni "mbichi" na kupanga (kupeleka) ujumbe aidha kwenda kwenye foleni ya "rekoda za video" au "rekoda za dvd", kutegemeana na maombi ya mteja. John ana ufikivu kwa foleni ya "rekoda za video" tu, wakati Joe anaweza kujibu tiketi katika foleni ya "rekoda ya dvd" tu. Max anaweza kuhariri tiketi katika foleni zote.

OTRS ina msaada kwa usimamizi wa ufikivu kwa watumiaji, makundi, na majukumu, na ni rahisi kuseti foleni ambazo zinaweza kufikiwa na baadhi ya akaunti za watumiaji. Max angeweza pia kutumia njia nyingine kufikisha maombi yake kwenye foleni tofauti, kwa sheria za kuchuja. Vinginevyo, kama anwani mbili tofauti za barua pepe zimetumiwa, Sandra anaweza kutuma zile barua pepe kwenye foleni nyingine mbili, ambazo haziwezi kutumwa kiotomatiki.

Kupanga ujumbe wako unaoingia kwenye foleni tofauti inakusaidia kufanya mfumo wa msaada kuwa msafi na wenye mpangilio. Kwa sababu mawakalawako wamepangwa katika makundi tofauti wakiwa na haki tofauti za ufikivu kwenye tiketi, mfumo unaweza kusadifishwa zaidi. Foleni zinaweza kutumika kufafanua michakato ya mtiririko wa kazi au kutengeneza muundo a kampuni. Max anaweza kutengeneza kwa mfano, foleni nyingine iitwayo "mauzo", ambayo inaweza kuwa na foleni ndogo "maombi", "ofa", "oda", "bili", na kadh. Muundo kama huu wa foleni unaweza kumsaidia Max kusadifisha mpangilio wa miamala yake.

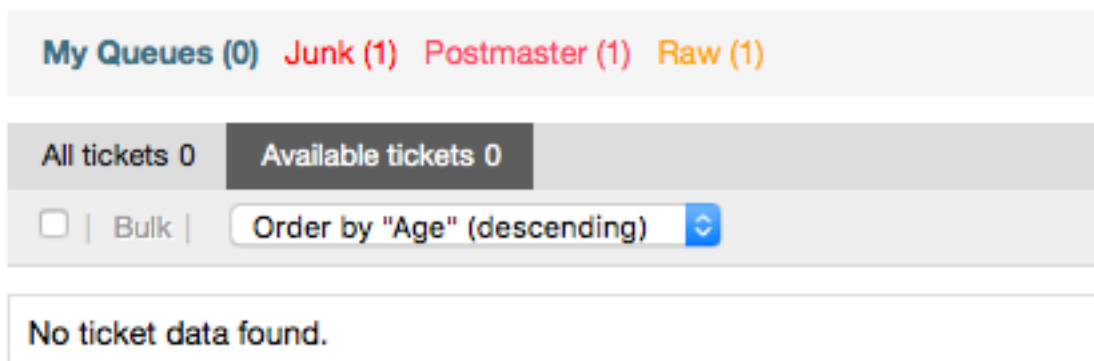
Muundo wa mfumo ulioboreshwa, kama kupitia usanifu mzuri wa foleni, inaweza kupelekea kuokowa muda na pesa nyingi. Foleni zinasaidia kusadifisha michakato kwenye kampuni yako.

## 8. What is the Queue Overview?

Mapitio ya foleni yanatoa muonekano wa foleni zote ambamo tiketi zipo, na ambamo mtumiaji ana haki za kusoma na kuandika.

**Figure 3.10. Muonekano wa Foleni kwa Mawakala (Chaguo-msingi)**

### QueueView: My Queues



The queue overview offers a variety of options for daily work with OTRS. The first of these is the My Queue. In the Agent Preferences, or when administering agents, a set of queues can be defined for which the agent has been assigned to work within. All the tickets will appear in this default view, when accessing the Tickets -> Queue View menu.

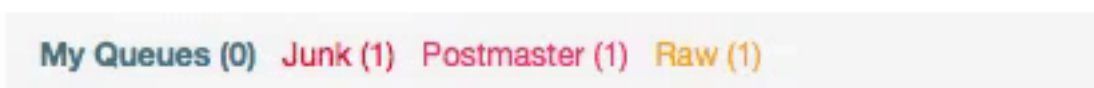
Chaguo la pili linalotolewa na Muonekano wa Foleni ni kuchimba hini uabiri kwenda kwenye foleni binafsi na foleni ndogo zenye tiketi za kufanyiwa kazi.

In both of the view types, the user also has the added ability to see either all unlocked tickets (this is the default filter), or the user can then choose to view all available tickets. Tickets must be in one of the viewable state types to be shown in the queue view. Per default, these are 'open, new, pending reminder, pending auto'.

Kuna kengele zinazoonekana, kumsaidia mtumiaji.

**Figure 3.11. Wakala Foleni Ona kengele zinazoonekana.**

### QueueView: My Queues



### Kengele Zinazoonekana

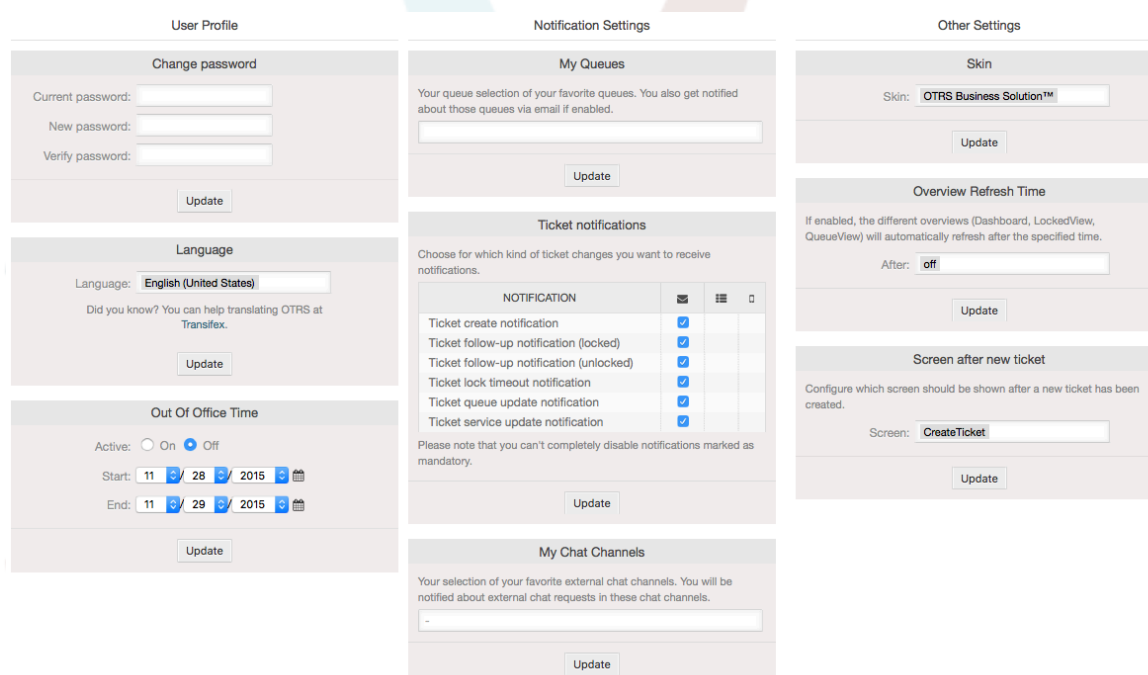
- Angaza Umri 1: Inaseti umri katika dakika (ngazi ya kwanza) kwa ajili ya kuangaza foleni zenye tiketi ambazo hazijaguswa. Imeonekana juu kwenye foleni "Mbichi" .
- Angaza Umri 2: Inaseti umri katika dakika (ngazi ya pili) kwa ajili ya kuangaza foleni zenye tiketi ambazo hazijaguswa. Imeonekana juu katika foleni ya "Mkuu wa posta".

- Konyeza: Ina amilisha utaratibu wa kukonyeza wa foleni ambayo ina tiketi ya zamani kuzidi zote. Haina msaada kwa vivinjari vyote. Kwa hali hii itaonekana nyekundu, kama inavyoonekana juu katika foneni "Taka".
- Kwa herufi nzito: Foleni ya sasa itakuwa na herufi nzito, kama inavyoonekana juu kwenye "Foleni Zangu".

## 9. User Preferences

OTRS users such as customers, agents and the OTRS administrator can configure their account preferences as per their needs. Agent can access the configuration screen by clicking on the gear icon at the top of the web interface (see figure below), and customers must click on the "Preferences" link (see figure below).

**Figure 3.12. Agent's personal preferences**



The screenshot shows the 'Agent's personal preferences' configuration page, organized into three main sections:

- User Profile:**
  - Change password:** Fields for 'Current password', 'New password', and 'Verify password', with an 'Update' button.
  - Language:** A dropdown menu set to 'English (United States)', with a note 'Did you know? You can help translating OTRS at Transifex.' and an 'Update' button.
  - Out Of Office Time:** Radio buttons for 'Active' (Off) and 'Inactive' (On). Date pickers for 'Start' (11/28/2015) and 'End' (11/29/2015), with an 'Update' button.
- Notification Settings:**
  - My Queues:** A text input field for queue selection and an 'Update' button.
  - Ticket notifications:** A table to select notification types.

NOTIFICATION	✉	📧	🔊
Ticket create notification	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ticket follow-up notification (locked)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ticket follow-up notification (unlocked)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ticket lock timeout notification	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ticket queue update notification	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ticket service update notification	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Please note that you can't completely disable notifications marked as mandatory.
  - My Chat Channels:** A text input field for chat channel selection and an 'Update' button.
- Other Settings:**
  - Skin:** A dropdown menu set to 'OTRS Business Solution™' and an 'Update' button.
  - Overview Refresh Time:** A text input field set to 'off' and an 'Update' button.
  - Screen after new ticket:** A text input field set to 'CreateTicket' and an 'Update' button.

An agent can configure 3 different categories of preferences: user profile, email settings, and other settings. The default possibilities are:

### Umbo wa Mtumiaji

- Badili nywila ya sasa.
- Rekebisha lugha ya kiolesura.
- Amilisha na kusanidi muda wa nje ya ofisi.
- Hamisha mandhari ya mazingira ya mbele.

### Notification Settings

- Chagua foleni unazotaka kufuatilia katika "Foleni Zangu".
- Select the services you want to monitor in "My Services".
- Configure which ticket notifications you want to receive (per transport method).

## Mipangilio mingine

- Badili gamba la mazingira ya mbele.
- Set the refresh period for the overviews (Dashboard, Queue View, etc.).
- Seti skrini ya kuonyeshwa baada ya tiketi kutengenezwa.

**Figure 3.13. Customer's personal preferences**

### Example Company

Tickets

#### Interface language

Language

#### Ticket overview

Refresh interval

#### Number of displayed tickets

Tickets per page

#### Change password

Current password

New password

Verify password

Mteja anaweza kuchagua lugha ya kiolesura cha tovuti, kuseti muda wa kuonesha upya mapitio ya tiketi, na kuchagua kikomo cha idadi ya tiketi zinazoonyeshwa. Pia inawezekana kuseti nywila mpya.

# Chapter 4. Utawala

## 1. The Administration Area of OTRS

### 1.1. Misingi

Mipangilio ifuatayo ya usanidi wa mfumo inapatikana kwa wasimamizi wa OTRS kwa ku-fikia kurasa ya Msimamizi ya kiolesura cha tovuti cha OTRS - kuongeza mawakala, wateja na foleni, tiketi na mipangilio ya barua, kusakinisha vifurushi vya ziada kama FAQ na ITSM na nyingine nyingi.

Agents who are members of the *admin* group can access the Admin area by clicking the *Admin* link in the navigation bar (see figure below). Agents without sufficiently elevated access rights will not be able to access this link.

**Figure 4.1. OTRS Administration Overview Screen**

<b>Agent Management</b> <b>Agents</b> Create and manage agents. <b>Agents &lt;-&gt; Groups</b> Link agents to groups. <b>Agents &lt;-&gt; Roles</b> Link agents to roles. <b>Groups</b> Create and manage groups. <b>Roles</b> Create and manage roles. <b>Roles &lt;-&gt; Groups</b> Link roles to groups.	<b>Customer Management</b> <b>Customer User</b> Create and manage customer users. <b>Customer User &lt;-&gt; Groups</b> Link customer user to groups. <b>Customers</b> Create and manage customers. <b>Customer User &lt;-&gt; Services</b> Link customer user to services.	<b>Email Settings</b> <b>PostMaster Mail Accounts</b> Manage POP3 or IMAP accounts to fetch email from. <b>PostMaster Filters</b> Filter incoming emails. <b>Email Addresses</b> Set sender email addresses for this system. <b>S/MIME Certificates</b> Manage S/MIME certificates for email encryption. <b>PGP Keys</b> Manage PGP keys for email encryption.
<b>Queue Settings</b> <b>Queues</b> Create and manage queues. <b>Templates &lt;-&gt; Queues</b> Link templates to queues. <b>Auto Responses &lt;-&gt; Queues</b> Link queues to auto responses. <b>Attachments &lt;-&gt; Templates</b> Link attachments to templates. <b>Signatures</b> Create and manage signatures. <b>Templates</b> Create and manage templates. <b>Auto Responses</b> Create and manage responses that are automatically sent. <b>Attachments</b> Create and manage attachments. <b>Salutations</b> Create and manage salutations.	<b>Ticket Settings</b> <b>Ticket Notifications</b> Create and manage ticket notifications. <b>Access Control Lists (ACL)</b> Configure and manage ACLs. <b>Priorities</b> Create and manage ticket priorities. <b>Dynamic Fields</b> Create and manage dynamic fields. <b>Types</b> Create and manage ticket types. <b>States</b> Create and manage ticket states. <b>Services</b> Create and manage services. <b>Service Level Agreements</b> Create and manage Service Level Agreements (SLAs).	<b>System Administration</b> <a href="#">Online Admin Manual</a> <b>GenericAgent</b> Manage tasks triggered by event or time based execution. <b>OTRS Business Solution™</b> Deploy and manage OTRS Business Solution™. <b>Cloud Services</b> Manage OTRS Group cloud services. <b>Session Management</b> Manage existing sessions. <b>Performance Log</b> View performance benchmark results. <b>SQL Box</b> Execute SQL statements. <b>SysConfig</b> Edit the system configuration settings. <b>Package Manager</b> Update and extend your system with software packages. <b>System Registration</b> Manage system registration. <b>Support Data Collector</b> Manage support data. <b>Admin Notification</b> Send notifications to users. <b>System Maintenance</b> Schedule a maintenance period. <b>System Log</b> View system log messages. <b>Process Management</b> Configure Processes. <b>Web Services</b> Create and manage web services. <b>Chat Channel</b> Create and manage chat channels.

### 1.2. Mawakala, Makundi na Majukumu

#### 1.2.1. Mawakala

By clicking the link *Agents*, you get access to the agent management screen of OTRS (see figure below). Administrators can add, change or deactivate agent accounts. Furthermore they can also manage agent preferences, including the language and notification settings for the individual agent's interface.

#### Note

Akaunti ya wakala wa OTRS inaweza kulemazwa lakini sio kufutwa. Kulemaza ku-nafanywa kwa kuseti alma ya Halali kuwa *batili* au *batili-kwa muda*.

## Figure 4.2. Usimamizi wa wakala

**Agent Management**

Actions

Wildcards like "\*" are allowed.

Hint

Agents will be needed to handle tickets.  
 Attention: Don't forget to add a new agent to groups and/or roles!

USERNAME	NAME	EMAIL	LAST LOGIN	VALIDITY	CHANGED	CREATED
carlos.garcia	Carlos Garcia	carlos.garcia@mycompany...	11/26/2015 12:10	valid	11/25/2015 13:25	11/25/2015 13:25
carlos.rodriguez	Carlos Rodriguez	carlos.rodriguez@mycomp...		valid	11/25/2015 13:25	11/25/2015 13:25
dennis.schmelter	Dennis Schmelter	dennis.schmelter@mycomp...		valid	11/25/2015 13:25	11/25/2015 13:25
dominik.klein	Dominik Klein	dominik.klein@mycompany...		valid	11/25/2015 13:25	11/25/2015 13:25
jan.steinweg	Jan Steinweg	jan.steinweg@mycompany.com		valid	11/25/2015 13:25	11/25/2015 13:25
jens.pfeifer	Jens Pfeifer	jens.pfeifer@mycompany.com		valid	11/25/2015 13:25	11/25/2015 13:25
manuel.hecht	Manuel Hecht	manuel.hecht@mycompany.com		valid	11/25/2015 13:25	11/25/2015 13:25
marc.bonsels	Marc Bonsels	marc.bonsels@mycompany.com		valid	11/25/2015 13:25	11/25/2015 13:25
marco.buchholz	Marco Buchholz	marco.buchholz@mycompany...		valid	11/25/2015 13:25	11/25/2015 13:25
martin.gruner	Martin Gruner	martin.gruner@mycompany...		valid	11/25/2015 13:25	11/25/2015 13:25
oliver.rottges	Oliver Rottges	oliver.rottges@mycompan...		valid	11/25/2015 13:25	11/25/2015 13:25
patrick.brischler	Patrick Brischler	patrick.brischler@mycom...		valid	11/25/2015 13:25	11/25/2015 13:25
root@localhost	Admin OTRS	root@localhost	11/26/2015 11:58	valid	11/25/2015 13:25	11/25/2015 13:25
udo.bretz	Udo Bretz	udo.bretz@mycompany.com		valid	11/25/2015 13:25	11/25/2015 13:25

Kusajili wakala, bofya kwenye kitufe cha "Ongeza wakala", ingiza data inayotakiwa na bonyeza kitufe cha Wasilisha upande wa chini wa skrini, kama ilivyoonyeshwa kwenye Kielelezo.

## Figure 4.3. Adding a new agent

**Agent Management**

Actions

Hint

Agents will be needed to handle tickets.  
 Attention: Don't forget to add a new agent to groups and/or roles!

**Add Agent**

Title:

★ Firstname:

★ Lastname:

★ Username:

Password:

Will be auto-generated if left empty.

★ Email:

Mobile:

Validity:

Google Authenticator:

Enter your shared secret to enable two factor authentication.

Language:

Language

Out Of Office Time:  On  Off

Start:   /

End:   /

Skin:

Baada ya akaunti mpya ya wakala kutengenezwa, unatakiwa kumfanya wakala mwanachama wa kundi moja au zaidi au majukumu. Taarifa kuhusu majukumu au makundi zinapatikana katika vifunguMakundi na Majukumu vya sura hii.

### 1.2.2. Makundi

Every agent's account should belong to at least one group or role. In a brand new installation, there are three pre-defined groups available, as shown in Table 4-1.

**Table 4.1. Makundi chaguo-msingi yanayopatikana katika usakinishaji mpya wa OTRS**

Kundi	Maelezo
msimaizi	Ruhusa ya kufanya kazi za usimamizi wa mfumo.



Kundi	Maelezo
takwimu	Fuzu kufikia kwenye moduli ya takwimu ya OTRS na kutengeneza takwimu.
watumiaji	Mawakala wapo kwenye hili kundi, wakiwa na ruhusa za kusoma na kuandika. Wanaweza kufikia programu-tumizi zote za mfumo wa tiketi.

## Note

In a brand new OTRS installation, the agent 'root@localhost' belongs by default to the admin, stats and users groups.

You can access the group management page (see figure below) by clicking the *Groups* link in the admin area.

### Figure 4.4. Usimamizi wa kundi

**Group Management**

**Actions**

+ Add group

---

**Hint**

The admin group is to get in the admin area and the stats group to get stats area.  
 Create new groups to handle access permissions for different groups of agent (e. g. purchasing department, support department, sales department, ...).  
 It's useful for ASP solutions.

**List**

NAME	COMMENT	VALIDITY	CHANGED	CREATED
admin	Group of all administrators.	valid	11/19/2015 13:25	11/19/2015 13:25
stats	Group for statistics access.	valid	11/19/2015 13:25	11/19/2015 13:25
users	Group for default access.	valid	11/19/2015 13:25	11/19/2015 13:25

## Note

Kama ilivyo kwa mawakala, kundi la OTRS linaweza kulemazwa lakini si kufutwa. Kulemazwa kunafanywa kwa kuseti alama Halali kuwa *batili* au *batili-kwa muda*.

To add an agent to a group, or to change the agents who belong to a group, you can use the link *Agents* <-> *Groups* from the Admin page (see figure below).

### Figure 4.5. Agent <-> group management

**Manage Agent-Group Relations**

**Actions**

+ Add agent

+ Add group

---

**Filter for Agents**

Just start typing to filter...

---

**Filter for Groups**

Just start typing to filter...

**Overview**

**AGENTS**

- carlos.garcia (Carlos Garcia)
- carlos.rodriguez (Carlos Rodríguez)
- dennis.schmelter (Dennis Schmelter)
- dominik.klein (Dominik Klein)
- jan.steinweg (Jan Steinweg)
- jens.pfeifer (Jens Pfeifer)
- manuel.hecht (Manuel Hecht)
- marc.bonsels (Marc Bonsels)
- marco.buchholz (Marco Buchholz)
- martin.gruner (Martin Gruner)
- oliver.rottges (Oliver Rottges)
- patrick.brischler (Patrick Brischler)
- udo.bretz (Udo Bretz)

**GROUPS**

- admin
- stats
- users

An overview of all groups and agents in the system is displayed on this page. You can also use the available filters to find a specific entity. If you want to change the groups that an agent is a member of, just click on the agent's name (see figure below). To change the agents associated with a group, just click on the group you want to edit (see figure below).

### Figure 4.6. Change the groups an agent belongs to

**Manage Agent-Group Relations**

Actions

Filter

Change Group Relations for Agent Dominik Klein (dominik.klein)

GROUP	<input type="checkbox"/> CHAT_OBSERVER	<input type="checkbox"/> CHAT_PARTICIPANT	<input type="checkbox"/> CHAT_OWNER	<input type="checkbox"/> RO	<input type="checkbox"/> MOVE_INTO	<input type="checkbox"/> CREATE	<input type="checkbox"/> NOTE	<input type="checkbox"/> OWNER
admin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
stats	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

or

Reference

**ro**  
Read only access to the ticket in this group/queue.

**move\_into**  
Permissions to move tickets into this group/queue.

**create**  
Permissions to create tickets in this group/queue.

**note**  
Permissions to add notes to tickets in this group/queue.

**owner**  
Permissions to change the owner of tickets in this group/queue.

**priority**  
Permissions to change the ticket priority in this group/queue.

**rw**  
Full read and write access to the tickets in this group/queue.

### Figure 4.7. Change the agents that belong to a specific group

**Manage Agent-Group Relations**

Actions

Filter

Change Agent Relations for Group users

AGENT	<input type="checkbox"/> CHAT_OBSERVER	<input type="checkbox"/> CHAT_PARTICIPANT	<input type="checkbox"/> CHAT_OWNER	<input type="checkbox"/> RO	<input type="checkbox"/> MOVE_INTO	<input type="checkbox"/> CREATE	<input type="checkbox"/> NOTE	<input type="checkbox"/> OWNER	<input type="checkbox"/> PRIORITY	<input type="checkbox"/> RW
carlos.garcia (Carlos Garcia)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
carlos.rodriguez (Carlos Rodriguez)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
dennis.schmelter (Dennis Schmelter)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
dominik.klein (Dominik Klein)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
jan.steinweg (Jan Steinweg)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
jens.pfeifer (Jens Pfeifer)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
manuel.hecht (Manuel Hecht)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
marc.bonsels (Marc Bonsels)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
marco.buchholz (Marco Buchholz)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
martin.gruner (Martin Gruner)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
oliver.rottges (Oliver Rottges)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
patrick.brischler (Patrick Brischler)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
roots@localhost (Admin OTRS)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
udo.bretz (Udo Bretz)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

or

Each group has a set of rights associated with it, and each group member (agent) may have some combination of these rights for themselves. A list of the permissions / rights is shown in Table 4-2.

### Table 4.2. Rights associated with OTRS groups

Haki	Maelezo
chat_observer	Agents may take part silently in a chat (available in OTRS Business Solution™).
chat_participant	Agents may normally participate in a chat (available in OTRS Business Solution™).
chat_owner	Agents have full rights for a chat and can accept chat requests (available in OTRS Business Solution™).
ro	Uwezo wa kusoma tiketi, maingizo na foleni tu kwa hili kundi.

Haki	Maelezo
hamia kwenye	Haki ya kuhamisha tiketi au maingizo katikati ya foleni au maeneo yaliyo kwenye hili kundi.
tengeneza	Haki ya kutengeneza tiketi au maingizo kwenye foleni au maeneo ya hili kundi.
note	Right to add notes to tickets or entries in the queues or areas of this group.
mmiliki	Haki za kusasisha mmiliki wa tiketi au maingizo katika foleni au maeneo ambayo yapo kwenye hili kundi.
kipaumbele	Haki ya kubadilisha kipaumbele cha tiketi au maingizo au maeneo yaliyo kwenye hili kundi.
soma andikka	Haki kamili ya kusoma na kuandika kwa tiketi au maingizo ya foleni au maeneo yaliyopo kwenye hili kundi.

## Note

Kwa chaguo-msingi, MuonekanoWaFoleni unaorodhesha tiketi katika foleni pale wakala ana ufikivu wa *kusoma na kuandika*, ikimaanisha tiketi ambazo wakala anahitaji kuzifanyia kazi. Ukitaka kubadilisha hii tabia, unaweza kuseti Tiketi::Mazingirayambe::WakalaTiketiFoleni###OnaTiketiZoteZinazowezezana kwa *Ndiyo*.

Sio ruhusa zote zinazopatikana zinaonyeshwa kwa chaguo-msingi. Hizi ruhusa za ziada zinaweza kuongezwa.

**Table 4.3. Makundi ya ruhusa ya ziada**

Haki	Maelezo
takwimu	Kupewa ruhusa ya kurasa ya takwimu.
dunda	Haki ya kudundisha ujumbe wa barua pepe (na kitufe cha kudunda katika Kuzatiketi).
tunga	Haki ya ku tunga jibu la tiketi.
mteja	Haki ya kubadilisha mteja wa tiketi.
tuma mbele	Haki ya kutuma mbele meseseji (kwa kitufe cha kutuma mbele).
inasubiri	Haki ya kuseti tiketi isubirie.
simu	Haki ya kuongeza kupiga simu kwa tiketi.
wajibika	Haki ya kubadilisha wakala anayewajibika kwa tiketi.

## Note

Hizi ruhusa zinaweza kuongezwa kwa kubadilisha Mfumo::Ruhusa

### 1.2.3. Jukumu

Majukumu ni kiengele chenye nguvu cha kusimamia haki za ufikivu za mawakala wengi katika njia rahisi na ya haraka. Zina manufaa zaidi kwa mifumo mikubwa na changamano yenye mawakala wengi, makundi na foleni. Mfano chini unaelezea wakati gani zitumike.

Tuseme una mfumo wenye mawakala 100, 90 kati yao na wana ufikivu kwenye foleni moja itwayo "msaada" ambapo maombi yote ya msaada yanashughulikiwa. Foleni "msaada" ina foleni ndogo nyingi ndani yake. Mawakala wengine 10 wana ruhusa ya kufikia foleni zote za mfumo. Hawa mawakala 10 wanatoa tiketi, wanaangalia foleni mbichi na kuhamisha ujumbe taka kwenda kwenye foleni "taka".

Kampuni sasa inafungua idara mpya inayouza bidhaa. Maombi na mapokezi ya oda, uthibitishaji wa oda, bili, na kadh. lazima zichakatishwe, na baadhi ya mawakala wa kampuni wanatakiwa kufanya hivi kwa kutumia OTRS. Mawakala tofauti wanatakiwa waweze kufikia kwenye foleni mpya ambazo lazima zitengenezwe.

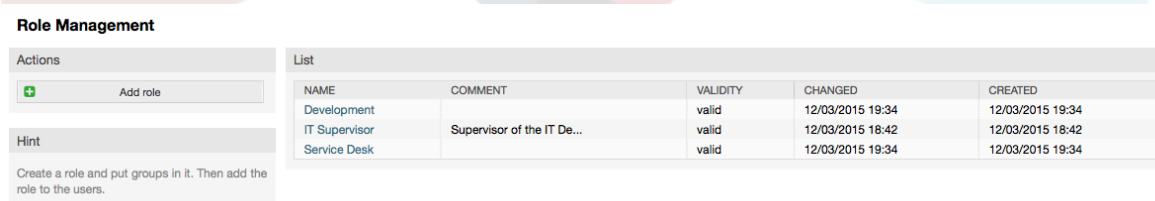
Kwa sababu itatumia muda mwingi kubadilisha haki za ufikivu za kila wakala mmoja kwa mikono, majukumu ambayo yanafanua ngazi tofauti za ufikivu yanaweza kutengenezwa. Kisha mawakala wanaweza kuongezwa kwenye jukumu moja au zaidi, na haki zao za ufikivu zitabadilika kiotomatiki. Kama akaunti mpya ya wakala itatengenezwa, pia inawezekana kuongeza akaunti hii kwa jukumu moja au zaidi.

## Note

Majukumu ni muhimu ukihusika na mashirika makubwa na ukisimamia usakinishaji mkubwa wa OTRS. Umakini mkubwa unashauriwa. Kuchanganya miunganiko ya Wakala kwa Kundi na Wakala kwa Jukumu unaweza kutengeneza mpango mgumu wa kudhibiti ufikivu, ambao ni mgumu kuelewa na kudumisha. Kama ukiamua kutumia majukumu tu na kulemaza Mawakala <-> chaguo la Makundi kwenye eneo la Msimamizi, unaweza kufanya hiyo kwa kurekebisha Mazingira ya mbele::Moduli###MsimamiziMtumiajiKundi katika SysConfig. Fahamu hii haitaondoa kazi zilizopo za Mawakala kwa Makundi!

You can access the role management section (see figure below) by clicking the *Roles* link on the Admin page.

**Figure 4.8. Usimamizi wa jukumu**



**Role Management**

Actions

Hint

Create a role and put groups in it. Then add the role to the users.

NAME	COMMENT	VALIDITY	CHANGED	CREATED
Development		valid	12/03/2015 19:34	12/03/2015 19:34
IT Supervisor	Supervisor of the IT De...	valid	12/03/2015 18:42	12/03/2015 18:42
Service Desk		valid	12/03/2015 19:34	12/03/2015 19:34

## Note

Kama ilivyo kwa wakala na makundi, majukumu yakishatengenezwa yanaweza kulemazwa na si kufutwa. Kulemaza, seti chaguo Halali kuwa *batili* au *batili-kwa muda*.

An overview of all roles in the system is displayed. To edit a role's settings, click on the role's name. In a fresh new OTRS installation, there are no roles defined by default. To register one, click on the "Add role" button, provide the needed data and submit it (see figure below).

## Figure 4.9. Adding a new role

**Role Management**

Actions  
 Go to overview

Hint  
 Create a role and put groups in it. Then add the role to the users.

Add Role

★ Name: IT Supervisor  
 Validity: valid  
 Comment: Supervisor of the IT Department

Submit or Cancel

To get an overview of all roles and agents in the system, click on the link Roles <-> Agents on the Admin page. You can also use filters to find a specific element. If you want to change the roles associated with an agent, just click on the agent's name (see figure below). To change the agents associated with a role, click on the role you want to edit (see figure below).

## Figure 4.10. Change the roles associated with an agent

**Manage Role-Agent Relations**

Actions  
 Go to overview

Filter  
 Just start typing to filter...

Change Role Relations for Agent Jan Steinweg (jan.steinweg)

ROLE	ACTIVE
Development	<input checked="" type="checkbox"/>
IT Supervisor	<input type="checkbox"/>
Service Desk	<input type="checkbox"/>

Submit or Cancel

## Figure 4.11. Change the agents associated with a specific role

**Manage Role-Agent Relations**

Actions  
 Go to overview

Filter  
 Just start typing to filter...

Change Agent Relations for Role Development

AGENT	ACTIVE
carlos.garcia (Carlos Garcia)	<input checked="" type="checkbox"/>
carlos.rodriguez (Carlos Rodríguez)	<input checked="" type="checkbox"/>
dennis.schmelter (Dennis Schmelter)	<input checked="" type="checkbox"/>
dominik.klein (Dominik Klein)	<input checked="" type="checkbox"/>
jan.steinweg (Jan Steinweg)	<input checked="" type="checkbox"/>
jens.pfeifer (Jens Pfeifer)	<input checked="" type="checkbox"/>
manuel.hecht (Manuel Hecht)	<input checked="" type="checkbox"/>
marc.bonsels (Marc Bonsels)	<input checked="" type="checkbox"/>
marco.buchholz (Marco Buchholz)	<input checked="" type="checkbox"/>
martin.gruner (Martin Gruner)	<input checked="" type="checkbox"/>
oliver.rottges (Oliver Rottges)	<input checked="" type="checkbox"/>
patrick.brischler (Patrick Brischler)	<input checked="" type="checkbox"/>
udo.bretz (Udo Bretz)	<input checked="" type="checkbox"/>

Submit or Cancel

Kupata mapitio ya majukumu yote na makundi kwenye mfumo, bofya kwenye Majukumu <-> Makundi kwenye ukurasa wa Msimamizi. Utaona skrini inayofanana na iliyoonyeshwa kwenye Kielelezo. Unaweza pia kutumia vichujio kutafuta chombo fulani.

## Figure 4.12. Manage roles-groups relations

**Manage Role-Group Relations**

Filter for Roles  
 Just start typing to filter...

Filter for Groups  
 Just start typing to filter...

Overview

ROLES	GROUPS
Development	admin
IT Supervisor	stats
Service Desk	users

To define the different access rights for a role, click on the name of a role or a group (see below the Figures 4.13 and 4.14, respectively).

### Figure 4.13. Change group relations for a role

**Manage Role-Group Relations**

Change Group Relations for Role Service Desk

GROUP	<input type="checkbox"/> CHAT_OBSERVER	<input type="checkbox"/> CHAT_PARTICIPANT	<input type="checkbox"/> CHAT_OWNER	<input type="checkbox"/> RO	<input type="checkbox"/> MOVE_INTO	<input type="checkbox"/> CREATE	<input type="checkbox"/> NOTE	<input type="checkbox"/> OWNER	<input type="checkbox"/> PRIORITY
admin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
stats	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

or

**Reference**

**ro**  
Read only access to the ticket in this group/queue.

**move\_into**  
Permissions to move tickets into this group/queue.

**create**  
Permissions to create tickets in this group/queue.

**note**  
Permissions to add notes to tickets in this group/queue.

**owner**  
Permissions to change the owner of tickets in this group/queue.

**priority**  
Permissions to change the ticket priority in this group/queue.

**rw**  
Full read and write access to the tickets in this group/queue.

### Figure 4.14. Change role relations for a group

**Manage Role-Group Relations**

Change Role Relations for Group stats

ROLE	<input type="checkbox"/> CHAT_OBSERVER	<input type="checkbox"/> CHAT_PARTICIPANT	<input type="checkbox"/> CHAT_OWNER	<input type="checkbox"/> RO	<input type="checkbox"/> MOVE_INTO	<input type="checkbox"/> CREATE	<input type="checkbox"/> NOTE	<input type="checkbox"/> OWNER	<input type="checkbox"/> PRIORITY
Development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IT Supervisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Service Desk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

or

**Reference**

**ro**  
Read only access to the ticket in this group/queue.

**move\_into**  
Permissions to move tickets into this group/queue.

**create**  
Permissions to create tickets in this group/queue.

**note**  
Permissions to add notes to tickets in this group/queue.

**owner**  
Permissions to change the owner of tickets in this group/queue.

**priority**  
Permissions to change the ticket priority in this group/queue.

**rw**  
Full read and write access to the tickets in this group/queue.

## 1.3. Wateja na Makundi ya Wateja

### 1.3.1. Wateja

OTRS supports different types of users. Using the link "Customers" (via the navigation bar, or the Admin page), you can manage the accounts of your customers (see figure below), who can log into the system via the Customers interface (customer.pl). Through this interface, your customers can not only create tickets but also review their past tickets for new updates. It is important to know that a customer is needed for the ticket history in the system.

## Figure 4.15. Usimamizi wa Mteja

**Customer User Management**

Actions

Wildcards like "\*" are allowed.

Q

Hint

Customer user are needed to have a customer history and to login via customer panel.

List

USERNAME	NAME	EMAIL	CUSTOMERID	LAST LOGIN	VALIDITY
han.solo	Mr. Han Solo	han.solo@testcustomer.com	SWVII		valid
kylo.ren	Mr. Kylo Ren	kylo.ren@testcustomer.com	SWVII		valid
luke.skywalker	Mr. Luke Skywalker	luke.skywalker@testcustomer.com	SWVII		valid
poe.dameron	Mr. Poe Dameron	poe.dameron@testcustomer.com	SWVII		valid

Unaweza kutafuta mteja aliyesajiliwa, au kuhariri miangilio yake kwa kubofya jina lake. Pia una uwezo wa kubadilisha mazingira ya nyuma ya mteja, kwa maelezo zaidi tafadhali rejea kwenye sura kuhusu mazingira ya nyuma ya nje.

To create a new customer account, click on the "Add customer" button (see figure below). Some of the fields are mandatory, i.e., they have to contain values, so if you leave one of those empty, it will be highlighted in red.

## Figure 4.16. Adding a customer

**Customer User Management**

Actions

Hint

Customer user are needed to have a customer history and to login via customer panel.

Add Customer User

Title:

★ Firstname:

★ Lastname:

★ Username:

Password:

★ Email:

★ CustomerID:

Phone:

Fax:

Mobile:

Street:

Zip:

City:

Country:

Comment:

★ Valid:

Interface language:

Wateja wanaweza kufikia mfumo kwa kutoa jina la mtumiaji na nywila. Kitambulisho cha Mteja kinahitajika na mfumo kutambua mtumiaji na tiketi zinazohusika. Kwa kuwa anwani ya barua pepe ni ya kipekee, inaweza kutumika kama kitambulisho.

### Note

Kama ilivyo kwa mawakala, makundi na majukumu, wateja hawawezi kufutwa kwenye mfumo, wanaweza kulemazwa kwa kuseti chaguo Halali kuwa *batili* au *batili-kwa muda*.

### 1.3.2. Makundi ya Wateja

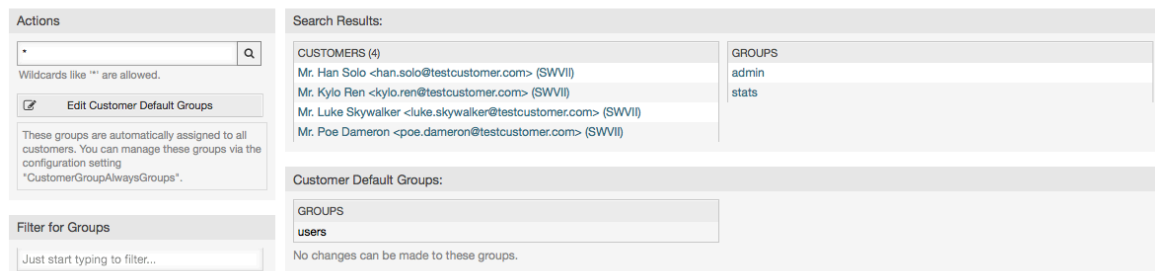
Wateja watumiaji wanaweza pia kuongezwa kwenye kundi, ambayo itakuwa na manufaa kama ukitaka kuongeza wateja wa kampuni moja wenye ufikivu kwa foleni moja au zaidi. Kwanza tengeneza kundi ambalo wateja wako watakuwa wanachama, kupitia Moduli ya kusimamia kundi. Kisha ongeza foleni na chagua kundi jipya la foleni.

Hatua inayofwata ni kuamilisha msaada wa kundi la mteja. Hii inaweza kufanywa na parameta ya usanidi MsaadaKundiLaMteja, kutoka kwenye chaguo la Msimamizi la SysConfig. Kutumia parameta MtejaKundiDaimaMakundi, unaweza kubainisha makundi chaguo-msingi kwa mteja mpya aliyeongezwa, ili kila akaunti mpya iongezwe kiotomatiki kwenye haya makundi.

Through the link "Customers <-> Groups" you can manage which customer shall belong to the different groups (see figure below).

## Figure 4.17. Customer-Group relations management

### Manage Customer-Group Relations



**Actions**

Wildcards like "\*" are allowed.

[Edit Customer Default Groups](#)

These groups are automatically assigned to all customers. You can manage these groups via the configuration setting "CustomerGroupAlwaysGroups".

**Filter for Groups**

Just start typing to filter...

**Search Results:**

**CUSTOMERS (4)**

Mr. Han Solo <han.solo@testcustomer.com> (SWVII)
Mr. Kylo Ren <kylo.ren@testcustomer.com> (SWVII)
Mr. Luke Skywalker <luke.skywalker@testcustomer.com> (SWVII)
Mr. Poe Dameron <poe.dameron@testcustomer.com> (SWVII)

**GROUPS**

admin
stats

**Customer Default Groups:**

GROUPS

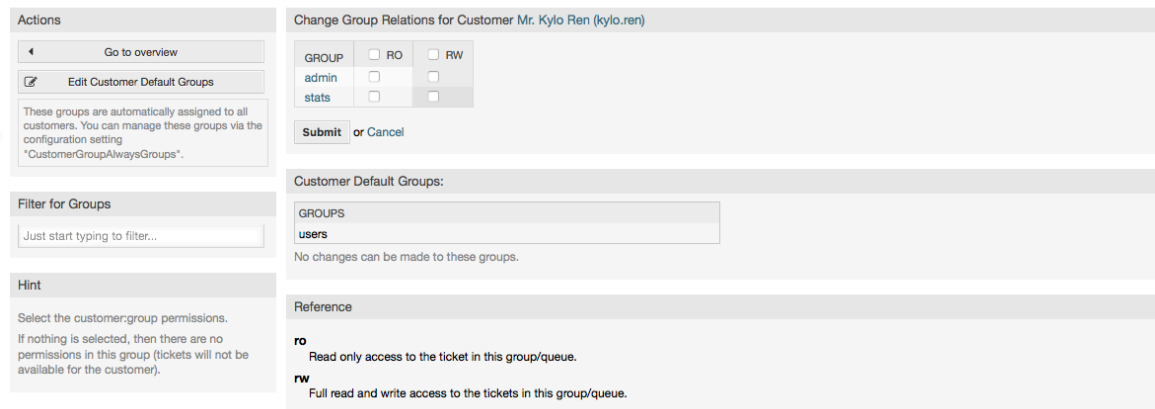
users
-------

No changes can be made to these groups.

To define the different groups a customer should be part of and vice versa, click on the corresponding customer username or group (see below the Figures 4.18 and 4.19, respectively).

## Figure 4.18. Badilisha mahusiano ya Makundi kwa Mteja

### Manage Customer-Group Relations



**Actions**

[Go to overview](#)

[Edit Customer Default Groups](#)

These groups are automatically assigned to all customers. You can manage these groups via the configuration setting "CustomerGroupAlwaysGroups".

**Filter for Groups**

Just start typing to filter...

**Hint**

Select the customer:group permissions.  
If nothing is selected, then there are no permissions in this group (tickets will not be available for the customer).

**Change Group Relations for Customer Mr. Kylo Ren (kylo.ren)**

GROUP	<input type="checkbox"/> RO	<input type="checkbox"/> RW
admin	<input type="checkbox"/>	<input type="checkbox"/>
stats	<input type="checkbox"/>	<input type="checkbox"/>

[Submit](#) or [Cancel](#)

**Customer Default Groups:**

GROUPS

users
-------

No changes can be made to these groups.

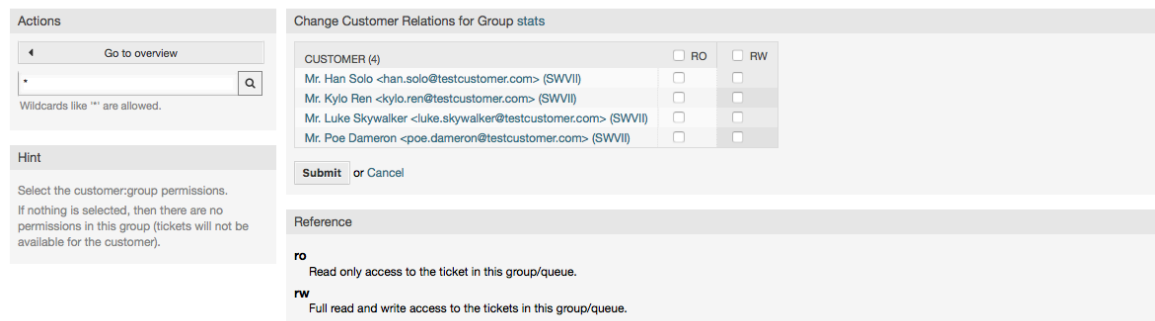
**Reference**

**ro** Read only access to the ticket in this group/queue.

**rw** Full read and write access to the tickets in this group/queue.

## Figure 4.19. Badilisha mahusiano ya Mteja kwa Kundi

### Manage Customer-Group Relations



**Actions**

[Go to overview](#)

Wildcards like "\*" are allowed.

**Hint**

Select the customer:group permissions.  
If nothing is selected, then there are no permissions in this group (tickets will not be available for the customer).

**Change Customer Relations for Group stats**

CUSTOMER (4)	<input type="checkbox"/> RO	<input type="checkbox"/> RW
Mr. Han Solo <han.solo@testcustomer.com> (SWVII)	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Kylo Ren <kylo.ren@testcustomer.com> (SWVII)	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Luke Skywalker <luke.skywalker@testcustomer.com> (SWVII)	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Poe Dameron <poe.dameron@testcustomer.com> (SWVII)	<input type="checkbox"/>	<input type="checkbox"/>

[Submit](#) or [Cancel](#)

**Reference**

**ro** Read only access to the ticket in this group/queue.

**rw** Full read and write access to the tickets in this group/queue.



## 1.4. Foleni

Clicking on the link "Queues" of the Admin page, you can manage the queues of your system (see figure below). In a new OTRS installation there are 4 default queues: Raw, Junk, Misc and Postmaster. All incoming messages will be stored in the "Raw" queue if no filter rules are defined. The "Junk" queue can be used to store spam messages.

**Figure 4.20. Usimamizi wa foleni**

**Manage Queues**

Actions		List					
<input type="button" value="Add queue"/>		NAME	GROUP	COMMENT	VALIDITY	CHANGED	CREATED
		Junk	users	All junk tickets.	valid	11/19/2015 13:25	11/19/2015 13:25
		Misc	users	All misc tickets.	valid	11/19/2015 13:25	11/19/2015 13:25
		Postmaster	users	Postmaster queue.	valid	11/19/2015 13:25	11/19/2015 13:25
		Raw	users	All default incoming ti...	valid	11/19/2015 13:25	11/19/2015 13:25

Here you can add queues (see figure below) and modify them. You can specify the group that should use the queue. You can also set the queue as a sub-queue of an existing queue.

**Figure 4.21. Adding a new queue**

**Manage Queues**

**Add Queue**

★ Name:   
 Sub-queue of:   
 ★ Group:   
 Unlock timeout minutes:   
0 = no unlock - 24 hours = 1440 minutes - Only business hours are counted.  
 If an agent locks a ticket and does not close it before the unlock timeout has passed, the ticket will unlock and will become available for other agents.  
 Escalation - first response time (minutes):  (Notify by )  
0 = no escalation - 24 hours = 1440 minutes - Only business hours are counted.  
 If there is not added a customer contact, either email-external or phone, to a new ticket before the time defined here expires, the ticket is escalated.  
 Escalation - update time (minutes):  (Notify by )  
0 = no escalation - 24 hours = 1440 minutes - Only business hours are counted.  
 If there is an article added, such as a follow-up via email or the customer portal, the escalation update time is reset. If there is no customer contact, either email-external or phone, added to a ticket before the time defined here expires, the ticket is escalated.  
 Escalation - solution time (minutes):  (Notify by )  
0 = no escalation - 24 hours = 1440 minutes - Only business hours are counted.  
 If the ticket is not set to closed before the time defined here expires, the ticket is escalated.  
 ★ Follow up Option:   
Specifies if follow up on closed tickets would re-open the ticket, be related or lead to a new ticket

Unaweza kufafanua muda wa mwisho wa kufungua foleni - kama wakala akifunga tiketi na hajaifunga kabla ya muda wa mwisho wa kufungua kuisha, tiketi itafunguliwa kiotomatiki na kufanywa ipatikane kwa mawakala wengine kuifanyia kazi.

Kuna mipamgilio ya muda wa kupanda mitatu inahusishwa katika ngazi ya foleni:

### Kupanda - Muda wa kwanza wa kujibu

- Baada ya utengenezaji wa tiketi, kama muda uliofafanuliwa hapa ukiisha bila ya mawasiliano na mteja, ama kwa simu au barua pepe, tiketi inapandishwa.

### Kupanda - Rekebisha Muda

- Kama kuna ufwatiliaji wa mteja aidha kwa barua pepe au mlango wa mteja, ambao unarekodiwa kwenye tiketi, usasishaji wa muda wa kupanda unasetiwa upya. Kama hakuna mawasiliano ya mteja kabla muda uliofafanuliwa hapa haujaisha, tiketi inapandishwa.

## Kupanda - Muda wa Suluhu

- Kama tiketi haitafungwa kabla ya muda uliofafanuliwa kuisha, tiketi inapandishwa.

Na 'Funga tiketi baada ya ufwatiliaji', unaweza kufafanua kama tiketi isetiwe kuwa 'imefungwa' kwa mtumiaji wa zamani kama tiketi imefungwa na baadaye kufunguliwa upya. Hii inahakikisha ufwatiliaji wa tiketi unachakatishwa na wakala ambaye alishughulikia tiketi mwanzoni.

Parameta ya anwani za mfumo inabainisha anwani za barua pepe ambazo zitatumika kwa ajili ya tiketi zinazotoka za foleni hii. Hakuna uwezekano wa kuhusisha foleni na salamu na saini, kwa majibu ya barua pepe. Kwa taarifa za undani zaidi, tafadhali tembelea vifungu anwani za barua pepe, salamu na saini.

### Note

Kama ilivyo kwa mawakala, makundi na wateja, foleni haziwezi kufutwa, zinalemazwa tu, kwa kuseti chaguo Halali kuwa *batili* au *batili-kwa muda*.

## 1.5. Salutations, Signatures, Attachments and Templates

### 1.5.1. Salamu

A salutation is a text module for a template. Salutations can be linked to one or more queues, as described in the section about queues. A salutation is used only if a ticket from a queue the salutation is linked to, is answered. To manage the different salutations of your system, use the "Salutations" link of the admin area (see figure below).

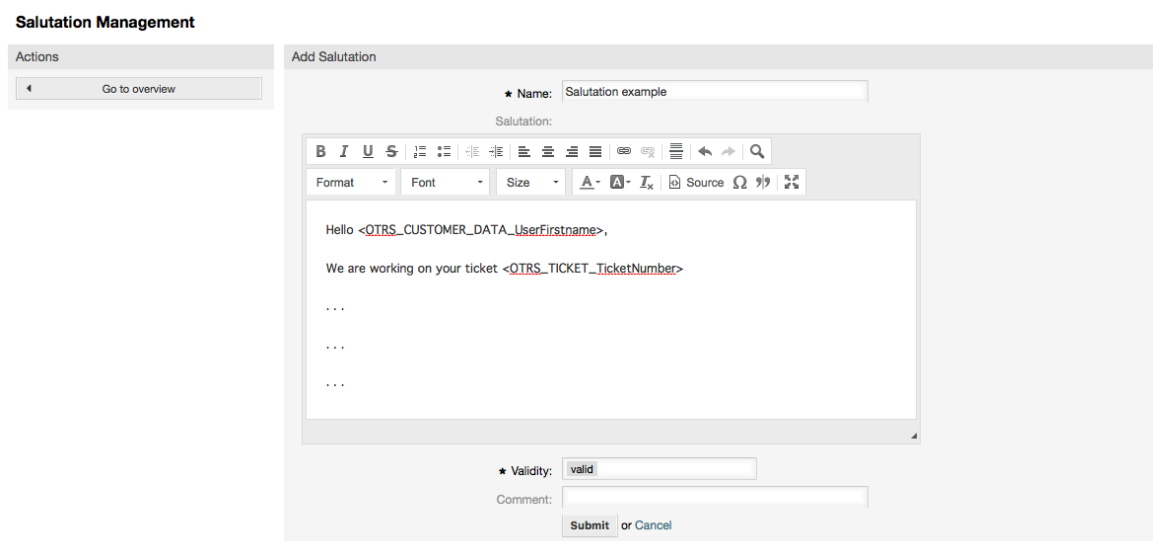
**Figure 4.22. Usimamizi wa Salamu**

Salutation Management		List				
Actions <input type="button" value="Add salutation"/>		NAME	COMMENT	VALIDITY	CHANGED	CREATED
		system standard salutation (en)	Standard Salutation.	valid	11/19/2015 13:25	11/19/2015 13:25

Baada ya usanikishaji wa kawaida tayari kuna salamu inapatikana, "salamu ya kawaida ya mfumo (en)".

To create a new salutation, press the button "Add salutation", provide the required data and submit it (see figure below).

**Figure 4.23. Adding a new salutation**



Inawezekana kutumia vishika nafasi katika salamu. Ukitoa majibu kwenye tiketi, majina ya vishika nafasi yatabadilishwa na thamani zake.

Vishika nafasi tofauti unavyoweza kutumia kwenye violezo vimeorodheshwa kwenye upande wa chini wa skrini ya salamu. Kama ukitumia kwa mfano, kishika nafasi <OTRS\_LAST\_NAME> jina la mwisho la mtumaji wa tiketi litajumuishwa kwenye majibu yako.

### Note

Kama ilivyo kwa vyombo vingine vya OTRS, salamu haziwezi kufutwa, zinalemazwa tu kwa kuseti chaguo Halali kuwa *batili* au *batili-kwa muda*.

## 1.5.2. Saini

Another text module for a template is the signature. Signatures can be linked to a queue, as described in the section about the queues. Please note that a signature will only be appended to a template text, if it has previously been linked to a queue. You can manage the signatures in your system by accessing the "Signatures" link of the Admin page, (see figure below).

**Figure 4.24. Signatures management**



Baada ya usanikishaji mpya wa OTRS, kuna saini iliyofafanuliwa tayari imewekwa kwenye mfumo, "saini ya kawaida ya mfumo (en)".

To create a new signature, press the button "Add signature", provide the needed data and submit it (see figure below).

**Figure 4.25. Adding a new signature**

**Signature Management**

Actions

Add Signature

★ Name:

Signature:

**B I U S** | **Font** | **Size** | **A** | **I<sub>x</sub>** | **Source** | **Ω** | **↻**

It is our pleasure to serve you.

Receive kind greetings,  
 <OTRS\_RESPONSIBLE\_UserFirstname> <OTRS\_RESPONSIBLE\_UserLastname>

★ Validity:

Comment:

or

Hint

Kama salamu, saini pia zinaweza kuwa na maudhui yanayobadilika, kama jina la kwanza na la mwisho la wakala anayejibu tiketi. Hapa pia vishika nafasi vinaweza kutumika kubadilisha maudhui ya nakala ya saini kwa kila tiketi. Ona sehemu ya chini ya skrini ya saini kwa vishika nafasi vinyoweza kutumika. Kama ukijumuisha kishika nafasi <OTRS\_LAST\_NAME> katika saini kwa mfano, jina la mwisho la wakala anayejibu tiketi-itabadilisha kishika nafasi

## Note

Kama ilivyo kwa salamu, saini pia haziwezi kufutwa, zinalemazwa tu kwa kuseti chaguo Halali kuwa *batili* au *batili-kwa muda*.

### 1.5.3. Viambatanisho

Unaweza kuongeza kiambatanisho kimoja au zaidi kwa kiolezo kwa hiari. Kama kiolezo kimechaguliwa, viambatanisho vita ambatanishwa kwenye dirisha la uundaji wa ujumbe. Kama kuna ulazima wakala anaweza kuondoa kiambatanisho kutoka kwenye kiolezo kabla ya kutuma kwenda kwa mteja.

Through the "Attachment" link of the Admin page, you can load the attachments into the database of the system (see figure below).

**Figure 4.26. Attachments management**

**Attachment Management**

Actions

List

NAME	FILENAME	COMMENT	VALIDITY	CHANGED	CREATED	DELETE
Sample One	mar.jpg		valid	12/03/2015 18:59	12/03/2015 18:59	<input type="button" value="🗑"/>
Sample Two	download.jpg		valid	12/03/2015 18:59	12/03/2015 18:59	<input type="button" value="🗑"/>

To create a new attachment, press the button "Add attachment", provide the required data and submit it (see figure below).

## Figure 4.27. Adding a new attachment

**Attachment Management**

Actions  
 Go to overview

Add Attachment

★ Name: Test1

★ Attachment: Browse... No file selected.

★ Validity: valid

Comment: Just an example

Submit or Cancel

If an attachment is stored it can be linked to one or more templates. Click on the "Attachment <-> Templates" link of the Admin page (see figure below).

## Figure 4.28. Kuunganisha Viambatanisho kwa Violezo

**Manage Templates <-> Attachments Relations**

Filter for Templates  
 Just start typing to filter...

Filter for Attachments  
 Just start typing to filter...

Overview

TEMPLATES	ATTACHMENTS
Answer - A new answer	Sample One ( mar.jpg )
Answer - empty answer	Sample Two ( download.jpg )
Answer - test answer	
Create - Create one	
Forward - Forward one	
Note - Note one	

To associate different attachments with a specific template and vice versa, click on the corresponding template name or attachment (see below the Figures 4.29 and 4.30, respectively).

## Figure 4.29. Badilisha mahusiano ya Kiambatanisho kwa Kiolezo

**Manage Templates <-> Attachments Relations**

Actions  
 Go to overview

Filter  
 Just start typing to filter...

Change Attachment Relations for Template Answer - empty answer

ATTACHMENT	ACTIVE
Sample One ( mar.jpg )	<input type="checkbox"/>
Sample Two ( download.jpg )	<input type="checkbox"/>

Submit or Cancel

## Figure 4.30. Badilisha mahusiano ya Kiolezo kwa Kiambatanisho

**Manage Templates <-> Attachments Relations**

Actions  
 Go to overview

Filter  
 Just start typing to filter...

Change Template Relations for Attachment Sample Two

TEMPLATE	ACTIVE
Answer - A new answer	<input type="checkbox"/>
Answer - empty answer	<input type="checkbox"/>
Answer - test answer	<input type="checkbox"/>
Create - Create one	<input type="checkbox"/>
Forward - Forward one	<input type="checkbox"/>
Note - Note one	<input type="checkbox"/>

Submit or Cancel

### 1.5.4. Violezo

Kuongeza kasi ya mchakato wa tiketi na kufanya muonekano wa majibu kuwa kawaida, unaweza kufananua violezo katika OTRS. Kiolezo kinaweza kuunganishwa na foleni moja au zaidi.

Kuna violezo tofauti vinavyotumika katika pande tofauti za OTRS na zina nia tofauti, ifwatayo ni orodha ya aina za violezo ziwazekano:

- Jibu: Kutumika kama jibu la tiketi
- Tengeneza: Kutumika katika simu au barua pepe mpya
- Tuma mbele: Kutumika kupeleka makala kwa mtu mwengine
- PigaSimu: Kutumika katika skrini ya simu zinazoingia na kutoka

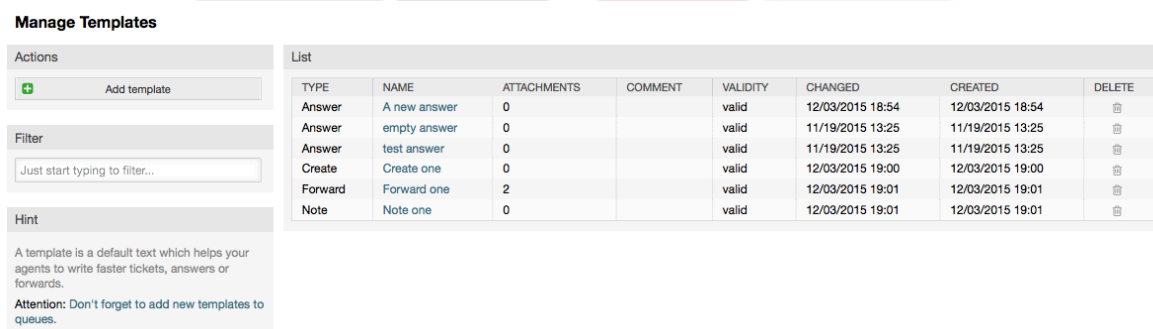
Violezo vya majibu vinapatikana kwa njia mbili, kutoka kwenye skrini ya kukuza tiketi kwenye menyu ya makala, au kwa njia ya haraka: kutoka kwenye skrini kubwa ya mapitio ya tiketi kama Muonekano wa Hali au Muonekano wa Tiketi. Kwa usanikishaji mpya wa OTRS, kiolezo(jibu) "jibu wazi" kina setiwa kama chaguo-msingi kwa kila foleni.

Mara tu violezo vilivyopeleka mbele kuongezwa na kuwekwa kwenye foleni, kitufe cha "Peleka mbele" katika kuza tiketi (ambayo mara nyingi inatupeleka kwenye skrini ya kupeleka mbele yanakala tupu) kitabadilika kuwa cha kudhibiti uchaguzi, uchaguzi unajazwa na violezo vilivyopeleka mbele vilivyoongezwa, kwa kuchagua moja ya violezo, skrini ya kupeleka mbele itaonyeshwa ikiwa imejazwa na nakala ya kiolezo na viambatanisho (sawa na kisanduku majibu cha uchaguzi na violezo vya Majibu).

Kutengeneza violezo vya aina Tengeneza na PigaSimu vitafanya boksi la uchaguzi la "Nakala Kiolezo" kuonekana katika skrini husika, kuchagua kiolezo kwa ajili ya orodha itajaza sehemu za "Nakala" na "Kiambatanisho" (kama zinapatikana kwenye kiolezo). Tambua kwamba mabadiliko yoyote ya kabla kwenye Nakala au kiambatanisho yataandikwa upya kwa kuchagua kiolezo.

Clicking the "Templates" link on the Admin page brings you to the Template management screen (see figure below).

**Figure 4.31. Template management**



**Manage Templates**

Actions

Filter

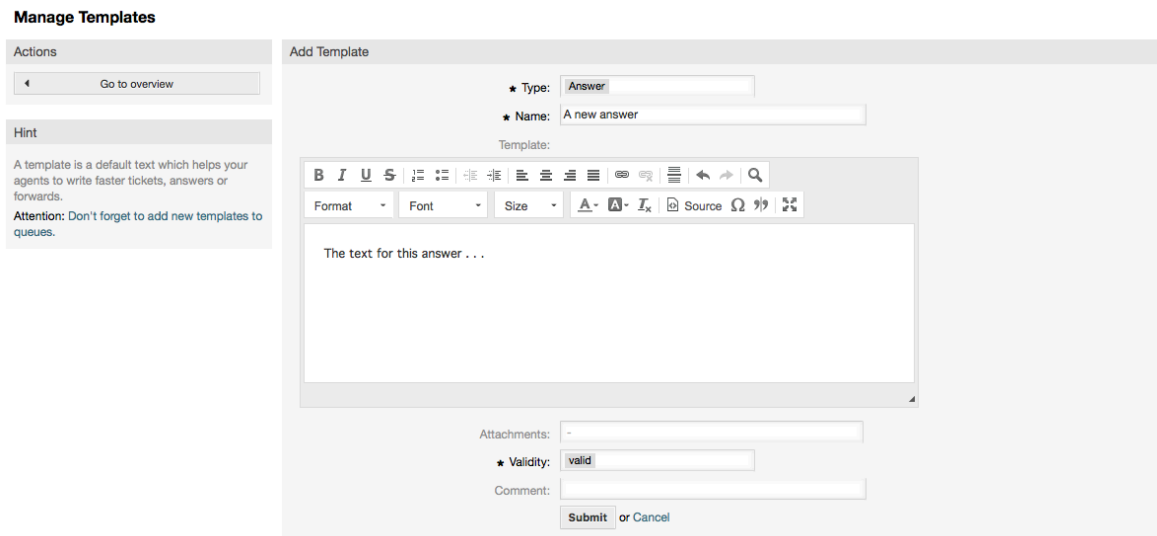
Hint

A template is a default text which helps your agents to write faster tickets, answers or forwards.  
**Attention:** Don't forget to add new templates to queues.

TYPE	NAME	ATTACHMENTS	COMMENT	VALIDITY	CHANGED	CREATED	DELETE
Answer	A new answer	0		valid	12/03/2015 18:54	12/03/2015 18:54	
Answer	empty answer	0		valid	11/19/2015 13:25	11/19/2015 13:25	
Answer	test answer	0		valid	11/19/2015 13:25	11/19/2015 13:25	
Create	Create one	0		valid	12/03/2015 19:00	12/03/2015 19:00	
Forward	Forward one	2		valid	12/03/2015 19:01	12/03/2015 19:01	
Note	Note one	0		valid	12/03/2015 19:01	12/03/2015 19:01	

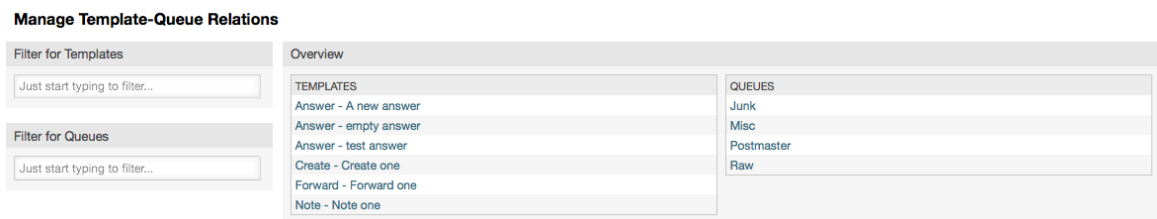
To create a new template, click on the "Add template" button, provide the required data (make sure to select the appropriate template type) and submit it (see figure below).

**Figure 4.32. Adding a template**



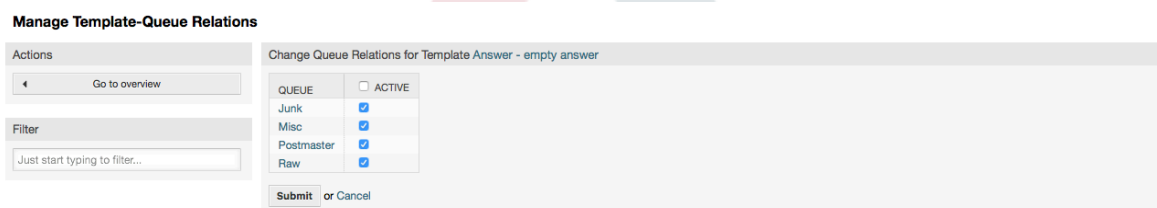
To add/remove templates to one or more queues, click on the "Templates <-> Queues" link on the Admin page (see figure below). You can also use filters to get information regarding a specific entity.

**Figure 4.33. Template-Queue relations management**



Kufafanua violezo mbali mbali vinavyopatikana kwa foleni na kinyume chake, bofya kwenye kiolezo au foleni husika (ona vielelezo 5.32 na 5.33 chini kwa mtiririko).

**Figure 4.34. Badilisha mahusiano ya Foleni kwa Kiolezo**



**Figure 4.35. Badilisha mahusiano ya Kiolezo kwa Foleni**



Wakati wa kuchagua kiolezo, taarifa zaidi zinaweza kuongezwa kwenye nakala ya kiolezo, hii inategemea aina ya kiolezo:

PigaSimu na Tengeneza violezo haiongezi maudhui yoyote kwenye nakala ya kiolezo, bali skrini Mpya ya Barua pepe za Tiketi inaongeza saini iliyogawiwa kwa foleni kwenye kiini cha barua pepe (hii skrini ina boksi lililowekwa pembeni ili kupata taswira ya saini).

Nakala za violezo majibu zikichaguliwa pia zinajumuisha salamu inayohusika na foleni, kisha nakala ya kiolezo, baada ya hapo nukuu ya nakala ya tiketi, na mwisho saini inayohusika na foleni.

Violezo vya kupeleka mbele ni sawa Violezo vya majibu, lakini hazi na sehemu ya salamu.

## 1.6. Majibu ya otomatiki

OTRS allows you to send automatic responses to customers based on the occurrence of certain events, such as the creation of a ticket in a specific queue, the receipt of a follow-up message in regards to a ticket, the closure or rejection of a ticket, etc. To manage such responses, click the link "Auto responses" on the Admin page (see figure below).

**Figure 4.36. Auto response management**

**Auto Response Management**

Actions

[Add auto response](#)

List

NAME	TYPE	COMMENT	VALIDITY	CHANGED	CREATED
default follow-up (after a ticket follow-up has been added)	auto follow up		valid	11/19/2015 13:25	11/19/2015 13:25
default reject (after follow-up and rejected of a closed ticket)	auto reject		valid	11/19/2015 13:25	11/19/2015 13:25
default reject/new ticket created (after closed follow-up with new ticket creation)	auto reply/new ticket		valid	11/19/2015 13:25	11/19/2015 13:25
default reply (after new ticket has been created)	auto reply		valid	11/19/2015 13:25	11/19/2015 13:25

To create an automatic response, click on the button "Add auto response", provide the needed data and submit it (see figure below).

**Figure 4.37. Adding an auto response**

**Auto Response Management**

Actions

[Go to overview](#)

★ Name:

★ Subject:

Response:

**B I U S** | **Font** | **Size** | **A** | **I** | **X** | **Source** | **Ω** | **↶** | **↷** | **Q**

Format | Font | Size | A | I | X | Source | Ω | ↶ | ↷ | Q

Hello <OTRS\_CUSTOMER\_REALNAME>

This is an automatic response for let you know your request is being processed.

You will have news in the next 24 hours.

Thank you!

Your OTRS Team

★ Type:

★ Auto response from:

★ Validity:

Comment:

or



Mada na nakala ya majibu otomatiki yanaweza kuzalishwa na vishika nafasi, kama saina na salamu. Kama ukiingiza, kwa mfano, kishika nafasi <OTRS\_CUSTOMER\_EMAIL[5]> kwenye kiini cha jibu otomatiki, mistari 5 ya kwanza ya barua ya mteja itaingizwa kwenye jibu otomatiki. Utapata undani zaidi kuhusu vishika nafasi halali ambavyo vinaweza kutumika upande wa chini wa skrini iliyoonyeshwa kwenye Kielelezo.

For every automatic answer, you can specify the event that should trigger it. The system events that are available after a default installation are described in the Table 4-4.

**Table 4.4. Events for auto responses**

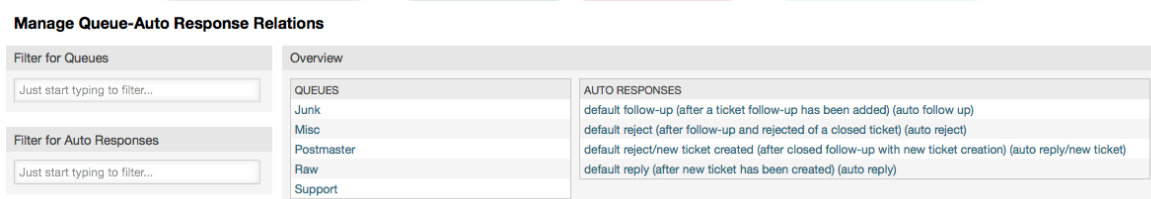
Jina	Maelezo
jibu otomatiki	Utengenezaji wa tiketi katika foleni fulani
jibu otomatiki/tiketi mpya	Ufunguzi wa tiketi iliyofungwa, mf. mteja akijibu hiyo tiketi.
ufwatiliaji otomatiki	Upokeaji wa ufwatiliaji wa tiketi.
kukataa kiotomatiki	Ukataaji otomatiki wa tiketi, unafanywa na mfumo.
ondoa kiotomatiki	Ufutaji wa tiketi, unafanywa na mfumo.

## Note

Kama ilivyo kwa vyombo vingine vya OTRS, majibu otomatiki pia haiwezi kufutwa, inalemazwa tu kwa kuseti chaguo Halali kuwa *batili* au *batili-kwa muda*.

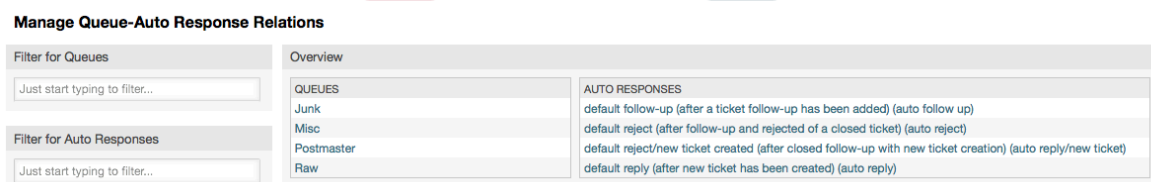
To add an auto response to a queue, use the "Auto Response <-> Queues" link on the Admin page (see figure below). All system events are listed for every queue, and an auto answer with the same event can be selected or removed via a listbox.

**Figure 4.38. Queue <-> auto response relations management**



To define the different auto responses that will be available for a queue, click on the corresponding queue name (see figure below). It is also possible to edit an existing auto response - to do so, click on the response and edit in the same manner as editing a new auto response.

**Figure 4.39. Change auto response relations for a queue**



## 1.7. System Email Addresses

To enable OTRS to send emails, you need a valid email address to be used by the system. OTRS is capable of working with multiple email addresses, since many support installa-

tions need to use more than one. A queue can be linked to many email addresses, and vice versa. The address used for outgoing messages from a queue can be set when the queue is created. Use the "Email Addresses" link from the Admin page to manage all email addresses of the system (see figure below).

### Figure 4.40. System email addresses management

**System Email Addresses Management**

**Actions**

[Add system address](#)

---

**Hint**

All incoming email with this address in To or Cc will be dispatched to the selected queue.

**List**

EMAIL ADDRESS	DISPLAY NAME	QUEUE	VALIDITY	CHANGED	CREATED
otrs@localhost	OTRS System	Postmaster	valid	11/19/2015 13:25	11/19/2015 13:25
postmaster@mycompany.com	Postmaster	Junk	valid	01/03/2016 19:16	01/03/2016 19:16
support@mycompany.com	Support Team	Junk	valid	01/03/2016 19:15	01/03/2016 19:15

If you create a new mail address (see figure below), you can select the queue or sub queue to be linked with it. This link enables the system to sort incoming messages via the address in the To: field of the mail into the right queue.

### Figure 4.41. Adding a system email address

**System Email Addresses Management**

**Actions**

[Go to overview](#)

---

**Hint**

All incoming email with this address in To or Cc will be dispatched to the selected queue.

**Add System Email Address**

★ Email address:

★ Display name:

The display name and email address will be shown on mail you send.

★ Queue:

★ Validity:

Comment:

or

#### Note

Kama ilivyo kwa vyombo vingine vya OTRS, anwani za barua pepe haziwezi kufutwa, zinalemazwa tu kwa kuseti chaguo Halali kuwa *batili* au *batili-kwa muda*.

## 1.8. Ticket Notifications


OTRS allows ticket notifications to be sent to agents and customers, based on the occurrence of certain events. Agents can customize their ticket notification settings via the preferences link.


Through the "Ticket Notifications" link on the Admin page, you can manage the ticket notifications of your system (see figure below). OTRS comes with a set of predefined notifications that cover a wide range of use cases.

## Figure 4.42. Ticket notification management

**Ticket Notification Management**

**Actions**

 Add notification


 Export Notifications

**Configuration Import**








































Here you can upload a configuration file to import Ticket Notifications to your system. The file needs to be in .yml format as exported by the Ticket Notification module.

No file selected.

Overwrite existing notifications?

 Import Notification configuration

**List**

NAME	COMMENT	VALIDITY	CHANGED	CREATED	EXPORT	COPY	DELETE
Ticket create notification		valid	11/19/2015 13:25	11/19/2015 13:25			
Ticket escalation notification		valid	11/19/2015 13:25	11/19/2015 13:25			
Ticket escalation warning notification		valid	11/19/2015 13:25	11/19/2015 13:25			
Ticket follow-up notification (locked)		valid	11/19/2015 13:25	11/19/2015 13:25			
Ticket follow-up notification (unlocked)		valid	11/19/2015 13:25	11/19/2015 13:25			
Ticket lock timeout notification		valid	11/19/2015 13:25	11/19/2015 13:25			
Ticket new note notification		valid	11/19/2015 13:25	11/19/2015 13:25			
Ticket owner update notification		valid	11/19/2015 13:25	11/19/2015 13:25			
Ticket pending reminder notification (locked)		valid	11/19/2015 13:25	11/19/2015 13:25			
Ticket pending reminder notification (unlocked)		valid	11/19/2015 13:25	11/19/2015 13:25			
Ticket queue update notification		valid	11/19/2015 13:25	11/19/2015 13:25			
Ticket responsible update notification		valid	11/19/2015 13:25	11/19/2015 13:25			
Ticket service update notification		valid	11/19/2015 13:25	11/19/2015 13:25			

You can customize many aspects of the notifications. Click on the notification you want to change, and its content will be loaded for editing (see figure below).

## Figure 4.43. Customizing a notification

**Edit Notification**

★ Name:

Comment:

Show in agent preferences:

Agent preferences tooltip:   
 This message will be shown on the agent preferences screen as a tooltip for this notification.

Validity:

- ▶ Events
- ▶ Ticket Filter
- ▶ Article Filter (Only for ArticleCreate and ArticleSend event)
- ▶ Recipients
- ▶ Notification Methods
- ▼ Notification Text
  - ▼ English (United States)
 

★ Subject:

★ Text: 

Hi <OTRS\_NOTIFICATION\_RECIPIENT\_UserFirstname>,

ticket [ <OTRS\_CONFIG\_TicketHook><OTRS\_TICKET\_TicketNumber> ] has been created in queue <OTRS\_TICKET\_Queue>.

<OTRS\_CUSTOMER\_REALNAME> wrote:

<OTRS\_CUSTOMER\_Body[30]>

You can edit the basic data of this notification such as name and comment, and control if the agents may choose to receive this notification (per transport method). For every

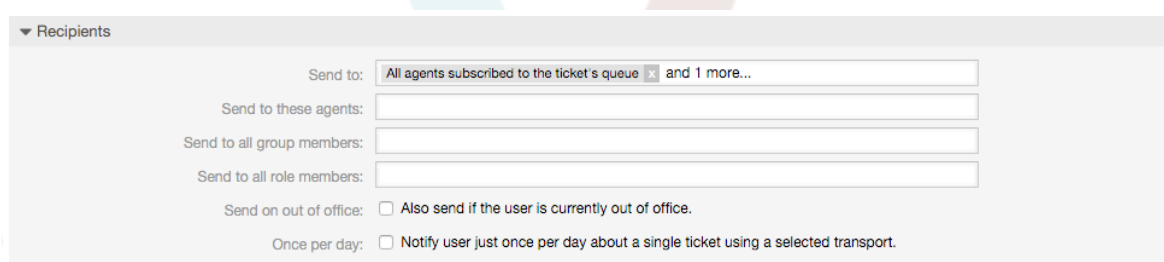
language, a subject and body can be added/edited to configure what will actually be sent as the notification content.

Just as with signatures and salutations, it is possible to dynamically create the content of a notification by using special variables. You can find a list of variables at the bottom of the screen.

You can choose which events should trigger this notification, and limit it to tickets which match certain criteria (ticket and/or article filter). This makes it possible to create different notifications for different queues, priorities or other criteria that might be relevant for your system.

The recipients of the notification can be configured according to different criteria (groups, roles, individual agents etc.). All configured recipients will receive the notification.

### Figure 4.44. Customizing a notification's recipients



The screenshot shows a configuration panel titled "Recipients" with a dropdown arrow. It contains several input fields and checkboxes:

- "Send to:" field with the text "All agents subscribed to the ticket's queue" and a small 'x' icon, followed by "and 1 more..."
- "Send to these agents:" empty text input field
- "Send to all group members:" empty text input field
- "Send to all role members:" empty text input field
- "Send on out of office:" checkbox with the label "Also send if the user is currently out of office."
- "Once per day:" checkbox with the label "Notify user just once per day about a single ticket using a selected transport."

Additionally, you can specify if the notification should be sent to agents who are out of office, and limit the sending to once per day and ticket (e. g. pending reminder notification).

Notifications can be sent with different notification methods. The "Email" notification method is available in OTRS Free, with **OTRS Business Solution™** you also get the possibility to store and view the notifications in the database (so that no email client is needed to use OTRS) as well as to send them via SMS (e. g. for very important notifications).

**Figure 4.45. Customizing notification methods**

▼ Notification Methods

These are the possible methods that can be used to send this notification to each of the recipients. Please select at least one method below.

---

**Email**

Enable this notification method:

Active by default in agent preferences:   
This is the default value for assigned recipient agents who didn't make a choice for this notification in their preferences yet. If the box is enabled, the notification will be sent to such agents.

Additional recipient email addresses:   
You can use OTRS-tags like <OTRS\_TICKET\_DynamicField...> to insert values from the current ticket.

Notification article type:   
An article will be created if the notification is sent to the customer or an additional email address.

Email template:   
Use this template to generate the complete email (only for HTML emails).

Enable email security:

Email security level:

If signing key/certificate is missing:   
missing:

If encryption key/certificate is missing:   
missing:

---

**Web View**

Enable this notification method:

Active by default in agent preferences:   
This is the default value for assigned recipient agents who didn't make a choice for this notification in their preferences yet. If the box is enabled, the notification will be sent to such agents.

---

**SMS (Short Message Service)**

Enable this notification method:

Active by default in agent preferences:   
This is the default value for assigned recipient agents who didn't make a choice for this notification in their preferences yet. If the box is enabled, the notification will be sent to such agents.

Recipient SMS numbers:   
You can use OTRS-tags like <OTRS\_TICKET\_DynamicField...> to insert values from the current ticket.

The field 'Additional recipient email addresses' provides the possibility to use OTRS-tags like <OTRS\_TICKET\_DynamicField...> to insert values from the current ticket. The according SMS field (only available in **OTRS Business Solution™**) also has this feature.

Since OTRS 5s Email transport contains security options for each notification, that includes signing and encrypting possibilities with PGP and S/MIME and the opportunity to decide what to do in case of missing key or certificate.

## 1.9. S/MIME

OTRS inaweza kuchakatisha ujumbe unaoingia wa S/MIME uliofanyiwa usimbaji na kusaini barua zinazotoka. Kabla ya kuweza kutumia hiki kipengele, unahitaji kukiamilisha na kubadilisha baadhi ya parameta za usanidi katika SysConfig.

The "S/MIME Certificates" link on the Admin page allows you to manage your S/MIME certificates (see figure below). You can add or remove certificates, and also search through the SMIME data.

### Figure 4.46. S/MIME management

**S/MIME Management:**

**Actions**

+ Add certificate

+ Add private key

**Filter for certificates**

Just start typing to filter...

**Hint**

To show certificate details click on a certificate icon.

To manage private certificate relations click on a private key icon.

**Results**

TYPE	SUBJECT	HASH	FINGERPRINT	CREATE	EXPIRES	DELETE
No data found.						

## 1.10. PGP

OTRS inashughulikia funguo za PGP, ambazo zinakuruhusu kusimba/kusimbua fiche ujumbe na kusaini ujumbe unaotoka nje. Kabla ya hiki kipengele kutumika, unahitaji kuki-amilisha na kubadilisha baadhi ya parameta za usanidi katika SysConfig.

Through the "PGP Keys" link on the Admin page, it is possible to manage the key ring of the user who shall be used for PGP with OTRS (see figure below), e.g. the local OTRS user or the web server user. It is possible to add and remove keys and signatures, and you can search through all data in your key ring.

### Figure 4.47. PGP management

**PGP Management**

**Actions**

Search:

+ Add PGP key

**Hint**

In this way you can directly edit the keyring configured in SysConfig.  
Description: Introduction to PGP

**Result**

TYPE	STATUS	IDENTIFIER	BIT	KEY	FINGERPRINT	CREATED	EXPIRES	DELETE
No data found.								

## 1.11. Hali

Through the "States" link on the Admin page, you can manage the different ticket states you want to use in the system (see figure below).

### Figure 4.48. State management

**State Management**

**Actions**

+ Add state

**Hint**

Attention: Please also update the states in SysConfig where needed.  
See also: <http://otrs.github.io/doc>

**List**

NAME	TYPE	COMMENT	VALIDITY	CHANGED	CREATED
closed successful	closed	Ticket is closed ...	valid	11/19/2015 13:25	11/19/2015 13:25
closed unsuccessful	closed	Ticket is closed ...	valid	11/19/2015 13:25	11/19/2015 13:25
merged	merged	State for merged ...	valid	11/19/2015 13:25	11/19/2015 13:25
new	new	New ticket create...	valid	11/19/2015 13:25	11/19/2015 13:25
open	open	Open tickets.	valid	11/19/2015 13:25	11/19/2015 13:25
pending auto close+	pending auto	Ticket is pending...	valid	11/19/2015 13:25	11/19/2015 13:25
pending auto close-	pending auto	Ticket is pending...	valid	11/19/2015 13:25	11/19/2015 13:25
pending reminder	pending reminder	Ticket is pending...	valid	11/19/2015 13:25	11/19/2015 13:25
removed	removed	Customer removed ...	valid	11/19/2015 13:25	11/19/2015 13:25

Baada ya mpangilio wa kawaida, kuna hali zilizofafanuliwa:

- imefungwa kwa mafanikio

- imefungwa pasipo mafanikio
- unganishwa
- mpya
- wazi
- inasubiri kufunga kiotomatiki+
- inasubiri kufunga kiotomatiki-
- kikumbusho kinachosubiri
- ondolewa

Kila hali imeunganishwa na aina, inayohitaji kuwekwa bayana endapo hali mpya itatengenezwa. Kwa kawaida aina za hali ni:

- imefungwa
- unganishwa
- mpya
- wazi
- inasubiri kiotomatiki
- kikumbusho kinachosubiri
- ondolewa

## 1.12. SysConfig

Kiungo cha SysConfig kinaelekeza kwenye kifungu ambacho machaguo mengi ya usanidi wa OTRS yanadumishwa.

The SysConfig link on the Admin page loads the graphical interface for system configuration (see figure below). You can upload your own configuration files for the system, as well as backup all your current settings into a file. Almost all configuration parameters of the OTRS framework and installed applications can be viewed and changed through this interface. Since all configuration parameters are sorted into groups and sub groups, it is possible to navigate quickly through the vast number of existing parameters. It is also possible to perform a full-text search through all of the configuration parameters.

**Figure 4.49. Kiolesura michoro cha usanidi wa mfumo (SysConfig)**

**SysConfig**

**Actions**

Navigate by searching in 1574 settings

Navigate by selecting config groups

[Export settings](#)

[Import settings](#)

**Result**

SUBGROUP	ELEMENTS	GROUP
Core	33	Framework
Core::Cache	4	Framework
Core::CustomerCompany	1	Framework
Core::CustomerUser	2	Framework
Core::Fetchmail	1	Framework
Core::LinkObject	4	Framework
Core::Log	7	Framework
Core::MIME-Viewer	4	Framework
Core::MirrorDB	8	Framework
Core::OTRSBusiness	1	Framework
Core::PDF	11	Framework
Core::Package	8	Framework
Core::PerformanceLog	3	Framework
Core::ReferenceData	1	Framework
Core::SOAP	3	Framework
Core::Sendmail	10	Framework
Core::Session	18	Framework
Core::SpellChecker	4	Framework
Core::Stats	3	Framework
Core::Time	10	Framework
Core::Time::Calendar1	6	Framework
Core::Time::Calendar2	6	Framework
Core::Time::Calendar3	6	Framework
Core::Time::Calendar4	6	Framework

Kiolesura michoro cha usanidi wa mfumo kinaelezwa kuwa undani zaidi katika sura "Kusanidi mfumo kupitia kiolesura cha tovuti".

## 1.13. Using Mail Accounts

There are several possibilities to transport new emails into the ticket system. One way is to use a local MTA and the `otrs.PostMaster.pl` script that pipes the mails directly into the system. Another possibility is the use of mail accounts which can be administrated through the web interface. The "PostMaster Mail Accounts" link on the Admin page loads the management console for the mail accounts (see figure below). OTRS supports the mail protocols: POP3, POP3S, IMAP and IMAPS.

**Figure 4.50. Usimamizi wa akaunti za barua**

**Mail Account Management**

**Actions**

[Add mail account](#)

**List**

HOST/USERNAME	TYPE	COMMENT	VALIDITY	CHANGED	CREATED	DELETE	RUN NOW!
No data found.							

**Hint**

All incoming emails with one account will be dispatched in the selected queue!

If your account is trusted, the already existing X-OTRS header at arrival time (for priority, ...) will be used! PostMaster filter will be used anyway.

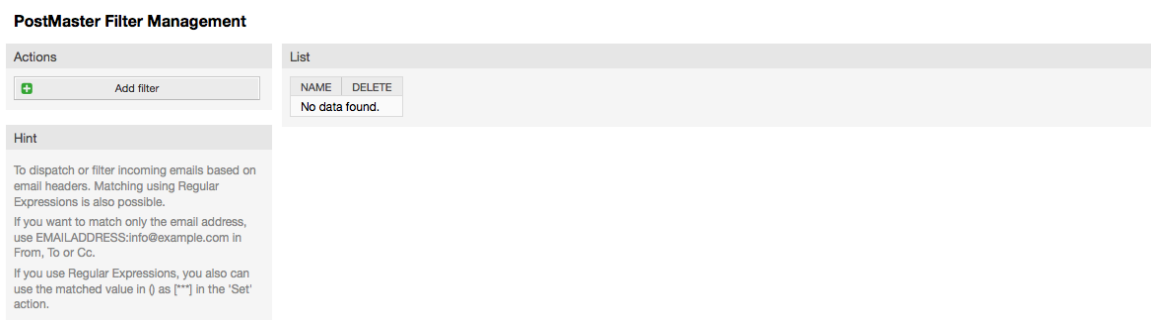
Ona kifungu kuhusu Akaunti za Posta za MkuuWaPosta kwa maelezo zaidi.

## 1.14. Filtering Incoming Email Messages

OTRS has the capability to filter incoming email messages. For example, it is possible to put certain emails automatically into specified queues, or to set a specific state or ticket type for some mails. The filters apply to all incoming mails. You can manage your filters via the link "PostMaster Filter" on the Admin page (see figure below).



## Figure 4.51. PostMaster filter management



A filter consists of one or more criteria that must be met in order for the defined actions to be executed on the email. Filter criteria may be defined for the headers or the body of an email, e.g. search for specific header entries, such as a sender address, or on strings in the body. Even regular expressions can be used for extended pattern matching. If your filter matches, you can set fields using the X-OTRS headers in the GUI. These values will be applied when creating the ticket or follow-up message in OTRS. The Table 4-5 lists the different X-OTRS headers and their meaning.

### Note

You also can use X-OTRS-FollowUp-\* headers to set values for follow up emails.

**Table 4.5. Kazi za vichwa-vya-X-OTRS tofauti**

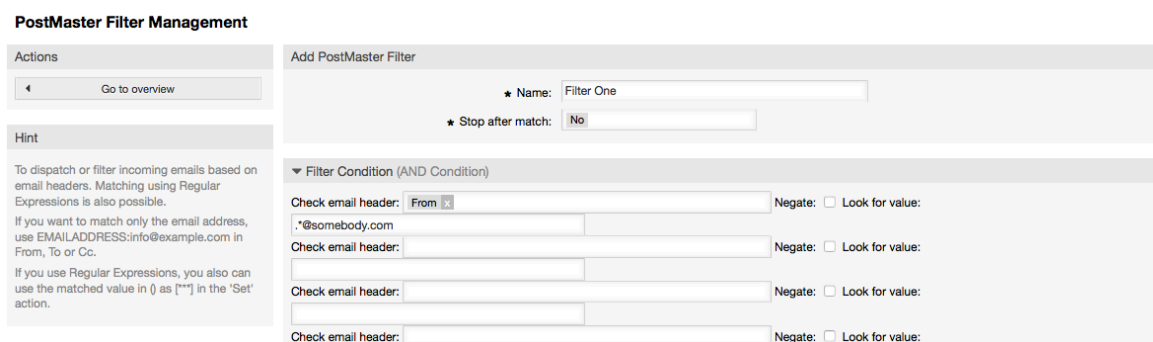
Jina	Thamani ziwezekanazo	Maelezo
Kipaumbele cha-X-OTRS:	1 chini sana, 2 chini, 3 kawaida, 4 juu, 5 juu sana	Inaseti kipaumbele cha tiketi.
Foleni ya-X-OTRS:	Jina la foleni kwenye mfumo.	Inaseti foleni ambapo tiketi itapangwa. Kama imesetiwa kwenye kichwa cha X-OTRS, sheria zote nyingine zinazotaribu kupanga tiketi kwenye foleni fulani zinapuzwa. Kama ukutumia foleni ndogo, ibainishe kama "Parent::Sub".
Kitasa cha-X-OTRS:	fungua, fungua	Inaseti hali ya kitasa cha tiketi.
X-OTRS-Puuza:	Ndio au Kweli	Kama hiki kichwa cha OTRS kimesetiwa kuwa "Ndio", ujumbe unaoingia utapuzwa na hautapokelewa na mfumo.
Hali ya-X-OTRS:	mpya, fungua, imefungwa kwa mafanikio, imefungwa pasipo mafanikio, ...	Inaseti hali inayofwata ya tiketi.
X-OTRS-Hali-Muda Inasubiri:	mf. 2010-11-20 00:00:00	Inaseti muda wa kusubiri wa tiketi (pia lazima utume hali ya kusubiri kupitia X-OTRS-Hali). Unaweza kubainisha tarehe halisi kama "2010-11-20 00:00:00" au tarehe inayohusika, kutege-

Jina	Thamani ziwezekanazo	Maelezo
		meana na muda wa kuwasili wa barua pepe. Au tumia mfumo "+ \$Namba\$Kizio", ambapo \$Kizio inaweza kuwa 's' (sekunde), 'm' (dakika), 'h' (masaa) au 'd' (siku). Kizio kimoja tu kinaweza kubainishwa. Mfano wa mipangilio halali: "+50s" (inasubiri kwa sekunde 50), "+30m" (dakika 30), "+12d" (siku 12). Tambua kwamba mipangilio kama "+1d 12h" haiwezekani. Unaweza kubainisha "+36" badala yake.
X-OTRS-Aina:	chaguo-msingi (inategemea mpangilio wako)	Inaseti aina ya tiketi (kama Tketi::Aina imeamilishwa).
X-OTRS-Huduma:	(inategemea na mpangilio wako)	Inaseti huduma ya tiketi (kama Tiketi::Huduma iko hai). Kama ukitaka kuseti huduma-ndogo unatakiwa kuibainisha kama "Parent::Sub".
X-OTRS-SLA:	(inategemea na mpangilio wako)	Inaseti SLA ya tiketi (kama Tiketi::Usaidizi wa huduma umeamilishwa)
X-OTRS-MtejaMtumiaji:	MtejaMtumiaji	Inaseti mteja mtumiaji wa tiketi.
X-OTRS-Nambari ya Mteja:	Nambari ya Mteja	Inaseti kitambulisho cha mteja kwa hii tiketi.
X-OTRS-AinaMtumaji:	wakala, mfumo, mteja	Inaseti aina ya mtumaji wa tiketi.
X-OTRS-AinaMakala:	Barua pepe-nje, Barua pepe-ndani, Barua pepe-taari-fa-nje, Barua pepe-taari-fa-ndani, simu, faksi, ujumbe mfupi wa maneno, maombi ya wavuti, notisi-ndani, notisi-nje, notisi-ripoti	Inaseti aina ya makala kwa tiketi inayoingia.
X-OTRS-Sehemulnayobadilika-<Sehemulnayobadilikajina>:	Inategemeana na usanidi wa Sehemu Zinzobadilika (Nakala: Daftari, Tarehe: 2010-11-20 00:00:00, Namba kamili: 1)	Inahifadhi taarifa ya thamani ya ziada kwa ajili ya tiketi kwenye <Sehemulnayobadilikajina> Sehemu Inayobadilika.
X-OTRS-Kitanzi:	Kweli	Kama hiki kichwa cha X-OTRS kimesetiwa, hakuna majibu otomatiki yanayo pokelewa na mtumaji wa ujumbe (ulinzi wa barua kitanzi).

You should specify a name for every filter rule. Filter criteria can be specified in the section "Filter Condition". Choose via the listboxes for "Header 1", "Header 2" and so on for the parts of the messages where you would like to search, and specify on the right side the values you wish to filter on. In the section "Set Email Headers", you can choose the actions that are triggered if the filter rules match. You can select for "Header 1", "Header 2" and so on to select the X-OTRS-Header and set the associated values (see figure below).

Filter rules are evaluated in alphabetical order, and are all executed except if the "Stop after match" setting has been set to "Yes" in one of the rules (in this case evaluation of the remaining filters is canceled).

**Figure 4.52. Add a PostMaster filter**



### Example 4.1. Inapanga barua taka katika foleni maalumu

A useful filter rule would be to let OTRS automatically move mails marked for spam, by using a spam detection tool such as SpamAssassin, into the "Junk" queue. SpamAssassin adds the "X-Spam-Flag" header to every checked mail. When the mail is marked as spam, the Header is set to "Yes". So the filter criteria would be "X-Spam-Flag: Yes". To create a filter rule with this criteria you can insert the name as, for example, "spam-mails". In the section for "Filter Condition", choose "X-Spam-Flag:" for "Header 1" from the listbox. Insert "Yes" as value for this header. Now the filter criteria is specified. To make sure that all spam mails are placed into the "Junk" queue, choose in the section for "Set Email Headers", the "X-OTRS-Queue:" entry for "Header 1". Specify "Junk" as value for this header. Finally add the new filter rule to activate it for new messages in the system.

Kuna moduli za ziada, ambazo zinaweza kutumika kuchuja ujumbe unaoingia kwa umaalumu zaidi. Hizi moduli zinaweza kuwa na manufaa wakati wa kushughulika na mifumo mikubwa na tangamanifu zaidi.

## 1.15. Executing Automated Jobs with the GenericAgent

KiolesuraChaUjumla ni kifaa cha kutekeleza kazi kiotomatiki. KiolesuraChaUjumla , kwa mfano, kinaweza kufunga au kuhamisha tiketi, kutuma taarifa kwa tiketi zilizopandishwa, na kadh.

Click the link "GenericAgent" on the Admin page (see figure below). A table with all automated jobs in the system is displayed. These jobs can then be edited, run manually or removed entirely.

## Figure 4.53. Orodha ya kazi kwa WakalaWaUjumla

**Generic Agent**

NAME	LAST RUN	VALIDITY	DELETE	RUN NOW!
Job One		valid	<input type="checkbox"/> Delete	Run this task
Job Three		valid	<input type="checkbox"/> Delete	Run this task
Job Two		valid	<input type="checkbox"/> Delete	Run this task

Bofya kitufe cha "Ongeza Kazi" kutengeneza kazi mpya. Kwanza unahitaji kutoa jina. Kisha utaweka bayana jinsi kazi itakavyofanyika: kiotomatiki katika mida iliyopangwa (kama kazi iliyopangwa, moduli hii itafanya kazi kwa tiketi zote zitakazopatikana na kichujio cha tiketi) au kutegemeana na matukio ya tiketi (baada ya tiketi moja tu kubadilishwa, kama itafanana na kichujio cha tiketi). Tambua kwamba kama ukianzisha kazi kwa mikono zinazotegemea matukio kutoka kwenye skrini ya mapitio, zitafanya kazi kwenye tiketi zote zilizopatikana na kichujio cha tiketi.

## Figure 4.54. Kutengeneza kazi za WakalaWaUjumla

**Generic Agent**

Job Settings

★ Job name:

Validity:

Automatic execution (multiple tickets)

SCHEDULE MINUTES	SCHEDULE HOURS	SCHEDULE DAYS
<input type="text"/>	<input type="text"/>	<input type="text"/>

Currently this generic agent job will not run automatically.  
To enable automatic execution select at least one value from minutes, hours and days!

Event based execution (single ticket)

Event Triggers:

TYPE	EVENT	DELETE
<input type="text"/>	<input type="text"/>	<input type="text"/>

Additionally or alternatively to a periodic execution, you can define ticket events that will trigger this job. If a ticket event is fired, the ticket filter will be applied to check if the ticket matches. Only then the job is run on that ticket.

Add Event Trigger:

To add a new event select the event object and event name and click on the "+" button.

Kwa kila kazi, unaweza kuweka bayana kichujio cha tiketi, kwa mfano kufanya kazi kwa tiketi kwenye foleni fulani tu. Vigezo vyote vya tiketi lazima vifikiwe kwa kazi kufanyika kwenye tiketi.

Finally, the ticket can be modified by setting various ticket fields like a new queue or state. It is possible to attach a note to the ticket(s) or run a customized module. You also have the option to delete the ticket(s) from the database. This can be useful to purge outdated or invalid data from the system.

## Warning

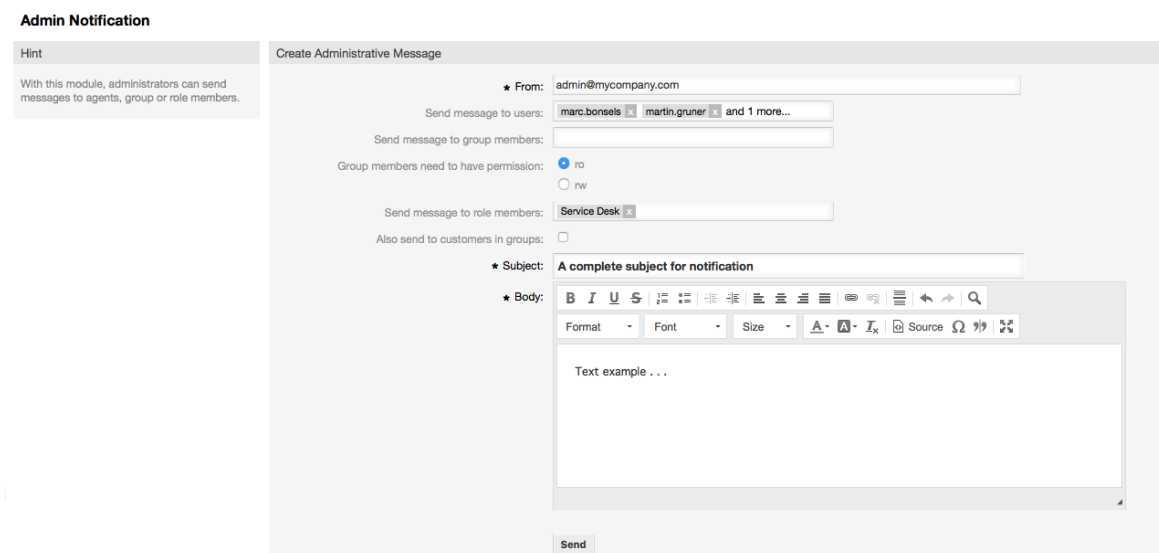
Kama ukitumia fomula-saidizi ya kufuta tiketi, tiketi zote zitakazoathirika na vi-ambatanisho vyake vitaondolewa kwenye hifadhidata na haviwezi kurudishwa!

Baada ya kuhariri kazi, OTRS itarudi kwenye skrini ya mapitio. Huko utakuwa na uwezo wa kuanzisha kazi yoyote kwa mikono. Kama ukichagua kuanzisha kazi, kwanza utaona tiketi zote zitakazoathirika pale kazi itakapoanzishwa. Hii orodha itakusaidia kuthibitisha kwamba kazi inafnywa kama ilivyokusudiwa. Katika pointi hii hakuna mabadiliko yaliyofanywa kwenye tiketi hizi. Kama tu utathibitisha kwenye skrini kazi itafanyika.

## 1.16. Administrative Messages

OTRS administrators can send messages to specific users or groups. The "Admin Notification" link on the Admin page opens the screen where the agents and groups that should be notified can be selected (see figure below).

**Figure 4.55. Admin notification screen**



Inawezekana kuweka bayana mtumaji, mada na nakala ya kiini cha taarifa. Unaweza pia kuchagua mawakala, makundi na kazi za nani atakayepokea ujumbe.

## 1.17. Usimamizi wa kipindi

You can see all logged in users and their session details by clicking the "Session Management" link in the admin area (see figure below).

**Figure 4.56. Usimamizi wa kipindi**



SESSION	TYPE	USER	KILL
3sydOnqpwHQLLxa4083rVcTmBC1wPf8	Agent	Carlos Garcia	<a href="#">Kill this session</a>
jzBgJlquUNb6950CaGHAN0tsME7eA5Fn	Customer	Han Solo	<a href="#">Kill this session</a>

Actions	Count
All sessions	2
Agent sessions	1
Customer sessions	1
Unique agents	1
Unique customers	1

[Kill all sessions](#)

Some statistics about all active sessions are displayed, e.g. how many agents and customer users are logged in and the number of active sessions. Any individual session can be removed by clicking on the *Kill this session* link on the right-hand side of the list. You also have the option to *Kill all sessions*, which can be useful if you want to take the system offline. Detailed information for every session is available, too (see figure below).

**Figure 4.57. Maelezo ya kipindi**

**Session Management**

**Actions**

Go to overview

Kill this session

Detail View for SessionID : 3sydOnqpwHQLUxa4083rVcTrmBC1wP18 - Carlos Garcia

KEY	VALUE
AdminDynamicFieldsOverviewPageShown	25
ChangeTime	2015-11-25 13:25:36
CreateTime	2015-11-25 13:25:36
ExternalChannels	[]
NotificationTransport	{&quot;Notification-3-Email&quot;;0,&quot;Notification-1-Email&quot;;0,&quot;Notification-4-Email&quot;;0,&quot;Notification-8-Email&quot;;0,&quot;Notification-13-Email&quot;;0,&quot;Notification-2-Email&quot;;0}
OutOfOfficeEndDay	12
OutOfOfficeEndMonth	12
OutOfOfficeEndYear	2015
OutOfOfficeStartDay	11
OutOfOfficeStartMonth	12
OutOfOfficeStartYear	2015
SessionID	3sydOnqpwHQLUxa4083rVcTrmBC1wP18
UserChallengeToken	4K1P2yUGJdCMXetMeSFIZom4zCajRRfh
UserEmail	carlos.garcia@mycompany.com
UserFirstname	Carlos
UserFullname	Carlos Garcia
UserID	2
UsersGroupRo[admin]	Yes
UsersGroupRo[stats]	Yes
UsersGroupRo[users]	Yes
UsersGroup[admin]	Yes
UsersGroup[stats]	Yes

## 1.18. Matengenezo ya mfumo

System Maintenance give the option to schedule one or more maintenance periods for the system. During this period no agents or customers can login into the system (except for Agents in the "admin" group). Current logged users and customers receive a notification about the maintenance (before and during the maintenance period). Administrators have the option to kill the sessions for logged agents and customers, all this in preparation to be able to make changes in the system (e.g. a system update) in a "safe" environment.

**Figure 4.58. The system maintenance overview screen with some scheduled periods**

**System Maintenance Management**

**Actions**

Schedule New System Maintenance

**List**

START DATE	STOP DATE	COMMENT	VALIDITY	DELETE
2015-12-03 19:57:00	2015-12-03 22:57:00	A comment about this maintenance period	valid	

**Hint**

Schedule a system maintenance period for announcing the Agents and Customers the system is down for a time period.

Some time before this system maintenance starts the users will receive a notification on each screen announcing about this fact.

The Start Date and the Stop Date are required fields, and the only rule for this combination is that Start Date can not be a date after the Stop Date.

**Figure 4.59. The system maintenance edit screen**

**Edit System Maintenance**

Actions

▼ Edit System Maintenance information

Start date: 12 / 03 / 2015 - 19 : 57

Stop date: 12 / 03 / 2015 - 22 : 57

\* Comment:

Login message:

Show login message:

Notify message:

\* Validity:

or

▼ Manage Sessions

All Sessions 2  
 Unique agents 1  
 Unique customers 1

**Agent Sessions**

SESSION	TYPE	USER	KILL
3sydOnqpwHQLUxa4083rVcTfmBC1wPF8	Agent	Carlos Garcia	Kill this session

**Customer Sessions**

SESSION	TYPE	USER	KILL
jzBgJlquUNb6950CaGHAN0tsME7eA5Fn	Customer	Han Solo	Kill this session

After a new maintenance period is defined an overview and details about the current active sessions is shown, from there administrators can kill this sessions one by one or all of them (except current) if it is needed.

## 1.19. Batli ya mfumo

The "System Log" link on the Admin page shows the log entries of the system, reverse chronologically sorted with most recent first (see figure below).

**Figure 4.60. Batli ya mfumo**

**System Log**

Hint  
 Here you will find log information about your system.

Recent Log Entries

TIME	PRIORITY	FACILITY	MESSAGE
Tue Dec 2 02:00:12 2014	notice	OTRS-otrs.GenericAgent.pl-2664	Use module (Kernel::System::GenericAgent::TriggerAdvancedEscalationStartEvents) for Ticket (201411122664000012/3).
Tue Dec 2 02:00:11 2014	notice	OTRS-otrs.GenericAgent.pl-2664	Added scheduler job 'EscalationHistory' by escalation event 'EscalationBreachd_2' for ticket '2'!
Tue Dec 2 02:00:11 2014	notice	OTRS-CGI-3051	CustomerUser: 'bruce.banner' changed password successfully!
Tue Dec 2 02:00:11 2014	notice	OTRS-otrs.GenericAgent.pl-1092	Use module (Kernel::System::GenericAgent::TriggerEscalationStartEvents) for Ticket (109200664/990).

Kila mstari kwenye batli una mhuri wa muda, kipaumbele cha batli, kijenzi cha mfumo na ingizo la batli yenyewe.

### Note

System logs are available via the web interface only on Linux / Unix systems.

## 1.20. SQL Queries via the SQL Box

The "SQL Box" link on the Admin page opens a screen that lets you query the content of the tables in the OTRS database (see figure below). It is not possible to change the content of the tables, only 'select' queries are allowed.

**Figure 4.61. Boksi la SQL**

**SQL Box**

**Hint**

Here you can enter SQL to send it directly to the application database. It is not possible to change the content of the tables, only select queries are allowed.

**Options**

★ SQL:

Limit:

Result format:

## 1.21. Msimaizi wa kifurushi

Using the "Package Manager" link on the Admin page, you can install and manage packages that extend the functionality of OTRS (see figure below). See the Additional applications section for a discussion on the extensions that are available from the OTRS repositories.

**Figure 4.62. Msimaizi wa kifurushi**

**Package Manager**

**Actions**

No file selected.

**Online Repository**

NAME	VERSION	VENDOR	DESCRIPTION	ACTION
FAQ	5.0.2	OTRS AG	The FAQ/knowledge base.	Install
Fred	3.2.7	OTRS AG	A tool to support the developer by his development.	Install
OTRSCloneDB	5.0.1	OTRS AG	The OTRS CloneDB package.	Install
OTRSCodePolicy	1.0.8	OTRS AG	OTRS code quality checks.	Install
OTRSMasterSlave	5.0.1	OTRS AG	Includes "Ticket Master/Slave" feature.	Install
Survey	5.0.1	OTRS AG	A customer survey tool.	Install
SystemMonitoring	5.0.1	OTRS AG	Basic mail interface to System Monitoring Suites. Al...	Install
TimeAccounting	5.0.1	OTRS AG	A Time Registration Module.	Install

**Local Repository**

NAME	VERSION	VENDOR	DESCRIPTION	STATUS	ACTION
No data found.					

Features for **OTRS Business Solution™** customers only → [sales@otrs.com](mailto:sales@otrs.com)

With **OTRS Business Solution™**, you can benefit from the following optional features. Please make contact with [sales@otrs.com](mailto:sales@otrs.com) if you need more information.

NAME	DESCRIPTION
Advanced Editor	Makes it possible to use response templates with less resources
Custom Contact Fields	Makes it possible to store customer contact data directly in the ticket
Customer Interface Link Object	Shows linked tickets and FAQ article in the OTRS Customer Portal.
Ticket Workflow ITSM	Define Ticket Workflows especially for working processes in your IT Service Management
Service Categories	Assignment of ticket times to ticket services

Meneja kifurushi anaonyesha OTRS vifurushi vya nyongeza ambavyo umesakinisha kwenye seva yako kwa sasa, pamoja na nambari zake za matoleo.

Unaweza kusakinisha vifurushi kutoka kwa mwenyeji wa mbali kwa kuchagua hifadhi kwenye kifungu cha *Hifadhi ya Mtandao*, na kubofya kitufe cha *Sasisha taarifa za hifadhi*. Vifurushi vilivyopo vinaonyeshwa kwenye jedwali husika. Upande wa kulia wa skrini unaonyesha vifurushi vilivyopo. Kusakinisha kifurushi, bofya kwenye *Sakinisha*. Baada ya usakinishaji, kifurushi kinaonyeshwa kwenye kifungu cha *Hifadhi ya Ndani*.

Kuboresha kifurushi kilichosakinishwa, orodha ya vifurushi vilivyopo kwenye hifadhi ya mtandao itaonyesha *Boresha* katika safuwima ya Vitendo kwa kifurushi chochote chenye toleo jipya zaidi ya lile lililosakinishwa kwa ndani. Bofya *Boresha* na itasakinisha toleo jipya la kifurushi kwenye mfumo wako.



Katika baadhi ya kesi, mfano mfumo wako wa OTRS haujaunganishwa na mtandao, unaweza kusakinisha vifurushi ambavyo umepakua kwenye diski ya ndani. Bofya kitufe cha *Vinjari* kwenye mwambaa upande wa vitendo, na chagua faili la .opm la kifurushi kwenye diski yako. Bofya *Fungua* na kisha *Sakinisha Kifurushi*. Baada ya usakinishaji kukamilika, kifurushi kinaonyeshwa kwenye kifungu *Hifadhi ya Ndani*. Unaweza kutumia hatua hizo hizo kusasisha kifurushi ambacho tayari kimesakinishwa.

Katika kesi maalumu, unaweza kutaka kusanidi Meneja Vifurushi, mf., kutumia seva mbadala au kutumia hifadhi ya ndani. Tazama kwenye machaguo yaliyopo kwenye SysConfig chini ya Kiunzi:Kiini::Kifurushi.

## 1.22. Huduma za Tovuti

The Web Services link leads to the graphical interface where web services (for the OTRS Generic Interface) are created and maintained (see figure below).

**Figure 4.63. Kiolesura mchoro cha huduma za tovuti**

**GenericInterface Web Service Management - Overview**

You are here: > Web Services

Actions

+ Add web service

Web Service List

NAME	DESCRIPTION	REMOTE SYSTEM	PROVIDER TRANSPORT	REQUESTER TRANSPORT	VALIDITY
Webservice one	-	-	-	-	valid
Webservice two	-	-	-	-	valid

Kiolesura michoro cha huduma za wavuti kinaelezwa kwa undani zaidi katika kifungu "Kiolesura Michoro cha Huduma ya Tovuti".

## 1.23. Sehemu zinazobadilika

Sehemu Zinazobadilika ni sehemu ambayo unaseti n akusimamia sehemu zilizogezwa kukufaa kwa ajili ya tiketi n amakala (on akielelezo chini).

**Figure 4.64. The dynamic fields overview screen with some dynamic fields**

**Dynamic Fields Management - Overview**

Actions

**Ticket**

Add new field for object: Ticket

**Article**

Add new field for object: Article

**Hint**

To add a new field, select the field type from one of the object's list, the object defines the boundary of the field and it can't be changed after the field creation.

Dynamic Fields List

NAME	LABEL	ORDER	TYPE	OBJECT	VALIDITY	DELETE
ProcessManagementProcessID	Process	1	ProcessID	Ticket	valid	
ProcessManagementActivityID	Activity	2	ActivityID	Ticket	valid	

1-2 of 2

Usanidi wa sehemu zinazobadilika unaelezwa kwa undani zaidi katika kifungu "Usanidi wa Sehemu Zinazobadilika".

Kila aina ya sehemu zinazobadilika ina usanidi wa mpangilio wake na hivyo skrini yake pekee ya usanidi.

### Note

Katika kiunzi cha OTRS, sehemu zinazobadilika zinaweza kuunganishwa tu kwenye tiketi na makala kama chaguo-msingi, lakini zinaweza kupanuliwa kwenda kwenye vitu vingine.

## 2. Usanidi wa Mfumo

### 2.1. Mafaili ua usanidi wa OTRS

Mafaili yote ya usanidi ya OTRS yanahifadhiwa katika mpangilio orodha Kernel na katika sehemu zake ndogo. Hakuna haja ya kubadilisha kwa mikono faili jingine zaidi ya Kernel/Config.pm, kwa sababu mafaili yaliyobaki yatabadilishwa mfumo ukiboreshwa. Nakili parameta za usanidi kutoka mafaili mengine kwenda Kernel/Config.pm na zibadilishke kutegemeana na mahitaji yako. Hili faili halitaguswa wakati wa mchakato wa kubore-shwa, kwahiyo mipangilio yako ya mikono iko salama.

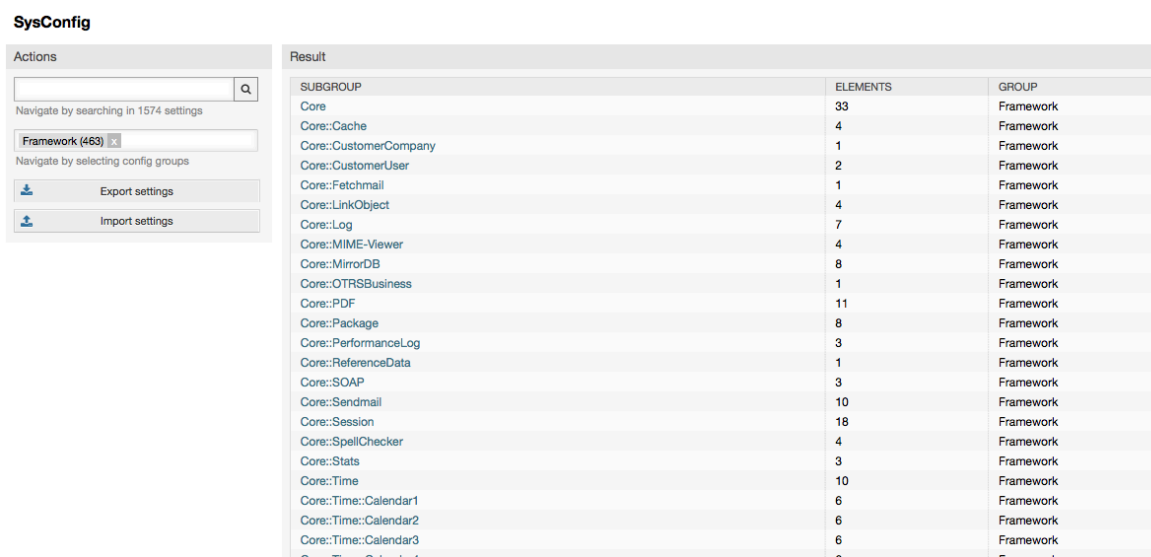
Katika mpangilio orodha Kernel/Config/Files kuna mafaili mengine ambayo yanachanganuliwa wakati kurasa ya kuigia ya OTRS inafikiwa. Kama programu-tumizi za ziada kama Maswali yanayoulizwa mara kwa mara au Meneja Mafaili zimesakinishwa, mafaili ya usanidi ya hizi pia yanaweza kupatikana katika njia iliyotajwa.

Kama kiolesura cha tovuti cha OTRS kimefikiwa, mafaili yote ya .xml katika mpangilio orodha wa Kernel/Config/Files yanachanganuliwa katika mpangilio wa alfabeti, na mipangilio ya kiunzi cha kati na programu-tumizi za ziada zitapakiwa. Baada ya hapo, mipangilio ya kwenye mafaili Kernel/Config/Files/ZZZAAuto.pm, Kernel/Config/Files/ZZZAuto.pm na Kernel/Config/Files/ZZZProcessManagement.pm (kama lipo) yata tathminiwa. Haya mafaili yanatumiwa na kiolesura michoro kwa ajili ya kuhifadhi kwa muda usanidi wa mfumo na hayatakiwi kubadilishwa kwa mikono kamwe. Mwisho, faili Kernel/Config.pm lenye mipangilio yako na parameta zilizobadilishwa kwa mikono, litachanganuliwa. Kusoma mafaili ya usanidi kwa mpangilio huu inahakikisha kwamba mipangilio yako maalumu inatumiwa na mfumo.

### 2.2. Configuring the System Through the Web Interface

Since OTRS 2.0, nearly all configuration parameters of the central framework or additional installed applications, can be changed easily with the graphical interface for system configuration. Log in as OTRS administrator and follow the SysConfig link on the Admin page to execute the new configuration tool (see figure below).

**Figure 4.65. Kiolesura michoro cha usanidi wa mfumo**



**SysConfig**

Actions

Search:

Export settings

Import settings

Result

SUBGROUP	ELEMENTS	GROUP
Core	33	Framework
Core::Cache	4	Framework
Core::CustomerCompany	1	Framework
Core::CustomerUser	2	Framework
Core::Fetchmail	1	Framework
Core::LinkObject	4	Framework
Core::Log	7	Framework
Core::MIME-Viewer	4	Framework
Core::MirrorDB	8	Framework
Core::OTRSBusiness	1	Framework
Core::PDF	11	Framework
Core::Package	8	Framework
Core::PerformanceLog	3	Framework
Core::ReferenceData	1	Framework
Core::SOAP	3	Framework
Core::Sendmail	10	Framework
Core::Session	18	Framework
Core::SpellChecker	4	Framework
Core::Stats	3	Framework
Core::Time	10	Framework
Core::Time::Calendar1	6	Framework
Core::Time::Calendar2	6	Framework
Core::Time::Calendar3	6	Framework
Core::Time::Calendar4	6	Framework

OTRS kwa sasa ina zaidi ya parameta za usanidi 600, na kuna njia tofauti za kufikia kila moja kirahisi. Kwa utafutaji wa nakala kamili, parameta zote za usanidi zinaweza kutafutwa kwa kutumia herufi moja au mbili za muhimu. Utafutaji wa nakala huru hautafuti tu kwenye majina ya parameta za usanidi, bali pia kwenye maelezo ya parameta. Hii inafanya elementi kupatikana kirahisi hata kama jina lake halijulikani.

Kwa zaidi, parameta zote za usanidi zinapangwa katika makundi muhimu na makundi madogo. Makundi muhimu yanawakilisha programu-tumizi ambazo parameta za usanidi zipo ndani yake, mf. "Kiunzi" kwa ajili ya kiunzi cha kati cha OTRS, "Tiketi" kwa ajili ya mfumo wa tiketi, "Maswali yanayoulizwa Mara kwa Mara" kwa ajili ya mfumo wa Maswali yanayoulizwa Mara kwa Mara, na kadhalika. Makundi madogo yanaweza kufikiwa kama programu-tumizi imechaguliwa kutoka kwenye boksi la orodha ya makundi na kitufe cha "Chagua kundi" kimebonyezwa.

Kila parameta ya usanidi inaweza kuwashwa au kuzimwa kwa kupitia kisanduku tiki. Kama parameta imezimwa, mfumo utapuuza hii parameta au kutumia chaguo-msingi. Inawezekana kurudisha parameta ya usanidi iliyobadilishwa kuwa chaguo-msingi la mfumo kwa kutumia kiungo cha kuseti upya. Kitufe cha Kusasisha kinawasilisha mabadiliko yote kwenye parameta za usanidi wa mfumo.

Kama unataka kuhifadhi mabadiiko yote uliyofanya kwenye usanidi wa mfumo wako, kuanzisha usakinishaji mpya kwa haraka, unaweza utumia kitufe "Hamisha mipangilio", ambacho kitatengeneza faili la .pm. Kurudisha mipangilio yako, bonyeza "Agiza mipangilio" na chagua .pm iliyotengenezwa kabla.

## Note

Kwa sababu za kiusalama, parameta za usanidi wa miunganiko ya hifadhidata haziwezi kubadilishwa katika kifungu SysConfig. Inabidi zisetiwe kwa mikono katika Kernel/Config.pm.

# 3. Backing Up the System

Hii sura inaelezea chelezo na urejeshaji wa data za OTRS.

## 3.1. Chelezo

Kuna aina mbili za data za kuweka kwenye chelezo: mafaili ya programu-tumizi (mf. mafaili ya kwenye /opt/otrs), na data zilizohifadhiwa kwenye hifadhidata.

Kurahisisa chelezo, hati `scripts/backup.pl` imejumuishwa katika kila usakinishaji wa OTRS. Inaweza kuanzishwa ili kuweka chelezo la kila data muhimu (ona Hati chini).

```
linux:/opt/otrs# cd scripts/  
linux:/opt/otrs/scripts# ./backup.pl --help  
backup.pl - backup script  
Copyright (C) 2001-2020 OTRS AG, https://otrs.com/  
usage: backup.pl -d /data_backup_dir/ [-c gzip|bzip2] [-r 30] [-t fullbackup|nofullbackup|  
dbonly]  
linux:/opt/otrs/scripts#
```

*Hati: Kupata usaidizi wa utaratibu wa chelezo la OTRS.*

Tekeleza amri zilizowekwa bayana kwenye hati hapo chini kutengeneza chelezo:

```
linux:/opt/otrs/scripts# ./backup.pl -d /backup/  
Backup /backup//2010-09-07_14-28/Config.tar.gz ... done  
Backup /backup//2010-09-07_14-28/Application.tar.gz ... done  
Dump MySQL rdbms ... done  
Compress SQL-file... done
```

```
linux:/opt/otrs/scripts#
```

*Hati: Kutengeneza chelezo.*

Data zote zimehifadhiwa kwenye mpangilio orodha /chelezo/2010-09-07\_14-28/ (ona hati hapo chini). Kwa zaidi, data zilihifadhiwa kwenye faili la .tar.gz

```
linux:/opt/otrs/scripts# ls /backup/2010-09-07_14-28/  
Application.tar.gz Config.tar.gz DatabaseBackup.sql.gz  
linux:/opt/otrs/scripts#
```

*Hati: Kukagua mafaili ya chelezo.*

## 3.2. Rejeshwa

Kurejeshwa chelezo, data zilizohifadhiwa za programu-tumizi zina andikwa upya kwenye mpangilio orodha wa usanikishaji, mf. /opt/otrs. Pia hifadhidata inabidi irejeshwe.

Hati hati/rejeshwa.pl (ona hati chini), ambayo inarahisisha mchakato wa kurejeshwa, inasambazwa na kila usanikishaji wa OTRS. Ina usaidizi kwa MySQL na PostgreSQL.

```
linux:/opt/otrs/scripts# ./restore.pl --help  
restore.pl - restore script  
Copyright (C) 2001-2020 OTRS AG, https://otrs.com/  
usage: restore.pl -b /data_backup/<TIME>/ -d /opt/otrs/  
linux:/opt/otrs/scripts#
```

*Hati: Kupata usaidizi wa utaratibu wa urejeshaji.*

Data ambazo zimehifadhiwa, kwa mfano, kwenye mpangilio orodha /chelezo/2010-09-07\_14-28/, inaweza kurejeshwa na amri zilizo kwenye hati hapa chini, kwa kuamini usanikishaji wa OTRS upo kwenye /opt/otrs.

```
linux:/opt/otrs/scripts# ./restore.pl -b /backup/2010-09-07_14-28 -d /opt/otrs/  
Restore /backup/2010-09-07_14-28//Config.tar.gz ...  
Restore /backup/2010-09-07_14-28//Application.tar.gz ...  
create MySQL  
decompresses SQL-file ...  
cat SQL-file into MySQL database  
compress SQL-file...  
linux:/opt/otrs/scripts#
```

*Hati: Kurejeshwa data za OTRS .*

## 4. Mipangilio ya barua pepe

### 4.1. Sending/Receiving Emails

#### 4.1.1. Sending Emails

##### 4.1.1.1. Via Sendmail (Default)

OTRS can send out emails via [Sendmail](#), [Postfix](#), [Qmail](#) or [Exim](#). The default configuration is to use Sendmail and should work out-of-the-box.

You can configure the sendmail settings via the graphical configuration frontend (Framework::Core::Sendmail)

##### 4.1.1.2. Via SMTP Server or Smarthost

OTRS can send emails via SMTP ([Simple Mail Transfer Protocol / RFC 821](#)) or Secure SMTP.

The SMTP server settings can be configured via the SysConfig (Framework: :Core: :Send-mail). If you don't see SMTPS available as an option, the required Perl modules are missing. In that case, please refer to "Installation of Perl modules required for OTRS" for instructions.

## 4.1.2. Receiving Emails

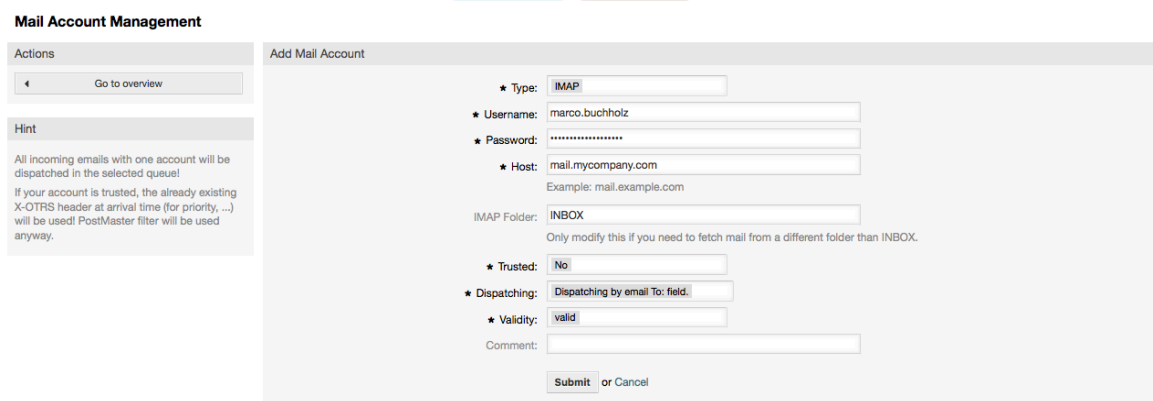
### 4.1.2.1. Mail Accounts Configured via the OTRS GUI

OTRS is able to receive emails from POP3, POP3S, IMAP and IMAPS mail accounts.

Configure your mail accounts via the "PostMaster Mail Accounts" link on the Admin page.

If a new mail account is to be created (see figure below), then its mail server name, login name and password must be specified. Also, you need to select the mail server type, which can be POP3, POP3S, IMAP or IMAPS. If you don't see your server type available as an option, the required Perl modules are missing on your system. In that case, please refer to "Installation of Perl modules required for OTRS" for instructions.

**Figure 4.66. Kuongeza akaunti ya barua pepe**



The screenshot shows the 'Mail Account Management' interface. On the left, there are 'Actions' (Go to overview) and a 'Hint' box. The main area is titled 'Add Mail Account' and contains the following fields:

- Type: IMAP
- Username: marco.buchholz
- Password: [masked]
- Host: mail.mycompany.com (Example: mail.example.com)
- IMAP Folder: INBOX (Note: Only modify this if you need to fetch mail from a different folder than INBOX.)
- Trusted: No
- Dispatching: Dispatching by email To: field.
- Validity: valid
- Comment: [empty]

Buttons: Submit or Cancel

Kama ukichagua Ndiyo kwa thamani ya chaguo linaloaminiwa, kichwa chochote cha X-OTRS kilichoambatanishwa na ujumbe unaoingia kinatathminiwa na kutekelezwa. Kwa sababu kichwa cha X-OTRS kinaweza kutekeleza baadhi ya vitendo katika mfumo wa tiketi, unatakiwa kuseti chaguo la kuamini kuwa Ndiyo kwa watumaji wanaojulikana tu. Vichwa vya OTRS vinatumika na moduli ya kuchuja katika OTRS. Vichwa vya OTRS vinaelezwa katika jedwali hili kwa undani zaidi. Sheria zote za mkuu wa posta zilizotengenezwa zinatekelezwa, bila kujali mipangilio ya mchaguo linaloaminiwa.

Usambazaji wa ujumbe unaoingia unaweza kudhibitiwa kama inahitajika kupangwa kwa foleni au kwa maudhui ya sehemu "Kwa:". Kwa sehemu ya kutuma, kama "Utumaji kwa foleni iliyochaguliwa" imechaguliwa, ujumbe unaoingia utapangwa kwenye foleni maalumu. Anuani ambako barua ilitumwa inapuuzwa kwa sasa. Kama "Utumaji kwa barua pepe sehemu Kwa: " imechaguliwa, mfumo unakagua kama foleni imeunganishwa na anuani ya kwenye sehemu Kwa: ya barua inayoingia. Unaweza kuunganisha anuani kwenye foleni katika kifungu cha Usimamizi wa anuani ya barua pepe cha ukurasa wa Msimamizi. Kama anuani ya sehemu Kwa: imeunganishwa na foleni, ujumbe mpya utapangwa kwenye foleni zilizounganishwa. Kama hakuna kiungo kilichopatikana kati ya anuani kwenye sehemu Kwa: na foleni yoyote, basi ujumbe utaingia kwenye foleni "Mbichi" katika mfumo, ambayo ni FoleniChaguo-msingiYaMkuuwaposta baada ya usakinishaji wa kawaida.

All data for the mail accounts are saved in the OTRS database. The `bin/otrs.Console.pl Maint::PostMaster::MailAccountFetch` command uses the settings in the database and fetches the mail. You can execute it manually to check if all your mail settings are working properly.

On a normal installation, the mail will be fetched every 10 minutes by the OTRS Daemon.

## Note

Wakati wa kutafuta barua pepe, OTRS inafuta barua hiyo kutoka kwenye seva ya POP au IMAP. Hakuna njia ya kuweka nakala kwenye seva. Kama unataka kubakiwa na nakala kwenye seva, unatakiwa utengeneze sheria za kupeleka mbele katika seva yako ya barua. Tafadhali tembelea nyaraka zako za seva ya barua kwa undani.

### 4.1.2.2. Via Command Line Program and Procmail (otrs.Console.pl Maint::PostMaster::Read)

If you cannot use mail accounts to get the email into OTRS, the command line program `bin/otrs.Console.pl Maint::PostMaster::Read` might be a way around the problem. It takes the mails via STDIN and pipes them directly into OTRS. That means email will be available in your OTRS system if the MDA (mail delivery agent, e.g. procmail) executes this program.

To test `bin/otrs.Console.pl Maint::PostMaster::Read` without an MDA, execute the command of the following script.

```
linux:/opt/otrs# cd bin
linux:/opt/otrs/bin# cat ../doc/sample_mails/test-email-1.box | ./otrs.Console.pl
Maint::PostMaster::Read
linux:/opt/otrs/bin#
```

*Hati: Kujaribisha MkuuWaPosta bila MDA.*

Kama barua pepe imeonyeshwa kwenye MuonekanoFoleni, basi mpangilio wako unafanya kazi.

### Example 4.2. Routing via Procmail Using `otrs.Console.pl`

In order to route mails in a specific queue using `otrs.Console.pl` use the following example.

```
| $SYS_HOME/bin/otrs.Console.pl Maint::PostMaster::Read --target-queue=QUEUENAME
```

When sorting to a subqueue, you must separate the parent and child queue with a `::`.

```
| $SYS_HOME/bin/otrs.Console.pl Maint::PostMaster::Read --target-queue=QUEUENAME::SUBQUEUE
```

Procmail ni kichujio cha barua pepe kinachojulikana sana katika mazingira ya Linux. Inasakinishwa katika mifumo mingi. Kama siyo, angalia katika [ukurasa wa nyumbani wa procmail](#).

Kusanidi procmail kwa ajili ya OTRS (kutegemeana na MTA iliyosanidiwa na procmail kama sendmail, postfix, exim au qmail), tumia faili `~otrs/.procmailrc.dist` na nakili kwenda kwenye `.procmailrc` na ongeza mistari ya hati chini.

```
SYS_HOME=$HOME
PATH=/bin:/usr/bin:/usr/local/bin
# --
# Pipe all email into the PostMaster process.
# --
:0 :
| $SYS_HOME/bin/otrs.Console.pl Maint::PostMaster::Read
```

*Hati: Kusanidi procmail kwa ajili ya OTRS.*

All email sent to the local OTRS user will be piped into `bin/otrs.Console.pl Maint::PostMaster::Read` and then shown in your QueueView.

### 4.1.2.3. Fetching emails via POP3 or IMAP and fetchmail for otrs.Console.pl Maint::PostMaster::Read

In order to get email from your mail server, via a POP3 or IMAP mailbox, to the OTRS machine/local OTRS account and to procmail, use [fetchmail](#).

#### Note

Usanidi wa SMTP unaofanya kazi unahitajika kwenye mashine ya OTRS.

You can use the `.fetchmailrc.dist` in the home directory of OTRS and copy it to `.fetchmailrc`. Modify/change it for your needs (see the Example below).

#### Example 4.3. `.fetchmailrc`

```
#poll (mailserver) protocol POP3 user (user) password (password) is (localuser)
poll mail.example.com protocol POP3 user joe password mama is otrs
```

Don't forget to set the `.fetchmailrc` to 710 (**chmod 710 `.fetchmailrc`**)!

With the `.fetchmailrc` from the Example above, all email will be forwarded to the local OTRS account, if the command **fetchmail -a** is executed. Set up a cronjob with this command if you want to fetch the mails regularly.

### 4.1.2.4. Filtering/Dispatching by OTRS/PostMaster Modules (for More Complex Dispatching)

If you use the `bin/otrs.Console.pl Maint::PostMaster::Read` or `bin/otrs.Console.pl Maint::PostMaster::MailAccountFetch` method, you can insert or modify X-OTRS header entries with the PostMaster filter modules. With the X-OTRS headers, the ticket system can execute some actions on incoming mails, sort them into a specific queue, change the priority or change the customer ID, for example. More information about the X-OTRS headers are available in the section about adding mail accounts from the OTRS Admin page.

Kuna baadhi ya moduli chaguo-msingi za kuchuja:

#### Note

Jina la kazi (mf. `$Self->{'MkuuWaPosta::ModuliUchujaji'}->{'JinaKazi'}`) linahitaji kuwa la kipekee!

`Kernel::System::PostMaster::Filter::Match` is a default module to match on some email header (e.g. From, To, Subject, ...). It can set new email headers (e.g. X-OTRS-Ignore: yes or X-OTRS-Queue: spam) if a filter rule matches. The jobs of the Example below can be inserted in `Kernel/Config.pm`

#### Example 4.4. Example jobs for the filter module `Kernel::System::PostMaster::Filter::Match`

```
# Job Name: 1-Match
# (block/ignore all spam email with From: noreply@)
$self->{'PostMaster::PreFilterModule'}->{'1-Match'} = {
  Module => 'Kernel::System::PostMaster::Filter::Match',
  Match => {
    From => 'noreply@',
  },
  Set => {
    'X-OTRS-Ignore' => 'yes',
  },
};
```

```
# Job Name: 2-Match
# (sort emails with From: sales@example.com and Subject: **ORDER**
# into queue 'Order')
$Self->{'PostMaster::PreFilterModule'}->{'2-Match'} = {
  Module => 'Kernel::System::PostMaster::Filter::Match',
  Match => {
    To => 'sales@example.com',
    Subject => '**ORDER**',
  },
  Set => {
    'X-OTRS-Queue' => 'Order',
  },
};
```

Kernel::System::PostMaster::Filter::CMD is a default module to pipe the email into an external command. The output is given to STDOUT and if the result is true, then set new email header (e.g. X-OTRS-Ignore: yes or X-OTRS-Queue: spam). The Example below can be used in Kernel/Config.pm

### Example 4.5. Kazi ya mfano kwa moduli ya kuchuja Kiini::Mfumo::MkuuWaPosta::Kichujio::CMD

```
# Job Name: 5-SpamAssassin
# (SpamAssassin example setup, ignore spam emails)
$Self->{'PostMaster::PreFilterModule'}->{'5-SpamAssassin'} = {
  Module => 'Kernel::System::PostMaster::Filter::CMD',
  CMD => '/usr/bin/spamassassin | grep -i "X-Spam-Status: yes"',
  Set => {
    'X-OTRS-Ignore' => 'yes',
  },
};
```

Kernel::System::PostMaster::Filter::ExternalTicketNumberRecognition is a default module that adds the possibility to parse external identifiers, in the email subject, the body or both using regular expressions. It then stores this value in a defined dynamic field. When an email comes in, OTRS will first search for an external identifier and when it finds one, query OTRS on the pre-defined dynamic field. If it finds an existing ticket, it will update this ticket, otherwise it will create a new ticket with the external reference number in the separate field.

OTRS SysConfig already provide 4 different settings to setup different external ticket numbers. If more settings are needed they need to be added manually. The following example can be used in Kernel/Config.pm to extend SysConfig settings.

### Example 4.6. Example job for the filter module Kernel::System::PostMaster::Filter::ExternalTicketNumberRecognition

```
# Job Name: ExternalTicketNumberRecognition
# External Ticket Number Reconition, check for Incident-<number> in incoming mails
subject and
# body from the addeesses <sender>@externalticket.com, if number is found it will be
stored in
# the dynamic field 'ExternalNumber' (that need to be setup in the Admin Panel).
$Self->{'PostMaster::PreFilterModule'}->{'000-ExternalTicketNumberRecognition'} = {
  'FromAddressRegExp' => '\\s*@externalticket.com',
  'NumberRegExp' => 'Incident-(\\d.*)',
  'SearchInSubject' => '1',
  'SearchInBody' => '1',
  'TicketStateTypes' => 'new;open'
  'DynamicFieldName' => 'ExternalNumber',
  'Module' =>
'Kernel::System::PostMaster::Filter::ExternalTicketNumberRecognition',
  'Name' => 'Test External Ticket Number',
  'SenderType' => 'system',
};
```



### *Machaguo ya Usanidi*

- **KutokaAnwaniRegExp**

Huu ni mpangilio wa hiari. Barua zinazofanana na hii anwani "Kutoka:" ndiyo zitatumika kwa kichujio hiki. Unaweza kubadilisha huu mpangilio kuwa anwani ya mtumaji mfumo wako wa nje inayotumia kwa ujumbe unaotoka. Ikiwa hii anwani ianatofautiana, unaweza kuseti hili chaguo kuwa tupu. OTRS kwa kesi hii haitakagua anwani ya mtumaji.

- **NambaRegExp**

Huu ni mpangilio wa lazma. Huu mpangilio una semi za kawaida ambazo OTRS itatumia kupata nambari ya tiketi kutoka kwenye somo na/au kiini cha tiketi. Usemi wa kawaida utafanana na matukio ya kwa mfano 'Tukio-12354' na itaweka sehemu iliyo kwenye mabano katika sehemu inayobadilika, kwa kesi hii '12354'.

- **TafutaInSomo**

Kama hii imesetiwa kuwa '1', mada ya barua pepe inatafutwa kwa ajili ya nambari ya tiketi.

- **Tafuta katika Kiini**

Kama hii imesetiwa kuwa '1', kiini cha barua pepe kinatafutwa kwa ajili ya nambari ya tiketi.

- **TiketiHaliAina**

Huu ni mpangilio wa hiari. Kama imetolewa, itatafuta OTRS kwa ajili ya tiketi za nje zilizo wazi tu kwa aina fulani ya hali. Aina za hali zinagawanywa na nukta mkato.

- **SehemuInayobadilika**

Huu ni mpangilio unaohitajika. Unafafanua sehemu inayobadilika ambayo inatumika kuhifadhi nambari ya nje (jina la sehemu lazima liwepo kwenye mfumo na inabidi liwe halali).

- **AinaYaMtumaji**

Hii inafafanua aina ya mtumaji wa makala zilizotengenezwa katika OTRS.

`Kernel::System::PostMaster::Filter::Decrypt` is a default module that is capable to decrypt an encrypted incoming email message (S/MIME or PGP) placing the unencrypted message body in the email header `X-OTRS-BodyDecrypted` to be processed later. Additionally it can also update the email body to the unencrypted version.

In order to decrypt the emails the system needs to be properly configured for S/MIME and/or PGP and have the needed private keys to decrypt the information.

This module is disabled by default and it can be configured directly in the System Configuration in the Admin Panel.

### *Machaguo ya Usanidi*

- **StoreDecryptedBody**

Set this option to "1" to update the email body to the unencrypted version if the decryption was successful. Be aware that using this the emails will be stored unencrypted and there is no possible way to revert this action.

Pia inawezekana kutengeneza moduli zako za kuchuja za MkuuWaPosta.

### 4.1.2.5. Troubleshooting Email Filtering

This section shows some common issues and things to consider when troubleshooting Postmaster filters.

- The filters are worked in order of their alphabetically sorted filter names. The last filter wins for a certain field to be set, when the criteria match twice.
- "Stop After Match" can prevent a second match.
- Make sure the regular expression is valid.
- Headers can be set as to control OTRS, but are not written in the mail itself.
- When matching one From, CC, TO, use EMAILADDRESS: <your@address>
- The Mailbox must be trusted.
- The match criteria are AND conditions.
- Ticket properties can not be matched by the postmaster filter.

## 4.2. Secure Email with PGP

OTRS ina uwezo wa kusaini au kusimba fiche ujumbe unaotoka kwa PGP. Zaidi, ujumbe unaoingia ulio simbwa fiche unaweza kusimbua fiche. Kusimba na kusimbua fiche unafanyika na kifaa cha GPL GnuPG. Kuseti GnuPG kwa ajili ya OTRS, hatua zifwatazo inabidi zifanyike:

1. Sakinisha GnuPG, kupitia meneja kifurushi wa mfumo endeshi wako.
2. Sanidi GnuPG ili utumie pamoja na OTRS. Mipangilio orodha ya lazima ya GnuPG na ufunguo binafsi lazima vitengenezwe. Amri iliyoonyeshwa chini lazima itekelezwe kama mtumiaji 'otrs' kutoka kwenye sheli.

```
linux:~# su otrs
linux:/root$ cd
linux:~$ pwd
/opt/otrs
linux:~$ gpg --gen-key
gpg (GnuPG) 1.4.2; Copyright (C) 2005 Free Software Foundation, Inc.
This program comes with ABSOLUTELY NO WARRANTY.
This is free software, and you are welcome to redistribute it
under certain conditions. See the file COPYING for details.

gpg: directory `/opt/otrs/.gnupg' created
gpg: new configuration file `/opt/otrs/.gnupg/gpg.conf' created
gpg: WARNING: options in `/opt/otrs/.gnupg/gpg.conf' are not yet active during t
his run
gpg: keyring `/opt/otrs/.gnupg/secring.gpg' created
gpg: keyring `/opt/otrs/.gnupg/pubring.gpg' created
Please select what kind of key you want:
  (1) DSA and Elgamal (default)
  (2) DSA (sign only)
  (5) RSA (sign only)
Your selection? 1
DSA keypair will have 1024 bits.
ELG-E keys may be between 1024 and 4096 bits long.
What keysize do you want? (2048)
Requested keysize is 2048 bits
Please specify how long the key should be valid.
  0 = key does not expire
<n> = key expires in n days
<n>w = key expires in n weeks
<n>m = key expires in n months
```

```

<n>y = key expires in n years
Key is valid for? (0)
Key does not expire at all
Is this correct? (y/N) y

You need a user ID to identify your key; the software constructs the user ID
from the Real Name, Comment and Email Address in this form:
"Heinrich Heine (Der Dichter) <heinrichh@duesseldorf.de>"

Real name: Ticket System
Email address: support@example.com
Comment: Private PGP Key for the ticket system with address support@example.com
You selected this USER-ID:
"Ticket System (Private PGP Key for the ticket system with address support@exam
le.com) <support@example.com>"

Change (N)ame, (C)omment, (E)mail or (O)kay/(Q)uit? 0
You need a Passphrase to protect your secret key.

Passphrase: secret
Repeat passphrase: secret

We need to generate a lot of random bytes. It is a good idea to perform
some other action (type on the keyboard, move the mouse, utilize the
disks) during the prime generation; this gives the random number
generator a better chance to gain enough entropy.
+++++++.....+++++.....+++++.....+++++.....+++++.....+++++.....+++++.....
+++++++.....+++++.....+++++.....+++++.....+++++.....+++++.....+++++.....
.....>+++++<+++++.....+++++

Not enough random bytes available. Please do some other work to give
the OS a chance to collect more entropy! (Need 280 more bytes)

+++++++.....+++++.....+++++.....+++++.....+++++.....+++++.....+++++.....
+++++++.....+++++.....+++++.....+++++.....+++++.....+++++.....+++++.....
..+++++>.....>+++++.....>+++++<+++++.....
.....>+++++<+++++.....
.....+++++^^^
gpg: /opt/otrs/.gnupg/trustdb.gpg: trustdb created
gpg: key 7245A970 marked as ultimately trusted
public and secret key created and signed.

gpg: checking the trustdb
gpg: 3 marginal(s) needed, 1 complete(s) needed, PGP trust model
gpg: depth: 0 valid: 1 signed: 0 trust: 0-, 0q, 0n, 0m, 0f, 1u
pub 1024D/7245A970 2006-02-03
    Key fingerprint = 2ED5 BC36 D2B6 B055 7EE1 5833 1D7B F967 7245 A970
uid Ticket System (Private gpg key for ticket system with addre
ss support@example.com) <support@example.com>
sub 2048g/52B97069 2006-02-03

linux:~$

```

### *Hati: Kusanidi GnuPG.*

Kama ilivyoonyeshwa kwenye hati chini, mipangilio chaguo-msingi inaweza kutumika kwa parameta nyingi zinazotakiwa. Thamani za mmiliki wa ufunguo tu ndio zinatakiwa kuingizwa kwa usahihi, na nywila sahihi kuwekwa kwa ajili ya funguo.

3. Kwenye skrini kwa ajili ya mipangilio ya PGP, PGP lazima iamilishwe kwa ajili ya OTRS (chaguo la kwanza). Pia, njia ya kwenda kwenye programu ya gpg lazima isetiwe na kukaguliwa.

Mpangilio unaofwata wa config (PGP::Options) unaweza kuhitaji mabadiliko pia. Kupitia mpangilio huu wa config, parameta ambazo zinatumiwa kwa kila utekelezaji wa gpg kwa mtumiaji wa 'otrs' unaweza kuwekwa bayana. Hasa, mpangilio orodha wa mafaili ya config ya GnuPG ya mtumiaji wa 'otrs' ni muhimu. Kwenye mfano /opt/otrs/.gnupg imetumiwa. Huu mpangilio orodha ulitengenezwa mapema wakati wa usanidi wa PGP.

Kwa kupitia chaguo linalofwata la usanidi (PGP::Ufunguo::Nywila) inawezekana kubainisha jozi ya Vitambulisho vya funguo na nywila zake kwa ajili ya funguo binafsi. Kwa sababu mawasiliano ya wabia kutoka nje wanaandika kwenye mfumo wa tiketi na ujumbe wao kufanyiwa usimbaji fiche kwa kutumia funguo zako za umma, OTRS inaweza kusimbua fiche huu ujumbe kwa kutumia Kitambulisho/nywila zilizobainishwa hapa.

Jinsi ya kupata kitambulisho cha ufunguo wako binafsi? Kitambulisho cha ufunguo wako binafsi tayari kinaonyeshwa wakati wa uzalishaji funguo (ona hatua 1 hapo juu). Pia inawezekana kupata Kitambulisho kama amri itakayoonyeshwa kwenye hati ifuatayo itatekelezwa kama mtumiaji 'otrs':

```
linux:~# su otrs
linux:/root$ cd
linux:~$ pwd
/opt/otrs
linux:~$ gpg --list-keys
/opt/otrs/.gnupg/pubring.gpg
-----
pub   1024D/7245A970 2006-02-03
uid           Ticket System (Private gpg key for ticket system with
address support@example.com) <support@example.com>
sub   2048g/52B97069 2006-02-03

linux:~$
```

*Hati: Kupata Kitambulisho cha ufunguo wako binafsi.*

Kitambulisho cha ufunguo binafsi kinaweza kupatikana katika mstari uanoanza na "sub". Ni tungo iliyo katika hexadecimal ambayo ina urefu wa herufi nane, katika mfano juu ni "52B97069". Nywila unayotakiwa kuweka bayana kwa ajili ya huu ufunguo katika mfumo wa tiketi ni sawa na uliotolewa wakati wa uzalishaji ufunguo.

Baada ya hii data kuingizwa, kitufe cha ku "sasisha" kinaweza kutumika kuhifadhi mipangilio. OTRS iko tayari kupokea na kusimbua fiche ujumbe uliofanyiwa usimbaji.

4. Hatimaye, agiza ufunguo wa umma wa mteja. Hii inahakikisha kwamba ujumbe uliofanyiwa usimbaji fiche unaweza kutumwa nje kwa huyu mteja. Kuna njia mbili za kugiza ufunguo wa umma wa mteja.

Njia ya kwanza ni kubainisha ufunguo wa umma wa mteja katika kiolesura cha usimamizi wa mteja.

Njia ya pili ni kuweka bayana ufunguo kupitia mipangilio ya PGP, inafikika kutoka kwenye kurasa ya Msimamizi. Katika upande wa kulia wa hii skrini, funguo za umma za wateja zilizoagizwa kutoka nje zinaonyeshwa. Baada ya PGP kuamilishwa na kusanidwa kwa ajili ya OTRS, funguo yako mwenyewe ya umma itaorodheshwa hapa. Kwenye upande wa kushoto wa skrini ya mipangilio ya PGP inawezekana kutafuta funguo. Pia ufunguo mpya wa umma unaweza kupakiwa kwenye mfumo kutoka kwenye faili.

Mafaili yenye ufunguo wa umma ambayo yanahitaji kuagizwa kwenye OTRS inabidi yawe tangamanifu na mafaili ya ufunguo ya GnuPGP. Katika kesi nyingi, ufunguo uliohifadhiwa katika faili ni "ufunguo unaolindwa na ASCII". OTRS inaweza kushughulika na umbizo hili.

## 4.3. Secure Email with S/MIME

Kwa muonekano wa kwanza, usimbaji fiche kwa S/MIME unaonekana mgumu kulinganisha na PGP. Kwanza inabidi uanzishe Mamlaka ya Uhalalishaji (CA) kwa ajili ya mfumo wa

OTRS. Hatua zinazofuata ni kama zile zinazohitajika na PGP: sanidi OTRS, sakinisha hati yako mwenyewe, agiza hati nyingine za umma kama zinavyohitajika, na kadh.

Usanidi wa S/MIME unafanyika nje ya kiolesura cha tovuti cha OTRS kwa asilimia kubwa, na unatakiwa ufanyike kwenye sheli na mtumiaji wa 'otrs'. Usanidi wa MIME chini ya Linux unajikita katika SSL (OpenSSL). Kwahiyo kwanza kabisa kagua kama kifurudhi cha OpenSSL kimesakinishwa kwenye mfumo wako. Kifurushi cha OpenSSL kinajumuisha hati iitwayo CA.pl, ambamo ndani yake hatua za muhimu za utengenezaji wa hati zinaweza kufanyika. Kurahisisha mchakato, tafuta wapi kwenye mfumo wa mafaili hati ya CA.pl imehifadhiwa na ingiza mahali inapopatikana katika kishika nafasi NJIA cha sheli (ona Hati chini).

```
otrs@linux:~> rpm -ql openssl | grep CA
/usr/share/ssl/misc/CA.pl
otrs@linux:~> export PATH=$PATH:/usr/share/ssl/misc
otrs@linux:~> which CA.pl
/usr/share/ssl/misc/CA.pl
otrs@linux:~> mkdir tmp; cd tmp
otrs@linux:~/tmp>
```

*Hati: Usanidi wa S/MIME.*

Hati hapo juu inaonyesha kwamba mpangilio orodha mpya wa muda ~/tmp umetengenezwa, ambapo ndani yake hati itazalishwa.

Kutengeneza hati, fanya operesheni zifuatazo katika tungo amri (tunaamini msimamizi wa OTRS inabidi atengeneze hati ya SSL kwa ajili ya kujaribisha na kujifunza. Kama tayari una hati ya SL iliyothibitishwa kwa ajili ya usimbaji fiche, itumie na ruka hizi hatua):

1. Anzisha Mamlaka yako ya Uhalalishaji kwa ajili ya SSL. unahitaji kuthibitisha maombi ya hati yako ya SSL (ona Hati chini).

```
otrs@linux:~/tmp> CA.pl -newca
CA certificate filename (or enter to create)

Making CA certificate ...
Generating a 1024 bit RSA private key
...+++++
.....+++++
writing new private key to './demoCA/private/akey.pem'
Enter PEM pass phrase:
Verifying - Enter PEM pass phrase:
-----
You are about to be asked to enter information that will be incorporated
into your certificate request.
What you are about to enter is what is called a Distinguished Name or a DN.
There are quite a few fields but you can leave some blank
For some fields there will be a default value,
If you enter '.', the field will be left blank.
-----
Country Name (2 letter code) [AU]:DE
State or Province Name (full name) [Some-State]:OTRS-state
Locality Name (eg, city) []:OTRS-town
Organization Name (eg, company) [Internet Widgits Pty Ltd]:Your company
Organizational Unit Name (eg, section) []:
Common Name (eg, YOUR name) []:OTRS Admin
Email Address []:otrs@your-domain.tld
otrs@linux:~/tmp> ls -la demoCA/
total 8
-rw-r--r--  1 otrs otrs 1330 2006-01-08 17:54 cacert.pem
drwxr-xr-x  2 otrs otrs   48 2006-01-08 17:53 certs
drwxr-xr-x  2 otrs otrs   48 2006-01-08 17:53 crl
-rw-r--r--  1 otrs otrs    0 2006-01-08 17:53 index.txt
drwxr-xr-x  2 otrs otrs   48 2006-01-08 17:53 newcerts
drwxr-xr-x  2 otrs otrs   80 2006-01-08 17:54 private
-rw-r--r--  1 otrs otrs   17 2006-01-08 17:54 serial
```

```
otrs@linux:~/tmp>
```

*Hati: Kuweka Mamlaka ya Uhalalishaji kwa ajili ya SSL.*

## 2. Zalisha maombi ya cheti (ona Hati chini).

```
otrs@linux:~/tmp> CA.pl -newreq
Generating a 1024 bit RSA private key
.....+++++
....+++++
writing new private key to 'newreq.pem'
Enter PEM pass phrase:
Verifying - Enter PEM pass phrase:
-----
You are about to be asked to enter information that will be incorporated
into your certificate request.
What you are about to enter is what is called a Distinguished Name or a DN.
There are quite a few fields but you can leave some blank
For some fields there will be a default value,
If you enter '.', the field will be left blank.
-----
Country Name (2 letter code) [AU]:DE\keyreturn
State or Province Name (full name) [Some-State]:OTRS-state
Locality Name (eg, city) []:OTRS-town
Organization Name (eg, company) [Internet Widgits Pty Ltd]:Your company
Organizational Unit Name (eg, section) []:
Common Name (eg, YOUR name) []:OTRS admin
Email Address []:otrs@your-domain.tld

Please enter the following 'extra' attributes
to be sent with your certificate request
A challenge password []:
An optional company name []:
Request (and private key) is in newreq.pem
otrs@linux:~/tmp> ls -la
total 4
drwxr-xr-x  6 otrs otrs  232 2006-01-08 17:54 demoCA
-rw-r--r--  1 otrs otrs 1708 2006-01-08 18:04 newreq.pem
otrs@linux:~/tmp>
```

*Hati: Kutengeneza maombi ya cheti.*

## 3. Kusaini maombi ya hati. Maombi ya hati yanaweza kusainiwa na kuthibitishwa na Mamlaka yako ya Uhalalishaji, au ili kuaminika zaidi kwa kusainiwa na Mamlaka nyingine ya Uhalalishaji iliyothibitishwa. (ona chini).

```
otrs@linux:~/tmp> CA.pl -signreq
Using configuration from /etc/ssl/openssl.cnf
Enter pass phrase for ./demoCA/private/cakey.pem:
Check that the request matches the signature
Signature ok
Certificate Details:
  Serial Number:
    fd:85:f6:9f:14:07:16:c8
  Validity
    Not Before: Jan  8 17:04:37 2006 GMT
    Not After : Jan  8 17:04:37 2007 GMT
  Subject:
    countryName           = DE
    stateOrProvinceName  = OTRS-state
    localityName         = OTRS-town
    organizationName     = Your Company
    commonName           = OTRS administrator
    emailAddress         = otrs@your-domain.tld
  X509v3 extensions:
    X509v3 Basic Constraints:
      CA:FALSE
```

```

Netscape Comment:
  OpenSSL Generated Certificate
X509v3 Subject Key Identifier:
  01:D9:1E:58:C0:6D:BF:27:ED:37:34:14:D6:04:AC:C4:64:98:7A:22
X509v3 Authority Key Identifier:
  keyid:10:4D:8D:4C:93:FD:2C:AA:9A:B3:26:80:6B:F5:D5:31:E2:8E:DB:A8
  DirName:/C=DE/ST=OTRS-state/L=OTRS-town/O=Your Company/
  CN=OTRS admin/emailAddress=otrs@your-domain.tld
  serial:FD:85:F6:9F:14:07:16:C7

Certificate is to be certified until Jan  8 17:04:37 2007 GMT (365 days)
Sign the certificate? [y/n]:y

1 out of 1 certificate requests certified, commit? [y/n]y
Write out database with 1 new entries
Data Base Updated
Signed certificate is in newcert.pem
otrs@linux:~/tmp>

```

*Hati: Kusaini maombi ya cheti.*

- Zalisha hati yako mwenyewe, na data zote zinaoendana nazo, kwa kutumia maombi ya hati yaliyosainiwa (ona Hati chini).

```

otrs@linux:~/tmp> CA.pl -pkcs12 "OTRS Certificate"
Enter pass phrase for newreq.pem:
Enter Export Password:
Verifying - Enter Export Password:
otrs@linux:~/tmp> ls -la
total 12
drwxr-xr-x  6 otrs otrs  328 2006-01-08 18:04 demoCA
-rw-r--r--  1 otrs otrs 3090 2006-01-08 18:13 newcert.p12
-rw-r--r--  1 otrs otrs 3791 2006-01-08 18:04 newcert.pem
-rw-r--r--  1 otrs otrs 1708 2006-01-08 18:04 newreq.pem
otrs@linux:~/tmp>

```

*Hati: Kuzalisha cheti kipya.*

Sasa kwa kuwa hizi operesheni zimefanyika, kuseti S/MIME lazima kukamilike katika OTRS.

hiki kipande cha kuseti kinafanyika katika ukurasa wa Msimamizi, kuchagua kiungo "SMIME". Ikiwa msaada wa S/MIME wa kawaida kwenye OTRS haujawezeshwa, barakoa itanbainisha hii kwa msimamizi na kutoa kiungo cha kuiwezesha.

Na kundi la SysConfig "Crypt::SMIME", unaweza kuwezesha na kusanidi msaada wa ujumla wa S/MIME.

Hana unweza kuamilisha msaada wa S/MIME, na kufafanua njia za anri ya OpenSSL na mpangilio orodha wa hati. Faili la ufunguo lililo tengenezwa hapo juu lazima lihifadhiwe kwenye mpangilio orodha ulioonyeshwa hapa. La sivyo OpenSSL haiwezi kulitumia.

Hatua inayofwata inafanywa kwenye usanidi wa S/MIME katika ukurasa wa Msimamizi wa OTRS. Hapa unaweza kuagiza ufunguo binafsi wa (za) mfumo wa OTRS na funguo za umma za mawasiliano ya wabia wengine. Ingiza ufunguo wa umma ambao umetengenezwa mwanzoni mwa kifungu hiki na kuongezwa kwenye OTRS.

Kwa kawaida, funguo zote za umma za S/MIME za mawasiliano ya washiriki zinaweza kuagizwa kwa kutumia kifaa cha usimamizi wa mteja pia.

### 4.3.1. Fetch S/MIME Certificates from Customer User Backends

It is possible to use a Customer User Backed (such as LDAP) as the source of public S/MIME certificates. This certificates could be imported into the system and be displayed in

S/MIME configuration on the OTRS Admin page and they can be used from OTRS to send encrypted emails to the customers.

In order to enable this feature is needed to:

1. Enable SMIME in SysConfig
2. Enable SMIME::FetchFromCustomer in SysConfig
3. Configure a customer user backend to provide the attribute UserSMIMECertificate with the customer user S/MIME certificate (there is an example for LDAP customer user mapping in \$OTRS\_HOME/Kernel/Config/Defaults.pm).

This feature can be used in three different ways:

1. Incoming Emails:

A dedicated Postmaster filter (PostMaster::PreFilterModule###000-SMIMEFetchFromCustomer in SysConfig) will extract the email address of each incoming email and will try to find the email address in the list of customers. If found it will try to get the S/MIME certificate from customer user attributes. If a certificate is found it will try to import it (unless it was already imported).

2. Specific email address or all customers:

The console command Maint::SMIME::CustomerCertificate::Fetch can be used to import the S/MIME certificate of one customer email address as:

```
shell> perl /opt/otrs/bin/otrs.Console.pl Maint::SMIME::CustomerCertificate::Fetch --email customer@example.com
```

In this case the console command will try to match the supplied email address with one of the customer users. If found it will try to add to the system the S/MIME certificate found in customer user properties (if the certificate is not already added).

The same console command can be used to import the S/MIME certificates of all customer users (limited to CustomerUserSearchListLimit property from the customer user backend). This option is discouraged specially for systems with a large number of customer users as it might require too much time to execute and depending on the limit it might be possible that not all customer certificates will be fetched. Execute the console command in this mode as:

```
shell> perl /opt/otrs/bin/otrs.Console.pl Maint::SMIME::CustomerCertificate::Fetch --add-all
```

For this option the console command will query the customer user backends to get all possible customers and for each it will check if there is a S/MIME certificate. If a certificate is found, it will try to add it to the system (if the certificate is not already added).

3. Renew existing certificates:

Another console command Maint::SMIME::CustomerCertificate::Renew can be used to check for all existing certificates in the system. This verifies that the existing certificates from customer users matches the ones that are retrieved by the customer user properties. Any new certificate in the customer user backend will be added into the system (no certificates are deleted in this process).



This console command is executed once a day by the OTRS daemon automatically with the task `Daemon::SchedulerCronTaskManager::Task###RenewCustomerSMIME-Certificates` (as seen in `SysConfig`), but it can be also executed manually on demand as:

```
shell> perl /opt/otrs/bin/otrs.Console.pl Maint::SMIME::CustomerCertificate::Renew
```

## 5. Using External backends

### 5.1. Customer Data

OTRS works with many customer data attributes such as username, email address, phone number, etc. These attributes are displayed in both the Agent and the Customer frontends, and also used for the authentication of customers.

Data za mteja zinazotumika au kuonyeshwa kwenye OTRS zinauwezekano mkubwa wa kugeuzwa kukufaa. Taarifa ifuatayo hata hivyo inahitajika muda wote kwa ajili ya uthibitisho wa mteja:

- Mtumiaji ingia
- Anwani ya barua pepe
- Kitambulisho cha mteja

Tumia parameta zifuatazo za `SysConfig` kama unataka kuonyesha taarifa za mteja katika kiolesura cha wakala wako.

```
# Ticket::Frontend::CustomerInfo*
# (show customer info on Compose (Phone and Email), Zoom and
# Queue view)
$self->{'Ticket::Frontend::CustomerInfoCompose'} = 1;
$self->{'Ticket::Frontend::CustomerInfoZoom'} = 1;
```

*Hati: parameta za usanidi za SysConfig.*

### 5.2. Customer User Backend

Unaweza kutumia aina mbili za mazingira ya nyuma ya mtumiaji, DB na LDAP. Kama tayari una mazingira mengine ya nyuma ya mteja (mf. SAP), inawezekana pia kuandika moduli ambayo inaitumia.

#### 5.2.1. Hifadhidata (Chaguo-msingi)

The Example below shows the configuration of a DB customer backend, which uses customer data stored in the OTRS database.

#### Example 4.7. Usanidi wa hifadhidata ya mazingira ya nyuma ya mteja

```
# CustomerUser (customer database backend and settings)
$self->{'CustomerUser'} = {
  Name => 'Database Datasource',
  Module => 'Kernel::System::CustomerUser::DB',
  Params => {
    # if you want to use an external database, add the required settings
  }
}
# DSN => 'DBI:odbc:yourdsn',
# Type => 'mssql', # only for ODBC connections
```

```

#         DSN => 'DBI:mysql:database=customerdb;host=customerdbhost',
#         User => '',
#         Password => '',
#         Table => 'customer_user',

# CaseSensitive will control if the SQL statements need LOWER()
# function calls to work case insensitively. Setting this to
# 1 will improve performance dramatically on large databases.
CaseSensitive => 0,
    },
# customer unique id
CustomerKey => 'login',

# customer #
CustomerID => 'customer_id',
CustomerValid => 'valid_id',
CustomerUserListFields => ['first_name', 'last_name', 'email'],
CustomerUserSearchFields => ['login', 'last_name', 'customer_id'],
CustomerUserSearchPrefix => '',
CustomerUserSearchSuffix => '*',
CustomerUserSearchListLimit => 250,
CustomerUserPostMasterSearchFields => ['email'],
CustomerUserNameFields => ['title', 'first_name', 'last_name'],
CustomerUserEmailUniqCheck => 1,
# # show not own tickets in customer panel, CompanyTickets
# CustomerUserExcludePrimaryCustomerID => 0,
# # generate auto logins
# AutoLoginCreation => 0,
# AutoLoginCreationPrefix => 'auto',
# # admin can change customer preferences
# AdminSetPreferences => 1,
# # cache time to live in sec. - cache any database queries
# CacheTTL => 0,
# # just a read only source
# ReadOnly => 1,
Map => [
    # note: Login, Email and CustomerID needed!
    # var, frontend, storage, shown (1=always,2=lite), required, storage-type, http-
link, readonly, http-link-target, link class(es)
    [ 'UserTitle',      'Title',      'title',      1, 0, 'var', '', 0 ],
    [ 'UserFirstname', 'Firstname', 'first_name', 1, 1, 'var', '', 0 ],
    [ 'UserLastname',  'Lastname',  'last_name',  1, 1, 'var', '', 0 ],
    [ 'UserLogin',     'Username',  'login',     1, 1, 'var', '', 0 ],
    [ 'UserPassword',  'Password',  'pw',        0, 0, 'var', '', 0 ],
    [ 'UserEmail',     'Email',     'email',     1, 1, 'var', '', 0 ],
#     [ 'UserEmail',     Translatable('Email'), 'email',     1, 1, 'var', "[%
Env("CGIHandle") %]?Action=AgentTicketCompose;ResponseID=1;TicketID=[% Data.TicketID | uri
%];ArticleID=[% Data.ArticleID | uri %]", 0, '', 'AsPopup OTRSPopup_TicketAction' ],
    [ 'UserCustomerID', 'CustomerID', 'customer_id', 0, 1, 'var', '', 0 ],
#     [ 'UserCustomerIDs', 'CustomerIDs', 'customer_ids', 1, 0, 'var', '', 0 ],
    [ 'UserPhone',     'Phone',     'phone',     1, 0, 'var', '', 0 ],
    [ 'UserFax',       'Fax',       'fax',       1, 0, 'var', '', 0 ],
    [ 'UserMobile',    'Mobile',    'mobile',    1, 0, 'var', '', 0 ],
    [ 'UserStreet',    'Street',    'street',    1, 0, 'var', '', 0 ],
    [ 'UserZip',       'Zip',       'zip',       1, 0, 'var', '', 0 ],
    [ 'UserCity',      'City',      'city',      1, 0, 'var', '', 0 ],
    [ 'UserCountry',   'Country',   'country',   1, 0, 'var', '', 0 ],
    [ 'UserComment',   'Comment',   'comments',  1, 0, 'var', '', 0 ],
    [ 'ValidID',       'Valid',     'valid_id',  0, 1, 'int', '', 0 ],

    # Dynamic field example
#     [ 'DynamicField_Name_X', undef, 'Name_X', 0, 0, 'dynamic_field', undef, 0, undef,
undef, ],
    ],
# default selections
Selections => {
    UserTitle => {
        'Mr.' => 'Mr.',
        'Mrs.' => 'Mrs.',
    },
},
};

```

Ukitaka kugeuza data za mteja kukufaa, badili vichwa vya safuwima au ongeza mpya kwenye jedwali la mteja\_mtumiaji kwenye hifadhidata ya OTRS. Kama mfano, hati hapa chini inaonyesha jinsi ya kuongeza sehemu mpya kwa ajili ya nambari ya chumba.

```
linux:~# mysql -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 116 to server version: 5.0.18-Debian_7-log

Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> use otrs;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> ALTER TABLE customer_user ADD room VARCHAR (250);
Query OK, 1 rows affected (0.01 sec)
Records: 1 Duplicates: 0 Warnings: 0

mysql> quit
Bye
linux:~#
```

*Hati: Kuongeza sehemu ya chumba katika jedwali la mteja\_mtumiaji.*

Sasa ongeza safuwima mpya kwenye mkusanyiko wa RAMANI katika Kernel/Config.pm, kama inavyoonyeshwa katika hati inayofuata.

```
# var, frontend, storage, shown (1=always,2=lite), required, storage-type, http-link,
readonly, http-link-target, link class(es)
[...]
[ 'UserRoom',      'Room',      'room',      0, 1, 'var', '', 0 ],
```

*Hati: Kuongeza sehemu ya chumba kweye faili Kernel/Config.pm.*

Pia inawezekana kuhariri taarifa zote za mteja kupitia kiungo cha mteja kwenye kiolesura cha Wakala.

## Note

Please note that you may omit `http-link-target` and `link class` keys in map array elements, if they are not to be used. These keys add `target=""` and `class=""` attributes to the HTTP link element, respectively. They are ignored if `http-link` is not set.

### 5.2.1.1. Customer with Multiple IDs (Company Tickets)

Inawezekana kugawia zaidi ya kitambulisho cha mteja kimoja kwa mteja. Hii inakuwa na manufaa kama mteja anatakiwa kufikia tiketi za wateja wengine, mf. msimamizi anataka kuangalia tiketi za wasaidizi wake. Kama mteja anaweza kufikia tiketi za mteja mwingine, kipengele cha tiketi za kampuni cha OTRS kinatumika. Tiketi za kampuni zinaweza kufikiwa kupitia kiungo "Tiketi za Kampuni" katika paneli ya wateja.

Kutumia tiketi za kampuni, safuwima mpya yenye Vitambulisho ambavyo vinaweza kufikiwa na mteja, inabidi viongezwe kwenye jedwali la mteja\_mtumiaji katika hifadhidata ya OTRS (ona Hati chini).

```
linux:~# mysql -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 124 to server version: 5.0.18-Debian_7-log
```

```

Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> use otrs;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> ALTER TABLE customer_user ADD customer_ids VARCHAR (250);
Query OK, 1 rows affected (0.02 sec)
Records: 1 Duplicates: 0 Warnings: 0

mysql> quit
Bye
linux:~#

```

*Hati: Kuongeza sehemu ya mteja\_vitambulisho kwenye jedwali la mteja\_mtumiaji.*

Sasa safuwima mpya inabidi iongezwe kwenye mkusanyiko wa RAMANI katika Kernel/Config.pm, kama ilivyoonyeshwa kwenye hati chini.

```

# var, frontend, storage, shown (1=always,2=lite), required, storage-type, http-link,
readonly, http-link-target, link class(es)
[...]
[ 'UserCustomerIDs', 'CustomerIDs', 'customer_ids', 1, 0, 'var', '', 0 ],

```

*Hati: Kuongeza sehemu ya Vitambulisho vya MtumiajiMteja kwenye faili Kernel/Config.pm.*

Sasa safuwima mpya kwa ajili ya Vitambulisho vingi vya mteja inaweza kuhaririwa kupitia kiolesura cha Wakala, katika kifungu cha usimamizi wa mteja.

To ensure that one customer can access the tickets of other customers, add the IDs of these other users into the new field for the multiple customer IDs. Each ID has to be separated by a semicolon (see Example below).

### **Example 4.8. Using Company Tickets with a DB Backend**

Wateja A,B na C wapo kwenye mfumo wako, na A anataka kufikia tiketi za B na C kupitia paneli ya mteja. B na C hawatakiwi kufikia tiketi za watumiaji wengine.

Kutambua mpangilio huu, badilisha jedwali la mteja\_mtumiaji na miunganiko katika Kernel/Config.pm kama ilivyoielezwa hapo juu. Kisha pakia mipangilio ya mteja A kupitia kiungo cha Mteja katika kiolesura cha Wakala au kupitia kurasa ya Msimamizi. Kama mipangilio imeonyeshwa, ongeza kwenye sehemu ya Vitambulisho vya Wateja thamani "B;C".

## **5.2.2. LDAP**

If you have an LDAP directory with your customer data, you can use it as the customer backend with OTRS, as shown in Example below.

### **Example 4.9. Usanidi wa LDAP ya mazingira yanyuma ya mteja**

```

# CustomerUser
# (customer ldap backend and settings)
$self->{CustomerUser} = {
  Name => 'LDAP Data Source',
  Module => 'Kernel::System::CustomerUser::LDAP',
  Params => {
    # ldap host
    Host => 'bay.csuhayward.edu',

```

```

# ldap base dn
BaseDN => 'ou=seas,o=csuh',
# search scope (one|sub)
SSCOPE => 'sub',
# The following is valid but would only be necessary if the
# anonymous user does NOT have permission to read from the LDAP tree
UserDN => '',
UserPw => '',
# in case you want to add always one filter to each ldap query, use
# this option. e. g. AlwaysFilter => '(mail=*)' or AlwaysFilter =>
'(objectclass=user)'
AlwaysFilter => '',
# if the charset of your ldap server is iso-8859-1, use this:
# SourceCharset => 'iso-8859-1',

# Net::LDAP new params (if needed - for more info see perldoc Net::LDAP)
Params => {
    port => 389,
    timeout => 120,
    async => 0,
    version => 3,
},
# customer unique id
CustomerKey => 'uid',
# customer #
CustomerID => 'mail',
CustomerUserListFields => ['cn', 'mail'],
CustomerUserSearchFields => ['uid', 'cn', 'mail'],
CustomerUserSearchPrefix => '',
CustomerUserSearchSuffix => '*',
CustomerUserSearchListLimit => 250,
CustomerUserPostMasterSearchFields => ['mail'],
CustomerUserNameFields => ['givenname', 'sn'],
# show not own tickets in customer panel, CompanyTickets
CustomerUserExcludePrimaryCustomerID => 0,
# add an ldap filter for valid users (expert setting)
# CustomerValidFilter => '(!description=locked)',
# administrator can't change customer preferences
AdminSetPreferences => 0,
# # cache time to live in sec. - cache any database queries
# CacheTTL => 0,
# Map => [
# note: Login, Email and CustomerID are mandatory!
# var, frontend, storage, shown (1=always,2=lite), required, storage-type, http-
link, readonly, http-link-target, link class(es)
[ 'UserTitle',      'Title',      'title',          1, 0, 'var', '', 0 ],
[ 'UserFirstname', 'Firstname', 'givenname',     1, 1, 'var', '', 0 ],
[ 'UserLastname',  'Lastname',  'sn',            1, 1, 'var', '', 0 ],
[ 'UserLogin',     'Username',  'uid',           1, 1, 'var', '', 0 ],
[ 'UserEmail',     'Email',     'mail',          1, 1, 'var', '', 0 ],
[ 'UserCustomerID','CustomerID','mail',          0, 1, 'var', '', 0 ],
# [ 'UserCustomerIDs', 'CustomerIDs', 'second_customer_ids', 1, 0, 'var', '', 0 ],
[ 'UserPhone',     'Phone',     'telephonenumber', 1, 0, 'var', '', 0 ],
[ 'UserAddress',   'Address',   'postaladdress',  1, 0, 'var', '', 0 ],
[ 'UserComment',   'Comment',   'description',    1, 0, 'var', '', 0 ],
],
};

```

Kama sifa za ziada za mteja zimehifadhiwa kwenye mpangilio orodha wa LDAP yako, kwa mfano jina la meneja, namba ya simu ya mkononi, au idara, na kama unataka kuonyesha taarifa hizi kwenye OTRS, panua mkusanyiko wa RAMANI kwenye Kernel/Config.pm na maingizo kwa sifa hizi, kama ilivyoonyeshwa kwenye hati ifuatayo.

```

# var, frontend, storage, shown (1=always,2=lite), required, storage-type, http-link,
readonly, http-link-target, link class(es)
[...]
[ 'UserPhone',      'Phone',      'telephonenumber', 1, 0, 'var', '', 0 ],

```

*Hati: Kuongeza sehemu mpya kwenye Kernel/Config.pm file.*

### 5.2.2.1. Customer with Multiple IDs (Company Tickets)

Inawezekana kugawia zaidi ya Kitambulisho kimoja cha Mteja kwa mteja, ukiwa unatumia mazingira ya nyuma ya LDAP. Kutumia tiketi za kampuni, sehemu mpya inabidi iongezwe kwenye mpangilio orodha wa LDAP ambayo ina vitambulisho vinavyofikika na mteja.

Kama sehemu mpya kwenye mpangilio orodha wa LDAP imetengenezwa, ingizo jipya inabidi liongezwe kwenye mkusanyiko wa RAMANI katika Kernel/Config.pm, kama ilivyooonyeshwa kwenye hati chini.

```
# var, frontend, storage, shown (1=always,2=lite), required, storage-type, http-link,
readonly
[...]
[ 'UserCustomerIDs', 'CustomerIDs', 'customer_ids', 1, 0, 'var', '', 0 ],
```

*Hati: Kuunganisha sehemu mpya kwenye Kernel/Config.pm file.*

Sehemu kwa ajili ya vitambulisho vingi vya mteja inabidi kuhaririwa moja kwa moja katika mpangilio orodha wa LDAP. OTRS inaweza kusoma tu kutoka kwenye LDAP, sio kuandika.

To ensure access by a customer to the tickets of other customers, add the customer IDs of the customers whose tickets should be accessed to the new field in your LDAP directory. Each ID has to be separated by a semicolon (see Example below).

#### Example 4.10. Kutumia tiketi za Kampuni na mazingira ya nyuma ya LDAP

Wateja A,B na C wapo kwenye mfumo wako, na A anataka kufikia tiketi za B na C kupitia paneli ya mteja. B na C hawatakiwi kufikia tiketi za watumiaji wengine.

Kutambua mpangilio huu, badilisha mpangilio orodha wa LDAP na miunganiko katika Kernel/Config.pm kama ilivyoelezwa juu. Kisha ongeza kwenye sehemu ya Vitambulisho vya wateja thamani "B;C" kwa mteja A katika mpangilio orodha wa LDAP.

### 5.2.3. Using More than One Customer Backend with OTRS

If you want to utilize more than one customer data source used with OTRS (e.g. an LDAP and a database backend), the CustomerUser config parameter should be expanded with a number, e.g. "CustomerUser1", "CustomerUser2" (see Example below).

#### Example 4.11. Kutumia zaidi ya mazingira ya nyuma ya mteja ya aina moja na OTRS

Mfano unaofuata wa usanidi unaonyesha matumizi ya mazingira ya nyuma ya mteja ya LDAP na hifadhidata katika OTRS.

```
# 1. Customer user backend: DB
# (customer database backend and settings)
$self->{CustomerUser1} = {
  Name => 'Customer Database',
  Module => 'Kernel::System::CustomerUser::DB',
  Params => {
    # if you want to use an external database, add the
    # required settings
    DSN => 'DBI:odbc:yourdsn',
    Type => 'mssql', # only for ODBC connections
    DSN => 'DBI:mysql:database=customerdb;host=customerdbhost',
    User => '',
    Password => '',
    Table => 'customer_user',
  },
},
```

```

# customer unique id
CustomerKey => 'login',
# customer #
CustomerID => 'customer_id',
CustomerValid => 'valid_id',
CustomerUserListFields => ['first_name', 'last_name', 'email'],
CustomerUserSearchFields => ['login', 'last_name', 'customer_id'],
CustomerUserSearchPrefix => '',
CustomerUserSearchSuffix => '*',
CustomerUserSearchListLimit => 250,
CustomerUserPostMasterSearchFields => ['email'],
CustomerUserNameFields => ['title', 'first_name', 'last_name'],
CustomerUserEmailUniqCheck => 1,
# # show not own tickets in customer panel, CompanyTickets
# CustomerUserExcludePrimaryCustomerID => 0,
# # generate auto logins
# AutoLoginCreation => 0,
# AutoLoginCreationPrefix => 'auto',
# # admin can change customer preferences
# AdminSetPreferences => 1,
# # cache time to live in sec. - cache any database queries
# CacheTTL => 0,
# # just a read only source
# ReadOnly => 1,
Map => [

  # note: Login, Email and CustomerID needed!
  # var, frontend, storage, shown (1=always,2=lite), required, storage-type, http-
link, readonly, http-link-target
  [ 'UserTitle',      'Title',      'title',      1, 0, 'var', '', 0 ],
  [ 'UserFirstname', 'Firstname', 'first_name', 1, 1, 'var', '', 0 ],
  [ 'UserLastname',  'Lastname',  'last_name',  1, 1, 'var', '', 0 ],
  [ 'UserLogin',     'Username',  'login',     1, 1, 'var', '', 0 ],
  [ 'UserPassword',  'Password',  'pw',        0, 0, 'var', '', 0 ],
  [ 'UserEmail',     'Email',     'email',     1, 1, 'var', '', 0 ],
  [ 'UserCustomerID', 'CustomerID', 'customer_id', 0, 1, 'var', '', 0 ],
  [ 'UserPhone',     'Phone',     'phone',     1, 0, 'var', '', 0 ],
  [ 'UserFax',       'Fax',       'fax',       1, 0, 'var', '', 0 ],
  [ 'UserMobile',    'Mobile',    'mobile',    1, 0, 'var', '', 0 ],
  [ 'UserStreet',    'Street',    'street',    1, 0, 'var', '', 0 ],
  [ 'UserZip',       'Zip',       'zip',       1, 0, 'var', '', 0 ],
  [ 'UserCity',      'City',      'city',      1, 0, 'var', '', 0 ],
  [ 'UserCountry',   'Country',   'country',   1, 0, 'var', '', 0 ],
  [ 'UserComment',   'Comment',   'comments',  1, 0, 'var', '', 0 ],
  [ 'ValidID',       'Valid',     'valid_id',  0, 1, 'int', '', 0 ],
],
# default selections
Selections => {
  UserTitle => {
    'Mr.' => 'Mr.',
    'Mrs.' => 'Mrs.',
  },
},
};

# 2. Customer user backend: LDAP
# (customer ldap backend and settings)
$self->{CustomerUser2} = {
  Name => 'LDAP Datasource',
  Module => 'Kernel::System::CustomerUser::LDAP',
  Params => {
    # ldap host
    Host => 'bay.csuhayward.edu',
    # ldap base dn
    BaseDN => 'ou=seas,o=csuh',
    # search scope (one|sub)
    SSCOPE => 'sub',
    # The following is valid but would only be necessary if the
    # anonymous user does NOT have permission to read from the LDAP tree
    UserDN => '',
    UserPw => '',
    # in case you want to add always one filter to each ldap query, use

```

```

# this option. e. g. AlwaysFilter => '(mail=*)' or AlwaysFilter =>
'(objectclass=user)'
AlwaysFilter => '',
# if the charset of your ldap server is iso-8859-1, use this:
# SourceCharset => 'iso-8859-1',

# Net::LDAP new params (if needed - for more info see perldoc Net::LDAP)
Params => {
    port => 389,
    timeout => 120,
    async => 0,
    version => 3,
},
},
# customer unique id
CustomerKey => 'uid',
# customer #
CustomerID => 'mail',
CustomerUserListFields => ['cn', 'mail'],
CustomerUserSearchFields => ['uid', 'cn', 'mail'],
CustomerUserSearchPrefix => '',
CustomerUserSearchSuffix => '*',
CustomerUserSearchListLimit => 250,
CustomerUserPostMasterSearchFields => ['mail'],
CustomerUserNameFields => ['givenname', 'sn'],
# show not own tickets in customer panel, CompanyTickets
CustomerUserExcludePrimaryCustomerID => 0,
# add a ldap filter for valid users (expert setting)
# CustomerUserValidFilter => '!(description=locked)',
# admin can't change customer preferences
AdminSetPreferences => 0,
Map => [
    # note: Login, Email and CustomerID needed!
    # var, frontend, storage, shown (1=always,2=lite), required, storage-type, http-
link, readonly
    [ 'UserTitle',      'Title',      'title',          1, 0, 'var', '', 0 ],
    [ 'UserFirstname', 'Firstname',  'givenname',     1, 1, 'var', '', 0 ],
    [ 'UserLastname',  'Lastname',  'sn',            1, 1, 'var', '', 0 ],
    [ 'UserLogin',     'Username',  'uid',           1, 1, 'var', '', 0 ],
    [ 'UserEmail',     'Email',     'mail',          1, 1, 'var', '', 0 ],
    [ 'UserCustomerID', 'CustomerID', 'mail',          0, 1, 'var', '', 0 ],
#   [ 'UserCustomerIDs', 'CustomerIDs', 'second_customer_ids', 1, 0, 'var', '', 0 ],
    [ 'UserPhone',     'Phone',     'telephonenumber', 1, 0, 'var', '', 0 ],
    [ 'UserAddress',   'Address',   'postaladdress',  1, 0, 'var', '', 0 ],
    [ 'UserComment',   'Comment',   'description',    1, 0, 'var', '', 0 ],
],
};

```

Inawezekana kuunganisha mpaka mazingira ya nyuma 10 tofauti ya mteja. Tumia kiolesura cha usimamizi cha mteja katika OTRS kuona au kuhariri (tukiamini utawala data umewezeshwa) data zote za mteja.

## 5.2.4. Storing CustomerUser Data in Dynamic Fields

Mara nyingine inaweza kuwa na manufaa kuhifadhi data za MtejaMtumiaji katika sehemu zinazobadilika za tiketi, kwa fano kutengeneza takwimu muhimu kwenye data hizi.

Thamani za sehemu zinazobadilika zinasetiwa tiketi inapotengenezwa au pale mteja wa tiketi anapobadilishwa. Thamani za sehemu zinazobadilika zinachukuliwa kutoka kwenye data za mteja. Hii inafanya kazi kwa mazingira yoye ya nyuma, lakini ni ya manufaa zaidi kwa mazingira aya nyuma ya LDAP.

To activate this optional feature of OTRS, please activate the settings "Ticket::EventModulePost###950-DynamicFieldFromCustomerUser" and "DynamicFieldFromCustomerUser::Mapping". The latter setting contains the configuration of which CustomerUser field entry should be stored in which ticket dynamic field. The fields must be present in the system and should be enabled for AgentTicketFreeText, so that they can be set manually. They mustn't be enabled for AgentTicketPhone, AgentTicketEmail and



AgentTicketCustomer. If they were, they would have precedence over the automatically set values.

## 5.3. Backends to Authenticate Agents and Customers

OTRS inatoa chaguo la kuthibitisha mawakala na wateja katika mazingira tofauti ya nyuma.

### 5.3.1. Mazingira ya nyuma ya kuthibitisha Mawakala

#### 5.3.1.1. DB (Chaguo-msingi)

The backend to authenticate agents which is used by default is the OTRS database. Agents can be added and edited via the agent management interface in the Admin page (see Example below).

#### Example 4.12. Thibitisha mawakala katika mazingira ya nyuma ya DB.

```
$Self->{'AuthModule'} = 'Kernel::System::Auth::DB';
```

#### 5.3.1.2. LDAP

If an LDAP directory has all your agent data stored, you can use the LDAP module to authenticate your users in OTRS (see Example below). This module has only read access to the LDAP tree, which means that you cannot edit your user data via the agent management interface.

#### Example 4.13. Thibitisha mawakala katika mazingira ya nyuma ya LDAP.

```
# This is an example configuration for an LDAP auth. backend.
# (Make sure Net::LDAP is installed!)
$Self->{'AuthModule'} = 'Kernel::System::Auth::LDAP';
$Self->{'AuthModule::LDAP::Host'} = 'ldap.example.com';
$Self->{'AuthModule::LDAP::BaseDN'} = 'dc=example,dc=com';
$Self->{'AuthModule::LDAP::UID'} = 'uid';

# Check if the user is allowed to auth in a posixGroup
# (e. g. user needs to be in a group xyz to use otrs)
$Self->{'AuthModule::LDAP::GroupDN'} = 'cn=otrsallow,ou=posixGroups,dc=example,dc=com';
$Self->{'AuthModule::LDAP::AccessAttr'} = 'memberUid';
# for ldap posixGroups objectclass (just uid)
# $Self->{'AuthModule::LDAP::UserAttr'} = 'UID';
# for non ldap posixGroups objectclass (with full user dn)
# $Self->{'AuthModule::LDAP::UserAttr'} = 'DN';

# The following is valid but would only be necessary if the
# anonymous user do NOT have permission to read from the LDAP tree
$Self->{'AuthModule::LDAP::SearchUserDN'} = '';
$Self->{'AuthModule::LDAP::SearchUserPw'} = '';

# in case you want to add always one filter to each ldap query, use
# this option. e. g. AlwaysFilter => '(mail=*)' or AlwaysFilter => '(objectclass=user)'
$Self->{'AuthModule::LDAP::AlwaysFilter'} = '';

# in case you want to add a suffix to each login name, then
# you can use this option. e. g. user just want to use user but
# in your ldap directory exists user@domain.com
# $Self->{'AuthModule::LDAP::UserSuffix'} = '@domain.com';

# Net::LDAP new params (if needed - for more info see perldoc Net::LDAP)
```

```
$Self->{'AuthModule::LDAP::Params'} = {
  port => 389,
  timeout => 120,
  async => 0,
  version => 3,
};
```

Mipangilio ya usanidi iliyoonyeshwa kwenye hati hapo chini inaweza kutumika kulanishia data zote za mtumiaji kutoka kwenye mpangilio orodha wako wa LDAP kwenda kwenye hifadhidata yako ya OTRS ya ndani. Hii inapunguza idadi ya maombi kwenda kwenye seva yako ya LDAP na inaongeza kasi ya uthibitisho na OTRS. Ulandanishi wa data unafanyika pale wakala anapojithibitisha kwa mara ya kwanza. Hata hivyo hiyo data inaweza kulandanishwa na hifadhidata ya ndani ya OTRS, mpangilio orodha wa LDAP ni mfano wa mwisho wa uthibitisho, kwa hiyo mtumiaji aliye lemaa aliye katika matawi ya LDAP hawezi kujithibitisha kwenye OTRS, hata kama data za akaunti tayari zimehifadhiwa kwenye hifadhidata ya OTRS. Data za wakala kwenye mpangilio orodha wa LDAP haziwezi kuhaririwa kupitia kiolesura cha tovuti cha OTRS, kwa hiyo data inabidi isimamiwe moja kwa moja katika matawi ya LDAP.

```
# defines AuthSyncBackend (AuthSyncModule) for AuthModule
# if this key exists and is empty, there won't be a sync.
# example values: AuthSyncBackend, AuthSyncBackend2
$Self->{'AuthModule::UseSyncBackend'} = 'AuthSyncBackend';

# agentdata sync against ldap
$Self->{'AuthSyncModule'} = 'Kernel::System::Auth::Sync::LDAP';
$Self->{'AuthSyncModule::LDAP::Host'} = 'ldap://ldap.example.com/';
$Self->{'AuthSyncModule::LDAP::BaseDN'} = 'dc=otrs, dc=org';
$Self->{'AuthSyncModule::LDAP::UID'} = 'uid';
$Self->{'AuthSyncModule::LDAP::SearchUserDN'} = 'uid=sys, ou=user, dc=otrs, dc=org';
$Self->{'AuthSyncModule::LDAP::SearchUserPw'} = 'some_pass';
$Self->{'AuthSyncModule::LDAP::UserSyncMap'} = {
  # DB -> LDAP
  UserFirstname => 'givenName',
  UserLastname  => 'sn',
  UserEmail     => 'mail',
};
[...]

# AuthSyncModule::LDAP::UserSyncInitialGroups
# (sync following group with rw permission after initial create of first agent
# login)
$Self->{'AuthSyncModule::LDAP::UserSyncInitialGroups'} = [
  'users',
];
```

*Hati: Kulandanisha data za mtumiaji kutoka kwenye mpangilio orodha wa LDAP kwenda kwenye hifadhidata ya OTRS.*

Alternatively, you can use LDAP groups to determine group memberships or roles in OTRS. For more information and examples, see `Kernel/Config/Defaults.pm`. Here is an example for synchronizing from LDAP into OTRS groups.

```
# Attributes needed for group syncs
# (attribute name for group value key)
$Self->{'AuthSyncModule::LDAP::AccessAttr'} = 'memberUid';
# (select the attribute for type of group content UID/DN for full ldap name)
# $Self->{'AuthSyncModule::LDAP::UserAttr'} = 'UID';
# $Self->{'AuthSyncModule::LDAP::UserAttr'} = 'DN';

AuthSyncModule::LDAP::UserSyncGroupsDefinition
# (If "LDAP" was selected for AuthModule and you want to sync LDAP
# groups to otrs groups, define the following.)
$Self->{'AuthSyncModule::LDAP::UserSyncGroupsDefinition'} = {
  # your ldap group
  'cn=agent,o=otrs' => {
    # otrs group(s)
```

```

    'admin' => {
      # permission
      rw => 1,
      ro => 1,
    },
    'faq' => {
      rw => 0,
      ro => 1,
    },
  },
  'cn=agent2,o=otrs' => {
    'users' => {
      rw => 1,
      ro => 1,
    },
  }
};

```

### 5.3.1.3. HTTPBasicAuth za Wakala

If you want to implement a "single sign on" solution for all your agents, you can use HTTP basic authentication (for all your systems) and the HTTPBasicAuth module for OTRS (see Example below).

#### Example 4.14. Halalisha Wakala kwa kutumia HTTPBasic

```

# This is an example configuration for an apache ($ENV{REMOTE_USER})
# auth. backend. Use it if you want to have a single login through
# apache http-basic-auth
$Self->{'AuthModule'} = 'Kernel::System::Auth::HTTPBasicAuth';

# Note:
#
# If you use this module, you should use as fallback
# the following configuration settings if the user is not authorized
# apache ($ENV{REMOTE_USER})
$Self->{'LoginURL'} = 'http://host.example.com/not-authorized-for-otrs.html';
$Self->{'LogoutURL'} = 'http://host.example.com/thanks-for-using-otrs.html';

```

### 5.3.1.4. Nusukipenyo

The configuration parameters shown in Example below can be used to authenticate agents against a Radius server.

#### Example 4.15. Thibitisha mawakala katika mazingira ya nyuma ya Radius.

```

# This is example configuration to auth. agents against a radius server
$Self->{'AuthModule'} = 'Kernel::System::Auth::Radius';
$Self->{'AuthModule::Radius::Host'} = 'radiushost';
$Self->{'AuthModule::Radius::Password'} = 'radiussecret';

```

## 5.3.2. Authentication Backends for Customers

### 5.3.2.1. Hifadhidata (Chaguo-msingi)

The default user authentication backend for customers in OTRS is the OTRS database. With this backend, all customer data can be edited via the web interface of OTRS (see Example below).

#### Example 4.16. Uthibitisho wa mtumiaji mteja katika mazingira ya nyuma ya DB

```
# This is the auth. module against the otrs db
$self->{'Customer::AuthModule'} = 'Kernel::System::CustomerAuth::DB';
$self->{'Customer::AuthModule::DB::Table'} = 'customer_user';
$self->{'Customer::AuthModule::DB::CustomerKey'} = 'login';
$self->{'Customer::AuthModule::DB::CustomerPassword'} = 'pw';
#$self->{'Customer::AuthModule::DB::DSN'} =
  "DBI:mysql:database=customerdb;host=customerdbhost";
#$self->{'Customer::AuthModule::DB::User'} = "some_user";
#$self->{'Customer::AuthModule::DB::Password'} = "some_password";
```

### 5.3.2.2. LDAP

If you have an LDAP directory with all your customer data, you can use the LDAP module to authenticate your customers to OTRS (see Example below). Because this module has only read-access to the LDAP backend, it is not possible to edit the customer data via the OTRS web interface.

#### Example 4.17. Uthibitisho wa mtumiaji mteja katika mazingira ya nyuma ya LDAP

```
# This is an example configuration for an LDAP auth. backend.
# (make sure Net::LDAP is installed!)
$self->{'Customer::AuthModule'} = 'Kernel::System::CustomerAuth::LDAP';
$self->{'Customer::AuthModule::LDAP::Host'} = 'ldap.example.com';
$self->{'Customer::AuthModule::LDAP::BaseDN'} = 'dc=example,dc=com';
$self->{'Customer::AuthModule::LDAP::UID'} = 'uid';

# Check if the user is allowed to auth in a posixGroup
# (e. g. user needs to be in a group xyz to use otrs)
$self->{'Customer::AuthModule::LDAP::GroupDN'} =
  'cn=otrsallow,ou=posixGroups,dc=example,dc=com';
$self->{'Customer::AuthModule::LDAP::AccessAttr'} = 'memberUid';
# for ldap posixGroups objectclass (just uid)
$self->{'Customer::AuthModule::LDAP::UserAttr'} = 'UID';
# for non ldap posixGroups objectclass (full user dn)
#$self->{'Customer::AuthModule::LDAP::UserAttr'} = 'DN';

# The following is valid but would only be necessary if the
# anonymous user does NOT have permission to read from the LDAP tree
$self->{'Customer::AuthModule::LDAP::SearchUserDN'} = '';
$self->{'Customer::AuthModule::LDAP::SearchUserPw'} = '';

# in case you want to add always one filter to each ldap query, use
# this option. e. g. AlwaysFilter => '(mail=*)' or AlwaysFilter => '(objectclass=user)'
$self->{'Customer::AuthModule::LDAP::AlwaysFilter'} = '';

# in case you want to add a suffix to each customer login name, then
# you can use this option. e. g. user just want to use user but
# in your ldap directory exists user@domain.com
#$self->{'Customer::AuthModule::LDAP::UserSuffix'} = '@domain.com';

# Net::LDAP new params (if needed - for more info see perldoc Net::LDAP)
$self->{'Customer::AuthModule::LDAP::Params'} = {
  port => 389,
  timeout => 120,
  async => 0,
  version => 3,
};
```

### 5.3.2.3. HTTPBasicAuth for Customers

If you want to implement a "single sign on" solution for all your customer users, you can use HTTPBasic authentication (for all your systems) and use the HTTPBasicAuth module with OTRS (no login is needed with OTRS any more). See Example below.

#### Example 4.18. Uthibitisho wa Mteja kwa kutumia HTTPBasic

```
# This is an example configuration for an apache ($ENV{REMOTE_USER})
# auth. backend. Use it if you want to have a single login through
# apache http-basic-auth
$self->{'Customer::AuthModule'} = 'Kernel::System::CustomerAuth::HTTPBasicAuth';

# Note:
# If you use this module, you should use the following
# config settings as fallback, if user isn't login through
# apache ($ENV{REMOTE_USER})
$self->{'CustomerPanelLoginURL'} = 'http://host.example.com/not-authorized-for-otrs.html';
$self->{'CustomerPanelLogoutURL'} = 'http://host.example.com/thanks-for-using-otrs.html';
```

### 5.3.2.4. Nusukipenyo

The settings shown in Example below can be used to authenticate your customers against a Radius server.

#### Example 4.19. Uthibitisho wa mtumiaji mteja katika mazingira ya nyuma ya Radius

```
# This is an example configuration to auth. customer against a radius server
$self->{'Customer::AuthModule'} = 'Kernel::System::Auth::Radius';
$self->{'Customer::AuthModule::Radius::Host'} = 'radiushost';
$self->{'Customer::AuthModule::Radius::Password'} = 'radiussecret';
```

## 5.4. Customizing the Customer Self-Registration

Inawezekana kugeuza kukufaa usajili binafsi kwa ajili ya wateja wapya, inafikika kupitia paneli ya customer.pl. Sehemu mpya za hiari au zinazohitajika, kama nambari ya chumba, anwani au hali zinaweza kuongezwa.

Mfano ufwatao unaonyesha jinsi unaweza kubainisha sehemu inayohitajika katika hifadhi data ya mteja, katika kesi hii hifadhi nambari ya chumba cha mteja.

### 5.4.1. Customizing the Web Interface

To display the new field for the room number in the customer.pl web interface, the .tt file responsible for the layout in this interface has to be modified. Edit the Kernel/Output/HTML/Templates/Standard/CustomerLogin.tt file, adding the new field around line 130 (see Script below).

```
[...]
<div class="NewLine">
  <label for="Room">[% Translate("Room{CustomerUser}") | html %]</label>
  <input title="[% Translate("Room Number") | html %]" name="Room" type="text"
  id="UserRoom" maxlength="50" />
</div>
[...]
```

*Hati: Kuonyesha sehemu mpya katika kiolesura cha wavuti.*

### 5.4.2. Customer Mapping

Katika hatua inayofuata, muunganiko wa mteja inabidi upanuliwe na ingizo jipya kutoka kwenye nambari mpya. Kuhakikisha kwamba mabadiliko hayapotei baada ya usasishaji, weka mipangilio ya "MtumiajiMteja" kutoka kwenye Kernel/Config/Defaults.pm kwenye Kernel/Config.pm. Sasa badilisha mkusanyiko wa RAMANI na ongeza sehemu mpya ya nambari ya chumba, kama ilivyoonyeshwa kwenye hati chini.

```
# CustomerUser
```

```

# (customer database backend and settings)
$self->{CustomerUser} = {
  Name => 'Database Backend',
  Module => 'Kernel::System::CustomerUser::DB',
  Params => {
    # if you want to use an external database, add the
    # required settings
    # DSN => 'DBI:odbc:yourdsn',
    # Type => 'mssql', # only for ODBC connections
    # DSN => 'DBI:mysql:database=customerdb;host=customerdbhost',
    # User => '',
    # Password => '',
    # Table => 'customer_user',
  },
  # customer unique id
  CustomerKey => 'login',
  # customer #
  CustomerID => 'customer_id',
  CustomerValid => 'valid_id',
  CustomerUserListFields => ['first_name', 'last_name', 'email'],
  # CustomerUserListFields => ['login', 'first_name', 'last_name', 'customer_id', 'email'],
  CustomerUserSearchFields => ['login', 'last_name', 'customer_id'],
  CustomerUserSearchPrefix => '',
  CustomerUserSearchSuffix => '*',
  CustomerUserSearchListLimit => 250,
  CustomerUserPostMasterSearchFields => ['email'],
  CustomerUserNameFields => ['title', 'first_name', 'last_name'],
  CustomerUserEmailUniqCheck => 1,
  # # show not own tickets in customer panel, CompanyTickets
  # CustomerUserExcludePrimaryCustomerID => 0,
  # # generate auto logins
  # AutoLoginCreation => 0,
  # AutoLoginCreationPrefix => 'auto',
  # # admin can change customer preferences
  # AdminSetPreferences => 1,
  # # cache time to live in sec. - cache database queries
  # CacheTTL => 0,
  # # just a read only source
  # ReadOnly => 1,
  # Map => [

    # note: Login, Email and CustomerID needed!
    # var, frontend, storage, shown (1=always,2=lite), required, storage-type, http-
link, readonly, http-link-target
    [ 'UserTitle',      'Title',      'title',      1, 0, 'var', '', 0 ],
    [ 'UserFirstname', 'Firstname',  'first_name', 1, 1, 'var', '', 0 ],
    [ 'UserLastname',  'Lastname',  'last_name',  1, 1, 'var', '', 0 ],
    [ 'UserLogin',     'Username',  'login',      1, 1, 'var', '', 0 ],
    [ 'UserPassword',  'Password',  'pw',         0, 0, 'var', '', 0 ],
    [ 'UserEmail',     'Email',     'email',      1, 1, 'var', '', 0 ],
    [ 'UserCustomerID', 'CustomerID', 'customer_id', 0, 1, 'var', '', 0 ],
    [ 'UserPhone',     'Phone',     'phone',      1, 0, 'var', '', 0 ],
    [ 'UserFax',       'Fax',       'fax',        1, 0, 'var', '', 0 ],
    [ 'UserMobile',    'Mobile',    'mobile',     1, 0, 'var', '', 0 ],
    [ 'UserRoom',      'Room',      'room',       1, 0, 'var', '', 0 ],
    [ 'UserStreet',    'Street',    'street',     1, 0, 'var', '', 0 ],
    [ 'UserZip',       'Zip',       'zip',        1, 0, 'var', '', 0 ],
    [ 'UserCity',      'City',      'city',       1, 0, 'var', '', 0 ],
    [ 'UserCountry',   'Country',   'country',    1, 0, 'var', '', 0 ],
    [ 'UserComment',   'Comment',   'comments',   1, 0, 'var', '', 0 ],
    [ 'ValidID',       'Valid',     'valid_id',   0, 1, 'int', '', 0 ],
  ],
  # default selections
  Selections => {
    UserTitle => {
      'Mr.' => 'Mr.',
      'Mrs.' => 'Mrs.',
    },
  },
},
};

```

*Hati: Kubadilisha miunganiko ya mkusanyiko.*

### 5.4.3. Customizing the customer\_user Table in the OTRS DB

Hatua ya mwisho ni kuongeza nambari mpya ya safuwima ya chumba katika jedwali la mteja\_mtumiaji kwenye hifadhidata ya OTRS (ona Kielelezo chini). Katika safuwima hii, maingizo ya nambari ya chumba yatahifadhiwa.

```
linux:~# mysql -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 6 to server version: 5.0.18-Debian_7-log

Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> use otrs;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> ALTER TABLE customer_user ADD room VARCHAR (200);
Query OK, 3 rows affected (0.01 sec)
Records: 3 Duplicates: 0 Warnings: 0

mysql> quit
Bye
linux:~#
```

*Hati: Kuongeza safuwima mpya kwenye jedwali la mteja\_mtumiaji.*

Now the new field for the room should be displayed in the Customer Information panel if filled, and in the Customer User administration screens. Also, new customers should have to insert their room number if they register a new account.

## 6. Mipangilio ya tiketi

### 6.1. Hali za Tiketi

#### 6.1.1. Hali zilizofasiliwa kabla

OTRS inakuruhusu kubadilisha hali ya tiketi iliyofafanuliwa tayari na aina zake, au hata kuongeza mpya. Sifa mbili ni muhimu kwa ajili ya hali: jina la hali na aina ya hali.

Hali chaguo-msingi ya OTRS ni: 'imefungwa kwa mafanikio', 'imefungwa pasipo mafanikio', 'unganishwa', 'mpya', 'wazi', 'inasubiri kufunga otomatiki+', 'inasubiri kufunga otomatiki-', 'inasumbiri kikumbusho' na 'ondolewa'.

##### 6.1.1.1. Mpya

Tiketi huwa katika hali hii kama zimetengenezwa kutoka kwenye barua pepe zinazolingia.

##### 6.1.1.2. Wazi

Hii ndio chaguo-msingi la hali ya tiketi zilizo chini ya foleni na wakala.

##### 6.1.1.3. Kikumbusho kinachosubiri

Baada ya muda wa kusubiri kuisha, mmiliki wa tiketi atapokea kikumbusho cha barua pepe kuhusu tiketi. Kama tiketi haijafungwa, kikumbusho kitatumwa kwa mawakala wote kwenye foleni. Tiketi za ukumbusho zitatumwa tu katika masaa ya biashara, na kurudia

kutumwa kila masaa 24 mpaka hali ya tiketi itakapobadilishwa na wakala. Muda uliotumika na tiketi katika hali hii utajumlishwa kwenye mahesabu ya muda wa kupanda.

#### **6.1.1.4. Funga otomatiki inasubiri-**

Tiketi katika hali hii zitasetiwa kuwa "Hazijafungwa Kikamilifu" kama muda wa kusubiri umeisha. Muda uliotumiwa na tiketi katika hali hii utaongezwa kwenye mahesabu ya muda wa kupanda.

#### **6.1.1.5. Funga otomatiki inasubiri+**

Tiketi katika hali hii zitasetiwa kuwa "Zimefungwa Kikamilifu" kama muda wa kusubiri umeisha. Muda uliotumiwa na tiketi katika hali hii utaongezwa kwenye mahesabu ya muda wa kupanda.

#### **6.1.1.6. Unganishwa**

Hii ni hali ya tiketi zilizounganishwa na tiketi nyingine.

#### **6.1.1.7. Removed**

This is the state for tickets that have been removed by the customer. Tickets will not really be deleted, they are just no longer shown as open. In order to enable this state in the customer interface you need to add the state type "removed" to the sysconfig setting "Ticket::Frontend::CustomerTicketZoom###StateType".

#### **6.1.1.8. Imafungwa kwa Mafanikio**

Hii ni hali ya mwisho kwa tiketi ambazo zimesuluhishwa kwa mafanikio. Kutegemeana na usanidi wako, unaweza au usiweze kufungua upya tiketi zilizofungwa.

#### **6.1.1.9. Imefungwa Pasipo Mafanikio**

Hii ni hali ya mwisho kwa tiketi ambazo HAZIJASULUHISHWA kwa mafanikio. Kutegemeana na usanidi wako, unaweza au usiweze kufungua upya tiketi zilizofungwa.

### **6.1.2. Kugeuza hali kukufaa**

Every state has a name (state-name) and a type (state-type). Click on the States link on the Admin page and press the button "Add state" to create a new state. You can freely choose the name of a new state. The state types can not be changed via the web interface. The database has to be directly modified if you want to add new types or change existing names. The default state types should typically not be modified as this can yield unpredictable results. For instance, escalation calculations and the unlock feature are based on specific state types.

Jina la hali iliyopo tayari linaweza kubadilishwa, au hali mpya zilizoongezwa kupitia hii skrini. Kama hali "mpya" imebadilishwa kupitia hiki kiolesura cha tovuti, haya mabadiliko pia lazima yafanyiwe usanidi kupitia faili la usanidi Kernel/Config.pm au kupitia kiolesura cha SysConfig. Mipangilio iliyowekwa bayana katika hati chini lazima ibadilishwe kuhakikisha OTRS inafanya kazi na hali iliyobadilishwa kwa ajili ya "mpya".

```
[...]
# PostmasterDefaultState
# (The default state of new tickets.) [default: new]
$self->{PostmasterDefaultState} = 'new';

# CustomerDefaultState
# (default state of new customer tickets)
```



```
$Self->{CustomerDefaultState} = 'new';  
[...]
```

*Hati: Kubadilisha mipangilio ya Kernel/Config.pm.*

Kama aina mpya ya hali inatakiwa kuongezwa, Jedwali la tiketi\_hali\_aina katika hifadhi-data ya OTRS inahitaji kubadilishwa na programu ya hifadhi-data ya mteja, kama ilivyoonyeshwa kwenye hati chini.

```
linux:~# mysql -p  
Enter password:  
Welcome to the MySQL monitor. Commands end with ; or \g.  
Your MySQL connection id is 23 to server version: 5.0.16-Debian_1-log  
  
Type 'help;' or '\h' for help. Type '\c' to clear the buffer.  
  
mysql> use otrs;  
Reading table information for completion of table and column names  
You can turn off this feature to get a quicker startup with -A  
  
Database changed  
mysql> insert into ticket_state_type (name,comments) values ('own','Own  
state type');  
Query OK, 1 row affected (0.00 sec)  
  
mysql> quit  
Bye  
linux:~#
```

*Hati: Kurekebisha hifadhi-data ya OTRS .*

Sasa inawezekana kutumia aina mpya za hali ulizotengeneza. Baada ya hali kuunganishwa na hii aina mpya ya hali, usanidi wa OTRS pia unatakiwa kunadilishwa kuhakikisha hali mpya inatumika. Badilisha machaguo yafuatayo tu kupitia SysConfig:

Tiketi-> Mazingira ya mbele::Wakala::Tiketi::OnaSimuMpya >  
WakalaTiketiSimu###HaliChaguo-msingi - kufafanua chaguo-msingi la hali inayofuata ya tiketi mpya za simu.

Tiketi -> Mazingira ya mbele::Wakala::Tiketi::OnaSimuMpya >  
WakalaTiketiSimu###AinaHali - kufafanua hali zitakazopatikana kwa tiketi mpya za simu.

Tiketi -> Mazingira ya mbele::Wakala::Tiketi::OnaBaruapepeMpya > TiketiBaruapepe###HaliChaguo-msingi - kufafanua chaguo-msingi la hali inayofuata ya tiketi mpya za barua pepe.

Tiketi -> Mazingira ya mbele::Wakala::Tiketi::OnaBaruapepeMpya > WakalaTiketiBaruapepe###AinaHali - kufafanua hali zinazofuata zitakazopatikana kwa tiketi mpya za barua pepe.

Tiketi -> Mazingira ya mbele::Wakala::Tiketi::OnaSimuZinazotoka > WakalaTiketiSimuZinazotoka###Hali - kufafanua chaguo-msingi la hali inayofuata kwa makala mpya za simu.

Tiketi -> Mazingira ya mbele::Wakala::Tiketi::OnaSimuZinazotoka > WakalaTiketiSimuZinazotoka###HaliAina - kufafanua hali zinazofuata zitakazopatikana kwa makala mpya za simu.

Tiketi -> Mazingira ya mbele::Wakala::Tiketi::OnaHamisha > WakalaTiketiHamisha###Hali - kufafanua chaguo-msingi la hali inayofuata ya kuhamisha tiketi.

Tiketi -> Mazingira ya mbele::Wakala::Tiketi::OnaHamisha > WakalaTiketiHamisha###HaliAina - kufafanua hali zinazofuata zinazopatikana za kuhamisha tiketi.

Tiketi -> Mazingira ya mbele::Wakala::Tiketi::OnaDunda> HaliChaguo-msingi - kufafanua chaguo-msingi la hali inayofuata baada ya tiketi kudunda.

Tiketi -> Mandhari ya mbele::Wakala::Tiketi::OnaDunda > HaliAina - kufafanua inayopatikana itakayofuata katika skrini ya kudunda.

Tiketi -> Mazingira ya mbele::Wakala::Tiketi::OnaNyingi > HaliChaguo-msingi - kufafanua chaguo-msingi la hali inayofuata katika kitendocha mkupuo.

Tiketi -> Mazingira ya mbele::Wakala::Tiketi::OnaNyingi > HaliAina - kufafanua hali zinazofuata zitakazopatikana katika skrini ya vitendo vya mkupuo.

Tiketi -> Mazingira ya mbele::Wakala::Tiketi::OnaFunga > HaliChaguo-msingi - kufafanua chaguo-msingi la hali inayofuata baada ya kufunga tiketi.

Tiketi -> Mazingira ya mbele::Wakala::Tiketi::OnaFunga > HaliAina - kufafanua hali zinazofuata zitakazopatikana katika skrini ya kufunga.

Tiketi -> Mazingira ya mbele::Wakala::Tiketi::OnaTunga > HaliChaguo-msingi - kufafanua chaguo-msingi la hali inayofuata kwenye skrini ya Kutunga (jibu).

Tiketi -> Mazingira ya mbele::Wakala::Tiketi::OnaTunga > HaliAina - kufafanua hali zifuatazo zitakazopatikana kwenye skrini ya Kutunga (jibu).

Tiketi -> Mandhari ya mbele::Wakala::Tiketi::OnaMbele > HaliChaguo-msingi - kufafanua chaguo-msingi la hali inayofuata baada ya kupeleka mbele tiketi.

Tiketi -> Mazingira ya mbele::Wakala::Tiketi::OnaMbele > HaliAina - kufafanua hali zinazofuata zitakazopatikana kwenye skrini ya Kupeleka mbele..

Tiketi -> Mazingira ya mbele::Wakala::Tiketi::OnaMbele > HaliChaguo-msingi - kufafanua chaguo-msingi la hali inayofuata ya tiketi katika skrini ya nakala huru.

Tiketi -> Mazingira ya mbele::Wakala::Tiketi::OnaMbele > HaliAina - kufafanua kali zinazofuata zitakazopatikana katika skrini ya nakala huru.

Tiketi-> Kiini::MkuuWaPosta> MkuuwapostaHaliChaguo-msingi - kufafanua hali ya tiketi zilizotengenezwa kutoka kwenye barua pepe.

Tiketi-> Kiini::MkuuWaPosta> MkuuwapostaUfuatiliajiHali - kufafanua hali ya tiketi baada ya ufuatiliaji kupokelewa.

Tiketi-> Kiini::MkuuWaPosta> MkuuwapostaUfuatiliajiHaliUmefungwa - kufafanua hali ya tiketi baada ya ufuatiliaji wa tiketi iliyofungwa kupokelewa.

Tiketi -> Kiini::Tiketi > AinaHaliInayoonekana - kufafanua aina za hali ambazo zinaonyeshwa katika maeneo tofauti ya mfumo, kwa mfano katika Muonekanofoleni.

Tiketi-> Kiini::Tiketi > FunguaHaliAina - kufafanua aina za hali kwa ajili ya tiketi zilizo-funguliwa.

Tiketi-> Kiini::Tiketi> KikumbushoKinachosubiriHaliAina - kufafanua aina ya hali kwa ajili ya tiketi za kumbukumbu.

Tiketi -> Kiini::Tiketi > KusubiriHaliOtomatikiAina - kufafanua aina ya hali kwa ajili ya tiketi Otomatiki Zinazosubiri.

Tiketi -> Kiini::Tiketi> HaliBaadaKusubiri - kufafanua hali tiketi imesetiwa baada ya muda Otomatiki wa Kusubiri wa hali iliyosanidiwa kuisha.

## 6.2. Ticket Priorities

OTRS inakuja na ngazi tano za chaguo-msingi la vipaumbele ambavyo vinaweza kubadilishwa kupitia kiubgo "Vipaumbele" katika ukurasa wa Msimamizi. Wakati wa kutengeneza orodha iliyogeuzwa kukufaa ya vipaumbele, tafadhali weka akilini kwamba zimepangwa kwa alfabeti katika kisanduku cha kuchagua kipaumbele katika kiolesura cha mtumiaji. Pia, OTRS ina agiza tiketi kwa Vitambulisho vya ndani vya hifadhidata katika MuonekanoWaFoleni.

### Note

Kama ilivyo kwa vyombo vingine vya OTRS, vipaumbele haviwezi kufutwa, vinalemazwa tu kwa kuseti chaguo Halali kuwa *batili* au *batili-kwa muda*.

### Important

Kama kipaumbele kipya kimeongezwa au kama kilichopo kimebadilishwa, unaweza kutaka kubadilisha baadhi ya thamani katika SysConfig:

- Tiketi:Kiini::Mkuu wa posta::MkuuwapostaKipaumbeleChaguo-msingi - inafafanua kipaumbele chaguo-msingi kwa barua pepe zote zinazolingia.
- Tiketi:Mazingira ya mbele::Wakala:Tiketi::OnaSimuMpya:Kipaumbele - inafafanua chaguo-msingi la kipaumbele kwenye skrini ya Tiketi Mpya Simu ya mawakala.
- Tiketi:Mazingira ya mbele::Wakala:Tiketi::OnaBaruapepeMpya:Kipaumbele - inafafanua chaguo-msingi la kipaumbele katika skrini ya Tiketi Mpya Baruapepe ya mawakala.
- Tiketi:Mandhari ya mbele::Mteja:Tiketi::OnaMpya:KipaumbeleChaguo-msingi - inafafanua chaguo-msingi la kipaumbele katika skrini Mpya ya Tiketi katika mazingira yambele ya Mteja.

## 6.3. Jukumu la Tiketi & Kuangalia Tiketi

Kutoka OTRS 2.1 na kuendelea, inawezekana kumuweka mtu kama mhusika wa tiketi, zaidi ya mmiliki wake. Zaidi, shughuli zote zilizounganishwa na tiketi zinaweza kuangaliwa na mtu zaidi ya mmiliki wa tiketi. Hizi kazi mbili zinatekelezwa na sifa TiketiMhusika na TiketiMuangalizi, na kuwezesha ugawaji wa kazi na kufanya kazi ndani ya miundo msonge ya makundi.

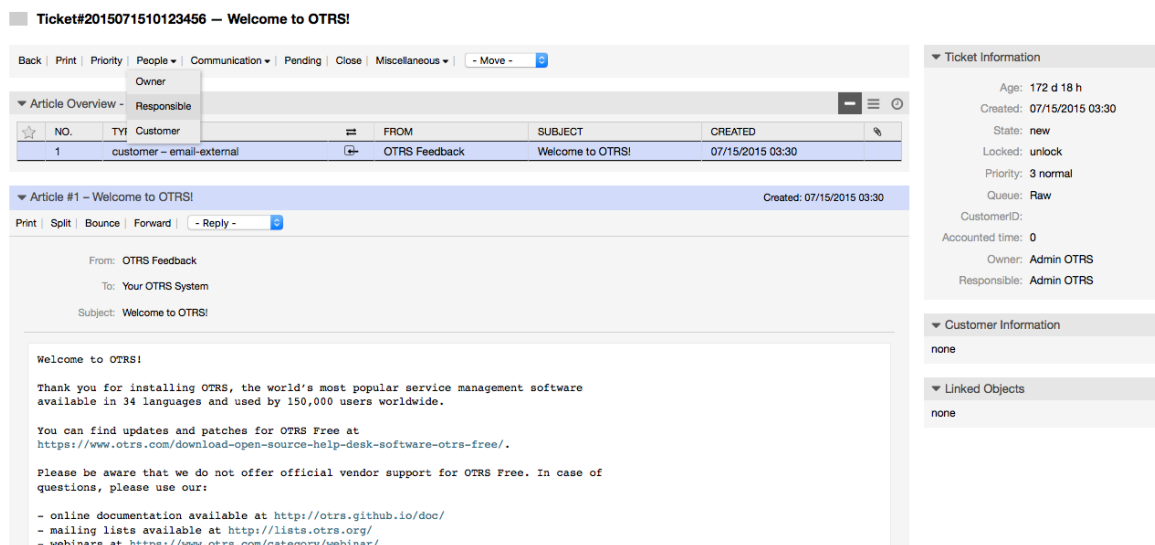
### 6.3.1. Jukumu la Tiketi

The ticket responsibility feature facilitates the complete processing of a ticket by an agent other than the ticket owner. Thus an agent who has locked a ticket can pass it on to another agent, who is not the ticket owner, in order for the second to respond to a customer request. After the request has been dealt with, the first agent can withdraw the ticket responsibility from the second agent.

Kwa parameta ya usanidi Tiketi::Jukumu, kipengele cha jukumu la tiketi kinaweza kuamiliwa. Hii itasababisha viungo vipya 3 kutokea katika menyu ya shughuli za tiketi kwa tiketi iliyokuzwa katika kiolesura cha wakala.

Majukumu ya tiketi yanaweza kugawiwa kwa kuita maudhui ya tiketi na kubofya kwenye kiungo "Jukumu" katika menyu ya shughuli za tiketi kwenye tiketi iliyokuzwa katika kiolesura cha wakala (ona kielelezo chini).

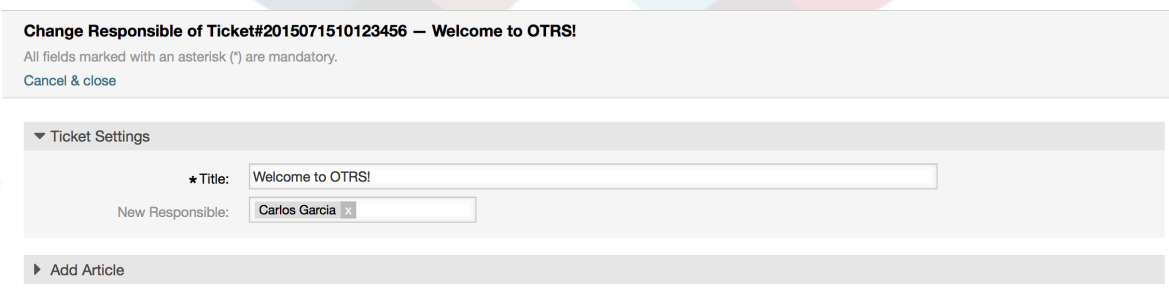
**Figure 4.67. Changing the Responsibility of a ticket in its zoomed view**



The screenshot shows the OTRS ticket interface for Ticket#2015071510123456. The ticket title is "Welcome to OTRS!". The "Responsible" dropdown menu is open, showing "Admin OTRS" as the current responsible agent. The ticket information panel on the right shows details like "Age: 172 d 18 h", "Created: 07/15/2015 03:30", "State: new", "Priority: 3 normal", and "Responsible: Admin OTRS".

After clicking on "Responsible", a pop-up dialog to change the responsibility of that ticket will open (see figure below). This dialog can also be used to send a message to the new responsible agent.

**Figure 4.68. Pop-up dialog to change a ticket's responsibility**



The dialog box is titled "Change Responsible of Ticket#2015071510123456 – Welcome to OTRS!". It contains a "Ticket Settings" section with a "Title" field set to "Welcome to OTRS!" and a "New Responsible" dropdown menu set to "Carlos Garcia". There is a "Submit" button at the bottom.

Orodha ya tiketi zote ambazo wakala anawajibika, zinaweza kufikiwa kupitia muonekaano wa Majukumu wa kiolesura cha wakala wa OTRS, baada tu ya kipengele cha jukumu la tiketi kuamilishwa.

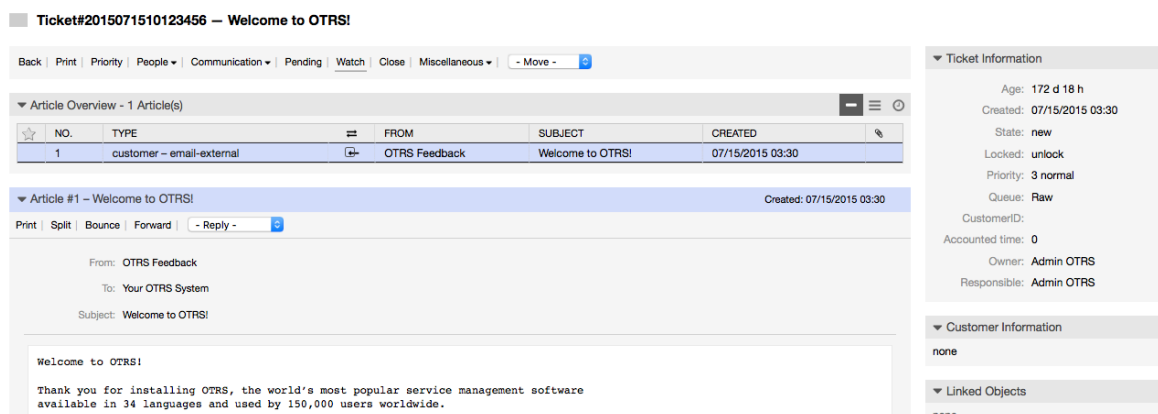
### 6.3.2. Uangalizi wa tiketi

Kutoka OTRS 2.1 na kuendelea, chagua mawakala kama wasimamizi wanaweza kuangalia baadhi ya tiketi ndani ya mfumo bila kuzichakatisha, kwa kutumia kipengele TiketiMwangelizi.

Kipengele cha MuangaliziTiketi kinaweza kuamilishwa na parameta ya usanidi Tiketi::Muangalizi ambayo inaongeza viungo vipya kwenye mwambaa zana wako wa vitendo. Kwa kutumia Tiketi::MuangaliziKundi, kundi moja au zaidi lenye ruhusa ya kuanzisha tiketi linaweza kufafanuliwa.

In order to watch a ticket, go to its zoomed view and click on the "Subscribe" link in the ticket activities menu (see figure below).

**Figure 4.69. Subscribing to watching a ticket in its zoomed view**



**Ticket#2015071510123456 – Welcome to OTRS!**

Back | Print | Priority | People | Communication | Pending | **Watch** | Close | Miscellaneous | - Move -

Article Overview - 1 Article(s)

NO.	TYPE	FROM	SUBJECT	CREATED
1	customer – email-external	OTRS Feedback	Welcome to OTRS!	07/15/2015 03:30

Article #1 – Welcome to OTRS! Created: 07/15/2015 03:30

Print | Split | Bounce | Forward | - Reply -

From: OTRS Feedback  
To: Your OTRS System  
Subject: Welcome to OTRS!

Welcome to OTRS!

Thank you for installing OTRS, the world's most popular service management software available in 34 languages and used by 150,000 users worldwide.

**Ticket Information**

- Age: 172 d 18 h
- Created: 07/15/2015 03:30
- State: new
- Locked: unlock
- Priority: 3 normal
- Queue: Raw
- CustomerID:
- Accounted time: 0
- Owner: Admin OTRS
- Responsible: Admin OTRS

**Customer Information**

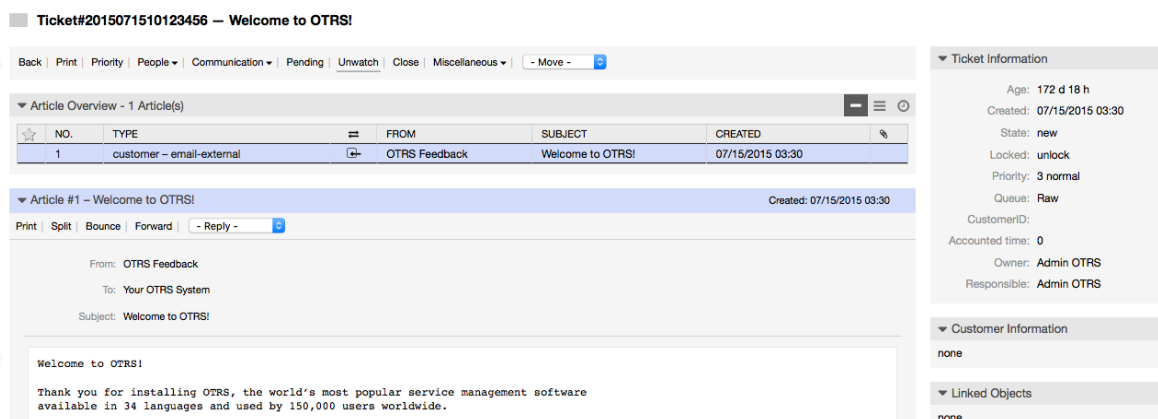
none

**Linked Objects**

none

If you no longer want to watch a specific ticket, go to its zoomed view and click on the "Unsubscribe" link in the ticket activities menu (see figure below).

**Figure 4.70. Unsubscribing from watching a ticket in its zoomed view**



**Ticket#2015071510123456 – Welcome to OTRS!**

Back | Print | Priority | People | Communication | Pending | **Unwatch** | Close | Miscellaneous | - Move -

Article Overview - 1 Article(s)

NO.	TYPE	FROM	SUBJECT	CREATED
1	customer – email-external	OTRS Feedback	Welcome to OTRS!	07/15/2015 03:30

Article #1 – Welcome to OTRS! Created: 07/15/2015 03:30

Print | Split | Bounce | Forward | - Reply -

From: OTRS Feedback  
To: Your OTRS System  
Subject: Welcome to OTRS!

Welcome to OTRS!

Thank you for installing OTRS, the world's most popular service management software available in 34 languages and used by 150,000 users worldwide.

**Ticket Information**

- Age: 172 d 18 h
- Created: 07/15/2015 03:30
- State: new
- Locked: unlock
- Priority: 3 normal
- Queue: Raw
- CustomerID:
- Accounted time: 0
- Owner: Admin OTRS
- Responsible: Admin OTRS

**Customer Information**

none

**Linked Objects**

none

The list of all watched tickets can be accessed through the Watched view of the OTRS agent interface (see figure below), as soon as the ticket watcher feature gets activated.

**Figure 4.71. Watched tickets view**



**My Watched Tickets: All**

All 1 | New Article 0 | Pending 0 | Reminder Reached 0

Bulk 1-1 of 1 | S | M | L

TICKET#	AGE	FROM / SUBJECT	STATE	LOCK	QUEUE	OWNER	CUSTOMERID
2015071510123456	172 d 18 h	OTRS Feedback Welcome to OTRS!	new	unlock	Raw	Admin OTRS	

## 7. Time Related Functions

### 7.1. Kuseti masaa, sikuku na majira ya bi-ashara

Baadhi ya kazi katika OTRS, kama upandishaji na kufungua kiotomatiki tiketi, inategemea kwenye usanidi sahihi wa masaa ya biashara, majira ya saa na sikukuu. Unaweza kufafanua hii kupitia Kiolesura cha SysConfig, katika Kiunzi > Kiini::Muda. Unaweza kuwe-

ka bayana seti tofauti za masaa ya kazi, sikukuu na majira ya saa kama 'Kalenda' tofauti katika Kiunzi > Kiini::Muda::Kalenda1 kupitia Kiunzi > Kiini::Muda::Kalenda9. Kalenda zinaweza kufafanuliwa na mipangilio ya foleni, au ngazi za SLA. Hii ina maanisha, kwa mfano, unaweza kuweka bayana kalenda yenye masaa ya biashara 5 x 8 kwa SLA yako ya 'Kawaida', lakini ukatengeneza kalenda tofauti ya msaada wa 7 x 24 kwa SLA zako za 'dhahabu'; na pia kuseti kalenda kwa ajili ya foleni yako ya 'Msaada-USA' yenye dirisha tofauti la muda tofauti na lile la foleni yako ya 'Msaada-Japan'. OTRS inaweza kushughulikia mpaka kalenda tofauti 99.

### 7.1.1. Masaa ya Biashara

Set up the working hours for your system in SysConfig Framework > Core::Time::Time-WorkingHours, or for your specific calendar in the calendar's configuration. OTRS can handle a granularity of one hour. Checking the marks in the boxes 8, 9, 10 ... 17 corresponds with business hours of 8:00 AM - 6:00 PM.

Katika masaa ya biashara tu ndio tiketi zinaweza kupanda, taarifa za tiketi zilizopandishwa na tiketi zinazosubiri zinatuma, na tiketi zinafunguliwa.

### 7.1.2. Fixed Date Holidays

Sikukuu ambazo ziko kwenye tarehe fungu kila mwaka, kama Mwaka mpya au tarehe nne ya Julai, zinaweza kubainishwa katika MudaSikukuuSiku, au katika sehemu husika kwa ajili ya kalenda 1-9

Tiketi hazitapandishwa wala kufunguliwa katika siku zilizofafanuliwa kama MudaSikuZaSikukuu.

#### Note

Kwa chaguo-msingi OTRS inasafirishwa na sikukuu za *German* zimesakinishwa.

### 7.1.3. Floating Holidays

Sikuku kama Pasaka ambazo hazima tarehe maalumu ya mwaka lakini badala yake zinabadilika kila mwaka, zinaweza kubainishwa kwenye MudaSikuZaSikukuuMaraMoja.

Tiketi hazitapandishwa na hazitafunguliwa katika tarehe zilizofafanuliwa katika MudaSikuZaSikukuuMaraMoja

#### Note

OTRS haisafirishwi na sikukuu yoyote ya Wakati-Mmoja ikiwa imesakinishwa. Hii ina maanisha unatakiwa kuongeza sikukuu, kama Pasaka au Sikuku ya Shukrani, kwenye mfumo wakati wa kusanidi OTRS.

## 7.2. Ufunguaji Otomatiki

Tiketi zilizofungwa zinaweza kufunguliwa kiotomatiki na mfumo. Hiki kipengele kinaweza kuwa cha muhimu, kwa mfano, wakala amefunga tiketi ambazo zinatakiwa kuchakatishwa, lakini hawezi kuzifanyia kazi kwa sababu fulani, tuseme yuko nje ya ofisi kwa dharura. Kipengele otomatiki cha kufungua kinafungua tiketi baada ya muda fulani kuhakikisha hakuna tiketi zilizofungwa zitakazosahaulika, hivyo kuruhusu mawakala wengine kuzichakatisha.

The amount of time before a ticket is unlocked can be specified in the queue settings for every queue. The command `bin/otrs.Console.pl Maint::Ticket::Unlock`, which is executed periodically as a cron job, performs the automated unlocking of tickets.

Taarifa kuhusu tiketi zilizofunguliwa zinatumiwa nje kwa wale mawakala wenye foleni zilizosetiwa tiketi zilizofunguliwa kwenye 'Foleni zangu', na wame amilisha taarifa kwenye tiketi zilizofunguliwa katika mapendeleo yao binafsi.

Tiketi zitafunguliwa kama masharti yote yafuatayo yamefikwa:

- Kuna *muda wa mwisho wa kufungua* umefafanuliwa kwenye foleni ambayo tiketi imo.
- Tiketi imesetiwa kuwa *imefungwa*.
- Hali ya tiketi ni *wazi*.

Muda wa kufungua utasetiwa upya kama wakala akiongeza makala mpya ya nje kwenye tiketi. Inaweza kuwa ya aina yoyote kati ya zifuatazo: *barua pepe-nje, simu, faksi, sms, au notisi-nje*.

Pia, kama makala ya mwisho katika tiketi imetengenezwa na wakala, na mteja akaongeza nyingine, aidha kwa kupitia majibu ya tovuti au barua pepe, muda wa kufungua utasetiwa upya.

Tukio la mwisho ambalo lita seti upya muda wa kufungua ni pale tiketi imegawiwa kwa wakala mwingine.

## 8. Customizing the PDF Output

Hiki kifungu kinashughulikia machaguo yanayoweza kusanidiwa kwa ajili ya matokeo ya PDF kwenye OTRS.

If you use the Print action from anywhere within the OTRS interface, it will generate a formatted PDF file.

You can adjust the look of the files generated by OTRS by creating your own logo and adding it to PDF::LogoFile. You can use PDF::PageSize to define the standard page size of the generated PDF file (DIN-A4 or Letter), and also PDF::MaxPage to specify the maximum number of pages for a PDF file, which is useful if a user generates a huge output file by mistake.

## 9. Takwimu

The OTRS statistics module holds features to track operational statistics and generates custom reports associated with OTRS usage. The OTRS system uses the term "statistic" generically to refer to a single report presenting various indicators.

### Note

For **OTRS Business Solution™** customers, there is also a reports generator available. Here "report" refers to a collection of several statistics in one PDF document that can be easily configured and automatically generated and distributed. Please find more details in the **OTRS Business Solution™** manual.

Proper configuration of the OTRS statistics module is associated with a multitude of requirements and considerations. These include the various OTRS modules to be evaluated, user permission settings, indicators to be calculated and their complexity levels, ease of configuration of the statistics module, speed and efficiency of calculations, and support of a rich set of output variants.

Statistical elements, i.e. files which supplement the functionality of the statistics module for specific requirements, can be integrated for calculating complex statistics.

## 9.1. Statistics Configuration and Usage

When signed on as an agent, the statistics module can be opened by selecting "Reports" and then "Statistics" in the main menu.

### 9.1.1. Mapitio

Selecting the "Statistics" link in the navigation bar, and then the submenu link "Overview", calls up the Overview screen. The Overview screen presents a list of all pre-configured reports the agent can use (see figure below).

**Figure 4.72. Overview of the standard statistics.**

**Statistics » Overview**

STAT#	TITLE	OBJECT	EXPORT	DELETE	RUN
10001	List of open tickets, sorted by time left until escalation deadline expires	Ticketlist	⬇	🗑	🔄 Run now
10002	List of open tickets, sorted by time left until response deadline expires	Ticketlist	⬇	🗑	🔄 Run now
10003	List of open tickets, sorted by time left until solution deadline expires	Ticketlist	⬇	🗑	🔄 Run now
10004	List of the most time-consuming tickets	Ticketlist	⬇	🗑	🔄 Run now
10005	List of tickets closed last month	Ticketlist	⬇	🗑	🔄 Run now
10006	List of tickets closed, sorted by response time.	Ticketlist	⬇	🗑	🔄 Run now
10007	List of tickets closed, sorted by solution time	Ticketlist	⬇	🗑	🔄 Run now
10008	List of tickets created last month	Ticketlist	⬇	🗑	🔄 Run now
10009	New Tickets	TicketAccumulation	⬇	🗑	🔄 Run now
10010	Changes of status in a monthly overview	StateAction	⬇	🗑	🔄 Run now
10011	Overview about all tickets in the system	TicketAccumulation	⬇	🗑	🔄 Run now

When the statistics module is installed, it comes preloaded with a few sample statistics imported into the system. These are shown as a list on the overview page. If the overview list extends to more than a single page, the agent can browse through the different pages. The list of statistics can be sorted as desired, by clicking the desired column header in the list. To generate a particular statistic, click on the statistic's "Run now" link.

### 9.1.2. Generation

The view user interface provides the stat's configuration settings (see figure below).

**Figure 4.73. Viewing a specific statistic.**

**Statistics » View Stat#10001 – List of open tickets, sorted by time left until escalation deadline expires**

Actions	Settings
Go to overview Edit	Object: Ticketlist Description: List of open tickets, sorted by time left until escalation deadline expires. NOTE: Please check the output and configuration of the statistics carefully to make sure that it produces the results you expect. If necessary, change the configuration before using the statistics in a production environment. Format: <input type="text" value="CSV"/> <b>X-axis</b> Attributes to be printed: Number, Ticket#, Age, Title, Created, Changed, Close Time, Queue, State, Priority, Customer User, CustomerID, Service... <b>Y-axis</b> Order by: EscalationTimeWorkingTime Sort sequence: ascending <b>Filter</b> State: new, open, pending auto close+, pending auto close-, pending reminder <input type="button" value="Run now"/> or Cancel
<b>Statistic Information</b> Created: 12/14/2015 09:32:45 Created by: test11450081960626627533 test11450081960626627533 Changed: 12/14/2015 09:32:45 Changed by: test11450081960626627533 test11450081960626627533 Sum rows: No Sum columns: No Show as: No dashboard widget: Cache: No Validity: valid	

Configuration settings for a particular statistic can be set within the range of options in the View screen. Either the statistic creator or any others with the appropriate permissions can make the settings.



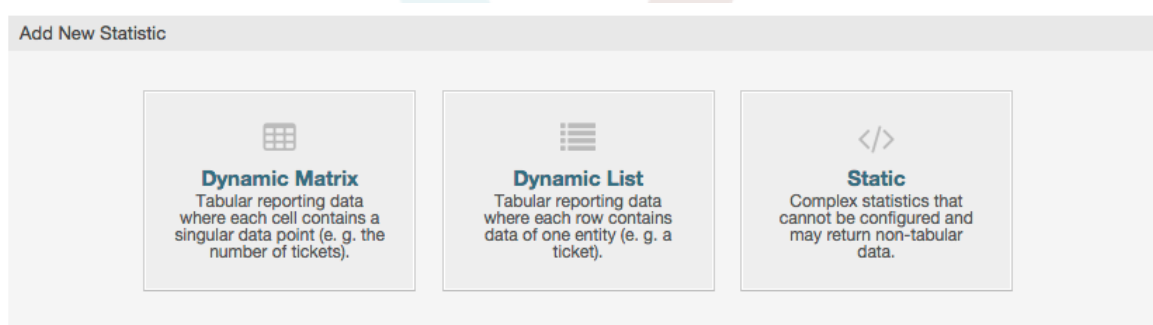
Pressing the "Start" button (at the bottom of the screen) is the last step to generate the statistic.

### 9.1.3. Usanidi

Agents with write rights can edit an existing report configuration by calling up the edit user interface of the statistics module. Alternately, they may create a new report.

There are four possible steps in the configuration of a statistic: the general specification data, configuring the x-axis, y-axis and possible data filters for the reported data (or restrictions). Let's create a new statistic as an example by clicking the "Add" button in the overview screen. Our goal will be to get an overview of how many tickets with very high priority are in every queue (x-axis) and state (y-axis).

**Figure 4.74. Adding a new statistic, first step.**



At the beginning we have to select the type of statistic we want to add. Three types are available:

#### Dynamic Matrix Statistics

This type of statistics will generate a matrix of computed values (e.g. new tickets per day of month and queue). All value cells in the matrix have the same type (number, average time, etc.). Values are computed from entities in the system (e.g. tickets). Some matrix statistics support a summation column and/or row (only useful for certain data).

#### Dynamic List Statistics

This kind of statistic will generate a table where every line (not cell) represents an entity in the system (e. g. a ticket). The columns in this row are usually configurable (x-axis, see below) and contain the data of this object (e. g. ticket attributes). All value cells in one column have the same type.

#### Static Statistics

This kind of statistic is not very much configurable and usually used for very special and/or complex computations.

So let's select "Dynamic Matrix" for our example. Then the "General Specifications" configuration will appear below the statistic type selection.

**Figure 4.75. Adding a new statistic, second step.**

General Specification

★ Title:

★ Description:

★ Object type:

★ Permissions:   
You can select one or more groups to define access for different agents.

★ Result formats:

Create summation row:   
Generate an additional row containing sums for all data columns.

Create summation column:   
Generate an additional column containing sums for all data rows.

Cache results:   
Stores statistics result data in a cache to be used in subsequent views with the same configuration.

Validity:   
If set to invalid end users can not generate the stat.

Create Statistic

or

After providing a title and description for the new statistic, we have to select the statistics backend that we want to use. This is the actual backend module which is responsible to collect and analyze the data for our statistic. In our case we'll select "TicketAccumulation".

By configuring permission groups, we can facilitate a restriction of the groups (and therefore, agents) who can later view and generate the pre-configured statistics. Thus the various statistics can be allocated to the different departments and work groups who need them. It is possible to allocate one statistic to various groups.

### **Example 4.20. Default statistics permission group**

The "stats" group was selected. The report is viewable for all users having at least ro rights for the "stats" group. This access is available by default.

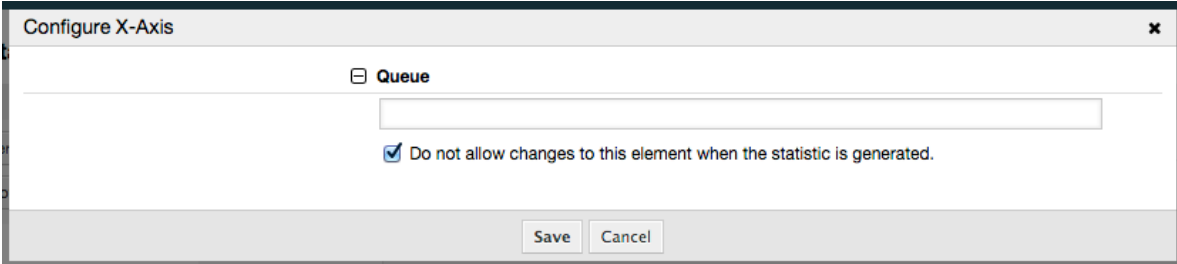
### **Example 4.21. Customized statistics permission group**

A group named "sales" was selected. All users with ro rights for the "sales" group can see the stat in the view mode and generate it. However, the report will not be available for viewing by other users.

Additionally, possible output formats can be selected. Here we can just keep all output formats and choose the one to use when actually generating the statistic. Let's save the statistic now.

The next screen will indicate the next step with a highlighted button: we should configure the x-axis. By clicking the button, a dialog will appear where we can select the element to be used for the x-axis. In our case that will be the queue:

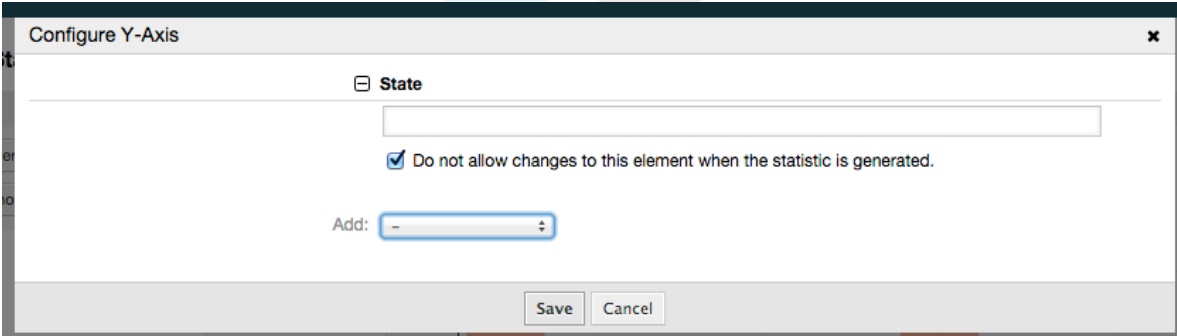
**Figure 4.76. Configuring the x-axis of a statistic.**



We can optionally limit the queues to be shown by selecting some in the queue field. With the checkbox we can control if the agent who generates the statistic can make changes to the queue selection. We'll keep the defaults and press "Save".

Now we can configure the y-axis in the same way: select the state field.

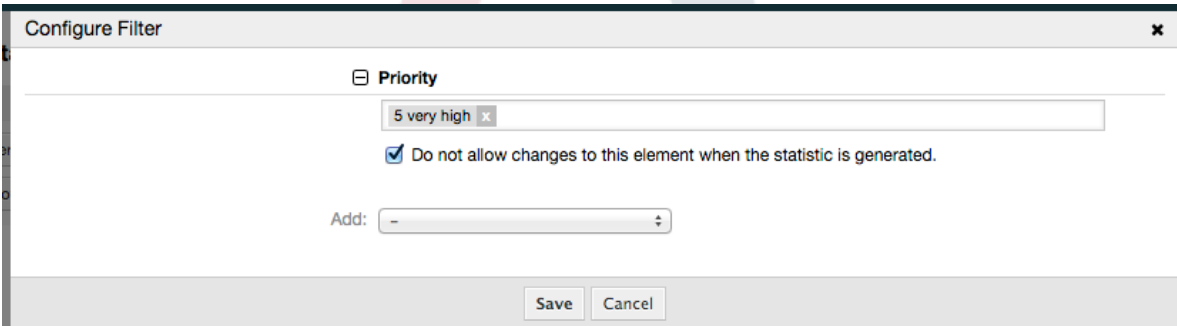
**Figure 4.77. Configuring the y-axis of a statistic.**



Here it is possible to select one element or two. In the first case, every value of the element will be one element on the y-axis. If two elements are selected, their permutations will be the elements on the value series. For example you could select "state" and "priority", and the resulting elements will be "new - 1 very low", "new - 2 low", ... "open - 1 very low" and so on. Let's just use the state and press "Save".

Now in the last step we could add data filters to only report tickets belonging to a certain customer, with certain priorities and so on. We'll add a filter for very high priority tickets:

**Figure 4.78. Configuring the data filter of a statistic.**



Now press "Save" again. The configuration is finished.

You may already have noted that in the configuration dialog there is a preview area where we can check the effect of our configuration settings.

**Figure 4.79. Configuring the data filter of a statistic.**



**Note**

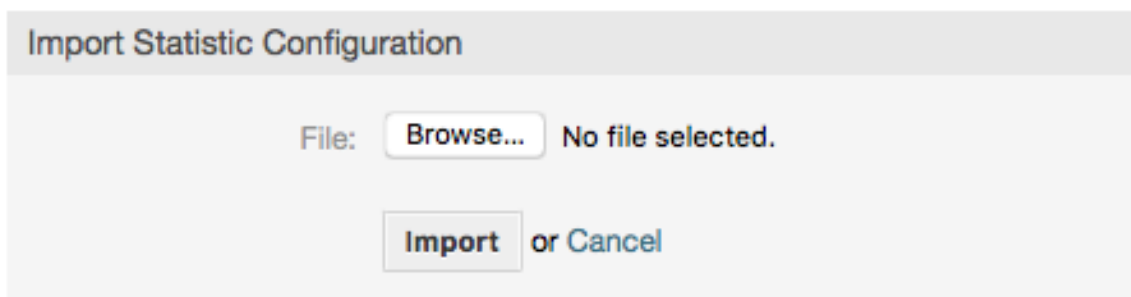
Please note that the preview uses random data and does not consider data restrictions.

The statistic is configured. By pressing the "Run now" button we can go to the View screen where the desired output format can be selected and the statistic can be generated in the different formats.

**9.1.4. Agiza**

The Import user interface can be accessed by pressing the "Import" button on the Overview screen. "rw" permissions for the statistics module are required.

**Figure 4.80. Statistics import**



Facilitates the import of reports, and when combined with the export function of the module, is a very handy functionality. Stats can be created and tested conveniently on test systems, then imported into the production system.

## 9.2. Statistics System Administration

This section provides information about the tasks and responsibilities of the OTRS administrator dealing with the statistics module.

### 9.2.1. Permission settings, Groups and Queues

The default configuration of the module registration gives all agents with "stats" group permissions access to the statistics module.

Access according to permission settings:

- *rw*. Allows configuring statistics.
- *ro*. Permits generating pre-configured statistics.

Msimamizi wa OTRS anaamua kama mawakala wenye haki za kuzalisha ripoti zilizosani-diwa kabla wanapewa haki za kusoma tu kwenye kundi la "takwimu", au kama makundi yao husika yanaongezwa katika moduli ya usajili kwenye SysConfig.

### 9.2.2. SysConfig Settings

The SysConfig groups Framework:Core::Stats and Framework:Frontend::Agent::Stats contain all configuration parameters for the basic set-up of the statistics module. Moreover, the configuration parameter `$Self->{'Frontend::Module'}->{'AgentStats'}` controls the arrangement and registration of the modules and icons within the statistics module.

### 9.2.3. Generating Statistics on the Command Line

Statistics can be generated on the command line with the command `bin/otrs.Console.pl Maint::Stats::Generate`. As an example, see the command line call in the following script.

```
shell> bin/otrs.Console.pl Maint::Stats::Generate --number 10004 --target-directory /tmp
Generating statistic number 10004...
  Writing file /tmp/List_of_the_most_time-consuming_tickets_Created_2015-09-08_14-51.csv.
Done.
```

A report from the statistic configuration "Stat#10004" is generated and saved as a CSV file in the /tmp directory.

Ripoti iliyotengenezwa pia inaweza kutumwa kama barua pepe. Taarifa zaidi zinaweza patikana kwa agizo katika hati chini.

```
shell> bin/otrs.Console.pl Maint::Stats::Generate --help
```

It usually does not make sense to generate reports manually via the command line, as the statistics module has a convenient graphical user interface. However, generating reports manually does make sense when combined with a cron job.

Imagine the following scenario: On the first day of every month, the heads of department want to receive a report for the past month. By combining a cron job and command line call the reports can be sent to them automatically by e-mail.

## 10. Sehemu zinazobadilika

### 10.1. Utangulizi

Sehemu inayobadilika ni sehemu ya aina maalumu katika OTRS, iliyotengenezwa kupanua taarifa iliyohifadhiwa katika makala au tiketi. Hizi makala si funge kwenye mfumo na zinaweza kutokea kwenye skrini maalumu tu, zinaweza kuwa za lazima au si za lazima, na uwasilishwaji wake kwenye skrini unategemeana na aina ya sehemu iliyofafanuliwa wakati wa utengenezaji wake kulingana na data inayoshikiliwa na sehemu. Kwa mfano, kuna sehemu za kushikilia nakala, tarehe, chaguo la vitu, na kadh.

Dynamic fields are the evolution of TicketFreeText, TicketFreeKey, TicketFreeTime, ArticleFreeText and ArticleFreeKey fields that were commonly used in OTRS 3.0 and before. The limitation of these "Free Fields" was that they can be defined up to 16 (text or dropdown) fields and 6 time fields for a ticket and 3 (text or dropdown) fields for each article only, not more.

Sasa kwa kutumia sehemu zinazobadilika kikomo katika nambari ya sehemu kwa tiketi au makala kimeondolewa, unaweza kutengeneza sehemu nyingi zinazobadilika unazotaka aidha kwa tiketi au makala. Na zaidi ya hapo, kiunzi nyuma ya sehemu zinazobadilika kinaandaliwa kushughulikia sehemu zilizogeuzwa kukufaa kwa ajili ya vitu vingine kuachana na tiketi na makala tu.

Kiunzi hiki ambacho kinashughulikia sehemu zinazobadilika kimetengenezwa kwa kutumia mbinu ya moduli, ambapo kila aina ya sehemu inayobadilika inaweza kuonekana kama moduli ya programu-jalizi kwa ajili ya kiunzi. Hii inamaanisha aina mbali mbali ya sehemu zinazobadilika zinaweza kupanuliwa kirahisi kwa kutumia moduli za umma za OTRS, vifaa vya nyongeza vya vipengele vya OTRS, maendeleo yaliyogeuzwa kukufaa ya OTRS, na maendeleo mengine yaliyogeuzwa kukufaa.

Aina zifuatazo za sehemu zinazobadilika zimejumuishwa kwenye toleo hili:

- Nakala (nakala ya mstari mmoja)
- Eneo la nakala (nakala za mistari mingi)
- Kisanduku tiki
- Kunjuzi (chaguo moja, thamani nyingi)
- Uchaguzi anuwai (uchaguzi nyingi, thamani nyingi)
- Tarehe
- Tarehe / Muda

### 10.2. Usanidi

By default, a clean installation of OTRS comes with two pre-installed internal dynamic fields. If you plan to use such fields in tickets or articles you need to create new, custom dynamic fields.

Usanidi wa sehemu zinazobadilika umegawanyika katika nyanja mbili, kuongeza sehemu mpya inayobadilika au kusimamia iliyopo unahitaji kwenda paneli ya "Msimamizi" kwenye kiungo "Sehemu Zinazobadilika". Kuonyesha, kuonyesha kwa ulazima au kuficha sehemu inayobadilika katika skrini moja unahitaji kubadilisha mipangilio ya OTRS katika skrini ya "SysConfig".

## 10.2.1. Kuongeza Sehemu Inayobadilika

Click on the "Admin" button located in the navigation bar, then click on the "Dynamic Fields" link inside "Ticket Settings" box located in the lower center of the screen. The dynamic fields overview will display as follows:

**Figure 4.81. Dynamic fields overview screen.**

**Dynamic Fields Management - Overview**

**Actions**

**Ticket**

  
Add new field for object: Ticket

**Article**

  
Add new field for object: Article

**Hint**

To add a new field, select the field type from one of the object's list, the object defines the boundary of the field and it can't be changed after the field creation.

**Dynamic Fields List** 1-2 of 2

NAME	LABEL	ORDER	TYPE	OBJECT	VALIDITY	DELETE
ProcessManagementProcessID	Process	1	ProcessID	Ticket	valid	
ProcessManagementActivityID	Activity	2	ActivityID	Ticket	valid	

Tambua kwamba hii skrini itabadilika kadri uongezavyo sehemu zinazobadilika kuorodhesha sehemu zote zinazobadilika. Hii skrini inaweza tayari kuwa na baadhi ya sehemu kama usanikishaji ulirekebishwa kutoka toleo la zamani la OTRS.

Vitendo kwenye ufito wa pembeni kushoto kwa skrini vinaelezea uwezekano wa aina mbili: Makala na Tiketi, kila moja ina uchaguzi kunjuzi wa sehemu zinazobadilika.

### Note

Usanikishaji wa kifurushi cha OTRS unaweza kuongeza vitu katika ufito wa pembeni.

Utaratibu wa kawaida wa kutengenza sehemu zinazobadilika ni:

- Click on the desired dynamic field object dropdown in the Actions side bar.
- Bofya kwenye aina ya sehemu inayobadilika unayotaka kuongeza kutoka kwenye orodha.
- Jaza usanidi
- Hifadhi

Maongezi ya usanidi wa sehemu zinazobadilika yamegawanywa katika sehemu mbili, upande wa juu ni wa kawaida baina ya sehemu zote na upande wa chini unaweza kuwa tofauti kwa aina moja ya sehemu inayobadilika kwenda nyingine.

Mipangilio ya ujumla ya sehemu zinazobadilika:

- Jina: Lazima, kipekee, herufi na nambari tu zinaruhusiwa,

Hili ni jina la ndani la sehemu, linatumika kwa mfano kuonyesha au kuficha sehemu katika skrini. Mabadiliko yoyote ya jina la sehemu (haishauriwi) inahitaji usasishaji kwa mikono wa mipangilio ya "SysConfig" ambapo sehemu ina rejea.

- Lebo: Lazima

Hili ndio jina la sehemu litakaloonyeshwa kwenye skrini, ina msaada kwa tafsiri.

## Note

Tafsiri za lebo inabidi ziongezwe kwa mikono kwenye mafaili ya utafsiri wa lugha.

- Oda ya sehemu: Lazima.

Inafafanua oda tegemezi ambayo sehemu itaonyeshwa kwenye skrini, kwa chaguo-msingi kila sehemu mpya ina sehemu ya mwisho, mabadiliko katika huu mpangilio utaathiri oda ya sehemu nyingine zinazobadilika zilizotengenezwa.

- Uhalali: Lazima.

Sehemu inayobadilika batili haitaonyeshwa katika skrini yoyote, hata kama imesanidiwa kuonyeshwa.

- Aina ya sehemu: Lazima, Soma tu.

Inaonyesha aina ya sehemu iliyochaguliwa.

- Aina ya kitu: Lazima, Soma tu.

Inaonyesha upeo wa sehemu.

## Note

Kuonyesha mipangilio ya kila aina maalumu ya sehemu sehemu chache zitaongezwa kwenye mfano wetu. Hizi sehemu mpya zitafanyiwa marejeo kwenye vifungu vya mbele.

For the following examples all the dynamic fields will be created for the Ticket object. If you need to create a dynamic field for Article object, just choose the field from the Article dropdown list.

**Table 4.6. Sehemu zifuatazo zitaongezwa kwenye mfumo:**

Jina	Lebo	Aina
Sehemu1	Sehemu yangu 1	Nakala
Sehemu2	Sehemu yangu 2	Eneo la nakala
Sehemu3	Sehemu yangu 3	Kisanduku tiki
Sehemu4	Sehemu yangu 4	Kunjuzi
Sehemu5	Sehemu yangu 5	Chaguanyingi
Sehemu6	Sehemu yangu 6	Tarehe
Sehemu7	My Field 7	Tarehe / Muda

### 10.2.2. Nakala ya Usanidi wa Sehemu Inayobadilika

Sehemu inayobadilika ya Nakala inatumika kuhifadhi tungo ya mstari mmoja.

Nakala ya mpangilio wa sehemu inayobadilika:

- Thamani ya chaguo-msingi: Hiari.

This is the value to be shown by default on the edit screens (like New Phone Ticket or Ticket Compose).

- Show link: Optional.



Kama imesetiwa, thamani ya sehemu itabadilishwa kuwa kiungo kinachobonyezeka kwa ajili ya skrini za kuonyesha (kama kuza tiketi au mapitio).

Kwa mfano, kama "Onyesha kiungo" imesetiwa kuwa "http://www.otrs.com", kubofya kwenye thamani ya sehemu kitafanya kivinjari chako kufungua ukurasa wa tovuti wa OTRS.

## Note

The use of [% Data.NameX | uri %] in the Set link value, where NameX is the name of the field, will add the field value as part of the link reference.

### Figure 4.82. Maongezi ya usanidi wa Nakala ya Sehemu inayobadilika.

**Dynamic Fields - Ticket: Add Text Field**

**Actions**

◀ Go back to overview

**General**

★ **Name:**  Validity:   
Must be unique and only accept alphabetic and numeric characters.

★ **Label:**  Field type:   
This is the name to be shown on the screens where the field is active.

★ **Field order:**  Object type:   
This is the order in which this field will be shown on the screens where is active.

---

**Text Field Settings**

Default value:   
This is the default value for this field.

Show link:   
Here you can specify an optional HTTP link for the field value in Overviews and Zoom screens.  
 Example: http://some.example.com/handle?query={% Data.Field1 | uri %}

Check RegEx:   
Here you can specify a regular expression to check the value. The regex will be executed with the modifiers xms.  
 Example: ^[0-9]\$

Add RegEx:

or

## 10.2.3. Textarea Dynamic Field Configuration

Textarea dynamic field is used to store a multiple line string.

Textarea dynamic field settings:

- Number of rows: Optional, integer.

Used to define the height of the field in the edit screens (like New Phone Ticket or Ticket Compose).

- Idadi ya safu: Hiari, namba kamili.

Hii thamani inatumika kufafanua upana wa sehemu kwenye skrini za kuhariri.

- Thamani ya chaguo-msingi: Hiari.

Hii ni thamani itakayo onyeshwa kwa kawaida kwenye skrini za kuhariri (inaweza kuwa nakala ya zaidi ya mstari mmoja).

**Figure 4.83. Usanidi wa maongezi ya sehemu zinazobadilika za eneo la nakala**

**Dynamic Fields - Ticket: Change Textarea Field**

Actions

Go back to overview

General

★ Name:  Validity:   
Must be unique and only accept alphabetic and numeric characters.

★ Label:  Field type:   
This is the name to be shown on the screens where the field is active.

★ Field order:  Object type:   
This is the order in which this field will be shown on the screens where is active.

---

Textarea Field Settings

Number of rows:  Specify the height (in lines) for this field in the edit mode.

Number of cols:  Specify the width (in characters) for this field in the edit mode.

Default value:   
This is the default value for this field.

Check RegEx: Here you can specify a regular expression to check the value. The regex will be executed with the modifiers xms.  
Example: ^[0-9]\$\

Add RegEx:

Submit or Cancel

## 10.2.4. Usanidi wa Sehemu Inayobadilika ya Kisanduku tiki

Sehemu inayobadilika ya kisanduku tiki inatumika kuhifadhi thamani ya kweli au uongo, inayowakilishwa na boksi lenye tiki au lisilo na tiki.

Mipangilio ya sehemu inayobadilika ya kisanduku tiki:

- Thama ya Kawaida: Lazima.

Hii ndiyo thamani ya kuonyeshwa kwa chaguo-msingi katika skrini za kuhariri (kama Tiketi Mpya ya Simu au Unda Tiketi), thamani chaguo-msingi la hii sehemu ni uchaguzi uliofungwa ambao unaweza kutikiwa au kutotikiwa.

**Figure 4.84. Usanidi wa maongezi wa sehemu inayobadilika ya kisanduku tiki**

**Dynamic Fields - Ticket: Add Checkbox Field**

Actions

Go back to overview

General

★ Name:  Validity:   
Must be unique and only accept alphabetic and numeric characters.

★ Label:  Field type:   
This is the name to be shown on the screens where the field is active.

★ Field order:  Object type:   
This is the order in which this field will be shown on the screens where is active.

---

Checkbox Field Settings

Default value:   
This is the default value for this field.

Submit or Cancel

## 10.2.5. Usanidi wa Kikunjuzi cha Sehemu Inayobadilika

Kikunjuzi cha sehemu inayobadilika kinatumika kuhifadhi thamani moja, kutoka kwenye orodha iliyofungwa.

Mipangilio ya sehemu kunjuzi inayobadilika:

- Thamani zinazowezezana: Lazima.

Orodha ya thamani za kuchagua. Kama ikitumika, thamani mpya ni muhimu kubainisha Ufunguo (thamani ya ndani) na Thamani (thamani ya kuonyeshwa).

- Thamani ya chaguo-msingi: Hiari.

Hii ndiyo thamani ya kuonyeshwa kwa chaguo-msingi katika skrini za kuhariri (kama Tiketi Mpya ya Simu au Unda Tiketi), thamani chaguo-msingi la hii sehemu ni uchaguzi uliofungwa kama ulivyofafanuliwa na thamani Ziwezekanazo.

- Ongeza sehemu tupu: Lazima, (Ndio/Hapana).

Kama hili chaguo limeamilishwa thamani ya ziada inafafanuliwa kuonyesha "-" katika orodha ya thamani ziwezekanazo. Hii thamani maalumu ni tupu ndani

- Tafsiri thamani: Lazima, (Ndio/Hapana).

Huu mpangilio unatumika kuweka alama thamani zinazoweza kutafsiriwa za hii sehemu. Thamani zinazoonyeshwa tu ndio zita tafsiriwa, thamani za ndani hazita athiriwa, utafsiri wa thamani inabidi uongezwe kwa mikono kwenye mafaili ya lugha.

- Show link: Optional.

Kama imeseetiwa, thamani ya sehemu itabadilishwa kuwa kiungo kinachobonyezeka kwa ajili ya skrini za kuonyesha (kama kuza tiketi au mapitio).

Kwa mfano, kama "Onyesha kiungo" imeseetiwa kuwa "<http://www.otrs.com>", kubofya kwenye thamani ya sehemu kitafanya kivinjari chako kufungua ukurasa wa tovuti wa OTRS.

### Note

The use of [% Data.NameX | uri %] in the Set link value, where NameX is the name of the field, will add the field value as part of the link reference.

**Figure 4.85. Maongezi ya usanidi wa Kikunjuzi cha Sehemu inayobadilika**

**Dynamic Fields - Ticket: Add Dropdown Field**

**Actions**

Go back to overview

**General**

★ **Name:**  Validity:

Must be unique and only accept alphabetic and numeric characters.

Field type:

★ **Label:**  This is the name to be shown on the screens where the field is active.

Object type:

★ **Field order:**  This is the order in which this field will be shown on the screens where is active.

**Dropdown Field Settings**

Possible values:

★ <b>Key:</b> <input type="text" value="1"/>	★ <b>Value:</b> <input type="text" value="Option 1"/>	<input type="checkbox"/>
★ <b>Key:</b> <input type="text" value="2"/>	★ <b>Value:</b> <input type="text" value="Option 2"/>	<input type="checkbox"/>
★ <b>Key:</b> <input type="text" value="3"/>	★ <b>Value:</b> <input type="text" value="Option 3"/>	<input type="checkbox"/>

Add value:

Default value:

This is the default value for this field.

Add empty value:  Activate this option to create an empty selectable value.

Tree View:  Activate this option to display values as a tree.

Translatable values:  If you activate this option the values will be translated to the user defined language. Note: You need to add the translations manually into the language translation files.

Show link:

Here you can specify an optional HTTP link for the field value in Overviews and Zoom screens. Example: <https://some.example.com/handle?query={% Data.Field1 | uri %}>

Submit or Cancel

## 10.2.6. Uteuzi Anuwai wa Usanidi wa Sehemu Inayobadilika

Uteuzi Anuwai wa sehemu inayobadilika unatumika kuhifadhi thamani anwai, kutoka kwenye orodha iliyofungwa.

Mipangilio ya sehemu inayobadilika ya uteuzi anuwai:

- Thamani zinazowezezana: Lazima.

Orodha ya thamani za kuchagua. Wakati wa kuongeza vifaa vya nyongeza kwenye orodha, ni muhimu kubainisha Ufunguo (thamani ya ndani) na Thamani (thamani ya kuonyeshwa).

- Thamani ya chaguo-msingi: Hiari.

Hii ndiyo thamani ya kuonyeshwa kwa chaguo-msingi katika skrini za kuhariri (kama Tiketi Mpya ya Simu au Unda Tiketi), thamani chaguo-msingi la hii sehemu ni uchaguzi uliofungwa kama ulivyofafanuliwa na thamani Ziwezekanazo.

- Ongeza sehemu tupu: Lazima, (Ndio/Hapana).

Kama hili chaguo limeamilishwa thamani ya ziada inafafanuliwa kuonyesha "-" katika orodha ya thamani ziwezekanazo. Hii thamani maalumu ni tupu ndani

- Tafsiri thamani: Lazima, (Ndio/Hapana).

Huu mpangilio unatumika kuweka alama thamani zinazoweza kutafsiriwa za hii sehemu. Thamani zinazoonyeshwa tu ndio zita tafsiriwa, thamani za ndani hazita athiriwa, utafsiri wa thamani inabidi uongezwe kwa mikono kwenye mafaili ya lugha.

**Figure 4.86. Maongezi ya usanidi wa Uteuzi Anuwai wa Sehemu inayobadilika**

**Dynamic Fields - Ticket: Add Multiselect Field**

**Actions**

Go back to overview

**General**

★ **Name:** Field5 Validity: valid

Must be unique and only accept alphabetic and numeric characters.

Field type: Multiselect

★ **Label:** My field 5 Object type: Ticket

This is the name to be shown on the screens where the field is active.

★ **Field order:** 7

This is the order in which this field will be shown on the screens where is active.

**Multiselect Field Settings**

Possible values:

★ <b>Key:</b> A	★ <b>Value:</b> Option A	<input type="checkbox"/>
★ <b>Key:</b> B	★ <b>Value:</b> Option B	<input type="checkbox"/>
★ <b>Key:</b> C	★ <b>Value:</b> Option C	<input type="checkbox"/>

Add value:

Default value:

This is the default value for this field.

Add empty value:

Activate this option to create an empty selectable value.

Tree View:

Activate this option to display values as a tree.

Translatable values:

If you activate this option the values will be translated to the user defined language.  
Note: You need to add the translations manually into the language translation files.

Submit or Cancel

## 10.2.7. Usanidi wa Sehemu Inayobadilika ya Tarehe

Sehemu inayobadilika ya Tarehe inatumika kuhifadhi thamani ya tarehe (Siku, Mwezi na Mwaka).

Mipangilio ya sehemu inayobadilika ya tarehe:

- Chaguo-msingi la utofauti wa tarehe: Hiari, Namba kamili.

Idadi ya sekunde (hasi au chanya) kati ya tarehe ya sasa na tarehe iliyochaguliwa kuonyeshwa kwa chaguo-msingi katika skrini za kuhariri (kama Tiketi Mpya Simu au Unda Tiketi).

- Define years period: Mandatory, (Yes / No).

Used to set a defined number of years in the past and the future based on the current date of the year select for this field. If set to Yes the following options are available:

- Miaka ya nyuma: Hiari, Namba kamili chanya.

Fafanua idadi ya miaka ya nyuma kutoka siku ya sasa kuonyesha chaguo la mwaka kwa hii sehemu inayobadilika katika skrini za kuhariri.

- Miaka ya mbeleni: Hiari, Namba kamili chanya.

Fafanua idadi ya miaka ya mbeleni kutoka siku ya sasa kuonyesha katika chaguo la mwaka kwa hii sehemu inayobadilika katika skrini za kuhariri.

- Show link: Optional.

Kama imeseetiwa, thamani ya sehemu itabadilishwa kuwa kiungo kinachobonyezeka kwa ajili ya skrini za kuonyesha (kama kuza tiketi au mapitio).

For example, if "Show link" is set to "http://www.otrs.com", clicking on the filed value will make your browser to open the OTRS web page.

## Note

The use of [% Data.NameX | uri %] in the Set link value, where NameX is the name of the field will add the field value as part of the link reference.

## Figure 4.87. Maongezi ya usanidi wa Tarehe ya Sehemu inayobadilika

**Dynamic Fields - Ticket: Add Date Field**

**Actions**

Go back to overview

**General**

★ Name:  Validity:   
Must be unique and only accept alphabetic and numeric characters.

★ Label:  Field type:   
This is the name to be shown on the screens where the field is active.

★ Field order:  Object type:   
This is the order in which this field will be shown on the screens where is active.

---

**Date Field Settings**

Default date difference:   
The difference from NOW (in seconds) to calculate the field default value (e.g. 3600 or -60).

Define years period:   
Activate this feature to define a fixed range of years (in the future and in the past) to be displayed on the year part of the field.

Show link:   
Here you can specify an optional HTTP link for the field value in Overviews and Zoom screens.  
 Example: http://some.example.com/handle?query=[% Data.Field1 | uri %]

Restrict entering of dates:   
Here you can restrict the entering of dates of tickets.

Submit or Cancel

## 10.2.8. Usanidi wa Tarehe / Muda wa Sehemu Inayobadilika

Sehemu inayobadilika ya Tarehe / Muda inatumika kuhifadhi thamani ya tarehe muda (Dakika, Masaa, Siku, Mwezi na Mwaka).

Mipangilio ya sehemu inayobadilika ya tarehe / muda:

- Chaguo-msingi la utofauti wa tarehe: Hiari, Namba kamili.

Idadi ya sekunde (hasi au chanya) kati ya tarehe ya sasa na tarehe iliyochaguliwa kuonyeshwa kwa chaguo-msingi katika skrini za kuhariri (kama Tiketi Mpya Simu au Unda Tiketi).

- Define years period: Mandatory, (Yes / No).

Used to set a defined number of years in the past and the future based on the current date of the year select for this field. If set to Yes the following options are available:

- Miaka ya nyuma: Hiari, Namba kamili chanya.

Fafanua idadi ya miaka ya nyuma kutoka siku ya sasa kuonyesha chaguo la mwaka kwa hii sehemu inayobadilika katika skrini za kuhariri.

- Miaka ya mbeleni: Hiari, Namba kamili chanya.

Fafanua idadi ya miaka ya mbeleni kutoka siku ya sasa kuonyesha katika chaguo la mwaka kwa hii sehemu inayobadilika katika skrini za kuhariri.

- Show link: Optional.

Kama imeseetiwa, thamani ya sehemu itabadilishwa kuwa kiungo kinachobonyezeka kwa ajili ya skrini za kuonyesha (kama kuza tiketi au mapitio).

For example, if "Show link" is set to "http://www.otrs.com", clicking on the filed value will make your browser to open the OTRS web page.

## Note

The use of [% Data.NameX | uri %] in the Set link value, where NameX is the name of the field will add the field value as part of the link reference.

## Figure 4.88. Maongezi ya usanidi wa Tarehe / Muda wa Sehemu inayobadilika

**Dynamic Fields - Ticket: Add Date / Time Field**

Actions

Go back to overview

General

★ Name:  Validity:   
Must be unique and only accept alphabetic and numeric characters.

Field type:

★ Label:   
This is the name to be shown on the screens where the field is active.

Object type:

★ Field order:   
This is the order in which this field will be shown on the screens where is active.

---

Date / Time Field Settings

Default date difference:   
The difference from NOW (in seconds) to calculate the field default value (e.g. 3600 or -60).

Define years period:   
Activate this feature to define a fixed range of years (in the future and in the past) to be displayed on the year part of the field.

Show link:   
Here you can specify an optional HTTP link for the field value in Overviews and Zoom screens.  
 Example: http://some.example.com/handle?query={% Data.Field1 | uri %}

Restrict entering of dates:   
Here you can restrict the entering of dates of tickets.

or

## 10.2.9. Kuhariri sehemu inayobadilika

Skrini ya mapitio ya sehemu inayobadilika iliyojazwa (na mifano iliyopita) inatakiwa ionekane kama:

## Figure 4.89. Skrini ya mapitio ya sehemu zinazobadilika iliyojazwa na data za sampuli

**Dynamic Fields Management - Overview**

Actions

**Ticket**

Add new field for object: Ticket

**Article**

Add new field for object: Article

**Hint**

To add a new field, select the field type from one of the object's list, the object defines the boundary of the field and it can't be changed after the field creation.

Dynamic Fields List 1-9 of 9

NAME	LABEL	ORDER	TYPE	OBJECT	VALIDITY	DELETE
ProcessManagementProcessID	Process	1	ProcessID	Ticket	valid	
ProcessManagementActivityID	Activity	2	ActivityID	Ticket	valid	
Field1	My field 1	3	Text	Ticket	valid	<input type="button" value="🗑"/>
Field2	My field 2	4	Textarea	Ticket	valid	<input type="button" value="🗑"/>
Field3	My field 3	5	Checkbox	Ticket	valid	<input type="button" value="🗑"/>
Field4	My field 4	6	Dropdown	Ticket	valid	<input type="button" value="🗑"/>
Field5	My field 5	7	Multiselect	Ticket	valid	<input type="button" value="🗑"/>
Field6	My field 6	8	Date	Ticket	valid	<input type="button" value="🗑"/>
Field7	My field 7	9	Date / Time	Ticket	valid	<input type="button" value="🗑"/>

Kubadilisha au kuhariri sehemu inayobadilika lazima uwe na sehemu moja iliyofafanuliwa, chagua sehemu ambayo tayari imejazwa kutoka kwenye skrini ya mapitio ya sehemu zinazobadilika na sahihisha mipangilio.

## Note

Sio sehemu zote zinazobadilika zinaweza kubadilishwa, aina ya Sehemu na aina ya Kitu zimefungwa kutoka kwenye machaguo ya sehemu na haziwezi kubadilishwa.

Haishauriwi kubadilisha jina la ndani la sehemu, lakini lebo inaweza kubadilishwa mda wowote. Kama jina la ndani limebadilishwa mipangilio yote ya "SysConfig" ambayo ina marejeo kwenye sehemu hiyo yanahitaji kusasishwa na pia mapen-deleo ya mtumiaji (kama imefafanuliwa).

### 10.2.10. Kuonyesha Sehemu Inayobadilika kwenye Skrini

Kuonyesha sehemu inayobadilika kwenye skrini fulani kuna masharti mawili ya lazima:

1. Sehemu inayobadilika lazima iwe halali.
2. Sehemu inayobadilika lazima isetiwe kuwa 1 au 2 kwenye skrini ya usanidi.

Fuata hatua hizi kuonyesha sehemu inayobadilika katika skrini

- Kuwa na uhakika kwamba sehemu inayobadilika imesetiwa kuwa halali, unaweza kuona uhalali wa sehemu kutoka kwenye skrini ya mapitio ya sehemu inayobadilika. Seti kuwa halali kwa kuhariri sehemu kama ikihitajika.
- Fungua "sysconfig" na chagua "Tiketi" kutoka kwenye orodha kunjuzi katika mwambaa upande wa Vitendo ulio katika upande wa kushoto wa skrini.

#### Note

Pia unaweza kutafuta "SehemuInayobadilika" katika kisanduku cha kutafuta juu au ufunguo wa "sysconfig" moja kwa moja kama unaujua.

- Tambua mpangilio kundi dogo kwa skrini unayoitafula na kibonyeze. Kwa mfano "Mazingira ya mbele::Wakala::Tiketi::OnaSimuMpya".
- Tafuta mpangilio uanoishia na "###SehemuInayobadilika". Kwa mfano "Tiketi::Mazingira ya mbele::WakalaTiketiSimu###SehemuInayobadilika".
- Kama mpangilio uko tupu au hauna jina linalotakiwa la sehemu inayobadilika, bofya kwenye kitufe "+" kuongeza ingizo jipya. Kwa mfano Ufunguo: Sehemu1, Maudhui: 1.

Kama mpangilio tayari una orodha ya jina la sehemu inayobadilika kuwa na uhakika kwamba imesetiwa kuwa "1" ili kuonyesha hiyo sehemu au kuwa "2" kuonyesha kwa ulazima.

- Save the configuration by clicking on the "Update" button at the bottom of the screen and navigate to the screen where you want the field to be displayed.

#### 10.2.10.1. Onyesha Mifano

Ifuatayo ni mifano ya usanidi wa "sysconfig" kuonyesha au kuficha sehemu zinazobadilika katika skrini tofauti.

#### Example 4.22. Amilisha Sehemu1 katika Simu Mpya Tiketi Skrini.

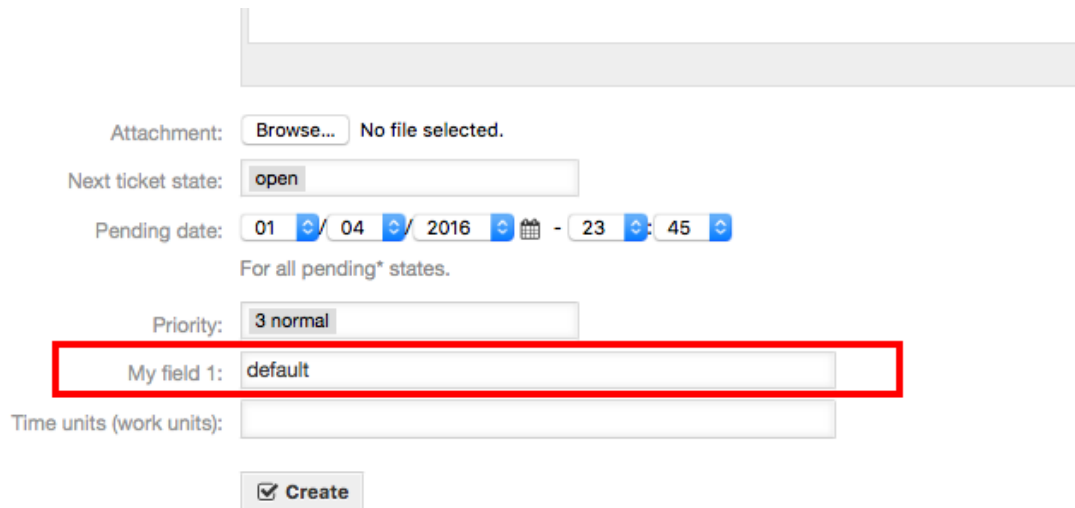
- *Umbo:* Kundi. Tiketi
- *Kundi-dogo:* Mazingira ya mbele::Wakala::Tiketi::OnaSimuMpya
- *Mpangilio:* Tiketi::Mazingira ya mbele::WakalaTiketiSimu###SehemuInayobadilika



- *Thamani:*

<b>Ufunguo</b> Sehemu1	<b>Maudhui</b> 1
---------------------------	---------------------

**Figure 4.90. Field1 in New Phone Ticket Screen**



Attachment:  No file selected.

Next ticket state:

Pending date:  /  /   :

For all pending\* states.

Priority:

**My field 1: default**

Time units (work units):

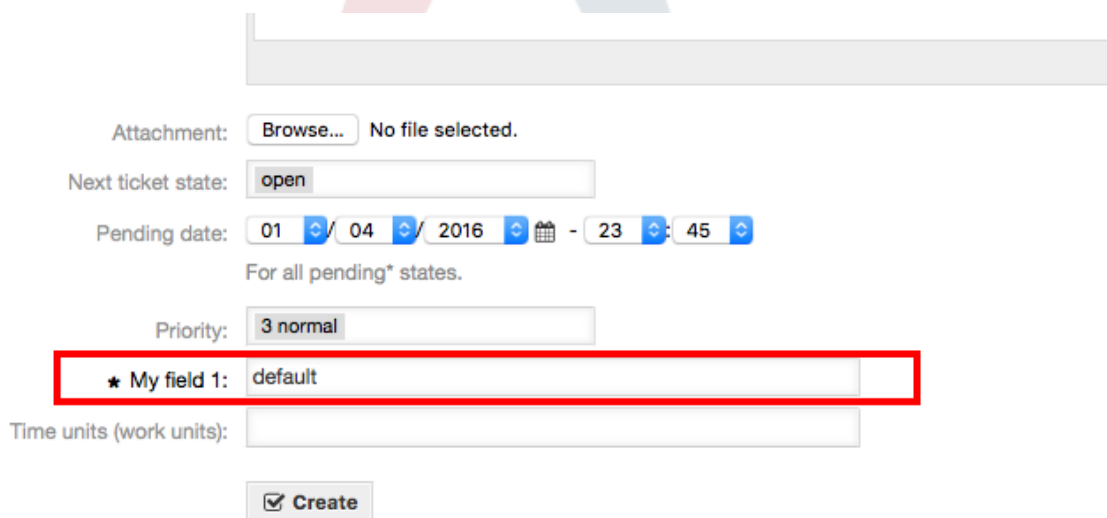
Create

**Example 4.23. Amilisha Sehemu1 katika Simu Mpya Tiketi Skrini kwa ulazima.**

- *Umbo:* Kundi. Tiketi
- *Kundi-dogo:* Mazingira ya mbele::Wakala::Tiketi::OnaSimuMpya
- *Mpangilio:* Tiketi::Mazingira ya mbele::WakalaTiketiSimu###SehemuInayobadilika
- *Thamani:*

<b>Ufunguo</b> Sehemu1	<b>Maudhui</b> 2
---------------------------	---------------------

**Figure 4.91. Field1 in New Phone Ticket Screen as mandatory**



Attachment:  No file selected.

Next ticket state:

Pending date:  /  /   :

For all pending\* states.

Priority:

**\* My field 1: default**

Time units (work units):

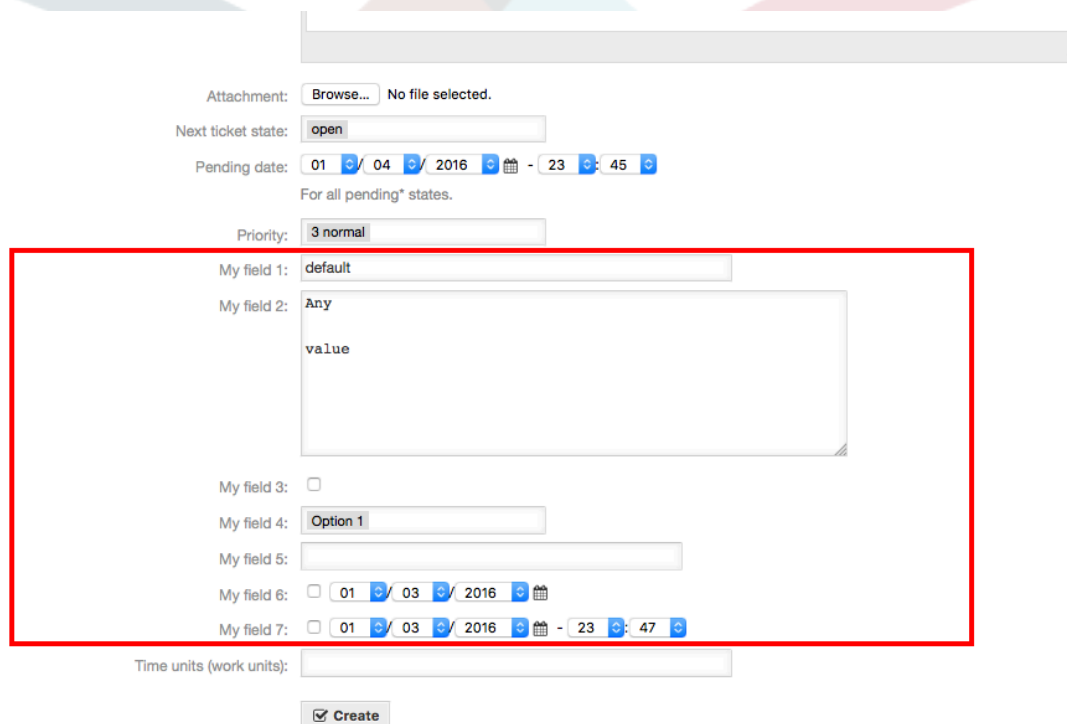
Create

### Example 4.24. Amilisha sehemu mbali mbali katika Simu Mpya Tiketi Skrini.

- *Umbo:* Kundi. Tiketi
- *Kundi-dogo:* Mazingira ya mbele::Wakala::Tiketi::OnaSimuMpya
- *Mpangilio:* Tiketi::Mazingira ya mbele::WakalaTiketiSimu###Sehemulnayobadilika
- *Thamani:*

Ufunguo	Maudhui
Sehemu1	1
Sehemu2	1
Sehemu3	1
Sehemu4	1
Sehemu5	1
Sehemu6	1
Sehemu7	1

**Figure 4.92. Several fields in New Phone Ticket Screen as mandatory**



Attachment:  No file selected.

Next ticket state:

Pending date:  -

For all pending\* states.

Priority:

My field 1:

My field 2:   
value

My field 3:

My field 4:

My field 5:

My field 6:

My field 7:   -

Time units (work units):

Create

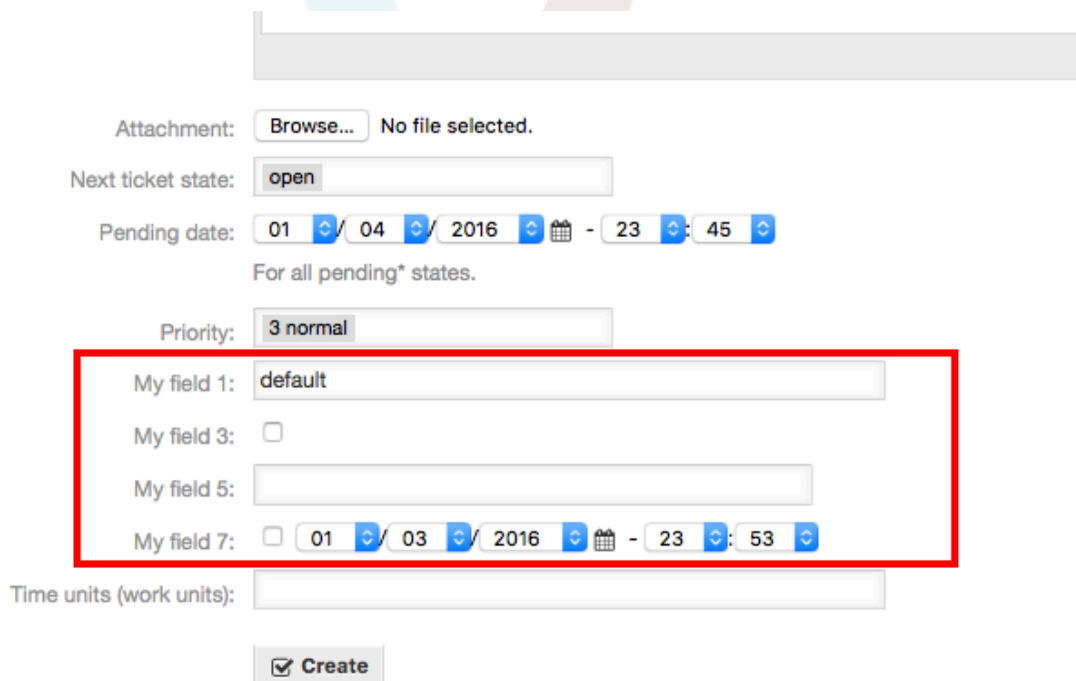
### Example 4.25. Lemaza baadhi ya sehemu katika Simu Mpya Tiketi Skrini.

- *Umbo:* Kundi. Tiketi
- *Kundi-dogo:* Mazingira ya mbele::Wakala::Tiketi::OnaSimuMpya
- *Mpangilio:* Tiketi::Mazingira ya mbele::WakalaTiketiSimu###Sehemulnayobadilika

- *Thamani:*

Ufunguo	Maudhui
Sehemu1	1
Sehemu2	0
Sehemu3	1
Sehemu4	0
Sehemu5	1
Sehemu6	0
Sehemu7	1

**Figure 4.93. Some deactivated fields in New Phone Ticket Screen as mandatory**

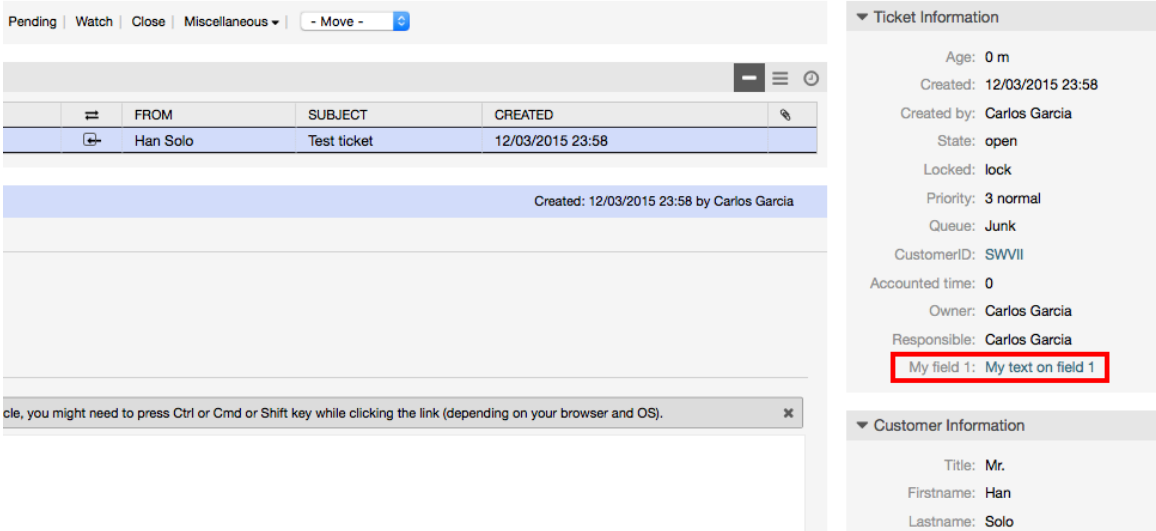


**Example 4.26. Amilisha Sehemu1 katika Skrini Kuza Tiketi.**

- *Umbo:* Kundi. Tiketi
- *Kundi-dogo:* Mazingira ya mbele::Wakala::Tiketi::OnaKuza
- *Mpangilio:* Tiketi::Mazingira ya mbele::WakalaTiketiKuza###SehemuInayobadilika
- *Thamani:*

Ufunguo	Maudhui
Sehemu1	1

**Figure 4.94. Field1 in Ticket Zoom Screen**

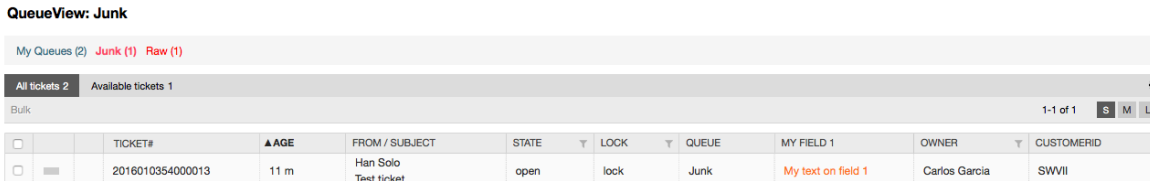


**Example 4.27. Amilisha Sehemu1 katika Mapitio ya Skrini Ndogo za Tiketi.**

- *Umbo:* Kundi. Tiketi
- *Kudni-dogo:* Mazingira ya mbele::Wakala::TiketiMapitio
- *Mpangilio:* Tiketi::Mazingira ya mbele::MapitioMadogo###SehemuNayobadilika
- *Thamani:*

<b>Ufunguo</b>	<b>Maudhui</b>
Sehemu1	1

**Figure 4.95. Field1 in Ticket Overview Small Screen**



This setting affects: Escalation View, Locked View, Queue View, Responsible View, Status View, Service View and Watch View screens.

**10.2.11. Kuweka Thamani Chaguo-msingi kwa kutumia Moduli ya Tukio la Tiketi**

Tukio la tiketi (mf. TengenezaTiketi) linaweza kuchochea thamani kusetiwa kwa sehemu fulani, kama sehemu bado haina thamani.

**Note**

Kwa kutumia njia hii thamani chaguo-msingi, haionekani katika skrini za kuhariri (mf. Simu Mpya Tiketi) kwa kuwa thamani imesetiwa baada ya utengenezaji wa tiketi.

Kuamilisha hiki kipengele ni muhimu kuwezesha mpangilio ufwatao: "Tiketi::TukioModuli-Tuma###TiketiSehemulnayobadilikaChaguo-msingi".

### Example 4.28. Amilisha Sehemu1 katika kitendo cha TengenezaTiketi.

- *Umbo: Kundi.* Tiketi
- *Kundi-dogo:* Kiini::TiketiSehemulnayobadilikaChaguo-msingi
- *Mpangilio:* Tiketi::TiketiSehemulnayobadilikaChaguo-msingi###Elementi1

#### Note

Huu usanidi unaweza kusetiwa katika moja ya tiketi 16::TiketiSehemulnayobadilikaChaguo-msingi###Mipangilio ya elementi.

Kama zaidi ya sehemu 16 zinahitajika kuaanzishwa faili la XML kililogeuzwa kukufaa lazima liwekwe kwenye mpangilio orodha \$OTRS\_HOME/Kernel/Config/files kuendeleza kipengele hiki.

- *Thamani:*

Ufunguo	Maudhui
Kitendo	TengenezaTiketi
Jina	Sehemu1
Thamani	thamani mpya

## 10.2.12. Seti thamani ya chaguo-msingi kwa Upen-deleo wa mtumiaji

Chaguo-msingi la sehemu inayobadilika inaweza kubadilishwa na thamani ziliyofafanuliwa na mtumiaji zilizohifadhiwa kwenye mapendeleo ya mtumiaji.

Kutumia njia hii, thamani ya chaguo-msingi la hiyo sehemu litaonyeshwa kwenye skrini yoyote ambapo sehemu hiyo imeamilishwa (kama sehemu tayari haina thamani nyingine).

Mipangilio ya "sysconfig" ya "MapendeleoMakundi###Sehemulnayobadilika" inayopatikana katika Kundi dogo la "Mazingira ya mbele::Wakala::Mapendeleo". Huu mpangilio ni mfano wa jinsi ya kutengeneza ingizo katika skrini ya Mapendeleo ya Mtumiaji kuseti thamani ya chaguo-msingi la sehemu inayobadilika pweke kwa ajili ya mtumiaji aliyechaguliwa. Kiwango cha juu cha huu mpangilio ni inaruhusu matumizi ya sehemu moja tu inayobadilika. Kama sehemu mbili au zaidi zitatumia hiki kipengele, ni muhimu kutengeneza usanidi wa faili la XML uliogeuzwa kukufaa kuongeza mipangilio zaidi inayofanana na huu.

#### Note

Remember, if more settings are added in a new XML each setting name needs to be unique in the system and different than "PreferencesGroups###DynamicField". For example: PreferencesGroups###101-DynamicField-Field1, PreferencesGroups###102-DynamicField-Field2, PreferencesGroups###My-Field1, PreferencesGroups###My-Field2, etc.

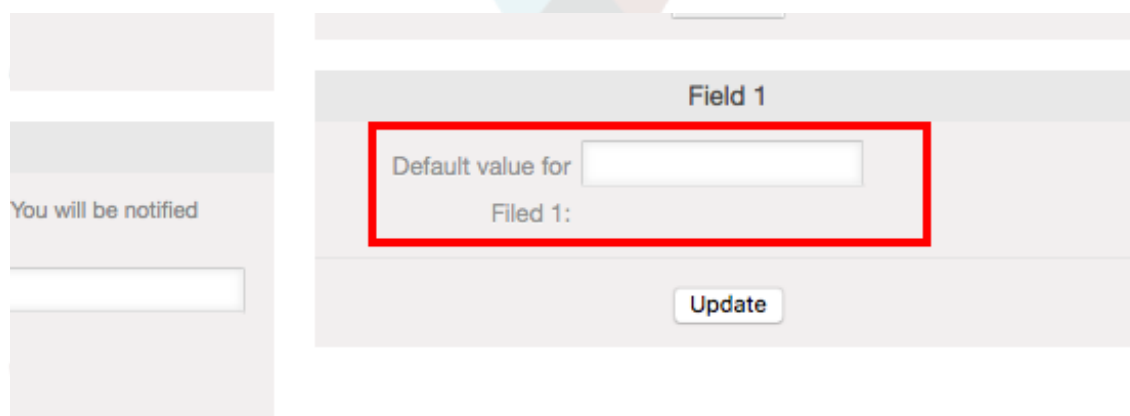
### Example 4.29. Amilisha Sehemu1 katika mapendeleo ya Mtumiaji.

- *Umbo: Kundi.* Tiketi

- *Kundi-dogo*: Mazingira ya mbele::Wakala::Mapendeleo
- *Mpangilio*: MakundiMapendeleo###101-Sehemulnayobadilika-Sehemu1
- *Thamani*:

Ufunguo	Maudhui
Kitendo	TengenezaTiketi
Amilifu	1
fungu	Ingizo
Safuwima	Mipangilio mingine
Data:	[% Env("UserDynamicField_Field1") %]
Ufunguo:	Sehemu yangu 1
Lebo:	Chaguo-msingi kwa: Sehemu yangu 1
Moduli:	Kiini::Matokeo::HTML::MapendeleoUjumla
MapendeleoUfunguo:	MtumiajiSehemulnayobadilika_Sehemu1
Kipaumbele:	7000

**Figure 4.96. Field1 in User preferences screen**



## 11. Kiolesura cha Ujumla

Kiolesura cha Ujumla cha OTRS kina matabaka mengi ya viunzi ambavyo vinaruhusu OTRS kuwasiliana na mifumo mingine kupitia huduma ya tovuti. Haya mawasiliano yanweza kuwa ya pande mbili.

- *OTRS kama Mtoaji*: OTRS inakuwa kama seva inasikiliza maombi kutoka kwenye Mfumo wa Nje, inachakatisha taarifa, kufanya vitendo vilivyoombwa, na kujibu maombi.
- *OTRS kama Muombaji*: OTRS inakuwa kama mteja inakusanya taarifa, kutuma maombi kwa Mifumo ya Nje, na kusubiri majibu.

### 11.1. Matabaka ya Kiolesura cha Ujumla

Kiolesura cha Ujumla kimetengenezwa katika moduli ya tabaka, kuwa rahisi kubadilika na kugeuza kukufaa.

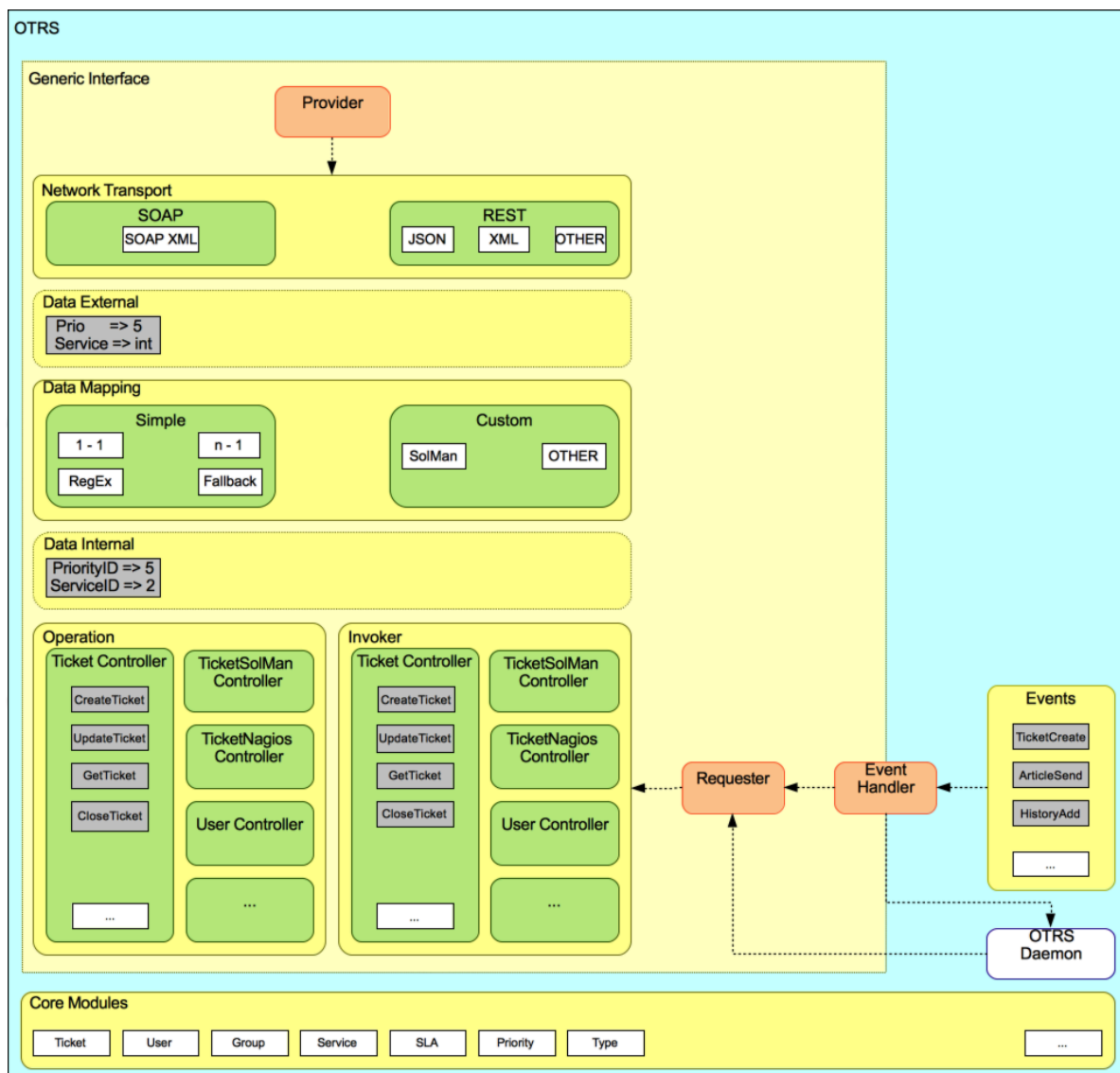
Tabaka ni seti ya mafaili, ambayo inadhhibiti jinsi Kiolesura cha Ujumla kinavyotekeleza sehemu tofauti za huduma ya tovuti. Kwa kutumia usanidi sahihi, mtu anaweza kujenga huduma tofauti za tovuti kwa Mifumo tofauti ya Nje bila kutengeneza moduli mpya.

## Note

Kama Mfumo wa Nje hauna usaidizi kwa furushi la moduli za sasa za Kiolesura cha Ujumla, moduli maalumu zinahitaji kutengenezwa kwa ajili ya hiyo huduma maalumu ya tovuti.

Orodha ya moduli zilizotolewa za Kiolesura cha Ujumla zilizosafirishwa na OTRS zita sasishwa na kuongezwa.

**Figure 4.97. The graphical interface layers**



### 11.1.1. Usafirishaji wa Mtandao

Hili tabaka lina jukumu la mawasiliano sahihi na Mfumo wa Mbali. Inapokea maombi na kutengeneza majibu ikiwa kama mtoaji, na kutengeneza maombi na kupokea majibu ikiwa kama muombaji.

Mawasiliano ya mtoaji yanashughulikiwa na kishiko kipya cha seva ya wavuti kiitwacho "nph-genericinterface.pl".

Requester communication could be initiated during an event triggered by a Generic Interface module or any other OTRS module. This event is caught by the event handler

and depending on the configuration the event will be processed directly by the requester object or delegated to the Scheduler (a separated daemon designed to process tasks asynchronously).

### **11.1.2. Kuunganisha data**

Tabaka hili lina jukumu la kutafsiri muundo wa data kati ya OTRS na Mfumo wa Mbali (tabaka la data za ndani na data za nje). Kwa kawaida Mifumo ya Mbali ina muundo tofauti wa data kufananisha na OTRS (ikijumuisha thamani tofauti na majina tofauti ya hizo thamani), na hapa umuhimu wa hili tabaka unaonekana kubadilisha taarifa inayopokelewa kuwa kitu ambacho OTRS inaweza kuelewa na kwa upande mwingine kutuma taarifa kwa kila Mfumo wa Mbali kwa kutumia kamusi zao za data.

*Example:* "Kipaumbele" (OTRS) kinaweza kuitwa "Prio" katika mfumo wa mbali na inaweza kuwa thamani "1 Chini" (OTRS) inatakiwa kuunganishwa na "Taarifa" kwenye mfumo wa mbali.

### **11.1.3. Mdhibiti**

Wadhibiti ni mkusanyiko wa Operesheni zinazofanana au Wachochezi. Kwa mfano, mdhibiti wa Tiketi anaweza kuwa na operesheni za kawaida za tiketi. Wadhibiti wa kawaida wanaweza kutekelezeka, kwa mfano mdhibiti "TiketiNjeKampuni" ambayo inaweza kuwa na kazi sawa na mdhibiti wa kawaida wa Tiketi, lakini ana kiolesura tofauti cha data, au majina ya kazi (ili kukabiliana na majina ya Mfumo wa Mbali) au kanuni tofauti kabisa.

Kazi moja ya Kiolesura cha Ujumla inaweza kuwa kulandanisha taarifa za Mfumo mmoja wa Mbali unaoweza kuongea na Mfumo mwingine wa Mbali unaofanana tu. Katika kesi hii wadhibiti wapya inabidi watengenezwe na Operesheni na Wachochezi inabidi waige tabia za Mfumo wa Mbali ili kiolesura ambacho OTRS itaonyesha kifanane na kiolesura cha Mfumo wa Mbali.

### **11.1.4. Operesheni (OTRS kama mtoaji)**

Operesheni ni kitendo kimoja kinachoweza kufanywa ndani ya OTRS. Operesheni zote zina kiolesura cha kuundia programu za ngamizi kinachofanana, zinapokea data katika parameta moja maalumu, na kurudisha muundo wa data wenye hali ya mafanikio, ujumbe wa kasoro zilizotokea na kurudisha data.

Kwa kawaida operesheni zinatumia data (za ndani) ambazo tayari zimeunganika kuita moduli viini na kufanya vitendo kama: Tengeneza Tiketi, Sasisha Mtumiaji, Batilisha Foleni, Tuma Taarifa, na kadh. Operesheni ina ufikivu kamili kwenye API ya OTRS kufanya kitendo hicho.

### **11.1.5. Mchochezi (OTRS kama muombaji)**

Mchochezi ni kitendo ambacho OTRS inafanya dhidi ya Mfumo wa Mbali. Wachochezi wanatumia moduli za kiini cha OTRS kuchakatisha na kukusanya taarifa zote zinazotakiwa kutengeneza maombi. Taarifa zikiwa tayari inabidi ziunganishwe na umbizo la Mfumo wa Mbali ili zitumwe kwenda kwenye Mfumo wa Mbali, hiyo itachakatisha taarifa itatekeleza kitendo na kutuma majibu, ili aidha kuchakatisha mafanikio au kushughulikia makosa.

## **11.2. Mtiririko wa Mawasiliano ya Kiolesura cha Ujumla**

Kiolesura cha Ujumla kina mtiririko uliofafanuliwa kutekeleza vitendo kama mtoaji na muombaji.



Mtiririko huu unaelezewa hapa chini:

## 11.2.1. OTRS kama mtoaji

### 11.2.1.1. Maombi ya Mbali:

#### 1. Maombi ya HTTP

- OTRS inapokea maombi ya HTTP na kuzipitisha kwenye matabaka.
- Moduli ya mtoaji ndiyo ina mamlaka ya kutekeleza na kusimamia vitendo hivi.

#### 2. Usafirishaji wa Mtandao

- Moduli ya usafirishaji wa mtandao inasimbua fiche mzigo wa data na kutofautisha jina la operesheni kutoka kwenye data nyingine.
- Jina la operesheni na data za operesheni zinarudishwa kwa mtumaji.

#### 3. Data za Nje

- Data kama zilivyotumwa kutoka kwenye mfumo wa mbali (hili siyo tabaka linalotegemea moduli).

#### 4. Kuunganisha

- Data inabadilishwa kutoka muundo wa Mfumo wa Nje na kuwa muundo wa mfumo wa ndani wa OTRS kama ilivyobainishwa katika usanidi wa muunganiko wa operesheni hii (Muunganiko wa maombi ya data zinazolingia).
- Data ambazo tayari zimebadilishwa zinarudishwa kwa mtoaji.

#### 5. Data za Ndani

- Data kama zilivyobadilishwa na kuandaliwa kupelekwa kwenye operesheni (Hili siyo tabaka la moduli).

#### 6. Operesheni

- Inapokea na kuthidbitisha data.
- Inafanya udhibiti ufikivu wa mtumiaji.
- Inatekeleza vitendo.

### 11.2.1.2. Majibu ya OTRS:

#### 1. Operesheni

- Inarudisha matokeo ya data kwa mtoaji.

#### 2. Data za Ndani

- Data kama zilivyorudishwa kutoka kwenye operesheni.

#### 3. Kuunganisha

- Data inabadilishwa kurudi kuwa ya Mfumo wa nje kama ilivyobainishwa katika usanidi wa muunganiko (Muunganiko wa majibu ya data zinazotoka).
- Data ambazo tayari zimebadilishwa zinarudishwa kwa mtoaji.

#### 4. Data za nje

- Data kama ilivyobadilishwa na kuandaliwa kupitishwa kwenye Usafirishaji wa Mtandao kama majibu.

#### 5. Usafirishaji wa Mtandao

- Inapokea data tayari katika umbizo la mfumo wa mbali.
- Inatengeneza majibu halali kwa hii aina ya usafirishaji wa mtandao.

#### 6. Majibu ya HTTP

- Majibu yanatumwa kwa mteja wa huduma ya tovuti.
- Kama kukiwa na kosa, kosa linatumwa kwa mfumo wa mbali (mf. kosa la SOAP, kosa la HTTP, na kadhalika).

## 11.2.2. OTRS kama Muombaji

### 11.2.2.1. Maombi ya OTRS:

#### 1. Kishiko Tukio Kichochezi

- Kwa kutegemea usanidi wa huduma za mtandao itaamua kama maombi yatakuwa landanifu au solandanifu.
  - Landanifu
    - Simu ya moja kwa moja inapigwa kwa Muombaji ili kutengeneza ombi jipya na kulipitisha kwenye matabaka.
  - Solandanifu
    - Create a new Generic Interface (Requester) task for the OTRS Daemon (by delegating the request execution to the Scheduler Daemon, the user experience could be highly improved, otherwise all the time needed to prepare the request and the remote execution will be added to the OTRS Events that trigger those requests).
    - In its next cycle the OTRS daemon process reads the new task and creates a call to the Requester that will create a new request and then passes it through the layers.

#### 2. Mchochezi

- Inapokea data kutoka kwenye kitendo.
- Inathibitisha data zilizopokelewa (kama itahitajika).
- Inaita moduli ili kusaidia data (kama itahitajika).
- Rudisha maombi ya muundo wa data au tuma ishara ya kusitisha mawasiliano kwa muombaji, kusitisha mawasiliano kwa nia njema.

#### 3. Data za Ndani

- Data kama ilivyopitishwa kwa mchochezi (Hii siyo tabaka linalotegemea moduli).

#### 4. Kuunganisha

- Data zinabadilishwa kuwa muundo wa Mfumo wa nje kama ilivyobainishwa katika usanidi wa muunganiko. (Muunganiko wa majibu ya data zinazotoka) .

- Data ambayo imekwisha badilishwa inarudishwa kwa muombaji.

#### 5. *Data za Nje*

- Data kama ilivyobadilishwa na kuandaliwa kwa kutuma kwa mfumo wa mbali.

#### 6. Usafirishaji wa Mtandao

- Inapokea jina la operesheni ya mbali na data ambazo tayari zimekwisha badilishwa umbizo kuwa lile la mfumo wa mbali kutoka kwa muombaji.
- Inatengeneneza maombi halali ya usafirishaji wa mtandao.
- Sends the request to the remote system and waits for the response.

### **11.2.2.2. Majibu ya Mbali:**

#### 1. Usafirishaji wa mtandao

- Inapokea majibu na kusimbua fiche mzigo wa data.
- Inarudisha data kwa muombaji.

#### 2. *Data za Nje*

- Data as received from the Remote System.

#### 3. Kuunganisha

- Data inabadilishwa kutoka kwenye muunda wa Mfumo wa Nje kuwa muundo wa ndani wa OTRS kama ilivyobainishwa kwenye usanidi wa muunganiko wa operesheni hii (Muunganiko wa majibu ya data zinazotoka).
- Data ambayo imekwisha badilishwa inarudishwa kwa muombaji.

#### 4. *Data za Ndani*

- Data kama ilivyobadilishwa na tayari kupitishwa kurudi kwa muombaji.

#### 5. Mchochezi

- Inapokea data zilizorudishwa
- Inashughulikia data inayohitajika na mchochezi maalumu (inajumuisha ushughulikiaji wa makosa kama yapo).
- Rudisha matokeo ya Mchochezi na data kwa Muombaji.

#### 6. Event Handler or OTRS Daemon

- Receives the data from the Requester. In the case of the OTRS Daemon this data might contain information to create a task in the future.

## **11.3. Huduma za Tovuti**

Huduma ya Tovuti ni njia ya mawasiliano kati ya mifumo miwili, katika kesi yetu ni OTRS na Mifumo ya Mbali.

The heart of the Web Service is its configuration, where it is defined what actions the web service can perform internally (Operation), what actions the OTRS request can perform

Remote System (Invokers), how data is converted from one system to the other (Mapping), and over which protocol the communication will take place (Transport).

The Generic Interface is the framework that makes it possible to create Web Services for OTRS in a predefined way, using already made building blocks that are independent from each other and interchangeable.

## 11.4. Kiolesura Michoro cha Huduma za Tovuti

Kiolesura michoro cha huduma za tovuti ni kifaa kinachoruhusu kutengeneza usanidi wa huduma za tovuti changamano katika kiolesura ambacho ni rahisi kutumika. Inaruhusu ku:

- Tengeneza na Kufuta huduma za tovuti.
- Kuagiza na Kuhamisha usanidi (katika umbizo la YAML) kwa huduma za tovuti zilizopo.
- Ona, rudisha na Hamisha usanidi wa zamani wa huduma za tovuti zilizopo katika skrini ya Historia ya Huduma za Tovuti.
- Fuatilia batli zote za mawasiliano kwa kila huduma ya tovuti kwenye skrini ya kueua.

### 11.4.1. Mapitio ya Huduma za Tovuti

Kiungo cha "Huduma za Tovuti" kwenye skrini kuu ya kiolesura cha Msimaizi (kwenye boksi la Usimamizi wa Mfumo) Inatuongoza kwenye skrini ya mapitio ya huduma za tovuti, ambapo unaweza kusimamia usanidi wa huduma zako za tovuti. Unaweza kuongeza huduma mpya au kubadilisha usanidi kwa zilizopo kutoka kwenye skrini hii.

Kila skrini ya usanidi wa huduma za tovuti katika upande wa juu ina staili ya uabiri njia ya "makombo ya mikate". Huu uabiri unasaidia kujua kwa usahihi tupo upande gani wa usanidi wa huduma za tovuti, na pia inasaidia mtumiaji kurukia upande wowote wa mchakato wa usanidi muda wowote (kitendo hiki hakitahifadhi mabadiliko yoyote).

#### Note

Kutengeneza huduma mpya ya tovuti bofya kitufe "Ongeza huduma ya tovuti", na utoe taarifa zinazotakiwa.

**Figure 4.98. Web services overview**

GenericInterface Web Service Management - Overview

You are here: > Web Services

NAME	DESCRIPTION	REMOTE SYSTEM	PROVIDER TRANSPORT	REQUESTER TRANSPORT	VALIDITY
Webservice one	First webservice	Any description	HTTP::SOAP	HTTP::SOAP	valid
Webservice two	-	-	-	-	valid

### 11.4.2. Ongeza Huduma ya Tovuti

Sehemu inayohitajika katika upande huu ni "Jina" la huduma ya tovuti ambalo linatakiwa kuwa la kipekee kwenye mfumo na halitakiwi kuachwa wazi. Sehemu nyingine ambazo pia ni muhimu kwa usanidi kama "Kizingiti cha kueua" na "uhalali" lakini hizi sehemu tayari zina chaguo-msingi kwa kila orodha.

Thamani chaguo-msingi la "Eua Kizingiti" ni "Eua". Zikiwa zimesanidiwa kwa mpangilio huu batli zote za mawasiliano zinasajiliwa kwenye hifadhidata. Kila Kizingiti cha kueua kinachofwata kina udhibiti zaidi na kinapuuza batli za mawasiliano ya oda ya chini zaidi ya iliyosetiwa kwenye mfumo.

## Kizingiti cha viwango vya kueua (kutoka chini kwenda juu)

- Eua
- Maelezo
- Notisi
- Kasoro

Pia inawezekana kufafanua itifaki ya usafirishaji wa mtandao kwa "OTRS kama mtoaji" na "OTRS kama mwombaji".

Bofya kwenye kitufe "Hifadhi" kusajili huduma mpya ya tovuti kwenye hifadhidata au bofya "Katisha" kuchana na operesheni hiyo. Sasa utarudishwa kwenye skrini ya mapitio ya huduma za tovuti.

Kama tayari una faili la usanidi wa huduma za tovuti katika umbizo la YAML unaweza ku bofya kwenye kitufe "Agiza huduma ya tovuti" upande wa kushoto wa skrini. Kwa maelezo zaidi ya uagizaji wa huduma za tovuti tafadhali angalia kifungu kinachofuata "Badiisha Huduma za Tovuti".

### Note

Kubadilisha au kuongeza maelezo ya huduma ya tovuti, bofya kwenye jina la huduma ya tovuti kwenye skrini ya mapitio ya huduma za tovuti.

**Figure 4.99. Web services add**

**GenericInterface Web Service Management - Add**

You are here: [Web Services](#) > [New Web service](#)

**Actions**

[Go to overview](#)

[Import web service](#)

**Hint**

After you save the configuration you will be redirected again to the edit screen.  
If you want to return to overview please click the "Go to overview" button.

**General**

★ Name:

Description:

Remote system:

Debug threshold:

Validity:

---

**OTRS as provider**

In provider mode, OTRS offers web services which are used by remote systems.

**Settings**

Network transport:

**Operations**

Operations are individual system functions which remote systems can request.

NAME	DESCRIPTION	CONTROLLER	INBOUND MAPPING	OUTBOUND MAPPING
No data found.				

---

**OTRS as requester**

In requester mode, OTRS uses web services of remote systems.

**Settings**

Network transport:

**Invokers**

Invokers prepare data for a request to a remote web service, and process its response data.

NAME	DESCRIPTION	CONTROLLER	INBOUND MAPPING	OUTBOUND MAPPING
No data found.				

---

**Save**

or

### 11.4.3. Web Service Example Import

Did you know there are example web services available in the [OTRS Business Solution™](#)?

## 11.4.4. Badilisha Huduma ya Tovuti

Katika skrini hii una seti kamili ya fomula saidizi kushughulikia kila kipande cha huduma ya wavuti. Upande wa kushoto katika safuwima ya kitendo unaweza kupata vitufe ambavyo vitakuruhusu kufanya vitendo vyote vinavyowezekana kwenye huduma ya wavuti:

- Nakili huduma ya tovuti.
- Hamisha huduma ya tovuti
- Agiza huduma ya tovuti
- Historia ya usanidi
- Futa huduma ya tovuti
- Anaye eua.

### Note

"Historia ya usanidi" na "Anaye eua" itapelekea kwenye skrini tofauti.

### 11.4.4.1. Nakala ya Huduma ya Tovuti

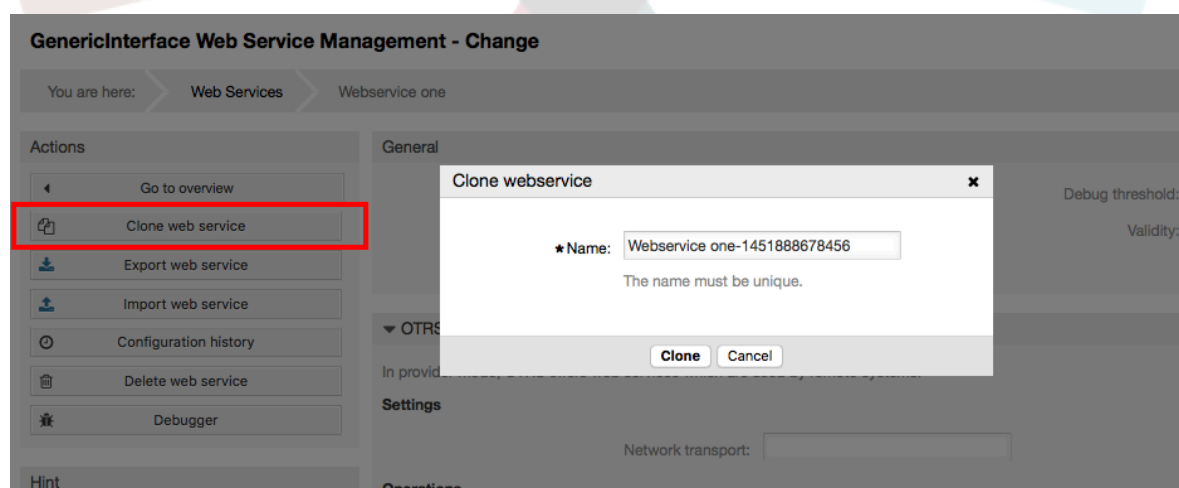
Kutengeneza nakala ya huduma ya tovuti, unahitaji ku bofya kitufe cha "Nakili huduma ya tovuti". Maongezi yatatokea ambapo unaweza kutumia jina la lililopo au kuseti jina jipya kwa (nakala) ya huduma ya tovuti.

### Note

*Kumbuka* kwamba jina la huduma ya mtandao lazima liwe la kipekee kwenye mfumo.

Bofya kitufe cha "Nakili" kutengeneza nakala ya huduma ya tovuti au "Katisha" kufunga maongezi.

### Figure 4.100. Nakala ya huduma ya tovuti



### 11.4.4.2. Hamisha Huduma ya Tovuti

Kitufe cha "Hamisha huduma za tovuti" kinakupa nafasi ya kuweka usanidi wa huduma ya tovuti ya sasa kwenye faili la YAML, kulipakua na kuhifadhi katika mfumo wako wa mafaili. Hii inakuwa na manufaa pale unapotaka kuhamisha huduma za tovuti kutoka seva moja kwenda nyingine, kwa mfano kutoka kwenye mazingira ya kupima kwenda mazingira ya uzalishaji.

## Warning

Nywila zote zilizohifadhiwa katika usanidi wa huduma ya tovuti zitahamishwa katika umbizo la nakala wazi.

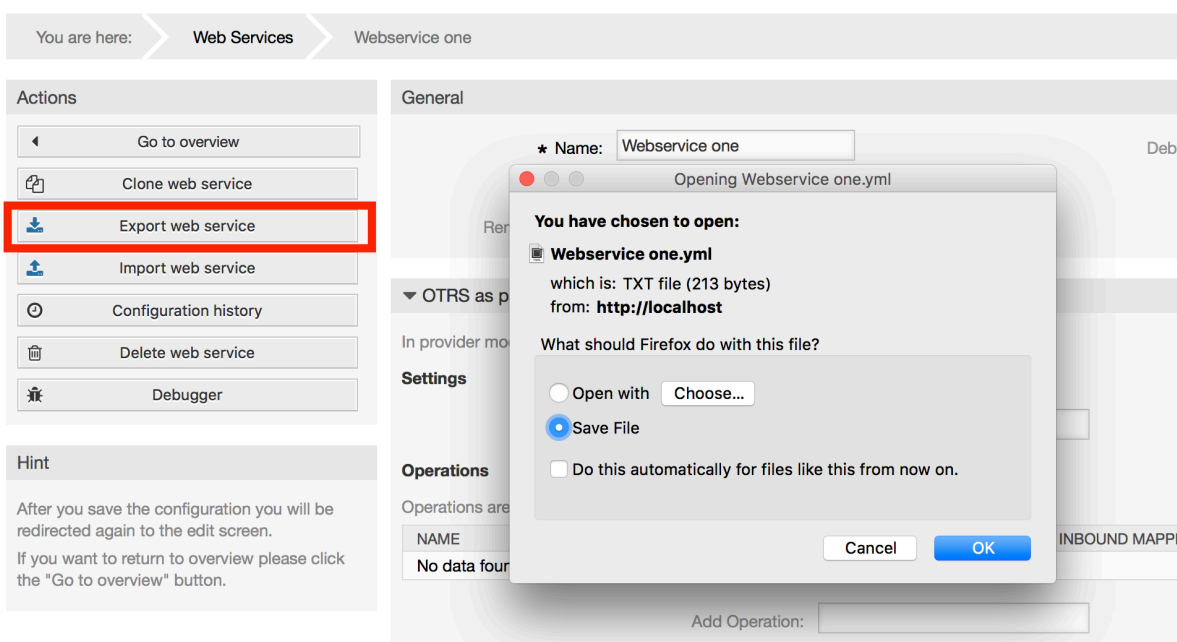
Baada tu ya kubofya kitufe cha "Hamisha huduma ya tovuti" maongezi ya kuhifadhi ya kivinjari yatatokea, kama vile ukibofya kiungo cha kupakua kwenye kurasa za tovuti.

## Note

Kila kivinjari katika kila mfumo endeshi kina skrini yake ya kuhifadhi maongezi na aina. Kutegemeana na kivinjari na usanidi inawezekana kwamba hakuna maongezi yanayo onyeshwa na faili linahifadhiwa kwenye mpangilio orodha chaguo-msingi katika mfumo wako wa faili. Tafadhali pitia nyaraka ya kivinjari chako kwa maelekezo zaidi kama inahitajika.

### Figure 4.101. Web services export

#### GenericInterface Web Service Management - Change



#### 11.4.4.3. Agiza huduma ya tovuti

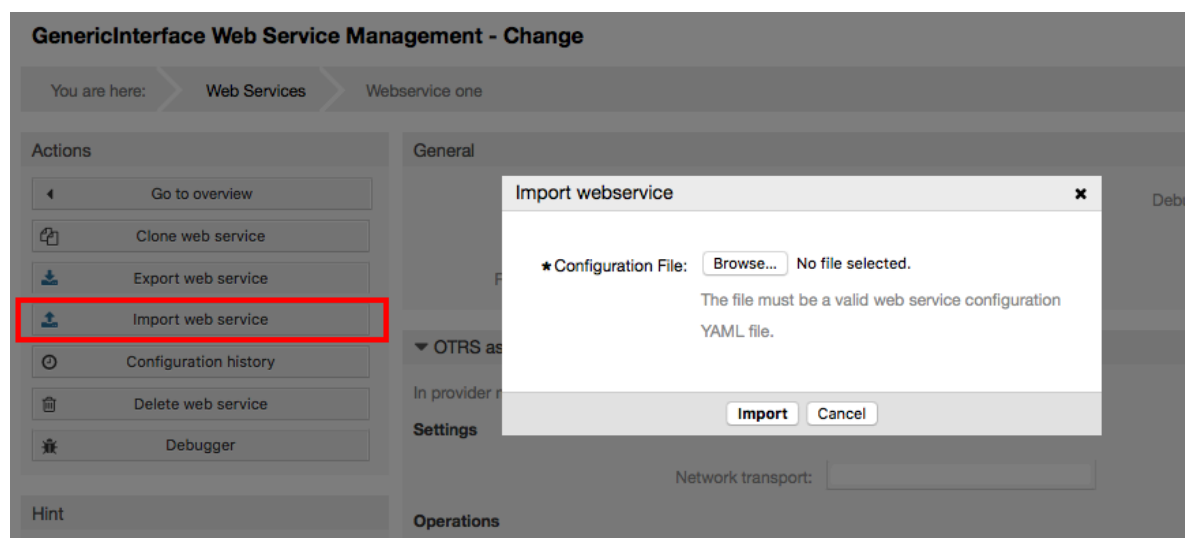
Faili halali la YAML la usanidi wa huduma ya tovuti linatakiwa kutumia kipengele cha agiza huduma ya tovuti. Bofya kitufe cha "Agiza huduma ya tovuti", tafuta faili la usanidi au toa njia kamili kwenye boksi la maingizo.

Bofya kitufe "Agiza" kutengeneza huduma mpya ya tovuti kutoka kwenye faili au "Katisha" kufunga maongezi.

## Note

Jina la huduma ya tovuti litachukuliwa kutoka kwenye jina la faili la usanidi (mf. kama jina la faili ni HudumaTovutiYangu.yml hivyo basi huduma ya tovuti itaitwa HudumaTovutiYangu). Kama kuna huduma ya tovuti iliyosajiliwa kwenye mfumo kwa jina sawa na unayotaka kuagiza, mfumo utakupeleka kwenye skrini ya kubadilisha huduma ya tovuti ili kukuwezesha kubadilisha jina la huduma ya tovuti uliyoagiza.

**Figure 4.102. Web services import**



#### 11.4.4.4. Historia ya Huduma ya Tovuti

Kila mabadiliko ya usanidi wa huduma ya tovuti inatengeneza ingizo jipya kwenye historia ya huduma ya tovuti (kama jarida). Skrini ya historia ya huduma ya tovuti inaonyesha orodha ya matoleo yote ya usanidi wa huduma ya tovuti. Kila safu mlalo (toleo) kwenye "Orodha ya Historia ya Usanidi" inawakilisha mojawapo ya marekebisho kwenye historia ya huduma ya tovuti.

Bofya kwenye moja ya safu mlalo kuonyesha usanidi mzima kama ulivyo kwa tarehe / muda huo. Usanidi utaonyeshwa kwenye sehemu "Undani wa Historia" ya skrini. Hapa pia unaweza kuhamisha toleo la usanidi wa huduma ya tovuti au kurejesha hilo toleo kwenye usanidi uliopo wa huduma za tovuti.

Kipengele "Hamisha usanidi wa huduma ya tovuti" kina tabia sawa na "Hamisha huduma ya tovuti" kwenye skrini ya kubadilisha huduma ya tovuti. Kwa maelezo zaidi nenda kwenye hiyo sehemu.

Kama mabadiliko kwenye usanidi wa huduma ya tovuti iliyopo hayafanyi kazi kama ilivyotegemewa na sio rahisi kurudisha hali kabla ya mabadiliko, bofya kitufe "Rudisha usanidi wa huduma ya tovuti". Hii itafungua maongezi yatakayokuuliza kama una uhakika unataka kurudisha usanidi wa huduma ya tovuti. Bofya "Rudisha usanidi wa huduma ya tovuti" kwenye haya maongezi kubadili usanidi uliopo na toleo lililochaguliwa, au bofya "Katisha" kufunga maongezi.

### Warning

Kumbuka kwamba nywila zote zilizohofadhiwa katika usanidi wa huduma ya tovuti zita hamishwa katika umbizo la nakala wazi.

Please be careful when you restore a configuration because this process is irreversible.



## Figure 4.103. Web service history

**GenericInterface Configuration History for Web Service Webservice one**

You are here: > Web Services > Webservice one > History

**Actions**

Go back to Web Service

**Hint**

Here you can view older versions of the current web service's configuration, export or even restore them.

**Configuration History List**

VERSION	CREATE TIME
11	2016-01-04 14:25:30
10	2016-01-04 14:25:26
9	2016-01-04 14:25:13
8	2016-01-04 14:25:10
7	2016-01-04 14:24:54

Select a single configuration version to see its details.

**History Details: Version 11, 2016-01-04 14:25:30**

Export web service configuration | Restore web service configuration

```

---
Debugger:
DebugThreshold: debug
TestMode: '0'
Description: First webservice
Provider:
Operation:
CreateTicket:
  Description: ''
  MappingInbound: {}
  MappingOutbound: {}
  Type: Ticket::TicketCreate
GetTicket:
  Description: ''
  MappingInbound: {}
  MappingOutbound: {}
  Type: Ticket::TicketGet
SearchTicket:
  Description: ''
  MappingInbound: {}
  MappingOutbound: {}
  Type: Ticket::TicketSearch
UpdateTicket:
  Description: ''
  MappingInbound: {}
  MappingOutbound: {}
  Type: Ticket::TicketUpdate
Transport:
Config:
  Authentication: {}
  Type: HTTP::SOAP
RemoteSystem: Any description
Requester:
Transport:
  Config:
    Authentication: {}
    Type: HTTP::REST

```

### 11.4.4.5. Futa Huduma ya Tovuti

Wakati mwingine ni lazima kufuta huduma ya tovuti kabisa. Kufanya hivi unabonyeza kitufe "Futa huduma ya tovuti" na maongezi mapya yatatokea kukuuliza uthibitisho.

Bofya "Futa" kuthibitisha uondoaji wa huduma ya tovuti au "Katisha" kufunga maongezi.

#### Warning

Kufuta huduma ya tovuti hakubadiliki, tafadhali kuwa makini wakati wa kufuta huduma ya tovuti.

## Figure 4.104. Futa huduma ya tovuti

**GenericInterface Web Service Management - Change**

You are here: > Web Services > Webservice one

**Actions**

- Go to overview
- Clone web service
- Export web service
- Import web service
- Configuration history
- Delete web service
- Debugger

**General**

Name: Webservice one

**Delete webservice** ✕

Do you really want to delete this web service?

In provider mode, OTRS offers web services which are used by remote systems.

**Settings**

Network transport:

#### 11.4.4.6. Kieuaji cha Huduma ya Tovuti

Anaye eua anahifadhi batli ya huduma ya tovuti. Katika skrini ya kueua unaweza kufwatilia mawasiliano yote ya huduma za tovuti kwa aidha aina za mtoaji au muombaji.

Hii skrini ikionyeshwa orodha ya maombi inaanza kupakuliwa. Baada ya orodha kujaa unaweza kuchagua moja ya safu mlalo (hii ina maana mlolongo wa mawasiliano) kukagua undani wake. Maelezo haya yatatokea kwenye boksi chini.

Unaweza kupunguza orodha ya mawasiliano kwa kutumia kichujio upande wa kulia wa skrini. Unaweza kuchuja na:

- Aina ya mawasiliano (mtoaji au mpokeaji)
- Tarehe: kabla na / au baada tarehe fulani
- Anuani ya IP ya mbali
- A combination of all

Baada ya mpangilio wa kichujio kusetiwa, bonyeza kitufe cha "Onyesha Upya" na orodha mpya itaonyeshwa inayofikia vigezo vya utafutaji wako.

#### **Note**

Kutegemea na vigezo vya utafutaji kwa vichujio orodha mpya inaweza isitoe matokeo yoyote.

Upande wa kushoto wa skrini chini ya safuwima ya kitendo unaweza kuchagua "Rudi nyuma kwenye huduma ya tovuti" au futa batli ya anaye eua kwa kubonyeza kitufe "Futa". Hii itafungua maongezi yanayo kuuliza kuthibitisha kufuta batli. Bofya "Futa" katika kitufe cha maongezi kufanya kitendo au bofya "Sitisha" kufunga maongezi.

Kwenye sehemu ya "Undani wa maombi" unaweza kuona maelezo yote ya mawasiliano yaliyochaguliwa. Hapa unaweza kufuatilia mtiririko mzima na kukagua kasoro zozote au kuthibitisha mafanikio ya majibu.

## Figure 4.105. Web service debugger

GenericInterface Debugger for Web Service WebserviceOne

You are here: Web Services > WebserviceOne > Debugger

**Actions**

Go back to web service

Clear

**Request List**

Provider	Date	IP
Provider	2016-01-04 19:09:51	127.0.0.1
Provider	2016-01-04 19:10:57	127.0.0.1
Provider	2016-01-04 19:11:20	127.0.0.1
Provider	2016-01-04 19:11:20	127.0.0.1
Provider	2016-01-04 19:13:36	127.0.0.1
Provider	2016-01-04 19:14:14	127.0.0.1

Filter by type:

Filter from: 01 / 13 / 2015

Filter to: 01 / 04 / 2016

Filter by remote IP:

Limit: 100

Refresh

Select a single request to see its details.

**Request Details**

Communication sequence started (2016-01-04 19:14:14, debug)

Received data by provider from remote system (2016-01-04 19:14:14, debug)

```

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:tic="http://www.otrs.org/TicketConnector/">
  <soapenv:Header/>
  <soapenv:Body>
    <tic:TicketGet>
      <!--You have a CHOICE of the next 3 items at this level-->
      <!--Optional:-->
      <UserLogin></UserLogin>
      <!--Optional:-->
      <CustomerUserLogin?</CustomerUserLogin>
      <!--Optional:-->
      <SessionID>14j19y84EBwLGPpeEVCs81UON6kaeRpx</SessionID>
      <ChallengeToken>L0JUK0RgS76kdWYQTh5zTnrLdeYQG8yg</ChallengeToken>
      <!--Optional:-->
      <Password>test</Password>
      <!--1 or more repetitions:-->
      <TicketID>1</TicketID>
      <!--Optional:-->
      <OperationType>TicketGet</OperationType>
      <!--Optional:-->
      <DynamicFields?</DynamicFields>
      <!--Optional:-->
      <Extended?</Extended>
      <!--Optional:-->
      <AllArticles?</AllArticles>
      <!--Optional:-->
      <ArticleSenderType?</ArticleSenderType>
      <!--Optional:-->
      <ArticleOrder?</ArticleOrder>
      <!--Optional:-->
      <ArticleLimit?</ArticleLimit>
      <!--Optional:-->
      <Attachments?</Attachments>
    </tic:TicketGet>
  </soapenv:Body>
</soapenv:Envelope>
  
```

Detected operation 'TicketGet' (2016-01-04 19:14:14, debug)

No data provided

Incoming data before mapping (2016-01-04 19:14:14, debug)

```

$VAR1 = {
  'AllArticles' => '?',
  'ArticleLimit' => '?',
  'ArticleOrder' => '?',
  'ArticleSenderType' => '?',
  'Attachments' => '?',
  'ChallengeToken' => 'L0JUK0RgS76kdWYQTh5zTnrLdeYQG8yg',
  'CustomerUserLogin' => '?',
  'DynamicFields' => '?',
  'Extended' => '?',
  'OperationType' => 'TicketGet',
  'Password' => 'test',
  'SessionID' => '14j19y84EBwLGPpeEVCs81UON6kaeRpx',
  'TicketID' => '1',
  'UserLogin' => ''
};
  
```

Outgoing data before mapping (2016-01-04 19:14:15, debug)

Returning provider data to remote system (HTTP Code: 200) (2016-01-04 19:14:15, debug)

```

<?xml version="1.0" encoding="UTF-8"?><soap:Envelope soap:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" xmlns:soap="http://
  
```

### 11.4.4.7. Badili Usanidi wa Huduma ya Tovuti

Tukirudi kwenye skrini ya kubadilisha huduma ya tovuti, sasa tutafanya mapitio ya upande wake wa kulia. Hapa tuna uwezo wa kubadili data zote za ujumla za huduma ya tovuti kama jina, maelezo, kizingiti cha kueua, na kadhalika. Pia kuna sehemu nyingine mbili chini zinazoturuhusu kubadili parameta maalumu za aina za mawasilinao "OTRS kama Mtoaji" na "OTRS kama Muombaji".

Usanidi wa huduma ya tovuti unahitaji kuhifadhiwa katika kila hatua. Hii inamaanisha kama mpangilio umebadilishwa, viungo vya kwenda kwa sehemu nyingine za ndani za usanidi vitalemazwa kukulazimisha wewe kuhifadhi usanidi wa ngazi uliyopo. Baada ya kuhifadhi viungo vilivyo lemazwa vitawezeshwa tena kukuwezesha kuendelea na usanidi.

Katika kifungu "OTRS kama mtoaji" inawezekana kuseti au kusanidi itifaki ya usafirishaji wa mtandao. Mazingira ya nyuma ya usafirishaji mtandao yaliyosajiliwa tu ndiyo

yanaonyeshwa kwenye orodha. Kusanidi usafirishaji wa mtandao bofya kwenye kifufe cha "Sanidi". Pia inawezekana kuongeza operesheni mpya katika boksi hili. Kufanya hivi chagua moja ya operesheni zilizopo kutoka kwenye orodha "Ongeza Operesheni". Hii itakupeleka kwenye skrini ya kusanidi operesheni. Baada ya kuhifadhi operesheni mpya itaorodheshwa kwenye jedwali juu.

"OTRS kama muombaji" ni sawa na iliyopita, lakini badala ya "operesheni" unaweza kuongeza wachochezi hapa.

Bofya kitufe "Hifadhi" kuhifadhi na kuendelea na usanidi wa huduma za tovuti, "Hifadhi na maliza" kuhifadhi na kurudi kwenye skrini ya mapitio ya huduma za tovuti, au "Sitisha" kupuuza mabadiliko ya ngazi za usanidi wa sasa na kurudi kwenye skrini ya mapitio ya huduma za tovuti.

**Figure 4.106. Web services change**

**GenericInterface Web Service Management - Change**

You are here: Web Services > Webservice one

**Actions**

- Go to overview
- Clone web service
- Export web service
- Import web service
- Configuration history
- Delete web service
- Debugger

**Hint**

After you save the configuration you will be redirected again to the edit screen.  
If you want to return to overview please click the "Go to overview" button.

**General**

Name: Webservice one      Debug threshold: Debug

Description: First webservice      Validity: valid

Remote system: Any description

---

**OTRS as provider**

In provider mode, OTRS offers web services which are used by remote systems.

**Settings**

Network transport: HTTP:SOAP      [Configure](#)

**Operations**

Operations are individual system functions which remote systems can request.

NAME	DESCRIPTION	CONTROLLER	INBOUND MAPPING	OUTBOUND MAPPING
CreateTicket	-	Ticket::TicketCreate	-	-
GetTicket	-	Ticket::TicketGet	-	-
SearchTicket	-	Ticket::TicketSearch	-	-
UpdateTicket	-	Ticket::TicketUpdate	-	-

Add Operation:

---

**OTRS as requester**

In requester mode, OTRS uses web services of remote systems.

**Settings**

Network transport: HTTP:REST      [Configure](#)

**Invokers**

Invokers prepare data for a request to a remote web service, and process its response data.

NAME	DESCRIPTION	CONTROLLER	INBOUND MAPPING	OUTBOUND MAPPING
No data found.				

Add Invoker:

---

**Save**

[Save](#) or [Save and finish](#) or [Cancel](#)

## Note

Kama skrini nyingine za ujumla za Kiolesura cha usanidi kwa mfano Usafirishaji wa Mtandao, Operesheni, Mchochezi na Muunganiko, skrini ya usanidi (ongeza) wa awali itaonyesha machaguo mawili: "Hifadhi" na "Sitisha". Usanidi ukirudiwa, chaguo jipya "Hifadhi na Maliza" litaonekana. Tabia ya kipengele hiki imafafanuliwa chini.

"Hifadhi" itahifadhi usanidi wa ngazi uliyopo kwa sasa kwenye hifadhidata na itarudi kwenye skrini iliyopita kufanya mapitio ya mabadiliko uliyofanya au kufanya usanidi wa mipangilio ya ndani.

"Hifadhi na Maliza" itahifadhi usanidi wa ngazi uliyopo kwa sasa kwenye hifadhidata na itarudi kwenye skrini iliyopita kwenye mfumo wa viwango wa usanidi (kwa ngazi ya juu inayofuata ya usanidi)

"Katisha" itapuuza mabadiliko yoyote ya usanidi kwa ngazi uliyopo na itarudi kwenye skrini iliyopita kwenye mfumo wa viwango wa usanidi.

#### 11.4.4.7.1. Usafirishaji Mtandao wa Mtoaji wa Huduma ya Tovuti

In future the list of available network transports will be increased. Currently only "HTTP::SOAP" and "HTTP::REST" transports are available. Each transport has different configuration options to setup and they might use different frontend modules to configure them.

Ni rahisi kusanidi itifaki "HTTP::SOAP" kama mtoaji. Kuna mipangilio miwili tu: "Nafasiyajina" na "Upeo wajuu wa urefu wa ujumbe". Hizi sehemu zinahitajika. Ya kwanza ni URI kuzipa njia za SOAP maudhui, kupunguza utata, na ya pili ni sehemu ambayo unaweza kuweka bayana ukomo wa juu wa ukubwa (katina baiti) kwa ujumbe wa SOAP ambao OTRS itachakatisha.

### Figure 4.107. Web service provider network transport (HTTP::SOAP)

GenericInterface Transport HTTP::SOAP for Web Service Webservice one

You are here: > Web Services > Webservice one > Provider Transport HTTP::SOAP

Actions

Go back to web service

Network transport

Properties

Type: HTTP::SOAP

★ Namespace:   
 URI to give SOAP methods a context, reducing ambiguities.  
 e.g urn:otrs-com:soap:functions or http://www.otrs.com/GenericInterface/actions

★ Request name scheme:   
 Select how SOAP request function wrapper should be constructed.  
 'FunctionName' is used as example for actual invoker/operation name.  
 'FreeText' is used as example for actual configured value.

★ Response name scheme:   
 Select how SOAP response function wrapper should be constructed.  
 'FunctionName' is used as example for actual invoker/operation name.  
 'FreeText' is used as example for actual configured value.

★ Maximum message length:   
 Here you can specify the maximum size (in bytes) of SOAP messages that OTRS will process.

Sort options:

Add new first level element:  Add

Outbound sort order for xml fields (structure starting below function name wrapper) - see documentation for SOAP transport.

Save or Save and finish or Cancel

For "HTTP::REST" the configuration might be a bit more complicated, as it grows dynamically for each configured operation by adding: "Route mapping for Operation '<OperationName>':" and "Valid request methods for Operation '<OperationName>':" settings to the default transport settings "Maximum message length:" and "Send Keep-Alive:"

- Route mapping for Operation '<OperationName>':

In this setting a resource path is set. This path must be defined according to the needs of the web service considering that the path in conjunction with the HTTP request method determines the Generic Interface operation to be executed.

Path can contain variables in the form of '<VariableName>' each path string that fits on the position of the variable name will be added to the request payload using the variable name defined in this setting.

Mifano:

Route mapping: /Resource

- Valid requests:

<http://localhost/otrs/nph-genericinterface.pl/Webservice/Test/Resource>

---

`http://localhost/otrs/nph-genericinterface.pl/Webservice/Test/Resource?Param1=One`

- Invalid requests:

`http://localhost/otrs/nph-genericinterface.pl/Webservice/Test/Resource/`

`http://localhost/otrs/nph-genericinterface.pl/Webservice/Test/Resource/OtherResource`

`http://localhost/otrs/nph-genericinterface.pl/Webservice/Test/Resource/OtherResource?Param1=One`

Route mapping: `/Resource/:ID`

- Valid requests:

`http://localhost/otrs/nph-genericinterface.pl/Webservice/Test/Resource/1`

`http://localhost/otrs/nph-genericinterface.pl/Webservice/Test/Resource/1?Param1=One`

In both cases ID = 1 will be sent to the operation as part of the payload. In the second case also Param1 = One will be added, depending on the HTTP request method other parameters will be added if they come as a JSON string in the request header.

- Invalid requests:

`http://localhost/otrs/nph-genericinterface.pl/Webservice/Test/Resource`

`http://localhost/otrs/nph-genericinterface.pl/Webservice/Test/Resource?Param1=One`

Route mapping: `/Resource/OtherResource/:ID/:Color`

- Valid requests:

`http://localhost/otrs/nph-genericinterface.pl/Webservice/Test/Resource/OtherResource/1/Red`

`http://localhost/otrs/nph-genericinterface.pl/Webservice/Test/Resource/OtherResource/123/Blue?Param1=One`

In the first example ID = 1 and Color = Red, while in the second ID = 123 and Color = Blue.

- Invalid requests:

`http://localhost/otrs/nph-genericinterface.pl/Webservice/Test/Resource/1`

`http://localhost/otrs/nph-genericinterface.pl/Webservice/Test/Resource/OtherResource/1`

`http://localhost/otrs/nph-genericinterface.pl/Webservice/Test/Resource/OtherResource/1?Param1=One`

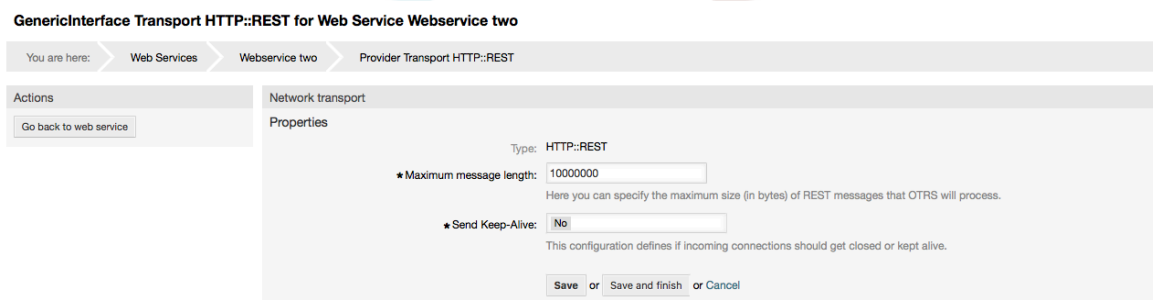
In the first example the part of the path `'/OtherResource'` is missing as well as the `:Color` variable, on the second example just `:Color` variable is missing.

- Valid request methods for Operation '`<OperationName>`':

The HTTP request methods to determine the operation to use together with the route mapping, possible options: CONNECT, DELETE, GET, HEAD, OPTIONS, PATCH, POST, PUT and TRACE.

Totally different operations can share exactly the same mapping path, but the request method must be unique for each operation, in order to determine correctly the operation to use on each request.

**Figure 4.108. Web service provider network transport (HTTP::REST)**



#### 11.4.4.7.2. Operesheni ya Huduma ya Tovuti

The actions that can be performed when you are using OTRS as a provider are called "Operations". Each operation belongs to a controller. Controllers are collections of operations or invokers, normally operations from the same controller need similar settings and share the same configuration dialog. But each operation can have independent configuration dialogs if needed.

Name, Description, Backend, and Mappings are fields that normally appear on every operation, other special fields can appear in non default configuration dialogs to fulfill specific needs of the operation.

Kawaida kuna sehemu mbili za usanidi wa miunganiko katika kila operesheni, moja kwa data zinazolingia nyingine kwa data zinazotoka. Unaweza kuchagua aina nyingi za miunganiko (mazingira ya nyuma) kwa kila mwelekeo wa muunganiko, kwa kuwa usanidi wake ni huru kutoka kwa mwingine na pia kutoka kwa mazingira ya nyuma ya operesheni. Zoezi la kwaida na linalo faamika ni operesheni kutumia aina sawa ya miunganiko katika kesi zote mbili (na usanidi uliogeuzwa). Usanidi kamili wa muunganiko unafanyika katika skrini tofauti ambayo inategemea na aina ya muunganiko.

Mazingira ya nyuma ya operesheni yamejazwa tayari na haiwezekani kuhariri. Utaona parameta hii ukichagua operesheni katika skrini ya kuhariri huduma ya wavuti. Sehemu hiyo inatoa taarifa.

In the left part of the screen on the action column you have the options: "Go back to web service" (discarding all changes since the last save) and "Delete". If you click on the last one, a dialog will open and ask you if you like to remove the operation. Click on "Delete" button to confirm the removal of the operation and its configuration or "Cancel" to close the delete dialog.

**Figure 4.109. Web service operation**

**Change Operation CreateTicket of Web Service Webservice one**

You are here: > Web Services > Webservice one > Change operation CreateTicket

Actions

◀ Go back to web service

🗑 Delete

Operation Details

★ Name:   
The name is typically used to call up this web service operation from a remote system.

Description:

Mapping for incoming request data:   
The request data will be processed by this mapping, to transform it to the kind of data OTRS expects.

Operation backend:   
This OTRS operation backend module will be called internally to process the request, generating data for the response.

Mapping for outgoing response data:   
The response data will be processed by this mapping, to transform it to the kind of data the remote system expects.

or  or

### 11.4.4.7.3. Usafirishaji Mtandao wa Muombaji wa Huduma ya Tovuti

Usanidi wa usafirishaji mtandao wa muombaji ni sawa na usanidi wa mtoaji. Kwa Muombaji usafirishaji mtandao wa "HTTP::SOAP" kuna sehemu nyingi zaidi kusetiwa.

Kuachana na "Pointiyamwisho" (URI ya kiolesura cha huduma ya tovuti ya Mfumo wa Mbali kukubali maombi) na "Jinanafasi" ambazo ndiyo sehemu zinazotakiwa, unaweza pia kubainisha:

- Usimbaji (kama utf-8, latin1, iso-8859-1, cp1250, na kdhalika) kwa ajili ya ujumbe wa SOAP.
- SOAPAction Header: you can use this to send an empty or filled SOAPAction header. Set to "No" and the SOAPAction header on the SOAP message will be an empty string, or set to "Yes" to send the SOAP action in Namespace#Action format and define the separator (typically "/" for .Net web services and "#" for the REST).
- Uthibitisho: kuseti utaratibu wa uthibitisho, seti kuwa "-" ili kutokutumia uthibitisho wowote au chagua moja kutoka kwenye orodha na sehemu za undani zitatokea.

### Note

Currently only the "BasicAuth" (HTTP) authentication mechanism is implemented. You can decide whether or not to use it depending on the Remote System configuration. If used, you must provide the User Name and the Password to access the remote system.

### Warning

Ukitoa nywila kwa ajili ya uthibitisho na baada ya kutuma huduma ya mtandao kwenda kwenye faili la YAML hii nywila itaonyeshwa na kuandikwa kwenye tungo ya nakala wazi ndani ya faili la YAML. Kuwa makini nayo na chukua tahadhari kama ikihitajika.



## Figure 4.110. Web service requester network transport (HTTP::SOAP)

**GenericInterface Transport HTTP::SOAP for Web Service Webservice one**

You are here: Web Services > Webservice one > Requester Transport HTTP::SOAP

Actions

Network transport

Properties

Type: HTTP::SOAP

★ Endpoint:   
 URI to indicate a specific location for accessing a service.  
 e.g. http://local.otrs.com:8000/Webservice/Example

★ Namespace:   
 URI to give SOAP methods a context, reducing ambiguities.  
 e.g. urn:otrs-com:soap:functions or http://www.otrs.com/GenericInterface/actions

★ Request name scheme:   
 Select how SOAP request function wrapper should be constructed.  
 'FunctionName' is used as example for actual invoker/operation name.  
 'FreeText' is used as example for actual configured value.

★ Response name scheme:   
 Select how SOAP response function wrapper should be constructed.  
 'FunctionName' is used as example for actual invoker/operation name.  
 'FreeText' is used as example for actual configured value.

Encoding:   
 The character encoding for the SOAP message contents.  
 e.g. utf-8, latin1, iso-8859-1, cp1250, Etc.

SOAPAction:   
 Set to "Yes" to send a filled SOAPAction header.  
 Set to "No" to send an empty SOAPAction header.

SOAPAction separator:   
 Character to use as separator between name space and SOAP method.  
 Usually .Net web services uses a "/" as separator.

Authentication:   
 The authentication mechanism to access the remote system.  
 A "-" value means no authentication.

Proxy Server:   
 URI of a proxy server to be used (if needed).  
 e.g. http://proxy\_hostname:8080

Proxy User:   
 The user name to be used to access the proxy server.

Proxy Password:   
 The password for the proxy user.

Use SSL Options:   
 Show or hide SSL options to connect to the remote system.

Sort options:  
   
 Outbound sort order for xml fields (structure starting below function name wrapper) - see documentation for SOAP transport.

or

In the case of HTTP::REST, this configuration also grows dynamically depending on the configured invokers by adding "Controller mapping for Invoker '<InvokerName>':" and "Valid request command for Invoker '<InvokerName>':" for each invoke. Authentication and SSL options are similar to the ones in HTTP::SOAP

- Mwenyeji

The host name or IP Address and port of the remote system, if no port is specified, port 80 is used by default.

- Controller mapping for Invoker '<InvokerName>':

In this setting a resource path is set. This path must be defined according to the needs of the remote web service and following its definition.

Path can contain variables in the form of '<VariableName>' for each variable name that matches the current data (to be sent), will be replaced by the corresponding data value. This matched variable names and values will be removed from the current data. Depending on the HTTP request command the remaining data could be sent as a JSON string in the request body or as query parameters within the URI.

Mifano:

---

For data: Var1 = One, Var2 = Two, Var3 = Three and Var4 = Four.

Controller mapping: /Resource

- After Replacements:

/Resource

- Remaining Data:

Var1 = One, Var2 = Two, Var3 = Three and Var4 = Four

Controller mapping: /Resource/:Var1

- After Replacements:

/Resource/One

- Remaining Data:

Var2 = Two, Var3 = Three and Var4 = Four

Controller mapping: /Resource/:Var1?Param1=:Var2&Var3=:Var3

- After Replacements:

/Resource/One?Param1=Two&Var3=Three

- Remaining Data:

Var4 = Four

- Valid request command for Invoker '<InvokerName>':

This determine the HTTP request method to use, possible options: CONNECT, DELETE, GET, HEAD, OPTIONS, PATCH, POST, PUT and TRACE. If no command is selected, Default command is used.

- Sharti chaguo-msingi

Used as a fall-back for all Invokers without a defined request command.

**Figure 4.111. Web service requester network transport (HTTP::REST)**

GenericInterface Transport HTTP::REST for Web Service Webservice one

You are here: > Web Services > Webservice one > Requester Transport HTTP::REST

Actions

Go back to web service

Network transport

Properties

Type: HTTP::REST

\* Host:   
 Remote host URL for the REST requests.  
 e.g https://www.otrs.com:10745/api/v1.0 (without trailing backslash)

\* Controller mapping for Invoker 'InvokerOne':   
 The controller that the invoker should send requests to. Variables marked by a ':' will get replaced by the data value and passed along with the request. (e.g. /Ticket/:TicketID?UserLogin=:UserLogin&Password=:Password).

Valid request command for Invoker 'InvokerOne':   
 A specific HTTP command to use for the requests with this Invoker (optional).

Default command:   
 The default HTTP command to use for the requests.

Authentication:   
 The authentication mechanism to access the remote system.  
 A "-" value means no authentication.

Use SSL Options:   
 Show or hide SSL options to connect to the remote system.

Save or Save and finish or Cancel

#### 11.4.4.7.4. Mchochezi wa Huduma ya Wavuti

The actions that can be performed when you are using OTRS as a requester are called "Invokers". Each invoker belongs to a controller (controllers are collections of operations or invokers). Usually invokers from the same controller need similar settings and share the same configuration dialogs. Each invoker can have independent configuration dialogs if needed.

Name, Description, Backend, and Mappings are fields that normally appear on every invoker. Additionally the list of event triggers and other special fields can appear on non default configuration dialogs to fulfill special needs of the invoker.

Kwa kawaida kuna sehemu mbili za usanidi wa muunganiko kwa kila mchochezi, moja kwa data zinazolingia na nyingine kwa data zinazotoka. Unaweza kuchagua aina tofauti za miunganiko (mazingira ya nyuma) kwa kila mwelekeo, kwa kuwa usanidi wake ni huru kutoka kwa nyenzake na huru kutoka mazingira ya nyuma ya mchochezi. Zoezi la kawaida na linalofahamika ni mchochezi kutumia aina moja ya muunganiko kwa kesi zote mbili, na usanidi uliogeuzwa. Usanidi kamili wa miunganiko unafanywa kwenye skrini tofauti, ambayo inategemea aina ya muunganiko.

Mazingira ya nyuma ya mchochezi yamejazwa tayari na haiwezekani kuhariri. Utaona parameta hii ukichagua mchochezi katika skrini ya kuhariri huduma ya wavuti. Sehemu hiyo inatoa taarifa.

Event triggers are events within OTRS such as "TicketCreate", "ArticleSend", etc. These can act as triggers to execute the invoker. Each invoker needs to have at least one event trigger registered, or the invoker will be useless, because it will never be called. The asynchronous property of the event triggers define if the OTRS process will handle the invoker or if it will be delegated to the OTRS Daemon.

### Note

The OTRS Daemon is a separate set of process that executes tasks in the background. Using this the OTRS process itself will not be affected if the Remote System takes a long time to respond, if it is not available or if there are network problems. If you don't use the OTRS Daemons using web services can make OTRS slow or non-responsive. Therefore it is highly recommend to use asynchronous event triggers as often as possible.

Kuongeza kichochezi cha tukio, kwanza chagua familia ya tukio kutoka kwenye orodha ya kwanza, kisha jina la tukio katika orodha ya pili, kisha seti sifa solandanifu (kama haijatikiwa ina maanisha kichochezi cha tukio kitakuwa sio solandanifu) na mwisho bofya kitufe cha kujumlisha. Kichochezi kipya cha matukio kitakuwa kimetengenezwa na kiawekwa kwenye orodha ya wachochezi "Vichochezi vya Matukio".

To delete an Event trigger, simply locate the event trigger to be deleted in the "Event Triggers" list and click on the trash icon at the end of the row. This will open a dialog that asks you if you are sure to delete the event trigger. Click "Delete" to remove the event trigger from the list, or "Cancel" to close the dialog.

Kwenye upande wa kushoto wa skrini katika safuwima ya vitendo una machaguo: "Rudi nyuma kwenye huduma za wavuti" (puuza maadiliko yote kuanzia uhifadhi wa mwisho) na "Futa". Kama ukibofya kitufe cha mwisho maongezi yatatokea na kukuuliza kama ungependa kuondoa mchochezi. Bofya kitufe cha "Futa" kuthibitisha uondoaji wa mchochezi na usanidi wake au "Sitisha" kufunga maongezi.

**Figure 4.112. Web service invoker**

Change Invoker InvokerOne of Web Service Webservice one

You are here: > Web Services > Webservice one > Change Invoker InvokerOne

Actions

Go back to web service

Delete

Invoker Details

**Name:** InvokerOne  
The name is typically used to call up an operation of a remote web service.

**Description:** User for remote ticket creation

**Invoker backend:** Ticket:TicketCreate  
This OTRS invoker backend module will be called to prepare the data to be sent to the remote system, and to process its response data.

**Mapping for outgoing request data:** Simple   
The data from the invoker of OTRS will be processed by this mapping, to transform it to the kind of data the remote system expects.

**Mapping for incoming response data:** XSLT   
The response data will be processed by this mapping, to transform it to the kind of data the invoker of OTRS expects.

**Event Triggers:**

EVENT	ASYNCHRONOUS	DELETE
TicketCreate	Yes	<input type="button" value=""/>

This invoker will be triggered by the configured events.

**Add Event Trigger:** Ticket  EscalationResponseTimeNotifyBefore   Asynchronous

To add a new event select the event object and event name and click on the "+" button.  
Asynchronous event triggers are handled by the OTRS Scheduler Daemon in background (recommended).  
Synchronous event triggers would be processed directly during the web request.

or  or

#### 11.4.4.7.5. Kuunganisha Huduma za Wavuti

There are cases where you need to transform the data from one format to another (map or change data structure), because normally a web service is used to interact with a Remote System, that is highly probable that is not another OTRS system and / or could not understand the OTRS data structures and values. In these cases some or all values have to be changed, and sometimes even the names of the values (keys) or even the complete structure, in order to match with the expected data on the other end. To accomplish this task the Generic Interface Mapping Layer exists.

Kila Mfumo wa Mbali una muundo wake wa data na inawezekana kutengeneza moduli mpya za muunganiko kwa kila kesi (mf. kuna moduli ya muunganiko maalumu kwa SAP Meneja Usuluhishi inayosafirishwa na OTRS), lakini sio ya lazima. Muunganiko wa moduli::Rahisi inatakiwa kukidhi mahitaji mengi ya muunganiko.

### Note

Wakati Muunganiko::Rahisi haukidhi mahitaji yote ya muunganiko kwa huduma ya wavuti, moduli mpya ya muunganiko inatakiwa itengenezwe. Kujifunza zaidi

---

kuhusu kutengeneza moduli mpya ya muunganiko tafadhali pitia Mwongozo wa Maendeleo wa OTRS.

Hii moduli inakupa nafasi ya kuseti thamani chaguo-msingi za kuunganisha kwa kila ufunguo au thamani kwa mawasiliano yote ya data.

Mwanzo wa skrini utaona kifungu cha kawaida ambapo unaweza kuseti sheria chaguo-msingi ambazo zitafanya kazi kwa funguo na thamani zote ambazo hazijaunganishwa. Kuna machaguo matatu yanayopatikana, haya machaguo yameorodheshwa chini:

- Weka (acha bila kubadilisha): haigusi funguo au thamani kwa njia yoyote.
- Puuza (dondosha jozi ya ufunguo/thamani): hii ikitumika katika ufunguo inafuta ufunguo na thamani, kwa sababu ufunguo ukifutwa pia na thamani yake husika inafutwa pia. Hii ikitumika kwa hii thamani, thamani tu ndiyo inafutwa, kuacha ufunguo, hiyo sasa itahusishwa na ufunguo ulio tupu.
- Uunganisha Kwenda (tumia ufunguo uliotolewa au thamani kama chaguo-msingi): funguo zote na / au thamani bila sheria ya miunganiko, zitatumia hii kama chaguo-msingi, ukichagua hili chaguo sehemu mpya ya nakala itatokea kuweka hii kama chaguo-msingi.

Kubofya kwenye kitufe "+" kwa ufunguo mpya wa muunganiko, itaonyesha boksi jipya kwa usanidi wa muunganiko mmoja. Unaweza kuongeza funguo nyingi za muunganiko kadri ya mahitaji yako. Bonyeza tena kwenye kitufe "+" na boksi jipya la muunganiko litaonekana chini ya lililokuwepo. Kutoka kwenye haya maboksi ya muunganiko unaweza kufafanua muunganiko wa ufunguo mmoja, na machaguo yanayofwata:

- Thamni halisi(moja au nyingi): tungo ya ufunguo wa zamani itabadilishwa kuwa mpya kama ufunguo wa zamani utafanania kabisa.
- Regular expression: the key string will be replaced following a regular expression rule.

Kubonyeza kitufe cha thamani mpya ya kuunganisha "+" itaonyesha safu mlalo mpya kwa ajili ya thamani ya kuunganisha. Hapa inawezekana pia kufafanua sheria kwa kila thamani ya kuunganishwa ikiwa na machaguo yale yale kama ya ramani ya ufunguo (Thamani halisi na Usemi wa kawaida). Unaweza kuongeza thamani nyingi kwenye muunganiko kama inavyohitajika, na kama unataka kufuta moja wapo, bonyeza tu kwenye kitufe "-" kwa kila safu mlalo ya muunganiko.

Kufuta kifungu (boksi) muunganiko kamili wa ufunguo inawezekana, bonyeza tu katika kitufe "-" kilicho kwenye upande wa juu kulia wa kila boksi unalotaka kufuta.

Kama unahitaji kufuta kikamilifu usanidi wa muunganiko: rudi nyuma katika operesheni husika au skrini ya mchochezi, angalia mwelekeo wa muunganiko unaouchagua kabla na seti thamani yake kuwa "-", na hifadhi usanidi kufanya mabadiliko.

**Figure 4.113. Web service mapping**

GenericInterface Mapping Simple for Web Service Webservice one

You are here: Web Services > Webservice one > Operation CreateTicket > Simple Mapping for Outgoing Data

Actions

Mapping Simple

Default rule for unmapped keys:   
 This rule will apply for all keys with no mapping rule.

Default rule for unmapped values:   
 This rule will apply for all values with no mapping rule.

New key map:

▼ Mapping for Key KeyNew

Key mapping: \* Map key:  matching the:  \* to new key:

Value mapping: \* Map value:  matching the:  \* to new value:

\* Map value:  matching the:  \* to new value:

New value map:

or  or

## 11.5. Kiolesura cha Tungo Amri cha Huduma ya Tovuti.

The bin/otrs.Console.pl Admin::WebService::\* commands were developed in order to create basic, but fast and powerful tools to work with web service configurations. They give you the ability to perform the following actions:

- Ongeza: kutengeneza huduma za tovuti kwa kutumia faili la YAML kama chanzo cha usanidi.
- Sasisha: kubadilisha huduma ya tovuti iliyopo, usanidi unaweza kubadilishwa kwa kutumia faili la YAML tofauti au lililoboreshwa.
- Dump: to save the current web service configuration to a file.
- Orodha: kupata orodha nzima ya huduma za tovuti zilizosajiliwa kwenye mfumo.
- Futa: kufuta huduma ya tovuti kutoka kwenye mfumo. Kuwa makini ukiitumia, kwa sababu kitendo hiki hakiwezi kubadilishwa.

Mfano: Kutengeneza usanidi mpya wa huduma ya mtandao:

```
shell> bin/otrs.Console.pl Admin::WebService::Add --name <webservice_name> --source-path /path/to/yaml/file
```

## 11.6. Usanidi wa Huduma za Tovuti

Kutoka kwenye usanifu wake huduma za tovuti zilionekana kuweza kutumika kutoa mfumo mmoja wa OTRS kwenda mwingine, mf. kutoka kwenye mazingira ya majaribio au usanifu kwenda kwenye mazingira ya uzalishaji. Kwa hiyo ilihitajika kuwa na njia rahisi ya kupata usanidi wa huduma za tovuti kutoka kwenye hifadhidata, na kuhamishia kwenye nyingine. Kufanikisha kazi hii Kiolesura cha Ujumla kinatumia mafaili ya YAML kama msingi wa usanidi wa huduma za tovuti.

Kwanini YAML? YAML ni lugha ya dhulisho mabadiliko iliyoundwa kuwa rafiki kwa binadamu kuandika na kusoma (ni rahisi kuelewa zaidi ya JSON) , haina baadhi ya vikwazo vya XML

kama lebo za tarakimu, ni wazi, ya kawaida, na ni kamili zaidi kuhifadhi usanidi mzima wa huduma ya tovuti.

## Note

Kujifunza zaidi kuhusu YAML tafadhali tembelea <http://www.yaml.org/>.

ufuatao ni mfano wa usanidi wa huduma ya tovuti katika muundo wa YAML:

```
---
Debugger:
  DebugThreshold: debug
Description: This an example of a web service configuration
Provider:
  Operation:
    CloseIncident:
      Description: This is a test operation
      MappingInbound: {}
      MappingOutbound: {}
      RemoteSystemGuid: ''
      Type: Test::Test
    Test:
      Description: This is a test operation
      MappingInbound:
        Config:
          KeyMapDefault:
            MapTo: ''
            MapType: Keep
          KeyMapExact:
            Prio: Priority
          ValueMap:
            Priority:
              ValueMapExact:
                Critical: 5 Very High
                Information: 1 Very Low
                Warning: 3 Normal
            ValueMapDefault:
              MapTo: 3 Normal
              MapType: MapTo
          Type: Simple
      MappingOutbound:
        Config:
          KeyMapDefault:
            MapTo: ''
            MapType: Ignore
          KeyMapExact:
            Priority: Prio
          ValueMap:
            Prio:
              ValueMapExact:
                1 Very Low: Information
                3 Normal: Warning
                5 Very High: Critical
            ValueMapDefault:
              MapTo: ''
              MapType: Ignore
          Type: Simple
      Type: Test::Test
  Transport:
    Config:
      MaxLength: 10000000
      Namespace: http://www.example.com/actions
      Type: HTTP::SOAP
  RemoteSystem: remote.system.description.example.com
Requester:
  Invoker:
    Test:
      Description: This is a test invoker
      Events:
        - Asynchronous: 1
```

```
Event: TicketCreate
- Asynchronous: 0
Event: ArticleUpdate
MappingInbound:
  Type: Simple
MappingOutbound:
  Type: Simple
  Type: Test::Test
Transport:
Config:
  Authentication:
    Password: '*****'
    Type: BasicAuth
    User: otrs
  Encoding: utf-8
  Endpoint: http://www.example.com:8080/endpoint
  NameSpace: http://www.example.com/actions
  SOAPAction: Yes
  SOAPActionSeparator: '#'
Type: HTTP::SOAP
```

## 11.6.1. Undani wa Usanidi

### 11.6.1.1. Ujumla

- Maelezo: nakala fupi inayoelezea huduma ya tovuti.
- MfumoMbali: maelezo mafupi ya Mfumo wa Mbali.
- Anaye eua: chombo cha mipangilio ya anaye eua.
- Mtoaji: chombo cha mipangilio ya mtoaji.
- Muombaji: chombo cha mipangilio ya muombaji.

### 11.6.1.2. Anaye eua

- DebugThreshold: the debugger level.

#### Thamani ziwezekanazo

- eua: batli zote zinahifadhiwa kwenye hifadhidata.
- Taarifa: batli za tabaka la taarifa, notisi na kasoro ndio zinahifadhiwa katika hifadhidata.
- notisi: batli za tabaka la notisi na makosa ndio zinahifadhiwa kwenye hifadhidata.
- kosa: batli za tabaka la makosa tu ndio zinahifadhiwa kwenye hifadhidata.

### 11.6.1.3. Mtoaji

- Operesheni: chombo kwa kila mipangilio ya operesheni.
- Usafirishaji: chombo cha mipangilio ya mtoaji usafiri wa mtandao.

#### 11.6.1.3.1. Operesheni

- <OperationName>: Unique name for the operation, container for its own operation settings (cardinality 0..n, but not duplicate).

##### 11.6.1.3.1.1. <JinaOperesheni>

Hiki kifungu kinajikita katika operesheni kutoka aina "Test::Test" operesheni nyingine zinaweza kuwa na zaidi au mipangilio mingine.



- Maelezo: nakala fupi inayoelezea operesheni.
- KuunganishaZinazoingia: chombo cha kuunganisha mipangilio ya data za maombi yanayoingia.
- KuunganishaZinazotoka: chombo cha kuunganisha mipangilio ya data za majibu yanayotoka.
- Aina: mazingira ya nyuma ya operesheni, katika Mdhibili::Umbizo la operesheni.

#### **11.6.1.3.1.1.1. KuunganishaZinazoingia**

Kifungu hiki kinajikita katika miunganiko ya aina "Rahisi". Miunganiko mingine inaweza kuwa na mipangilio zaidi au tofauti.

- Usanidi: chombo cha kuunganisha mipangilio hii.
- Aina: kuunganisha mazingira ya nyuma.

#### **11.6.1.3.1.1.1.1. Usanidi**

- UfunguoUnganishaChaguo-msingi: chombo cha mipangilio yote ya funguo isiyunganishwa.
- ThamaniUnganishaChaguo-msingi: chombo cha mipangilio ya thamani zote zisizounganishwa.
- KeyMapExact: a container for all exact key mappings (cardinality 0 .. 1).
- UfunguoUnganishaRegEx: chombo cha miunganiko yote ya semi za kawaida za ufunguo (nambari ya elementi 0 .. 1).
- ValueMap: a container for all value mappings (cardinality 0 .. 1).

#### **11.6.1.3.1.1.1.1.1. UfunguoUnganishaChaguo-msingi**

- UnganishaKwa: thamani mpya ya kutumika (inatumika pale tu UnganishaAina imesetiwa kuwa UnganishaKwa).
- AinaRamani: sheria kwa ajili ya kuunganisha.

#### **Thamani ziwezekanazo**

- Weka: acha bila kubadilisha.
- Puuza: dondosha.
- UnganishaKwa: badilisha kwenda kwenye thamani UnganishaKwa.

#### **11.6.1.3.1.1.1.1.2. ThamaniUnganishaChaguo-msingi**

Sawa sawa na UfunguoUnganishaChaguo-msingi.

#### **11.6.1.3.1.1.1.1.3. UfunguoUnganishaHalisi**

- <oldkey>: <newkey> (cardinality 0 .. n but not duplicate).

#### **11.6.1.3.1.1.1.1.4. UfunguoUnganishaRegEx**

- <ufunguozamani(RegEx)>: <ufunguompya> ( nambari ya elementi 0 .. n lakini hakuna kujirudia).

### **11.6.1.3.1.1.1.1.5. ThamaniUganisha**

- <ufunguompya>: chombo cha miunganiko ya thamani kwa hii funguo mpya (nambari ya elementi inategemeana na funguo mpya kutoka UfunguoUganishaHalisi na UfunguoUganishaRegEx).

#### **11.6.1.3.1.1.1.1.5.1. <ufunguompya>**

- ValueMapExact: a container for all exact value mappings (cardinality 0 .. 1).
- ThamaniUganishaRegEx: chombo cha uunganishaji wa thamani zote za semi za kawaida (nambari ya elementi 0 .. 1).

#### **11.6.1.3.1.1.1.1.5.1.1. ValueMapExact**

- <oldvalue>: <newvalue> ( cardinality 0 .. n but not duplicate).

#### **11.6.1.3.1.1.1.1.5.1.2. ThamaniUganishaRegEx**

- <thamanizamani(RegEx)>: <thamanimpya> ( nambari ya elementi 0 .. n lakini isijrudie).

### **11.6.1.3.1.1.2. KuunganishaZinazotoka**

Sawa na KuunganishaZinazoingia

### **11.6.1.3.1.1.3. Safirisha**

Hiki kifungu kimejikita kwenye usafirishaji mtandao wa HTTP::SOAP wa mtoaji, usafirishaji mwingine unaweza kuwa na mipangilio tofauti au zaidi.

- Config: chombo cha mipangilio yote maalumu ya usanidi wa usafirishaji wa mtandao.
- Aina: mazingira ya nyuma ya mtoaji wa usafirishaji wa mtandao.

#### **11.6.1.3.1.1.3.1. Usanidi**

- KikomoUrefu: kikomo cha urefu wa kusomwa katika baiti kwenye ujumbe wa SOAP kwa OTRS.
- JinaNafasi: URI ambayo inatoa maudhui kwa operesheni zote zilizo kwenye huduma hii ya tovuti.

### **11.6.1.4. Muombaji**

- Mchochezi: chombo cha mipangilio ya kila mchochezi.
- Usafirishaji: chombo cha mipangilio ya muombaji wa usafiri wa mtandao.

#### **11.6.1.4.1. Mchochezi**

- <InvokerName>: Unique name for the invoker, container for its own invoker settings (cardinality 0..n, but not duplicate).

##### **11.6.1.4.1.1. <InvokerName>**

This section is based on invokers from type "Test::Test" other invokers might contain more or different settings.

- Description: a short text that describes the invoker.

- Matukio: chombo cha mipangilio ya vichochezi vya matukio visivyo na majina.
- KuunganishaZinazolingia: chombo cha kuunganisha mipangilio ya majibu ya data zinazolingia.
- KuunganishaZinazotoka: chombo cha kuunganisha mipangilio ya data za maombi yanayotoka.
- Aina: mazingira ya nyuma ya mchochezi, katika Mdhbiti::Umbizo la mchochezi.

#### **11.6.1.4.1.1.1. Matukio**

- *List Element*: (cardinality 0 .. n).
  - Asynchronous: to set if the invoker execution will be delegated to the OTRS Daemon.

#### **Thamani ziwezekanazo**

- 0: not handled by the OTRS Daemon.
- 1: handled by the OTRS Daemon.
- Tukio: jina la kichochezi cha tukio.

#### **Thamani Ziwezekanazo (kwa matukio ya tiketi)**

- TengenezaTiketi
- FutaTiketi
- SasishaKichwaTiketi
- TiketiFunguaMudaWaMwishoSasisha
- SasishaFoleniTiketi
- SasishaAinaTiketi
- SasishaHudumaTiketi
- SasishaSLATiketi
- SasishaMtejaTiketi
- SasishaMudaKusubiriTiketi
- SasishaFungaTiketi
- TiketiNyarakaBenderaSasisha
- SasishaHaliTiketi
- SasishaMmilikiTiketi
- TiketiJukumuSasisha
- TiketiKipaumbeleSasisha
- OngezaHistoria
- FutaHistoria
- TiketiHesabuMuda

- MuunganikoTiketi
- TiketiIjunge
- TiketiIjondoe
- TiketiBenderaSeti
- TiketiBenderaFuta
- TiketiMtumwaKiungoOngeza
- TiketiMtumwaKiungoFuta
- TiketiMkuuKiungoFuta

### **Thamani Ziwezekanazo (kwa matukio ya makala)**

- TengenezaMakala
- SasishaMakala
- TumaMakala
- MakalaDunda
- MakalaWakalaTaarifa
- MakalaMtejaTaarifa
- MakalaOtomatikiMajibu
- MakalaBenderaSeti
- MakalaBenderaFuta

#### **11.6.1.4.1.1.2. KuunganishaZinazolingia**

Sawa na Operesheni KuunganishaZinazolingia.

#### **11.6.1.4.1.1.3. KuunganishaZinazotoka**

Sawa na Operesheni KuunganishaZinazolingia.

#### **11.6.1.4.1.1.4. Safirisha**

Hiki kifungu kimejikita kwenye usafirishaji mtandao wa HTTP::SOAP wa muombaji, usafirishaji mwingine unawezakuwa na mipangilio tofauti au zaidi.

- Config: chombo cha mipangilio yote maalumu ya usanidi wa usafirishaji wa mtandao.
- Aina: mazingira ya nyuma ya muombaji wa usafirishaji wa mtandao.

#### **11.6.1.4.1.1.4.1. Usanidi**

- Uthibitisho: chombo cha mipangilio ya uthibitisho
- Encoding: the SOAP Message request encoding.
- Endpoint: the URI of the Remote Server web service to accept OTRS requests.
- NameSpace: an URI that gives a context to all invokers that belongs to this web service.

- SOAPAction: kutuma kichwa cha SOAPAction kilicho tupu au kilichojazwa katika ujumbe wa SOAP (ndani ya "<JinaNafasi> <Kigawanyo> <Kitendo>" umbizo).

### **Thamani ziwezekanazo**

- Yes: to send a filled SOAPAction header.
- Hapana: kutuma kichwa cha SOAPAction tupu.
- SOAPActionSeparator: kuseti <Kigawanyo> cha kichwa cha SOAPAction iliyojazwa.

### **Thamani ziwezekanazo**

- '/': inatumika kwa na huduma za tovuti za .net.
- '#': inatumika na huduma zote za tovuti zilizobaki.

#### **11.6.1.4.1.1.4.1.1. Uthibitisho**

- Mtumiaji: jina la mtumiaji lenye haki ambalo lina ufikivu kwa huduma ya mbali ya tovuti.
- Nywila: nywila ya mtumiaji mwenye haki katika nakala wazi.
- Aina: aina ya uthibitisho.

## **11.7. Viunganishi**

Kiunganisho ni seti ya vitendo ambavyo aidha vinaitwa Operesheni kama OTRS inasimama kama mtoaji wa huduma ya wavuti au Wachochezi kama OTRS itasimama kama muombaji huduma ya wavuti. Pia inaweza kujumuisha Miunganiko au Usafirishaji.

Kiunganisho kimoja kinaweza kuwa na Operesheni tu, Wachochezi tu au zote. Kiunganisho kinaweza kutumia sehemu za viunganisho vingine kama Miunganiko au Usafirishaji kama siyo maalumu kwa kiunganisho kinachojaribu kuzitekeleza.

Kwa maneno mengine kiunganisho hakijajikita kwa tabaka moja la kidhibiti lakini inaweza kutanuliwa kwenye Muunganiko wa Data au matabaka ya Usafirishaji wa Mtandao kama itahitajika.

Kutokana na usanifu wa moduli wa Kiolesura cha Ujumla Kiunganishi kinaweza kuonekana kama programu-jalizi; hii inamaanisha kwa kuongeza Viunganishi uwezo wa kiolesura cha ujumla kinaweza kupanuliwa kwa kutumia: vifaa vya nyongeza vya OTRS, moduli Zilizogeuzwa kukufaa za OTRS, moduli za mshiriki wa 3, na mengineyo.

### **11.7.1. Kifungu cha Viunganishi**

Included with this version of OTRS the following connectors are ready to be used:

- Kipindi
- Tiketi

#### **11.7.1.1. Kiunganishi cha Kipindi**

Kiungo hiki kinaweza kutengeneza Kitambulisho halali cha Kipindi ambacho kinaweza kutumika katika operesheni nyingine yoyote.

Inatoa:

- Operesheni:
  - TengenezaKipindi:

### 11.7.1.1.1. Operesheni

#### 11.7.1.1.1.1. TengenezaKipindi:

Creates a new valid SessionID to be used in other operations from other connectors like TicketCreate.

#### Note

Kutumia Kitambulisho cha Kipindi katika operesheni nyingine kutoka kwenye viunganishi vingine ni muhimu kwamba operesheni ifanye uthibitisho kwa kutumia Kitambulisho cha Kipindi. Vifurushi vingine vya operesheni vinaweza kukubali Kitambulisho cha Kipindi halali kama njia ya uthibitisho.

Sifa ziwezekanazo:

```
<SessionCreate>
  <!--You have a MANDATORY CHOICE of the next 2 items at this level-->
  <!--Optional:-->
  <UserLogin?</UserLogin>
  <!--Optional:-->
  <CustomerUserLogin?</CustomerUserLogin>
  <!--Optional:-->
  <Password?</Password>
</SessionCreate>
```

### 11.7.1.2. Kiunganishi cha Tiketi

This connector supplies the basic functionality to interact with tickets.

Inatoa:

- Operesheni:
  - TengenezaTiketi
  - SasishaTiketi
  - PataTiketi
  - TafutaTiketi

#### 11.7.1.2.1. Operesheni

##### 11.7.1.2.1.1. TengenezaTiketi

Inatoa kiolesura cha kutengeneza tiketi katika OTRS. Tiketi lazima iwe na Makala na inaweza kuwa na viambatanishi mbali mbali, Sehemu Zinazobadilika zote zilizofafanuliwa zinaweza pia kusetiwa katika operesheni ya TiketiTengeneza.

Sifa ziwezekanazo:

```
<TicketCreate>
  <!--You have a MANDATORY CHOICE of the next 3 items at this level-->
  <!--Optional:-->
  <UserLogin?</UserLogin>
  <!--Optional:-->
  <CustomerUserLogin?</CustomerUserLogin>
  <!--Optional:-->
  <SessionID?</SessionID>
  <!--Optional:-->
  <Password?</Password>
```

```

<Ticket>
  <Title?</Title>
  <!--You have a MANDATORY CHOICE of the next 2 items at this level-->
  <!--Optional:-->
  <QueueID?</QueueID>
  <!--Optional:-->
  <Queue?</Queue>
  <!--You have a CHOICE of the next 2 items at this level-->
  <!--Optional:-->
  <TypeID?</TypeID>
  <!--Optional:-->
  <Type?</Type>
  <!--You have a CHOICE of the next 2 items at this level-->
  <!--Optional:-->
  <ServiceID?</ServiceID>
  <!--Optional:-->
  <Service?</Service>
  <!--You have a CHOICE of the next 2 items at this level-->
  <!--Optional:-->
  <SLAID?</SLAID>
  <!--Optional:-->
  <SLA?</SLA>
  <!--You have a MANDATORY CHOICE of the next 2 items at this level-->
  <!--Optional:-->
  <StateID?</StateID>
  <!--Optional:-->
  <State?</State>
  <!--You have a MANDATORY CHOICE of the next 2 items at this level-->
  <!--Optional:-->
  <PriorityID?</PriorityID>
  <!--Optional:-->
  <Priority?</Priority>
  <!--You have a CHOICE of the next 2 items at this level-->
  <!--Optional:-->
  <OwnerID?</OwnerID>
  <!--Optional:-->
  <Owner?</Owner>
  <!--You have a CHOICE of the next 2 items at this level-->
  <!--Optional:-->
  <ResponsibleID?</ResponsibleID>
  <!--Optional:-->
  <Responsible?</Responsible>
  <CustomerUser?</CustomerUser>
  <!--Optional:-->
  <CustomerID?</CustomerID>
  <!--Optional:-->
  <PendingTime>
    <!--You have a CHOICE of the next and the other 5 items at this level-->
    <Diff?</Diff>
    <Year?</Year>
    <Month?</Month>
    <Day?</Day>
    <Hour?</Hour>
    <Minute?</Minute>
  </PendingTime>
</Ticket>
<Article>
  <!--You have a CHOICE of the next 2 items at this level-->
  <!--Optional:-->
  <ArticleTypeID?</ArticleTypeID>
  <!--Optional:-->
  <ArticleType?</ArticleType>
  <!--You have a CHOICE of the next 2 items at this level-->
  <!--Optional:-->
  <SenderTypeID?</SenderTypeID>
  <!--Optional:-->
  <SenderType?</SenderType>
  <!--Optional:-->
  <From?</From>
  <Subject?</Subject>
  <Body?</Body>
  <!--You have a CHOICE of the next 2 items at this level-->

```

```

<!--Optional:-->
<ContentType?></ContentType>
<Charset?></Charset>
<MimeType?></MimeType>
<!--Optional:-->
<HistoryType?></HistoryType>
<!--Optional:-->
<HistoryComment?></HistoryComment>
<!--Optional:-->
<AutoResponseType?></AutoResponseType>
<!--Optional:-->
<TimeUnit?></TimeUnit>
<!--Optional:-->
<NoAgentNotify?></NoAgentNotify>
<!--Zero or more repetitions:-->
<ForceNotificationToUserID?></ForceNotificationToUserID>
<!--Zero or more repetitions:-->
<ExcludeNotificationToUserID?></ExcludeNotificationToUserID>
<!--Zero or more repetitions:-->
<ExcludeMuteNotificationToUserID?></ExcludeMuteNotificationToUserID>
</Article>
<!--Zero or more repetitions:-->
<DynamicField>
  <Name?></Name>
  <!--1 or more repetitions:-->
  <Value?></Value>
</DynamicField>
<!--Zero or more repetitions:-->
<Attachment>
  <Content>cid:61886944659</Content>
  <ContentType?></ContentType>
  <Filename?></Filename>
</Attachment>
</TicketCreate>

```

### 11.7.1.2.1.2. SasishaTiketi

Operesheni ya SasishaTiketi inaongeza uwezo wa kubadili sifa kutoka kwenye tiketi iliyopo au kuongeza makala mpya, ikijumuisha na viambatanisho na sehemu zinazobadilika zote zilizofafanuliwa kwa ajili ya tiketi na makala mpya.

## Note

Sio lazima kutengeneza makala mpya kubadilisha sifa ya tiketi.

Sifa ziwezekanazo:

```

<TicketUpdate>
  <!--You have a MANDATORY CHOICE of the next 3 items at this level-->
  <!--Optional:-->
  <UserLogin?></UserLogin>
  <!--Optional:-->
  <CustomerUserLogin?></CustomerUserLogin>
  <!--Optional:-->
  <SessionID?></SessionID>
  <!--Optional:-->
  <Password?></Password>
  <!--You have a CHOICE of the next 2 items at this level-->
  <TicketID?></TicketID>
  <TicketNumber?></TicketNumber>
  <!--Optional:-->
  <Ticket>
    <!--Optional:-->
    <Title?></Title>
    <!--You have a CHOICE of the next 2 items at this level-->
    <!--Optional:-->
    <QueueID?></QueueID>
  </Ticket>
</TicketUpdate>

```



```

<!--Optional:-->
<Queue?</Queue>
<!--You have a CHOICE of the next 2 items at this level-->
<!--Optional:-->
<TypeID?</TypeID>
<!--Optional:-->
<Type?</Type>
<!--You have a CHOICE of the next 2 items at this level-->
<!--Optional:-->
<ServiceID?</ServiceID>
<!--Optional:-->
<Service?</Service>
<!--You have a CHOICE of the next 2 items at this level-->
<!--Optional:-->
<SLAID?</SLAID>
<!--Optional:-->
<SLA?</SLA>
<!--You have a CHOICE of the next 2 items at this level-->
<!--Optional:-->
<StateID?</StateID>
<!--Optional:-->
<State?</State>
<!--You have a CHOICE of the next 2 items at this level-->
<!--Optional:-->
<PriorityID?</PriorityID>
<!--Optional:-->
<Priority?</Priority>
<!--You have a CHOICE of the next 2 items at this level-->
<!--Optional:-->
<OwnerID?</OwnerID>
<!--Optional:-->
<Owner?</Owner>
<!--You have a CHOICE of the next 2 items at this level-->
<!--Optional:-->
<ResponsibleID?</ResponsibleID>
<!--Optional:-->
<Responsible?</Responsible>
<!--Optional:-->
<CustomerUser?</CustomerUser>
<!--Optional:-->
<CustomerID?</CustomerID>
<!--Optional:-->
<PendingTime>
  <!--You have a CHOICE of the next and the other 5 items at this level-->
  <Diff?</Diff>
  <Year?</Year>
  <Month?</Month>
  <Day?</Day>
  <Hour?</Hour>
  <Minute?</Minute>
</PendingTime>
</Ticket>
<!--Optional:-->
<Article>
  <!--You have a CHOICE of the next 2 items at this level-->
  <!--Optional:-->
  <ArticleTypeID?</ArticleTypeID>
  <!--Optional:-->
  <ArticleType?</ArticleType>
  <!--You have a CHOICE of the next 2 items at this level-->
  <!--Optional:-->
  <SenderTypeID?</SenderTypeID>
  <!--Optional:-->
  <SenderType?</SenderType>
  <!--Optional:-->
  <From?</From>
  <Subject?</Subject>
  <Body?</Body>
  <!--You have a CHOICE of the next 2 items at this level-->
  <!--Optional:-->
  <ContentType?</ContentType>
  <Charset?</Charset>

```

```

<MimeType>?</MimeType>
<!--Optional:-->
<HistoryType>?</HistoryType>
<!--Optional:-->
<HistoryComment>?</HistoryComment>
<!--Optional:-->
<AutoResponseType>?</AutoResponseType>
<!--Optional:-->
<TimeUnit>?</TimeUnit>
<!--Optional:-->
<NoAgentNotify>?</NoAgentNotify>
<!--Zero or more repetitions:-->
<ForceNotificationToUserID>?</ForceNotificationToUserID>
<!--Zero or more repetitions:-->
<ExcludeNotificationToUserID>?</ExcludeNotificationToUserID>
<!--Zero or more repetitions:-->
<ExcludeMuteNotificationToUserID>?</ExcludeMuteNotificationToUserID>
</Article>
<!--Zero or more repetitions:-->
<DynamicField>
  <Name>?</Name>
  <!--1 or more repetitions:-->
  <Value>?</Value>
</DynamicField>
<!--Zero or more repetitions:-->
<Attachment>
  <Content>cid:166861569966</Content>
  <ContentType>?</ContentType>
  <Filename>?</Filename>
</Attachment>
</TicketUpdate>

```

### 11.7.1.2.1.3. PataTiketi

Hii operesheni inatumika kupata sifa zote za tiketi ikijumuisha sehemu zinazobadilika, makala zote na viambatanisho vyote ambavyo ni vya tiketi.

Sifa ziwezekanazo:

```

<TicketGet>
  <!--You have a MANDATORY CHOICE of the next 3 items at this level-->
  <!--Optional:-->
  <UserLogin>?</UserLogin>
  <!--Optional:-->
  <CustomerUserLogin>?</CustomerUserLogin>
  <!--Optional:-->
  <SessionID>?</SessionID>
  <!--Optional:-->
  <Password>?</Password>
  <!--1 or more repetitions:-->
  <TicketID>?</TicketID>
  <!--Optional:-->
  <DynamicFields>?</DynamicFields>
  <!--Optional:-->
  <Extended>?</Extended>
  <!--Optional:-->
  <AllArticles>?</AllArticles>
  <!--Optional:-->
  <ArticleSenderType>?</ArticleSenderType>
  <!--Optional:-->
  <ArticleOrder>?</ArticleOrder>
  <!--Optional:-->
  <ArticleLimit>?</ArticleLimit>
  <!--Optional:-->
  <Attachments>?</Attachments>
  <!--Optional:-->
  <HTMLBodyAsAttachment>?</HTMLBodyAsAttachment>
</TicketGet>

```

#### 11.7.1.2.1.4. TafutaTiketi

Operesheni TiketiTafuta inarudisha orodha ya Vitambulisho vya Tiketi ambazo zinafanana na kigezo kilichofafanuliwa.

Sifa ziwezekanazo:

```
<TicketSearch>
  <!--You have a MANDATORY CHOICE of the next 3 items at this level-->
  <!--Optional:-->
  <UserLogin?</UserLogin>
  <!--Optional:-->
  <CustomerUserLogin?</CustomerUserLogin>
  <!--Optional:-->
  <SessionID?</SessionID>
  <!--Optional:-->
  <Password?</Password>
  <!--Optional:-->
  <Limit?</Limit>
  <!--Zero or more repetitions:-->
  <TicketNumber?</TicketNumber>
  <!--Zero or more repetitions:-->
  <Title?</Title>
  <!--Zero or more repetitions:-->
  <Queues?</Queues>
  <!--Zero or more repetitions:-->
  <QueueIDs?</QueueIDs>
  <!--Optional:-->
  <UseSubQueues?</UseSubQueues>
  <!--Zero or more repetitions:-->
  <Types?</Types>
  <!--Zero or more repetitions:-->
  <TypeID?</TypeID>
  <!--Zero or more repetitions:-->
  <States?</States>
  <!--Zero or more repetitions:-->
  <StateIDs?</StateIDs>
  <!--Zero or more repetitions:-->
  <StateType?</StateType>
  <!--Zero or more repetitions:-->
  <StateTypeID?</StateTypeID>
  <!--Zero or more repetitions:-->
  <Priorities?</Priorities>
  <!--Zero or more repetitions:-->
  <PriorityIDs?</PriorityIDs>
  <!--Zero or more repetitions:-->
  <Services?</Services>
  <!--Zero or more repetitions:-->
  <ServiceIDs?</ServiceIDs>
  <!--Zero or more repetitions:-->
  <SLAs?</SLAs>
  <!--Zero or more repetitions:-->
  <SLAIDs?</SLAIDs>
  <!--Zero or more repetitions:-->
  <Locks?</Locks>
  <!--Zero or more repetitions:-->
  <LockIDs?</LockIDs>
  <!--Zero or more repetitions:-->
  <OwnerIDs?</OwnerIDs>
  <!--Zero or more repetitions:-->
  <ResponsibleIDs?</ResponsibleIDs>
  <!--Zero or more repetitions:-->
  <WatchUserIDs?</WatchUserIDs>
  <!--Zero or more repetitions:-->
  <CustomerID?</CustomerID>
  <!--Zero or more repetitions:-->
  <CustomerUserLogin?</CustomerUserLogin>
```

```

<!--Zero or more repetitions:-->
<CreatedUserIDs?></CreatedUserIDs>
<!--Zero or more repetitions:-->
<CreatedTypes?></CreatedTypes>
<!--Zero or more repetitions:-->
<CreatedTypeIDs?></CreatedTypeIDs>
<!--Zero or more repetitions:-->
<CreatedPriorities?></CreatedPriorities>
<!--Zero or more repetitions:-->
<CreatedPriorityIDs?></CreatedPriorityIDs>
<!--Zero or more repetitions:-->
<CreatedStates?></CreatedStates>
<!--Zero or more repetitions:-->
<CreatedStateIDs?></CreatedStateIDs>
<!--Zero or more repetitions:-->
<CreatedQueues?></CreatedQueues>
<!--Zero or more repetitions:-->
<CreatedQueueIDs?></CreatedQueueIDs>
<!--Zero or more repetitions:-->
<DynamicFields>
  <!--You have a MANDATORY CHOICE of the next 6 items at this level-->
  <!--Optional:-->
  <Equals?></Equals>
  <!--Optional:-->
  <Like?></Like>
  <!--Optional:-->
  <GreaterThan?></GreaterThan>
  <!--Optional:-->
  <GreaterThanEquals?></GreaterThanEquals>
  <!--Optional:-->
  <SmallerThan?></SmallerThan>
  <!--Optional:-->
  <SmallerThanEquals?></SmallerThanEquals>
</DynamicFields>
<!--Optional:-->
<Ticketflag>
  <!--Optional:-->
  <Seen?></Seen>
</Ticketflag>
<!--Optional:-->
<From?></From>
<!--Optional:-->
<To?></To>
<!--Optional:-->
<Cc?></Cc>
<!--Optional:-->
<Subject?></Subject>
<!--Optional:-->
<Body?></Body>
<!--Optional:-->
<FullTextIndex?></FullTextIndex>
<!--Optional:-->
<ContentSearch?></ContentSearch>
<!--Optional:-->
<ConditionInline?></ConditionInline>
<!--Optional:-->
<ArticleCreateTimeOlderMinutes?></ArticleCreateTimeOlderMinutes>
<!--Optional:-->
<ArticleCreateTimeNewerMinutes?></ArticleCreateTimeNewerMinutes>
<!--Optional:-->
<ArticleCreateTimeNewerDate?></ArticleCreateTimeNewerDate>
<!--Optional:-->
<ArticleCreateTimeOlderDate?></ArticleCreateTimeOlderDate>
<!--Optional:-->
<TicketCreateTimeOlderMinutes?></TicketCreateTimeOlderMinutes>
<!--Optional:-->
<ATicketCreateTimeNewerMinutes?></ATicketCreateTimeNewerMinutes>
<!--Optional:-->
<TicketCreateTimeNewerDate?></TicketCreateTimeNewerDate>
<!--Optional:-->
<TicketCreateTimeOlderDate?></TicketCreateTimeOlderDate>
<!--Optional:-->

```

```

<TicketLastChangeTimeOlderMinutes>?</TicketLastChangeTimeOlderMinutes>
<!--Optional:-->
<TicketLastChangeTimeNewerMinutes>?</TicketLastChangeTimeNewerMinutes>
<!--Optional:-->
<TicketLastChangeTimeNewerDate>?</TicketLastChangeTimeNewerDate>
<!--Optional:-->
<TicketLastChangeTimeOlderDate>?</TicketLastChangeTimeOlderDate>
<!--Optional:-->
<TicketChangeTimeOlderMinutes>?</TicketChangeTimeOlderMinutes>
<!--Optional:-->
<TicketChangeTimeNewerMinutes>?</TicketChangeTimeNewerMinutes>
<!--Optional:-->
<TicketChangeTimeNewerDate>?</TicketChangeTimeNewerDate>
<!--Optional:-->
<TicketChangeTimeOlderDate>?</TicketChangeTimeOlderDate>
<!--Optional:-->
<TicketCloseTimeOlderMinutes>?</TicketCloseTimeOlderMinutes>
<!--Optional:-->
<TicketCloseTimeNewerMinutes>?</TicketCloseTimeNewerMinutes>
<!--Optional:-->
<TicketCloseTimeNewerDate>?</TicketCloseTimeNewerDate>
<!--Optional:-->
<TicketCloseTimeOlderDate>?</TicketCloseTimeOlderDate>
<!--Optional:-->
<TicketPendingTimeOlderMinutes>?</TicketPendingTimeOlderMinutes>
<!--Optional:-->
<TicketPendingTimeNewerMinutes>?</TicketPendingTimeNewerMinutes>
<!--Optional:-->
<TicketPendingTimeNewerDate>?</TicketPendingTimeNewerDate>
<!--Optional:-->
<TicketPendingTimeOlderDate>?</TicketPendingTimeOlderDate>
<!--Optional:-->
<TicketEscalationTimeOlderMinutes>?</TicketEscalationTimeOlderMinutes>
<!--Optional:-->
<TicketEscalationTimeNewerMinutes>?</TicketEscalationTimeNewerMinutes>
<!--Optional:-->
<TicketEscalationTimeNewerDate>?</TicketEscalationTimeNewerDate>
<!--Optional:-->
<TicketEscalationTimeOlderDate>?</TicketEscalationTimeOlderDate>
<!--Optional:-->
<ArchiveFlags>?</ArchiveFlags>
<!--Zero or more repetitions:-->
<OrderBy>?</OrderBy>
<!--Zero or more repetitions:-->
<SortBy>?</SortBy>
<!--Zero or more repetitions:-->
<CustomerUserID>?</CustomerUserID>
</TicketSearch>

```

## 11.7.2. Mifano:

### 11.7.2.1. Usanidi wa Huduma za Tovuti

The following is a basic but complete web service configuration file in YAML format to use all the Ticket Connector operations with the SOAP network transport. In order to use it in OTRS you need to copy the content, save it into a file and call it GenericTicketConnectorSOAP.yml, and import it into OTRS in the Web Services screen in the Admin panel by clicking in the "Add web service" button from the overview screen and then clicking in the "Import web service" button in the add screen.

```

---
Debugger:
  DebugThreshold: debug
  TestMode: 0
Description: Ticket Connector SOAP Sample
FrameworkVersion: 3.4.x git

```

```

Provider:
Operation:
  SessionCreate:
    Description: Creates a Session
    MappingInbound: {}
    MappingOutbound: {}
    Type: Session::SessionCreate
  TicketCreate:
    Description: Creates a Ticket
    MappingInbound: {}
    MappingOutbound: {}
    Type: Ticket::TicketCreate
  TicketUpdate:
    Description: Updates a Ticket
    MappingInbound: {}
    MappingOutbound: {}
    Type: Ticket::TicketUpdate
  TicketGet:
    Description: Retrieves Ticket data
    MappingInbound: {}
    MappingOutbound: {}
    Type: Ticket::TicketGet
  TicketSearch:
    Description: Search for Tickets
    MappingInbound: {}
    MappingOutbound: {}
    Type: Ticket::TicketSearch
Transport:
  Config:
    MaxLength: 100000000
    Namespace: http://www.otrs.org/TicketConnector/
    Type: HTTP::SOAP
RemoteSystem: ''
Requester:
  Transport:
  Type: ''

```

Similar example can be done for the REST network transport, REST web services uses HTTP operations such as "POST", "GET", "PUT", "PATCH" etc. This operations in conjunction with a URI path called resource defines a OTRS Generic Interface Operation or Invoker (depending on the communication way).

The following example uses /Session resource for SessionCreate, /Ticket resource for TicketSearch and TicketCreate and resource /Ticket/{TicketID} for TicketGet and TicketUpdate (Where {TicketID} is the actual TicketID value of a ticket e.g. /Ticket/123). In order to use it in OTRS you need to copy the content, save it into a file and call it GenericTicketConnectorREST.yml, and import it into OTRS in the Web Services screen in the Admin panel by clicking in the "Add web service" button from the overview screen and then clicking in the "Import web service" button in the add screen.

```

---
Debugger:
  DebugThreshold: debug
  TestMode: '0'
Description: Ticket Connector REST Sample
FrameworkVersion: 3.4.x git
Provider:
  Operation:
    SessionCreate:
      Description: Creates a Session
      MappingInbound: {}
      MappingOutbound: {}
      Type: Session::SessionCreate
    TicketCreate:
      Description: Creates a Ticket
      MappingInbound: {}

```

```

    MappingOutbound: {}
    Type: Ticket::TicketCreate
TicketGet:
    Description: Retrieves Ticket data
    MappingInbound: {}
    MappingOutbound: {}
    Type: Ticket::TicketGet
TicketSearch:
    Description: Search for Tickets
    MappingInbound: {}
    MappingOutbound: {}
    Type: Ticket::TicketSearch
TicketUpdate:
    Description: Updates a Ticket
    MappingInbound: {}
    MappingOutbound: {}
    Type: Ticket::TicketUpdate
Transport:
  Config:
    KeepAlive: ''
    MaxLength: '100000000'
    RouteOperationMapping:
      SessionCreate:
        RequestMethod:
          - POST
        Route: /Session
      TicketCreate:
        RequestMethod:
          - POST
        Route: /Ticket
      TicketGet:
        RequestMethod:
          - GET
        Route: /Ticket/:TicketID
      TicketSearch:
        RequestMethod:
          - GET
        Route: /Ticket
      TicketUpdate:
        RequestMethod:
          - PATCH
        Route: /Ticket/:TicketID
    Type: HTTP::REST
RemoteSystem: ''
Requester:
  Transport:
    Type: ''

```

### 11.7.2.2. Muombaji wa Perl SOAP

The following code is a Perl script that can connect to OTRS via the generic interface. In order to perform the operations provided by the Ticket Connector, it uses two Perl CPAN modules SOAP::Lite and Data::Dumper. Please make sure that your environment is capable to use these modules before you try to run the script.

```

#!/usr/bin/perl -w
# --
# otrs.SOAPRequest.pl - sample to send a SOAP request to OTRS Generic Interface Ticket
# Connector
# Copyright (C) 2001-2020 OTRS AG, https://otrs.com/
# --
# This program is free software: you can redistribute it and/or modify
# it under the terms of the GNU General Public License as published by
# the Free Software Foundation, either version 3 of the License, or
# (at your option) any later version.
#
# This program is distributed in the hope that it will be useful,

```

```

# but WITHOUT ANY WARRANTY; without even the implied warranty of
# MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
# GNU General Public License for more details.
#
# You should have received a copy of the GNU General Public License
# along with this program. If not, see https://www.gnu.org/licenses/gpl-3.0.txt.
# --

use strict;
use warnings;

# use ../ as lib location
use File::Basename;
use FindBin qw($RealBin);
use lib dirname($RealBin);

use SOAP::Lite;
use Data::Dumper;

# ---
# Variables to be defined.

# this is the URL for the web service
# the format is
# <HTTP_TYPE>:://<OTRS_FQDN>/nph-genericinterface.pl/Webservice/<WEB_SERVICE_NAME>
# or
# <HTTP_TYPE>:://<OTRS_FQDN>/nph-genericinterface.pl/WebserviceID/<WEB_SERVICE_ID>
my $URL = 'http://localhost/otrs/nph-genericinterface.pl/Webservice/GenericTicketConnector';

# this name space should match the specified name space in the SOAP transport for the web
# service.
my $NameSpace = 'http://www.otrs.org/TicketConnector/';

# this is operation to execute, it could be TicketCreate, TicketUpdate, TicketGet,
# TicketSearch
# or SessionCreate. and they must to be defined in the web service.
my $Operation = 'TicketCreate';

# this variable is used to store all the parameters to be included on a request in XML
# format. Each
# operation has a determined set of mandatory and non mandatory parameters to work
# correctly. Please
# check the OTRS Admin Manual in order to get a complete list of parameters.
my $XMLData = '
<UserLogin>some user login</UserLogin>
<Password>some password</Password>
<Ticket>
  <Title>some title</Title>
  <CustomerUser>some customer user login</CustomerUser>
  <Queue>some queue</Queue>
  <State>some state</State>
  <Priority>some priority</Priority>
</Ticket>
<Article>
  <Subject>some subject</Subject>
  <Body>some body</Body>
  <ContentType>text/plain; charset=utf8</ContentType>
</Article>
';

# ---

# create a SOAP::Lite data structure from the provided XML data structure.
my $SOAPData = SOAP::Data
  ->type( 'xml' => $XMLData );

my $SOAPObject = SOAP::Lite
  ->uri($NameSpace)
  ->proxy($URL)
  ->$Operation($SOAPData);

# check for a fault in the soap code.

```



```

if ( $SOAPObject->fault ) {
    print $SOAPObject->faultcode, " ", $SOAPObject->faultstring, "\n";
}

# otherwise print the results.
else {

    # get the XML response part from the SOAP message.
    my $XMLResponse = $SOAPObject->context()->transport()->proxy()->http_response()-
>content();

    # deserialize response (convert it into a perl structure).
    my $Deserialized = eval {
        SOAP::Deserializer->deserialize($XMLResponse);
    };

    # remove all the headers and other not needed parts of the SOAP message.
    my $Body = $Deserialized->body();

    # just output relevant data and no the operation name key (like TicketCreateResponse).
    for my $ResponseKey ( keys %{$Body} ) {
        print Dumper( $Body->{$ResponseKey} );
    }
}

```

### 11.7.2.3. Perl REST Requester

The following code is a Perl script that can connect to OTRS via the generic interface. In order to perform the operations provided by the Ticket Connector, it uses three Perl CPAN modules JSON, REST::Client and Data::Dumper. Please make sure that your environment is capable to use these modules before you try to run the script.

```

#!/usr/bin/perl
# --
# otrs.RESTRequest.pl - sample to send a REST request to OTRS Generic Interface Ticket
Connector
# Copyright (C) 2001-2020 OTRS AG, https://otrs.com/
# --
# This program is free software: you can redistribute it and/or modify
# it under the terms of the GNU General Public License as published by
# the Free Software Foundation, either version 3 of the License, or
# (at your option) any later version.
#
# This program is distributed in the hope that it will be useful,
# but WITHOUT ANY WARRANTY; without even the implied warranty of
# MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
# GNU General Public License for more details.
#
# You should have received a copy of the GNU General Public License
# along with this program. If not, see https://www.gnu.org/licenses/gpl-3.0.txt.
# --

use strict;
use warnings;

## nofilter(TidyAll::Plugin::OTRS::Perl::Dumper)

# use ../ as lib location
use File::Basename;
use FindBin qw($RealBin);
use lib dirname($RealBin);

use JSON;
use REST::Client;

# ---
# Variables to be defined

```

```

# This is the HOST for the web service the format is:
# <HTTP_TYPE>:://<OTRS_FQDN>/nph-genericinterface.pl
my $Host = 'http://localhost/otrs/nph-genericinterface.pl';

my $RestClient = REST::Client->new(
    {
        host => $Host,
    }
);

# This is the Controller and Request the format is:
# /Webservice/<WEB_SERVICE_NAME>/<RESOURCE>/<REQUEST_VALUE>
# or
# /WebserviceID/<WEB_SERVICE_ID>/<RESOURCE>/<REQUEST_VALUE>
# This example will retrieve the Ticket with the TicketID = 1 (<REQUEST_VALUE>)
my $ControllerAndRequest = '/Webservice/GenericTicketConnectorREST/Ticket/1';

my $Params = {
    UserLogin    => "some user login",      # to be filled with valid agent login
    Password     => "some user password",   # to be filled with valid agent password
    DynamicFields => 1,                    # optional, if set to 1,
                                                # ticket dynamic fields included in response
    AllArticles  => 1,                    # optional, if set to 1,
                                                # all ticket articles are included in response
                                                # more options to be found in
                                                # /Kernel/GenericInterface/Operation/Ticket/TicketGet.pm's
                                                # Run() subroutine documentation.
};

my @RequestParam;

# As sample web service configuration for TicketGet uses HTTP method GET all other
# parameters needs
# to be sent as URI query parameters

# ----
# For GET method
my $QueryParams = $RestClient->buildQuery( %{ $Params } );

$ControllerAndRequest .= $QueryParams;

# The @RequestParam array on position 0 holds controller and request
@RequestParam = ($ControllerAndRequest);

$RestClient->GET(@RequestParam);
# ----

# # ----
# # For POST method
# my $JSONParams = encode_json $Params;

# # The @RequestParam array on position 0 holds controller and request
# # on position 1 it holds the JSON data string that gets posted
# @RequestParam = (
#     $ControllerAndRequest,
#     $JSONParams
# );

# $RestClient->POST(@RequestParam);
# # ----

# If the host isn't reachable, wrong configured or couldn't serve the requested page:
my $ResponseCode = $RestClient->responseCode();
if ( $ResponseCode ne '200' ) {
    print "Request failed, response code was: $ResponseCode\n";
    exit;
}

# If the request was answered correctly, we receive a JSON string here.
my $ResponseContent = $RestClient->responseContent();

```

```
my $Data = decode_json $ResponseContent;

# Just to print out the returned Data structure:
use Data::Dumper;
print "Response was:\n";
print Dumper($Data);
```

### 11.7.2.4. cURL Examples for REST Requests

Given the above example on a REST configuration for Generic Ticket Connector we have that:

**For Ticket Create:** use POST method on /Ticket path.

**For Ticket Search:** use GET method on /Ticket path.

**For Ticket Update:** use PATCH method on /Ticket/{TicketID} path (where {TicketID} is a template represented by :TicketID in the transport configuration)

**For Ticket Get:** use GET method on /Ticket/{TicketID} path (where {TicketID} is a template represented by :TicketID in the transport configuration)

#### 11.7.2.4.1. Create a New Ticket

cURL Command:

```
shell> curl "http://localhost/otrs/nph-genericinterface.pl/Webservice/
GenericTicketConnectorREST/Ticket?UserLogin=agent&Password=123" -H "Content-Type:
application/json" -d "{\"Ticket\":{\"Title\":\"REST Create Test\", \"Type\": \"Unclassified
\", \"Queue\":\"Raw\", \"State\":\"open\", \"Priority\":\"3 normal\", \"CustomerUser\":
\"customer\"}, \"Article\":{\"Subject\":\"Rest Create Test\", \"Body\":\"This is only a test
\", \"ContentType\":\"text/plain; charset=utf8\"}}" -X POST
```

Response:

```
{
  "ArticleID":5484,
  "TicketNumber":"1001936",
  "TicketID":"1686"
}
```

#### 11.7.2.4.2. Get Ticket Details

cURL Command:

```
curl "http://localhost/otrs/nph-genericinterface.pl/Webservice/GenericTicketConnectorREST/
Ticket/1686?UserLogin=agent&Password=123"
```

Response:

```
{
  "Ticket": [
    {
```

```
"Age": 777,  
"PriorityID": 3,  
"ServiceID": "",  
"Type": "Unclassified",  
"Responsible": "root@localhost",  
"StateID": 4,  
"ResponsibleID": 1,  
"ChangeBy": 2,  
"EscalationTime": 0,  
"Changed": "2014-06-30 19:08:14",  
"OwnerID": 2,  
"RealTillTimeNotUsed": 0,  
"GroupID": 1,  
"Owner": "agent",  
"CustomerID": "OTRS",  
"TypeID": 1,  
"Created": "2014-06-30 19:08:12",  
"Priority": "3 normal",  
"UntilTime": 0,  
"EscalationUpdateTime": 0,  
"QueueID": 2,  
"Queue": "Raw",  
"State": "open",  
"Title": "REST Create Test",  
"CreateBy": 2,  
"TicketID": 1686,  
"StateType": "open",  
"EscalationResponseTime": 0,  
"UnlockTimeout": 0,  
"EscalationSolutionTime": 0,  
"LockID": 1,  
"TicketNumber": "1001936",  
"ArchiveFlag": "n",  
"Lock": "unlock",  
"CreateTimeUnix": 1404173292,  
"SLAID": "",  
"CustomerUserID": "customer"  
}  
]  
}
```

#### 11.7.2.4.3. Update Ticket

cURL Command:

```
curl "http://localhost/otrs/nph-genericinterface.pl/Webservice/GenericTicketConnectorREST/Ticket/1686?UserLogin=agent&Password=123" -H "Content-Type: application/json" -d '{"Ticket\n":{"Queues\n":{"Postmaster\n}}}' -X PATCH
```

Response:

```
{  
  "TicketNumber": "1001936",  
  "TicketID": "1686"  
}
```

#### 11.7.2.4.4. Search for Tickets

cURL Command:

```
curl "http://localhost/otrs/nph-genericinterface.pl/Webservice/GenericTicketConnectorREST/Ticket?UserLogin=agent&Password=123&Queue=Postmaster"
```

Response:

```
{
  "TicketID": [
    "1686",
    "102",
    "100",
    "1"
  ]
}
```

## 12. The OTRS Daemon

The OTRS Daemon is an independent set of system processes that plan and execute tasks in background, either on a recurrent basis or triggered by events. OTRS Daemon is fundamental for the correct system operation.

In previous versions of OTRS (from 3.1 to 4) there was another process called OTRS Scheduler that does part of the work that the OTRS Daemon do in OTRS 5. This old process is replaced by the OTRS Daemon which was re-written from the ground to make it more stable, scalable and robust than its predecessor.

The OTRS Daemon is capable to handle up to 10 tasks at the same time and it can work cooperatively with other OTRS Daemons on different frontend servers in a cluster environment.

When idle OTRS Daemon consist in five processes:

- The main daemon (`bin/otrs.Daemon.pl`)

This process is in charge to start and keep running the other children daemons.

- Task worker daemon (`Kernel/System/Daemon/DaemonModules/SchedulerTaskWorker.pm`)

This daemon executes all tasks that have in a list, in a first in first out basis. It can handle simultaneous tasks by creating its own children processes and it checks the task list several times per second. The task list can be filled by task manager daemons, event handlers, and other parts of the system.

Its main mission is to handle all the tasks in the list as soon as possible.

- Future task manager daemon (`Kernel/System/Daemon/DaemonModules/Scheduler-FutureTaskManager.pm`)

This daemon checks for non recurring tasks that are set to be executed in the future (e.g. when a Generic Interface invoker tries to reach a server and it can't, a task could be set to schedule for execution in the next 5 minutes). At the correct time it sends it the task worker daemon.

- Cron task manager daemon (`Kernel/System/Daemon/DaemonModules/Scheduler-CronTaskManager.pm`)

This daemon calculates when is the next execution time of all recurring tasks (e.g. a cache cleanup one time per week ). This kind of tasks are specified in the SysConfig. At the right time for each task it sends the required information to the task worker daemon to execute them.

## Note

If a task execution time definition is changed in SysConfig, it might take up to an hour for the daemon to pick up the change automatically. Alternatively the OTRS Daemon can be restarted to apply the change immediately.

- Generic Agent task manager daemon (Kernel/System/Daemon/DaemonModules/SchedulerGenericAgentTaskManager.pm)

This daemon scans for Generic Agent jobs stored in the database that have a time schedule (discarding all other Generic Agent jobs that are set to executed by events). When is time to run a Generic Agent job it sends the task information to the task worker daemon to handle the task.

## Note

The number of active processes depends on the number of tasks that the OTRS Daemon is executing simultaneously in a time frame.

By default the each daemon logs all error messages on a separated file located in /opt/otrs/var/log/Daemon/\*.log. These logs are kept in the system for a defined period. To change this behavior and/or to also log the non error messages, please update SysConfig settings in Daemon -> Core: :Log.

When a task could not be executed successfully for any reason, an email is sent to a predefined recipient reporting the issue. The content of the email includes the error messages and trace (if available).

The OTRS Daemon is an automated process that normally does not require human interaction. However it is possible to query its status and start or stop it if needed.

To be sure that the OTRS Daemon is running there is a Cron job that constantly checks that the process is alive. The main daemon is prepared to work even without a database connection, so is perfectly safe if the Cron task to start it is executed even before the database process in the system startup, and it is also tolerant to database disconnections.

If for any reason the OTRS Daemon needs to be stop (for example during a system maintenance), all unhandled tasks are saved, and as soon as the process is started again it continues with all pending tasks. For recurring tasks it will only execute the last instance of the task (if its due time was during the downtime).

## 12.1. OTRS Daemon Graphical Interface

The OTRS Daemon is not visible in the OTRS Graphical User Interface unless it stops running.

When the system detects that the OTRS Daemon is not running, a notification is presented to a defined group of users ("admin" by default).

To disable the notification (not recommended), change or add the notification groups, please edit the Frontend: :NotifyModule###800-Daemon-Check setting in the SysConfig.

### Figure 4.114. Daemon notification



Clicking the notification the system presents an overlay window explaining the steps to bring the OTRS Daemon up and running.

## Figure 4.115. Start Daemon

Information about the OTRS Daemon x

The OTRS Daemon is a daemon process that performs asynchronous tasks, e.g. ticket escalation triggering, email sending, etc.

**A running OTRS Daemon is mandatory for correct system operation.**

Starting the OTRS Daemon

- Make sure that the file '/opt/otrs/var/cron/otrs\_daemon' exists (without .dist extension). This cron job will check every 5 minutes if the OTRS Daemon is running and start it if needed.
- Execute '/opt/otrs/bin/Cron.sh start' to make sure the cron jobs of the 'otrs' user are active.
- After 5 minutes, check that the OTRS Daemon is running in the system ('bin/otrs.Daemon.pl status').

## 12.2. OTRS Daemon Command Line Interface

The OTRS Daemon command line tools let you control the main daemon process (Start / Stop) or query its status. There are also tools to get more detailed information about the other four children daemons.

### 12.2.1. Main Daemon Tools

To start, stop or query daemon status `bin/otrs.Daemon.pl` script is used.

#### Example 4.30. Example to start the OTRS Daemon

```
shell> cd /opt/otrs/
shell> OTRS_HOME/bin/otrs.Daemon.pl start
```

#### Machaguo Yaliyopo

- **start** - to start the OTRS Daemon process.
- **stop** - to stop the OTRS Daemon process.
- **status** - to query the OTRS Damon process status.
- **start --debug** - to start the OTRS Daemon process in debug mode.

In this mode each daemon reports different messages depending on the actions that are been executed. This mode is not recommended for production environments.

- **stop --force** - to stop the OTRS Daemon process in reducing the wait for children processes to finish.

A forced stop reduces the amount of time the main daemon waits to successful stop the other children processes from 30 seconds (normal) to 5 seconds (forced).

### 12.2.2. Other Daemon Tools

To list all configured child daemons that the main daemon should start and keep running use the console command: `Maint::Daemon::List`.

#### Example 4.31. Example to list all configured daemons

```
shell> cd /opt/otrs/
shell> bin/otrs.Console.pl Maint::Daemon::List
```

To list detailed information of all daemons use the console command: `Maint::Daemon::Summary`.

### **Example 4.32. Example to a summary of all daemon tasks**

```
shell> cd /opt/otrs/  
shell> bin/otrs.Console.pl Maint::Daemon::Summary
```





# Chapter 5. Customization

## 1. Orodha Dhibiti Sikivu

### 1.1. Utangulizi

From OTRS 2.0 on, Access Control Lists (ACLs) can be used to control access to tickets, modules, queues, etc., or to influence actions on tickets (closing, moving, etc.) in certain situations. ACLs can be used to supplement the existing permission system of roles and groups. Using ACLs, rudimentary work-flows within the system can be mapped, based on ticket attributes.

In a general way ACLs are used to reduce the possible options for a ticket based on a defined set of rules.

ACLs can be directly entered into the Kernel/Config.pm file. However this is not any more recommended as OTRS comes now with a GUI Access Control Lists in the Admin panel that allows to save the ACLs in the Database as the first step and then deploy them into a file when they are ready.

This chapter has some ACL examples which will walk you through the process of defining ACL definitions, and a reference of all possible important ACL settings.

#### **Warning**

The default user 'root@localhost' is not affected by the Ticket ACLs

### 1.2. Ufafanuzi

The ACL definition can be split into two big parts, 'Matching' and 'Change'. In the matching sections the ACLs contains attributes that has to be met in order to use the ACL. If the attributes defined in the ACL does not match with the attributes that are sent, then the ACL does not take any affect, but any other match ACL will. The change sections contains the rules to reduce the possible options for a ticket.

#### Matching Sections

- tabia

This section contains matching options that can be changed on the fly. For example on a ticket creation time the data of the ticket changes dynamically as the agent sets the information. If an ACL is set to match a ticket attribute then only when the matching attribute is selected the ACL will be active and might reduce other ticket attributes, but as soon as another value is selected the ACL will not take any affect.

- PropertiesDatabase

This section is similar to 'Properties' but does not take changes in ticket attributes that are not saved into the DataBase, this means that changing an attribute without submit will not make any effect. This section is not use for ticket creation screens (as tickets are not yet created in the Database).

#### Change Sections

- Possible

Possible section resets the data to be reduced to only the elements that are set in this section.

- PossibleAdd

Elements in PossibleAdd section add missing elements that were reduced in other ACLs. PossibleAdd is only used in together with other ACLs that have Possible or PossibleNot sections.

- PossibleNot

This section is used to remove specific elements from the current data. It could be used stand alone or together with other ACLs with a Possible or PossibleAdd sections.

In order to make the development of ACLs easier and more powerful there is a set of so called modifiers for the attributes on each section. This modifiers are explained below:

#### Modifiers

- [Not]

This modifier is used to negate a value for example: '[Not]2 low' in this case talking about ticket priorities will be the same as to have: '1 very low', '3 normal', '4 high', '5 very high'.

- [RegExp]

It is use to define a regular expression for matching several values, for example '[RegExp]low' talking about priorities is the same as '1 very low', '2 low'.

- [regex]

It is very similar to [RegExp] but it is case insensitive.

- [NotRegExp]

Negated regular expressions for example '[NotRegExp]low' talking about priorities is the same as '3 normal', '4 high', '5 very high'.

- [Notregex]

It is very similar to [NotRegExp] but it is case insensitive.

## 1.3. Mifano

The following examples are shown in both ways graphical and text based.

### **Example 5.1. ACL inayoruhusu uingizwaji kwenye foleni wa tiketi zenye kipaumbele cha tiketi 5.**

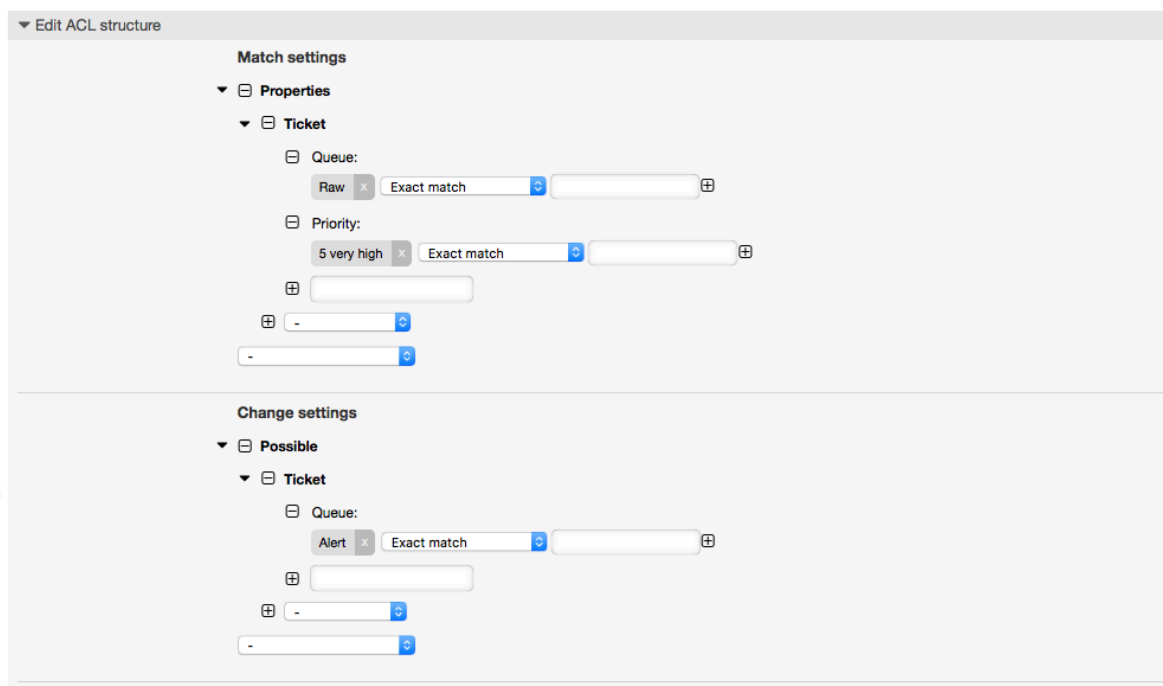
This example shows you the basic structure of an ACL. First, it needs to have a name. In this case, it is "100-Example-ACL". Note that the ACLs will be numerically sorted before execution, so you should use the names carefully.

Secondly, you have a "Properties" section which is a filter for your tickets. All the criteria defined here will be applied to a ticket to determine if the ACL must be applied or not. In our example, a ticket will match if it is in the queue "Raw" and has priority "5 very high". This is also affected by changes in the form (e.g. if the ticket is the queue "Raw" and had

a priority "3 normal" at this moment the ACL will not match, but then priority drop-down is selected and the priority is changed now to "5 very high" then will also match).

Mwisho, kifungu "Inawezekana" inafafanua mabadiliko ya skrini. Katika kesi hii, kutoka kwenye foleni zinazopatikana, foleni "Tahadhari" tu inaweza kuchaguliwa katika skrini ya tiketi.

**Figure 5.1. ACL 100-Example-ACL**



```
# ticket acl
$self->{TicketAcl}->{'100-Example-ACL'} = {
  # match properties
  Properties => {
    # current ticket match properties
    Ticket => {
      Queue => ['Raw'],
      Priority => ['5 very high'],
    }
  },
  # return possible options (white list)
  Possible => {
    # possible ticket options (white list)
    Ticket => {
      Queue => ['Alert'],
    },
  },
};
```

**Example 5.2. ACL inaruhusu uingiaji kwenye foleni kwa zile tiketi zenye kipaumbele cha tiketi 5 na zimehifadhiwa kwenye hifadhidata.**

Huu mfano ni sawa na uliopita, lakini katika kesi hii tiketi za kwenye foleni "Mbichi" na zenye kipaumbele "5 cha juu sana", zote zikiwa kwenye hifadhidata zitafanana. Hii aina ya ACL haiweki maanani mabadiliko katika muundo kabla tiketi haijasasishwa kwenye hifadhidata.

**Figure 5.2. ACL 102-Example-ACL**

▼ Edit ACL structure

**Match settings**

- ▼ PropertiesDatabase
  - ▼ Ticket
    - Queue:
      - Raw x Exact match
    - Priority:
      - 5 very high x Exact match

**Change settings**

- ▼ Possible
  - ▼ Ticket
    - Queue:
      - Alert x Exact match

```
# ticket acl
$self->{TicketAcl}->{'102-Example-ACL'} = {
  # match properties
  PropertiesDatabase => {
    # current ticket match properties
    Ticket => {
      Queue => ['Raw'],
      Priority => ['5 very high'],
    }
  },
  # return possible options (white list)
  Possible => {
    # possible ticket options (white list)
    Ticket => {
      Queue => ['Alert'],
    },
  },
};
```

### Example 5.3. ACL ikilemaza ufungaji wa tiketi katika foleni mbichi, na kuficha kitufe cha kufunga.

Hapa unaweza kuona jinsi sehemu ya tiketi (hali) inavyoweza kuchujwa na zaidi ya thamani moja ya kuchagua. Pia inawezekana kuweka kikomo cha vitendo vinavyoweza kutekelezeka kutoka kwenye tiketi. Katika kesi hii tiketi haiwezi kufungwa.

**Figure 5.3. ACL 102-Second-Example-ACL**

▼ Edit ACL structure

**Match settings**

- ▼ Properties
  - ▼ Ticket
    - Queue:
      - Raw  Exact match
      - 
      - 
      -

---

**Change settings**

- ▼ Possible
  - ▼ Ticket
    - State:
      - new  open  pending reminder  Exact match
      - 
      -
  - ▼ PossibleNot
    - ▼ Action
      - AgentTicketClose  Exact match
      - 
      -

```

$Self->{TicketAcl}->{'102-Second-Example-ACL'} = {
  # match properties
  Properties => {
    # current ticket match properties
    Ticket => {
      Queue => ['Raw'],
    }
  },
  # return possible options (white list)
  Possible => {
    # possible ticket options (white list)
    Ticket => {
      State => ['new', 'open', 'pending reminder'],
    },
  },
  # return also not possible options (black list)
  PossibleNot => {
    # not possible action options
    Action => [ 'AgentTicketClose' ],
  },
};

```

**Example 5.4. Uondoaji wa ACL una hali imefungwa kikamilifu mara zote.**

Huu mfano unaonyesha jinsi inavyowezekana kufafanua vichujio hasi (hali "imefungwa kwa mafanikio" itaondolewa). Pia unaweza kuona kutofafanua sifa za kufanana za tiketi itafananisha tiketi yoyote, ikimaanisha ACL itatumika mara zote. Hii itakuwa na manufaa kama utataka kuficha baadhi ya thamani kwa chaguo-msingi, na kuziwezesha katika hali maalumu (mf. kama wakala yupo kwenye kundi maalumu).

**Figure 5.4. ACL 103-Third-ACL-Example**

▼ Edit ACL structure

Match settings

Change settings

- ▼ PossibleNot
  - ▼ Ticket
    - State:
      - closed successful x Exact match
      - 
      - 
      -

```
$Self->{TicketAcl}->{'103-Third-ACL-Example'} = {
  # match properties
  Properties => {
    # current ticket match properties (match always)
  },
  # return possible options
  PossibleNot => {
    # possible ticket options
    Ticket => {
      State => ['closed successful'],
    },
  },
};
```

**Example 5.5. ACL inaonyesha huduma za Vifaa kwa ajili ya tiketi ambazo zinatengenezwa kwenye foleni zinazoanza na "HW"**

Huu mfano unaonyesha jinsi unavyoweza kutumia semi za kawaida kufananisha tiketi na kuchuja machaguo yaliyopo.

**Figure 5.5. ACL 104-Only-Hardware-Services-for-HW-Queues-ACL**

▼ Edit ACL Structure

Match settings

- ▼ Properties
  - ▼ Ticket
    - Queue:
      - [RegExp]HW x Regular expression
      - 
      -

Change settings

- ▼ Possible
  - ▼ Ticket
    - Service:
      - [RegExp]^Hardware x Regular expression
      - 
      -

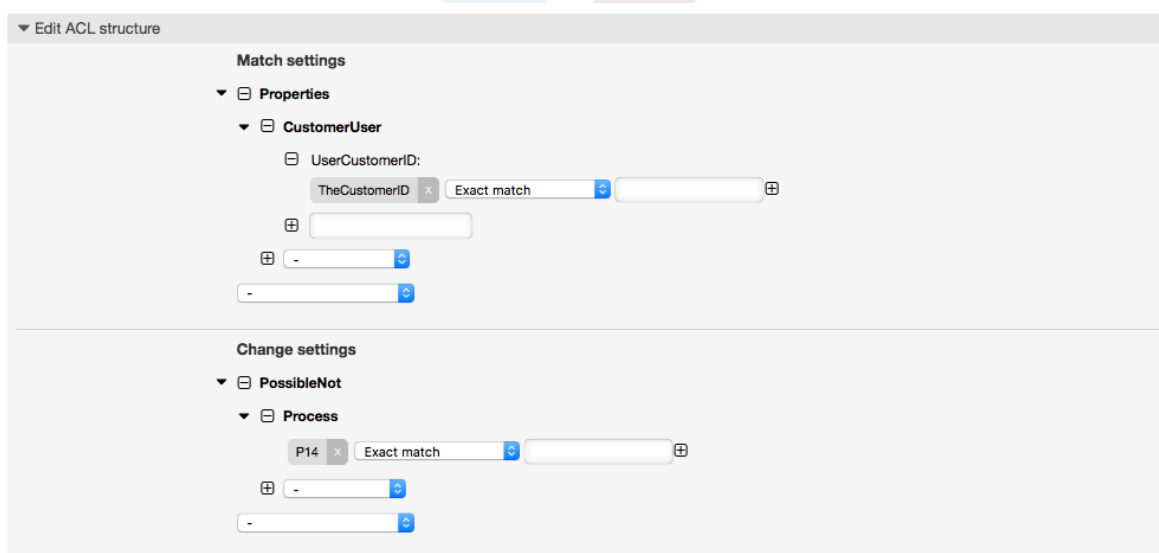
```

$Self->{TicketAcl}->{'104-Only-Hardware-Services-for-HW-Queues-ACL'} = {
  # match properties
  # note we don't have "Ticket => {" because there's no ticket yet
  Properties => {
    Queue => {
      Name => ['[RegExp]HW'],
    }
  },
  # return possible options
  Possible => {
    # possible ticket options
    Ticket => {
      Service => ['[RegExp]^(Hardware)'],
    },
  },
};

```

**Example 5.6. ACL to restrict a Process in the customer frontend using the CustomerID.**

**Figure 5.6. ACL 105-Disallow-Process-For-CustomerID**



The screenshot shows the 'Edit ACL structure' interface. It is divided into two main sections: 'Match settings' and 'Change settings'.  
 Under 'Match settings', there is a 'Properties' section with a 'CustomerUser' sub-section. It contains a 'UserCustomerID' field with a dropdown menu set to 'Exact match' and a text input field containing 'TheCustomerID'. Below this are two empty dropdown menus.  
 Under 'Change settings', there is a 'PossibleNot' section with a 'Process' sub-section. It contains a 'P14' field with a dropdown menu set to 'Exact match' and a text input field. Below this are two empty dropdown menus.

```

$Self->{TicketAcl}->{"105-Disallow-Process-For-CustomerID"} = {
  'Possible' => {},
  'PossibleNot' => {
    'Process' => [
      'P14'
    ]
  },
  'Properties' => {
    'CustomerUser' => {
      'UserCustomerID' => [
        'CustomerID'
      ]
    }
  },
  'PropertiesDatabase' => {},
  'StopAfterMatch' => 0
};

```

## 1.4. Marejeo

Kwenye mfano chini kuna orodha ya parameta zote ambazo zinaweza kutumika na ACLs.

Please see the section on ACLs in the ProcessManagement documentation for a detailed description of how to use ACLs for process tickets.

### Example 5.7. Rejea inayoonyesha mipangilio yote muhimu ya ACLs.

```
# ticket acl
$self->{TicketAcl}->{'200-ACL-Reference'} = {
  # match properties (current values from the form)
  Properties => {

    # the used frontend module
    Frontend => {
      Action => ['AgentTicketPhone', 'AgentTicketEmail'],
    },

    # the logged in agent
    User => {
      UserLogin => ['some login'],
      Group_rw => [
        'hotline',
      ],
      Role => [
        'admin',
      ],
      # ...
    },

    # the logged in customer
    CustomerUser => {
      UserLogin => ['some login'],
      UserCustomerID => ['some customer id'],
      Group_rw => [
        'hotline',
      ],
      # ...
    },

    # process properties
    Process => {
      ProcessEntityID => ['Process-9c378d7cc59f0fce4cee7bb9995ee3eb'],
      # the Process that the current ticket is part of
      ActivityEntityID => ['Activity-f8b2fdebe54eeb7b147a5f8e1da5e35c'],
      # the current Activity of the ticket
      ActivityDialogEntityID => ['ActivityDialog-aff0ae05fe6803f38de8fff6cf33b7ce'],
      # the current ActivityDialog that the Agent/Customer is using
    },

    # ticket properties
    Queue => {
      Name => ['Raw'],
      QueueID => ['some id'],
      GroupID => ['some id'],
      Email => ['some email'],
      RealName => ['OTRS System'],
      # ...
    },
    Service => {
      ServiceID => ['some id'],
      Name => ['some name'],
      ParentID => ['some id'],
      # ...
    },
    Type => {
      ID => ['some id'],
      Name => ['some name'],
      # ...
    },
    Priority = {
      ID => ['some id'],
```



```

    Name => ['some name'],
    # ...
  },
  SLA = {
    SLAID    => ['some id'],
    Name     => ['some name'],
    Calendar => ['some calendar'],
    # ...
  },
  State = {
    ID       => ['some id'],
    Name     => ['some name'],
    TypeName => ['some state type name'],,
   TypeID   => ['some state type id'],
    # ...
  },
  Owner => {
    UserLogin => ['some login'],
    Group_rw => [
      'some group',
    ],
    Role => [
      'admin',
    ],
    # ...
  },
  Responsible => {
    UserLogin => ['some login'],
    Group_rw => [
      'some group',
    ],
    Role => [
      'admin',
    ],
    # ...
  },
  DynamicField => {
    # Names must be in DynamicField_<field_name> format.
    # Values in [ ... ] must always be the untranslated internal data keys
    #   specified in the dynamic field definition and
    #   not the data values shown to the user.
    DynamicField_Field1    => ['some value'],
    DynamicField_OtherField => ['some value'],
    DynamicField_TicketFreeText2 => ['some value'],
    # ...
  },
  # alternatively, ticket properties can be specified in the ticket hash
  Ticket => {
    Queue           => ['Raw'],
    State           => ['new', 'open'],
    Priority         => ['some priority'],
    Lock            => ['lock'],
    CustomerID      => ['some id'],
    CustomerUserID  => ['some id'],
    Owner           => ['some owner'],
    DynamicField_Field1 => ['some value'],
    DynamicField_MyField => ['some value'],
    # ...
  },
},

# match properties (existing values from the database)
PropertiesDatabase => {
  # See section "Properties", the same config can be used here.
  # ...
}

# reset possible options (white list)
Possible => {
  # possible ticket options (white list)
  Ticket => {
    Queue => ['Hotline', 'Coordination'],

```

```

    State => ['some state'],
    Priority => ['5 very high'],
    DynamicField_Field1 => ['some value'],
    DynamicField_MyField => ['some value'],
    # ...
    NewOwner => ['some owner'],
    OldOwner => ['some owner'],
    # ...
  },

  # Limit the number of possible ActivityDialogs the Agent/Customer
  # can use in a process ticket.
  ActivityDialog => ['AD1', 'AD3'],

  # Limit the number of possible Processes that can be started
  Process => ['Process-9c378d7cc59f0fce4cee7bb9995ee3eb',
'Process-12345678901234567890123456789012'],

  # possible action options (white list)
  Action => [
    'AgentTicketBounce',
    'AgentTicketPhone'.      # only used to show/hide the Split action
    'AgentLinkObject',      # only used to show/hide the Link action
    # ...
  ],
},
# add options (white list)
PossibleAdd => {
  # See section "Possible"
  # ...
},
# remove options (black list)
PossibleNot => {
  # See section "Possible"
  # ...
},
};

```

## Note

Wakati wa kufananisha ACL ikiwa parameta ya KitambulishoChaMtejaMtumiaji imetumwa, utaratibu wa ACL utafanananisha ACL zilizofafanuliwa kwa kutumia KitambulishoChaMtumiajiMteja kukusanya undani wa MtejaMtumiaji ili kujaza hash ya MtejaMtumiaji na pia inabadilisha taarifa za Mteja katika hash ya Tiketikwa ajili ya sifa kufanana. Kwa upande mwingine haya mahesabu pia yanafanywa kwa ajili ya upande wa SifaZaHifadhidata, lakini kwa kutumia Mteja wa Tiketi kama msingi wa kukusanya data.

Tambua kwamba katika Kiolesura cha Mteja, Kitambulisho cha MtejaMtumiaji kinatumwa mara zote na Mtumiaji Mteja aliye kwenye mfumo.

Be aware that in ticket search screens (AgentTicketSearch and CustomerTicketSearch) the only affected attributes by ACLs are the Dynamic Fields. This means that this screens you can not restrict any other attribute like ticket type, state, queue, etc.

From OTRS 4 the 'Action' parameter is not longer a hash but an array reference and it can be used in any of the Change sections using any of the Modifiers.

## 2. Usimamizi wa mchakato

### 2.1. Utangulizi

Hiki kipengele cha OTRS kinakuruhusu kutengeneza michakato (mitiririko ya kazi) katika mfumo wa tiketi. Wazo la msingi ni kufafanua michakato inayojirudia, na kugawa kazi kwa

watu tofauti, na pia kuongoza maendeleo ya mchakato katika njia tofauti kutegemeana na vigezo fulani.

## 2.2. Mchakato wa mfano

Tuone mfano ili kuona zaidi inavyofanyika. Tutafafanua mchakato wa kuoda kitabu:

### 2.2.1. Ku rekodi mahitaji

Kabla oda haijawekwa, maombi ya fasihi ya mwajiriwa yatarekodiwa. Kitabu kifuatacho kitahitajika katika mfano wetu:

Title: Prozessmanagement für Dummies  
Autor: Thilo Knuppertz  
ISBN: 3527703713

### 2.2.2. Imehakikiwa na meneja

Kiongozi wa idara ya wafanya kazi inabidi aamue kwenye oda. Kama imekataliwa, sababu lazima irekodiwe na meneja. Kama imekubaliwa, oda inapitishwa kwenda kwa idara ya manunuzi.

### 2.2.3. Idara chakatishi ya manunuzi

Manunuzi sasa yana kazi ya kujua wapi oda ya kitabu itafanywa penye masharti mazuri. Kama vimeisha, inaweza kurekodiwa kwenye oda. Kama oda imefanikiwa manunuzi atarekodi msambazaji, bei na tarehe ya kuwasilisha.

### 2.2.4. Chumba chakatishi cha barua pepe

Vilivyosafirishwa vitawasili kwenye kampuni. Idara ya mali zinazolingia itakagua vilivyosafirishwa na kurekodi siku ya kupokea. Sasa wafanyakazi watapewa taarifa kwamba oda yao imewasili na iko tayari kuchukuiwa.

## 2.3. Kutekeleza mfano

Kama tukiamini kwamba tiketi inatenda kama waraka unao andamana nao katika huu mtiririko wa kazi ambao unaweza kupokea notisi za mabadiliko, sasa tuna picha kamili ya tiketi za mchakati.

Kutoka kwenye uchambuzi wa mchakato wa mfano tunaweza kubainisha vifaa muhimu vifuatavyo:

- Uwezekano wa kurekodi data, tuziite *Maongezi ya Shughuli*,
- Inaangalia ipi itabadilika kiotomatiki na data zilizobadilishwa, tuziite *Mapito*,
- mabadiliko yanayoweza kufanyika kwenye tiketi ya mchakato baada ya kufanikiwa kwa mapito ya tiketi ya mchakato, tuyaite *Vitendo vya Mpito*.

Pia tunahitaji vifaa vya ziada ambavyo si dhahiri:

- Uwezekano wa upatikanaji wa Maongezi ya Shughuli zaidi ya aina moja. Katika mfano wetu hii inahitajika pale msimamizi inabidi apate machaguo kati ya "Kubali" na "Kataa". Hii tuiite *Shughuli*.

Sasa, tukiwa na Shughuli, Maongezi ya Shughuli, Mapito na Vitendo vya Mpito tuna vifaa vinavyohitajika ili kutengeneza moduli ya hatua binafsi za mfano wetu. Kinachobakia ni eneo ambalo kila mtiririko wa kazi mpangilio wa ngazi unaweza kuwekwa bayana. Hii tuiite *Mchakato*. Ili tuweze kurejea kwenye hivi vyombo baadae, tutazipa vifupisho katika mabano. Huu ufupisho unategemeana na utaratibu wa ndani wa utambulisho uitwao Kitambulisho cha Chombo.

Vitambulisho vya Chombo vinafanana na vina herufi moja au mbili (kutegemeana na mchakato au chombo) na baada ya hapo mfululizo wa namba, mifano:

- Mchakato: 'P1', 'P2' ... 'Pn'.
- Shughuli: 'A1', 'A2' ... 'An'.
- Maongezi ya Shughuli: 'AD1', 'AD2' ... 'ADn'.
- Mpito: 'T1', 'T2' ... 'Tn'.
- Vitendo vya Mpito: 'TA1', 'TA2' ... 'TAn'.

Kabla ya utengenezaji wa mchakato na viji sehemu vyake ni muhimu kuuandaa mfumo, tutahitaji kufafanua baadhi ya Foleni, Watumiaji na Sehemu Zinazobadilika na pia kuseti baadhi ya machaguo ya SysConfig.

Tengeneza foleni zifuatazo:

- Usimamizi
- Wafanyakazi
- Ununuzi
- Ofisi ya posta

Tengeneza watumiaji wafwatao:

- Meneja
- Mfanyakazi

Tengeneza Sehemu Zinazobadilika zifuatazo:

- Mada

Lebo	Mada
Aina	Nakala
Kitu	Tiketi

- Mwandishi

Lebo	Mwandishi
Aina	Nakala
Kitu	Tiketi

- ISBN

Lebo	ISBN
Aina	Nakala

Kitu	Tiketi
------	--------

- Hali

Lebo	Hali
Aina	Kunjuzi
Kitu	Tiketi
Thamani ziwazekana	<ul style="list-style-type: none"> <li>• Kibali</li> <li>• Kibali kimekataliwa</li> <li>• Kubaliwa</li> <li>• Oda imekataliwa</li> <li>• Oda imewekwa</li> <li>• Vilivyosafirishwa vimepokelewa</li> </ul>

Kumbuka: Tafadhali tumia thamani hizi ziwazekana kwa "Ufunguo" na "Thamani" kwenye usanidi wa Sehemu Zinazobadilika.

- Msambazaji

Lebo	Msambazaji
Aina	Nakala
Kitu	Tiketi

- Bei

Lebo	Bei
Aina	Nakala
Kitu	Tiketi

- TareheUwasilishaji

Lebo	Tarehe ya uwasilishaji
Aina	Tarehe
Kitu	Tiketi

- TareheYaKupokea

Lebo	Tarehe Ya Kupokea
Aina	Tarehe
Kitu	Tiketi

Seti mipangilio ifuatayo ya SysConfig:

- 'Tiketi::Kuwajibika':Ndio
- 'Ticket::Frontend::AgentTicketZoom###ProcessWidgetDynamicFieldGroups':

<b>Ufunguo:</b>	<b>Maudhui:</b>
Kitabu	Mada, Mwandishi, ISBN

<b>Ufunguo:</b>	<b>Maudhui:</b>
Ujumla	Hali
Oda	Bei, Msambazaji, TareheUwasilishaji
Usafirishaji	TareheYaKupokea

- 'Ticket::Frontend::AgentTicketZoom###ProcessWidgetDynamicField':

<b>Ufunguo:</b>	<b>Maudhui:</b>
Mwandishi	1
TareheYaKupokea	1
TareheUwasilishaji	1
ISBN	1
Bei	1
Hali	1
Msambazaji	1
Mada	1

Sasa tuanze na mambo ya kweli ya Usimamizi wa Mchakato. Katika hatua inayofwata, tutafafanua vyombo vyenyewe tunavyohitaji.

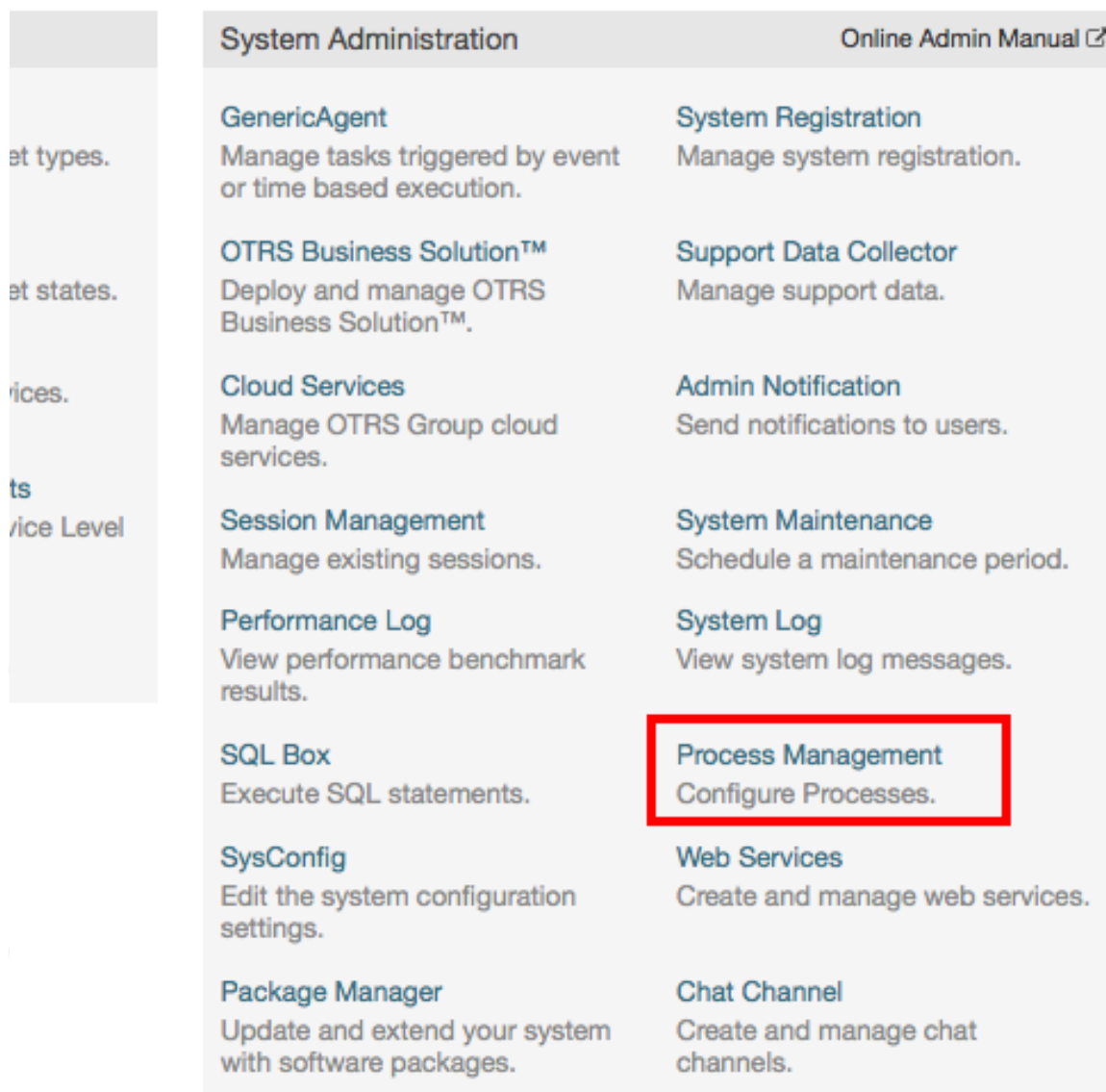
### 2.3.1. Mchakato (kama chombo)

Kutengeneza mchakato mpya ni muhimu kubofya kwenye kiungo cha "Usimamizi wa Mchakato" katika boksi la Usimamizi wa Mfumo katika paneli ya Msimamizi, hii itakupeleka kwenye skrini ya Mapitio ya Usimamizi wa Mchakato. Baada ya utengenezaji wa mchakato tunaweza kutengeneza vyombo vingine vyote (au sehemu za mchakato).

#### **Note**

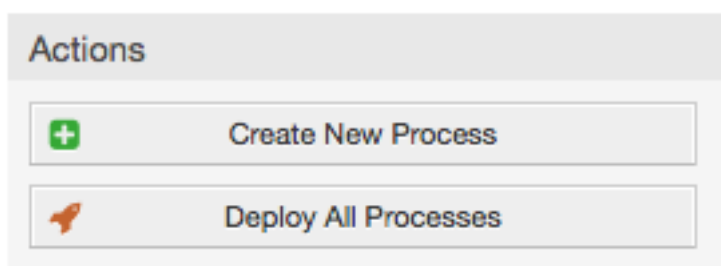
Shughuli, Maongezi ya Shughuli, Mapito na Vitendo vya Mpito vilivyofafanuliwa kwenye mchakato mmoja vitapatikana kwa kila mchakato ya mfumo.

**Figure 5.7. OTRS Admin screen - System Administration**



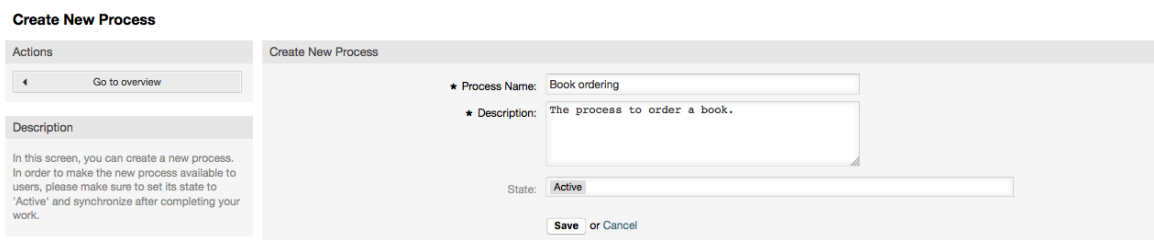
Bonyeza kitendo cha "Tengeneza mchakato mpya" kutoka kwenye boksi la vitendo.

**Figure 5.8. Kitufe cha kutengeneza mchakato mpya**



Jaza taarifa za mchakato, seti Jina la Mchakato na Undani wake, tutaacha Hali ya mchakato kuwa iliyo "Lemazwa", mpaka tumalize kazi zote. Hifadhi mchakato.

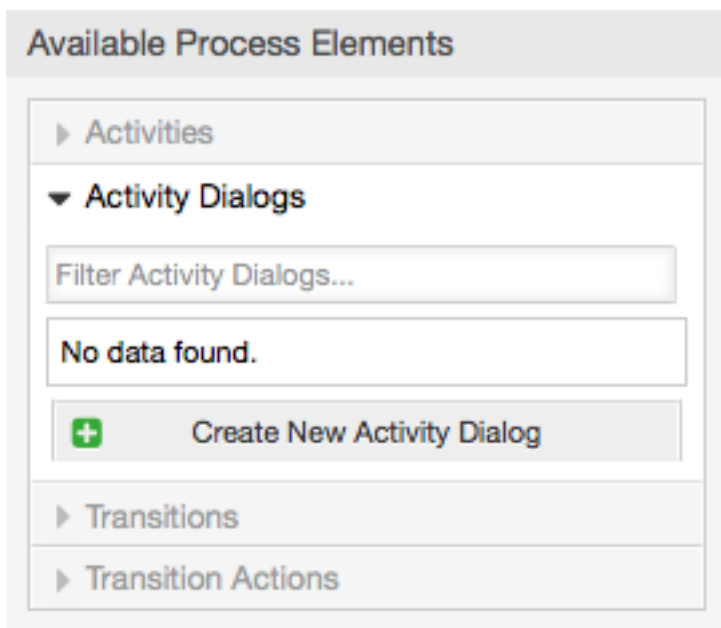
**Figure 5.9. Ongeza mchakato mpya**



## 2.3.2. Maongezi ya Shughuli

Click on the new process name in the Process Management Overview Screen, then in the "Available Process Elements" click in "Activity Dialogs" (this action will expand the activity dialog options and will collapse all others doing an accordion like effect), then click on "Create New Activity Dialog".

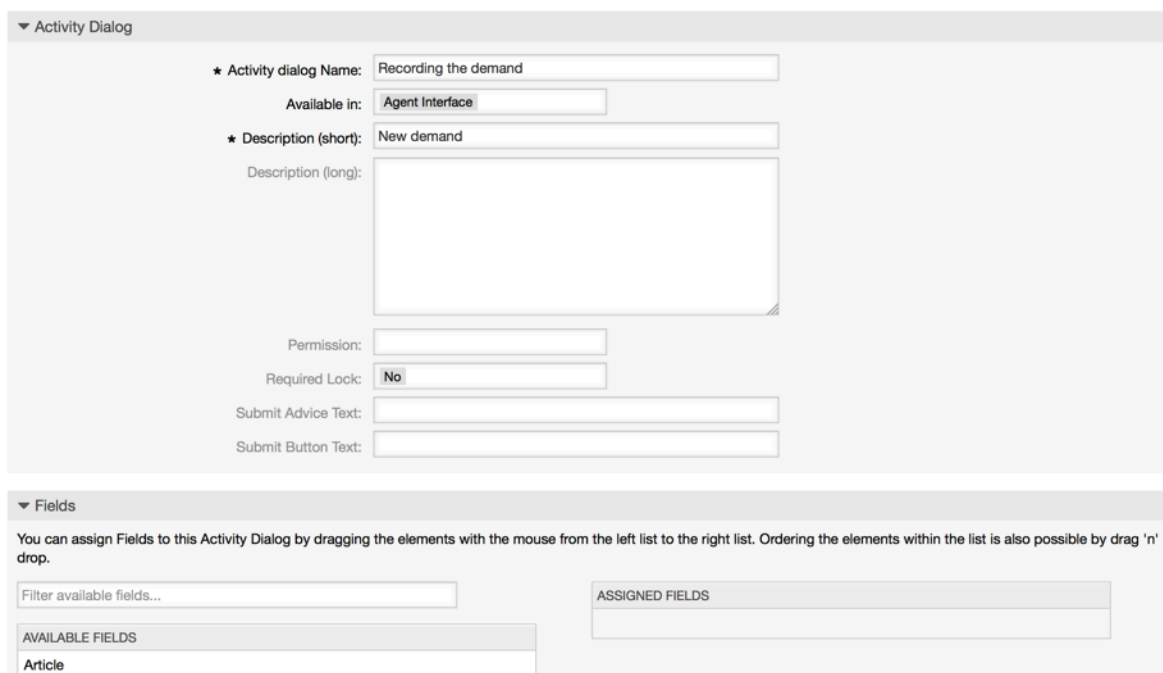
**Figure 5.10. Tengeneza Kitufe cha Maongezi ya Shughuli kipya**



In the opened popup screen fill the "Activity dialog Name" as well as the "Description (short)" fields, for this example we will leave all other fields as the default, to assign fields to the Activity Dialog simple drag the required field from the "Available Fields" pool and drop into the "Assigned Fields" pool. The order in the "Assigned Fields" pool is the order as the fields will have in the screen, to modify the order simply drag and drop the field within the pool to rearrange it in the correct place.

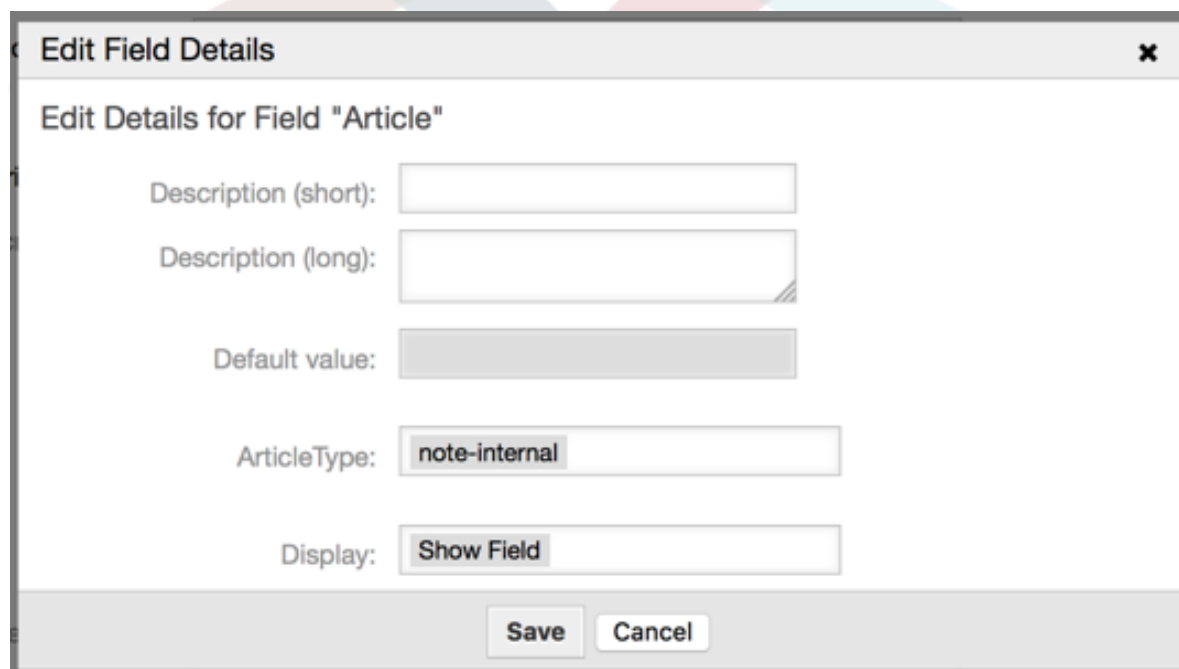


**Figure 5.11. Ongeza Maongezi ya Shughuli mapya**



Baada tu ya sehemu kudondoshwa katika bwawa la "Sehemu Zilizogawiwa" skrini ibukizi nyingine inaonyeshwa yenye undani kuhusu sehemu hiyo, tutaacha machaguo ya kawaida na kwa sehemu za Makala tu ndiyo tuhakikishe kwamba sehemu ya Aina ya Makala imesetiwa kuwa "notisi-ndani".

**Figure 5.12. Hariri undani wa uga (Makala)**



Baada ya sehemu zote kupewa thamani bofya kitufe cha kuwasilisha katika skrini kuu ibukizi kuhifadhi mabadiliko.

Katika mfano huu tutatumia sehemu ya Makala kwa ajili ya maoni, lakini chaguo Ingene linaweza kuwa kutengeneza EneoLaNakala la aina Sehemu Inayobadilika, sehemu zili-

zobaki ambazo zimetajwa katika mistari chini ni Sehemu Zinazobadilika ambazo tumefafanua kabla.

Please be aware that in this screen all the Dynamic Fields has the prefix "DynamicField\_" as in "DynamicField\_Title". Do not confuse with the field "Title" that is the Ticket Title.

Tengeneza Maongezi ya Shughuli yafwatayo:

- "Kurekodi mahitaji" (AD1)

Maongezi ya Shughuli yenye sehemu zote zinazoitajika ili data ikusanywe kwa oda (Kichwa cha habari, Mwandishi na ISBN), na sehemu ya Haliyenye uwezekano wa kuchagua "Kibali".

- "Kibali kimekataliwa" (AD2)

Maongezi ya Shughuli yenye sehemu ya kuweka maoni (Makala) na sehemu ya Hali yenye chaguo "Kibali kimekataliwa".

- "Kubaliwa" (AD3)

Hapa tunahitaji hali ya uga wenye chaguo "Kubaliwa"

- "Oda imekataliwa" (AD4)

Maongezi ya shughuli yanayoweza kununua ili kukataa oda isiyoweza (kulipia mzigo kabla ikiwa hisa zimeisha). Hapa pia tunahitaji sehemu ya maoni na sehemu ya Hali yenye chaguo "Oda imekataliwa"

- "Oda imewekwa" (AD5)

Maongezi ya Shughuli yenye sehemu Msambazaji, Bei na tarehe ya Uwasilishaji kwa manunuzi na sehemu ya Hali yenye chaguo "Oda imewekwa".

- "Vilivyosafirishwa vimepokelewa" (AD6)

Shughuli ya kwenye chumba cha barua yenye sehemu ya Tarehe ya upokeaji na sehemu ya Hali yenye chaguo "Vilivyosafirishwa vimepokelewa".

To restrict the Status field for each activity dialog we need to add some ACLs in the Kernel/Config.pm or to a new Perl file located in Kernel/Config/Files.

```
$Self->{TicketAcl}->{'P1-AD1-1'} = {
  Properties => {
    Process => {
      ActivityDialogEntityID => ['AD1'],
    },
  },
  Possible => {
    Ticket => {
      DynamicField_Status => ['Approval'],
    },
  },
};

$Self->{TicketAcl}->{'P1-AD2-1'} = {
  Properties => {
    Process => {
      ActivityDialogEntityID => ['AD2'],
    },
  },
  Possible => {
    Ticket => {
```

```

        DynamicField_Status => ['Approval denied'],
      },
    },
  };

$self->{TicketAcl}->{'P1-AD3-1'} = {
  Properties => {
    Process => {
      ActivityDialogEntityID => ['AD3'],
    },
  },
  Possible => {
    Ticket => {
      DynamicField_Status => ['Approved'],
    },
  },
};

$self->{TicketAcl}->{'P1-AD4-1'} = {
  Properties => {
    Process => {
      ActivityDialogEntityID => ['AD4'],
    },
  },
  Possible => {
    Ticket => {
      DynamicField_Status => ['Order denied'],
    },
  },
};

$self->{TicketAcl}->{'P1-AD5-1'} = {
  Properties => {
    Process => {
      ActivityDialogEntityID => ['AD5'],
    },
  },
  Possible => {
    Ticket => {
      DynamicField_Status => ['Order placed'],
    },
  },
};

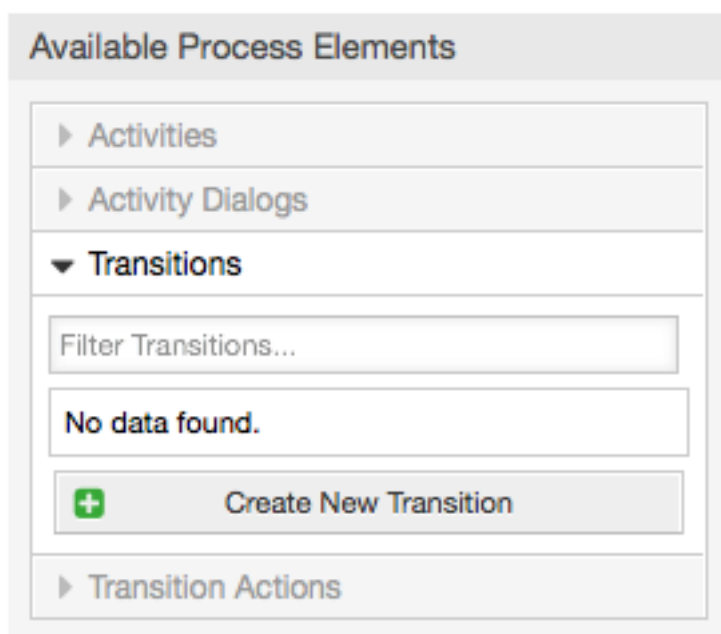
$self->{TicketAcl}->{'P1-AD6-1'} = {
  Properties => {
    Process => {
      ActivityDialogEntityID => ['AD6'],
    },
  },
  Possible => {
    Ticket => {
      DynamicField_Status => ['Shipment received'],
    },
  },
};

```

### 2.3.3. Mapito

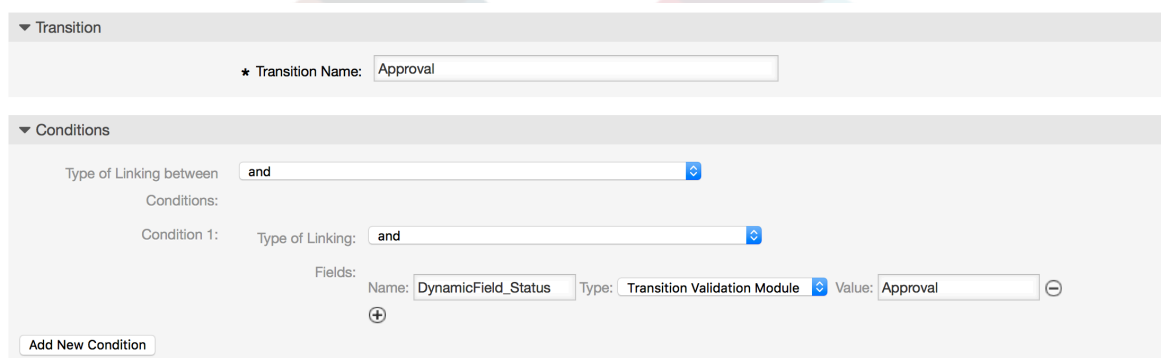
Kwenye "Elementi Zinzapatikana za Mchakato" bofya kwenye "Mapito", kisha bofya "Tengeneza Mpito Mpya"

**Figure 5.13. Tengeneza kitufe kipya cha mpito**



Katika skrini ibukizi iliyofunguliwa jaza "Jina la Mpito", kisha kwenye masharti, kwa mfano huu tumia sharti moja tu na sehemu moja, kwa zote tunaweza kuacha Aina ya muunganiko kama "na" na tutatumia thamani ya aina ya kufanana kama "Tungo".

**Figure 5.14. Ongeza mpito mpya**



Baada ya masharti yote kusetiwa bofya kwenye kitufe cha kuhifadhi kuhifadhi mabadiliko.

Tengeneza Mapito yafuatayo:

- "Kibali" (T1)

Mpito unaokagua kama Sehemu ya Hali imesetiwa kuwa "Kibali".

- "Kibali kimekataliwa" (T2)

Mpito unaokagua kama Sehemu ya Hali imesetiwa kuwa "Kibali kimekataliwa".

- "Kubaliwa" (T3)

Mpito unaokagua kama Sehemu ya Hali imesetiwa kuwa "Kubaliwa".

- "Oda imekataliwa" (T4)

Mpito unaokagua kama sehemu ya Hali imesetiwa kuwa "Oda imekataliwa".

- "Oda imewekwa" (T5)

Mpito unaokagua kama sehemu ya Hali imesetiwa kuwa "Oda imewekwa".

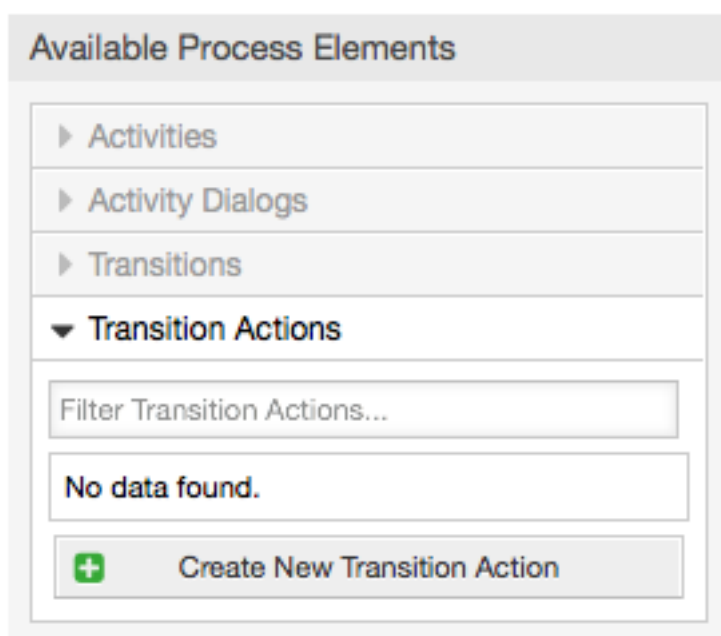
- "Vilivyosafirishwa vimepokelewa" (T6)

Mpito unaokagua kama sehemu ya Hali imesetiwa kuwa "Vilivyosafirishwa vimepokelewa".

### 2.3.4. Vitendo vya mpito

Bofya kwenye "Vitendo vya Mpito" katika "Elementi za Michakato Zilizopo", kisha bofya "Tengeneza Kitendo Kipya cha Mpito".

**Figure 5.15. Tengeneza kitufe kipya cha vitendo vya mpito**



In the opened popup screen fill the "Transition Action Name", and the "Transition Action module" then add the required and optional parameter names and values.

All the Transition Action Modules are located in `Kernel/System/ProcessManagement/TransitionAction` and the following is the list of bundled Transition Actions included in this release:

- SetiSehemuNayobadilika
- TengenezaTiketiMakala
- TengenezaTiketi
- SetiTiketiMteja
- SetiKitasaTiketi
- SetiMwenyeTiketi
- SetiFoleniTiketi

- SetKuwajibikaTiketi
- SetiHudumaTiketi
- SetiSLATiketi
- SetiHaliTiketi
- SetiMadaTiketi
- SetiAinaTiketi

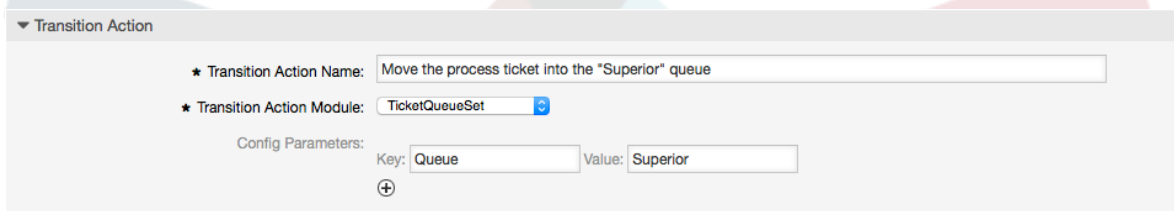
Kila moduli ina parameta zake tofauti. Tafadhali pitia nyaraka za moduli ili kujifunza parameta zote zinazohitajika na za hiari.

## Note

From OTRS 4.0.1, parameters are not longer mandatory fixed values, but instead, they can inherit from the original ticket using format: <OTRS\_Ticket\_property>.

From OTRS 4.0.6, the format <OTRS\_TICKET\_property> is now supported, older format is still usable, but deprecated as it will be dropped in further versions.

## Figure 5.16. Ongeza vitendo vya mpito mpya



▼ Transition Action

★ Transition Action Name:

★ Transition Action Module:

Config Parameters:

Key:  Value:

+

Baada ya parameta na thamani zote kusetiwa bofya kitufe kuwasilisha ili kuhifadhi mabadiliko.

Tengeneza vitendo vya mpito vifwatavyo:

- "Peleka tiketi ya mchakato kwa Foleni ya 'Usimamizi' (TA1)

Hiki kitendo kinatakiwa kutekelezwa wakati Mpito "Kibali" (T1) umetumika.

- "Badilisha tiketi inayowajibika kwa 'manager'" (TA2)

Itatekelezwa pale mpito "Kibali" (T1) umetumika.

- "Move process ticket into the 'Employees' queue" (TA3)

Itatekelezwa wakati:

- Mpito "Kibali kimekataliwa" (T2) umetumika
- Mpito "Oda imekataliwa" (T4) umetumika
- Mpito "Vilivyosafirishwa vimepokelewa" (T6) umetumika

- "Badilisha tiketi inayowajibika kwa 'Mwajiriwa'" (TA4)

Itatekelezwa wakati:

- Mpito "Kibali kimekataliwa" (T2) umetumika

- Mpito "Oda imekataliwa" (T4) umetumika
- Mpito "Vilivyosafirishwa vimepokelewa" (T6) umetumika
- "Peleka tiketi ya mchakato kwa Foleni ya 'Manunuzi'" (TA5)  
Itatekelezwa pale mpito "Imekubaliwa" (T3) umetumika.
- "Peleka tiketi za mchakato kwenye Foleni ya 'Ofisi ya posta'" (TA6)  
Itatekelezwa pale mpito "Oda imewekwa" (T5) umetumika.
- "Kufunga tiketi kumefanikiwa" (TA7)  
Itatekelezwa wakati:
  - Mpito "Vilivyosafirishwa vimepokelewa" (T6) umetumika
- "Kufunga tiketi hakujaifanikiwa" (TA8)  
Itatekelezwa wakati:
  - Mpito "Kibali kimekataliwa" (T2) umetumika
  - Mpito "Oda imekataliwa" (T4) umetumika

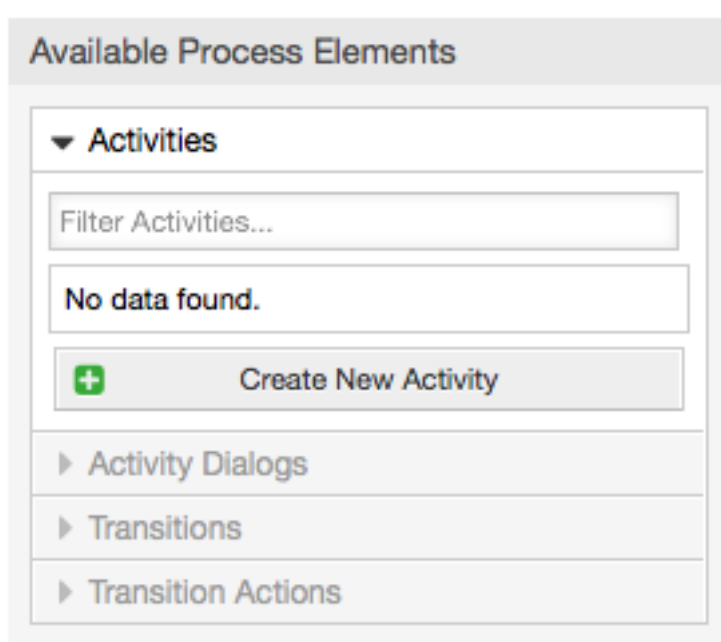
Kama unavyo ona, kuna sehemu ambazo vitendo vya mpito vile vile vitatekelezwa. Hivyo ni busara kuwezesha muunganiko wa Vitendo vya Mpito na Mapito kirahisi ili kuweza kurudia kuvitumia.

### 2.3.5. Shughuli

Tumechagua mbinu ya kuona shughuli kama kikapu ambacho kina Maongezi ya Shughuli.

Bofya "Shughuli" katika "Elementi za Michakato Zilizopo", kisha bofya "Tengeneza Shughuli Mpya".

**Figure 5.17. Tengeneza kitufe kipya cha shughuli**



In the opened popup screen fill the "Activity Name", then drag the required Activity Dialogs from the "Available Activity Dialogs" pool, and drop them into to the "Assigned Activity Dialogs" pool. This dialogs will be presented (in the ticket zoom screen) in the same order as it is defined on this screen translating from top to bottom, from left to right.

This order is specially important in the first Activity, since the first Activity Dialog for this activity is the only one that is presented when the process starts.

Tengeneza Shughuli zifuatazo

- "Kurekodi mahitaji" (A1)  
Ina Maongezi ya Shughuli "Kurekodi mahitaji" (AD1)
- "Kibali" (A2)  
Ina Maongezi ya Shughuli "Kibali kimekataliwa" (AD2) na pia "Imekubaliwa" (AD3)
- "Oda" (A3)  
Ina Maongezi ya Shughuli "Oda imekataliwa" (AD4) na pia "Oda imewekwa" (AD5)
- "Zinazoingia" (A4)  
Ina Maongezi ya Shughuli "Vilivyosafirishwa vimepokelewa" (AD6)
- "Mchakato umekamilika" (A5): Hii ni shughuli bila maongezi ya shughuli yawezekanayo. Ita setiwa baada ya "Kibali kimekataliwa", "Oda imekataliwa" au "Vilivyosafirishwa vimepokelewa" na inaashiria mwisho wa mchakato.

Sasa tunaweza kuona shughuli zimefafanuliwa kuwa hali za michakato ya tiketi. Baada ya kufanikiwa kwa mpito tiketi inapelekwa kutoka shughuli moja kwenda nyingine.

### 2.3.6. Njia ya mchakato wa kuoda kitabu

Tuhitimishe mfano wetu na kipande cha mwisho kisichokwepo cha fumbo, mchakato kama mfafanuzi wa mtiririko. Katika kesi yetu huu ni upangaji mzima wa mtiririko wa kazi. Michakato mingine inaweza kuwa kuewka oda za vifaa vya ofisi na michakato mingine tofauti kabisa.

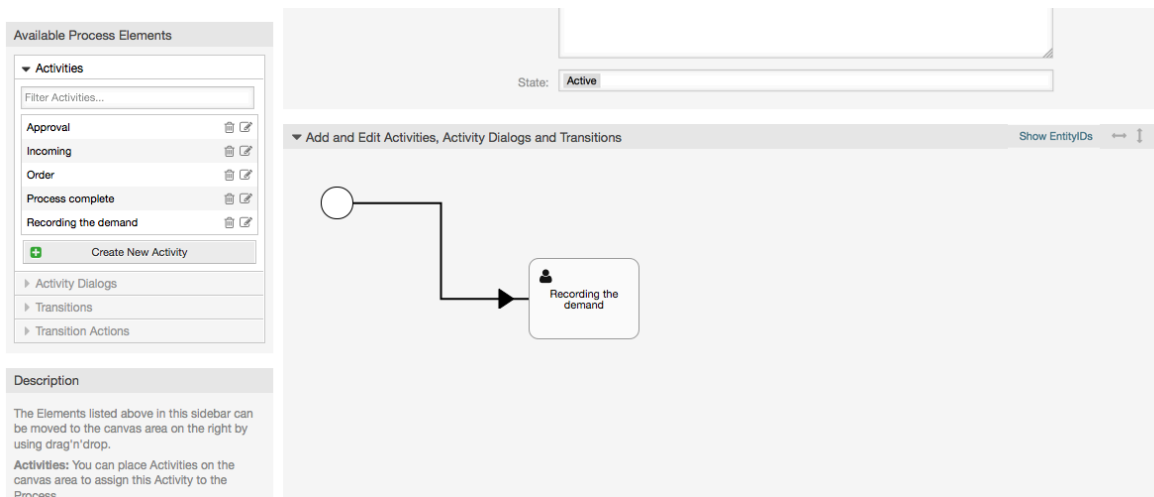
Mchakato una pointi ya kuanza ambayo ina Shughuli ya kuanza na Maongezi ya Shughuli ya kuanza. Kwa oda yeyote mpya ya kitabu, skrini ya kwanza kuonyeshwa ni ya Maongezi ya Shughuli (Maongezi ya kwanza ya Shughuli kwa Shughuli ya kwanza). Kama hii imemalizika na kuhifadhiwa, tiketi ya mchakato itatengenezwa na kufwata sanidi ya mtiririko wa kazi.

Mchakato pia una mwelekeo ambao tiketi ya mchakato itapitishwa ndani ya mchakato. Tuiite hii "Njia". Ina Shughuli ya kuanza, Mpito mmoja au zaidi (pengine na Vitendo vya Mpito), na Shughuli nyingine.

Tukiamini kwamba Shughuli tayari zimegawia Maongezi Ya Shughuli kuokota Shughuli kutoka kwenye kodian (katika upande wa kushoto wa skrini) na kuzidondosha kwenye eneo la turubai (chini ya taarifa za mchakato). Tambua mshale kutoka mwanzo wa mchakato (duara la kijani) kwenda kwenye Shughuli imewekwa kiotomatiki. (Hii ni Shughuli ya kwanza na Maongezi yake ya kwanza ya Shughuli ni skrini ya kwanza ambayo itaonyeshwa wakati mchakato unaanza).

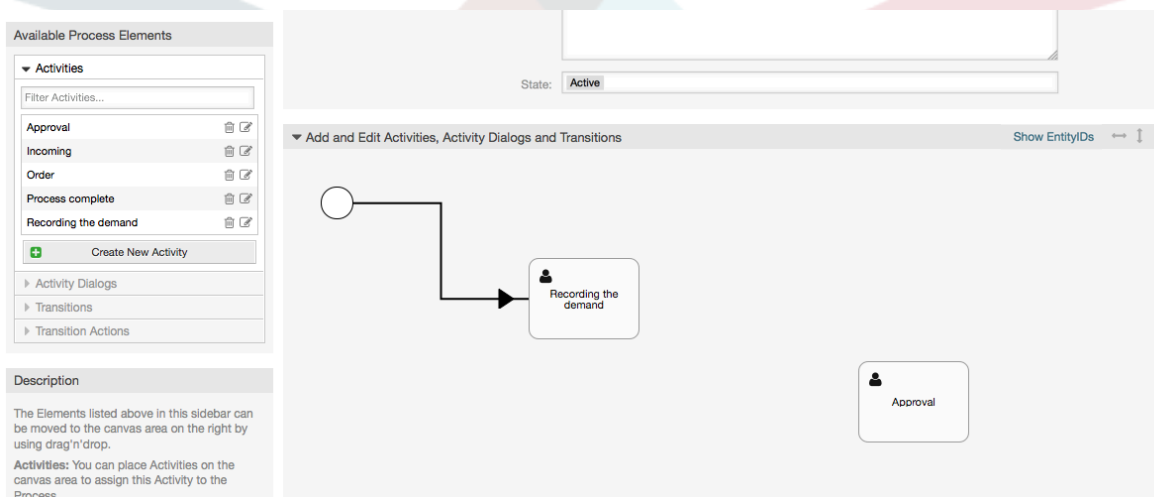


**Figure 5.18. Kokota shughuli ya kwanza kwenye turubai**



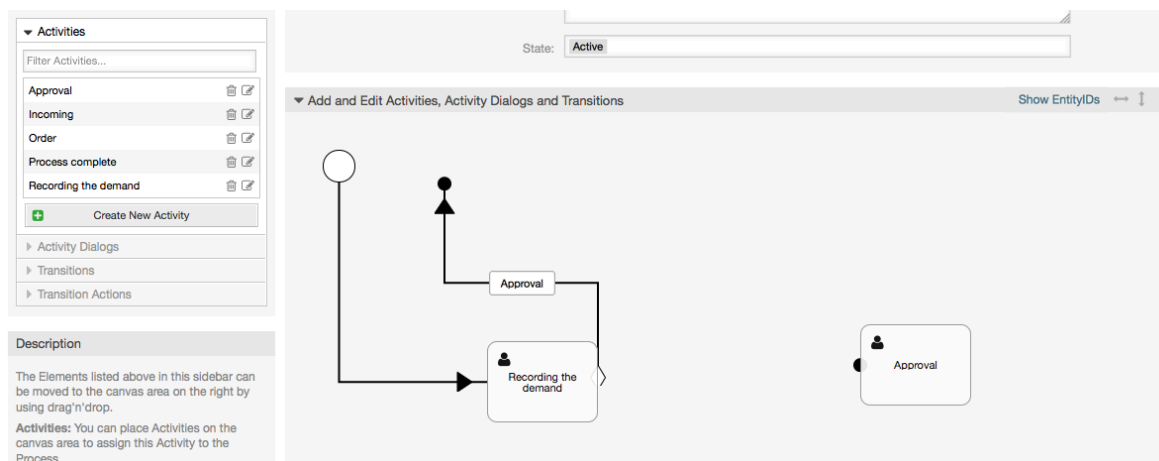
Next, drag another Activity into the canvas too. Now we will have two Activities in the canvas. The first one is connected to the start point and the second has no connections. You can hover the mouse over each activity to reveal their own Activity Dialogs.

**Figure 5.19. Kokota shughuli ya pili kwenye turubai**



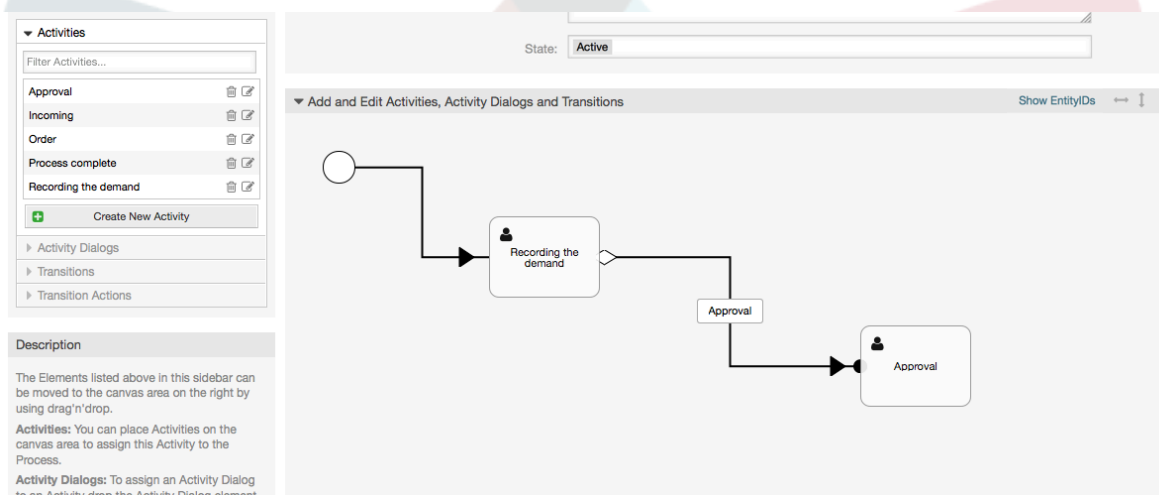
Then let's create the "Path" (connection) between this two Activities, for this we will use the Transitions. Click on Transitions in the accordion drag a Transition and drop it inside the first Activity. Notice that the Activity changes its color indicating that the Transition is attached. As soon as the Transition is dropped the end point of the Transition arrow will be placed next to the process start point. Drag the Transition arrow end point and drop it inside the other Activity to create the connection between the Activities.

**Figure 5.20. Kokota Mpito kwenda kwenye turubai**



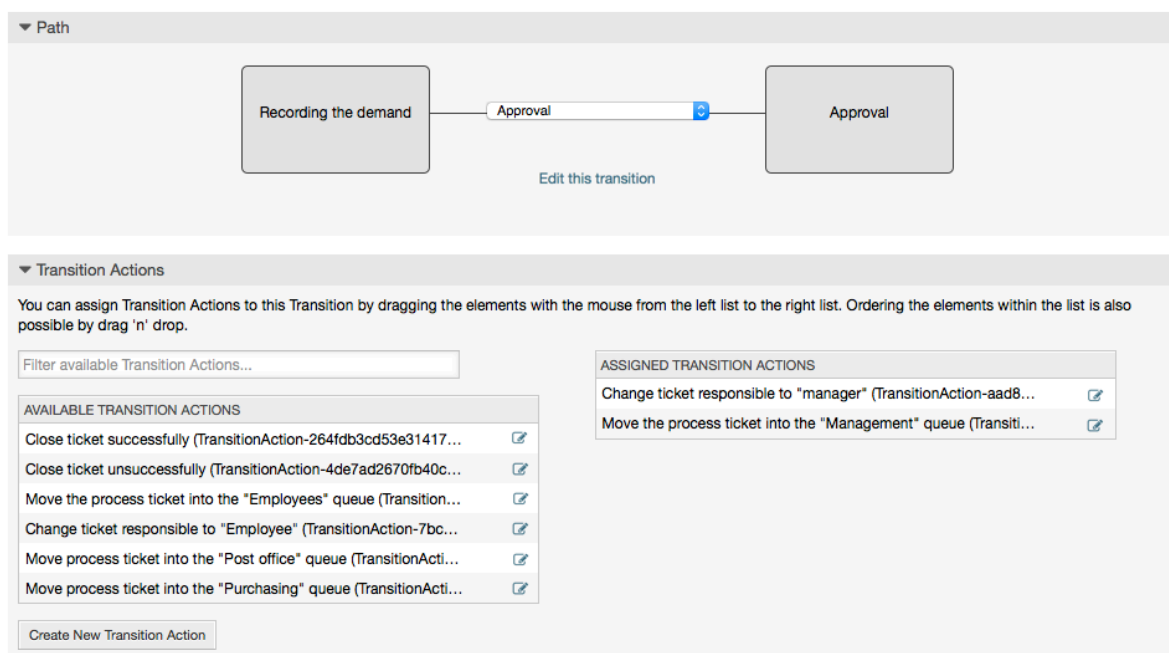
Sasa "Njia" kati ya vitendo imefafanuliwa, kisha tunahitaji kuweka Vitendo vya Mpito chini ya Mpito, bofya marambili lebo ya mpito (ndani ya turubai), hii itafungua dirisha ibukizi jipya.

**Figure 5.21. Unganisha shughuli kwa kutumia Mapito**



Kokota Vitendo vya Mpito vinavyotakiwa kutoka bwawa la Vitendo vya Mpito Vinavyopatikana na dondoshwa katika bwawa la Vitendo vya Mpito Vilivyogawiwa kisha bofya kitufe cha kuwasilisha.

**Figure 5.22. Vitendo vya mpito vilivyogawiwa**



Kisha tukirudi kwenye skrini ya kuhariri mchakato wa msingi bofya kwenye kitufe cha kuhifadhi chini ya turubai kuhifadhi mabadiliko mengine yote.

Complete the "path" adding the following Activities, Transitions and Transition Actions:

Mahitaji yanarekodiwa mpaka "Kibali"

- Starting point: Activity: "Recording the demand" (A1)
- Possible Transition: "Approval" (T1)
  - If the condition of this activity is fulfilled, the ticket will move to Activity: "Approval" (A2)
  - Kwa nyongeza, Vitendo Vya Mpito vifwatavyo vina tekelezeka:
    - "Peleka tiketi ya mchakato kwa Foleni ya 'Usimamizi' (TA1)
    - "Badilisha tiketi inayowajibika kwa 'manager'" (TA2)

The Activity: "Recording the demand" (A1) is a defined step of the process ticket, where there is the possibility for the Transition: "Approval" (T1). If this applies, the ticket will move to the next Activity: "Approval" (A2), and the Transition Actions: "Move the process ticket into the 'Management' queue" (TA1) and "Change ticket responsible to 'manager'" (TA2) are executed. In the Activity: "Approval" (A2), the Activity Dialogs: "Approval denied" (AD2) and "Approved" (AD3) are available.

Kibali

- Pointi ya Kuanza: Shughuli "Kibali" (A2)
- Mapito yawezekanayo:
  - "Kibali kimekataliwa" (T2)
    - If this matches, the process ticket will move to Activity: "Process complete" (A5).
  - Kwa nyongeza, Vitendo Vya Mpito vifwatavyo vina tekelezeka:

- "Move process ticket into the 'Employees' queue" (TA3)
- "Badilisha tiketi inayowajibika kwa 'Mwajiriwa'" (TA4)
- "Kufunga tiketi hakujaifanikiwa" (TA8)
- "Kubaliwa" (T3)
- Kama hii inalingana, tiketi ya mchakato itapelekwa kwa Shughuli: "Oda" (A3).
- Kwa nyongeza, Kitendo cha Mpito kifwatacho kitatekelezwa.
  - "Peleka tiketi ya mchakato kwa Foleni ya 'Manunuzi'" (TA5)

Tunaweza kuona kutoka kwenye shughuli za sasa, ambayo inafafanua hatua katika mchakato wa tiketi, kuna uwezekano mmoja au zaidi wa mpito ambao una lengo moja la shughuli (na ikiwezekana Kitendo kimoja au zaidi cha mpito)

#### Oda

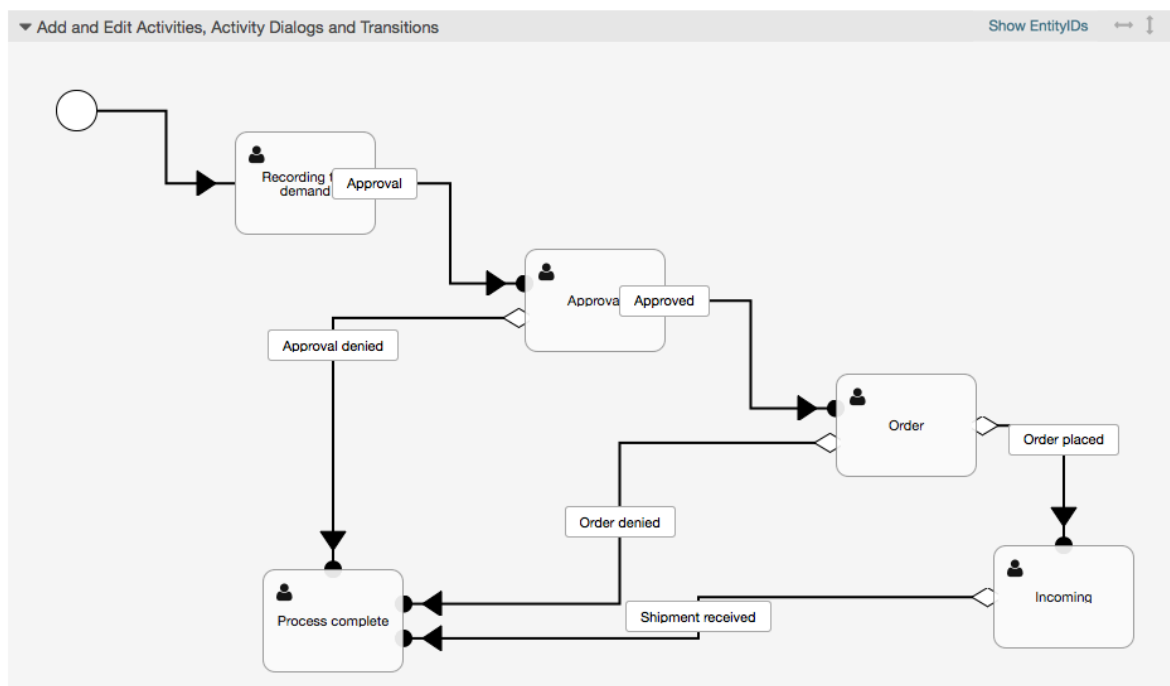
- Pointi ya kuanza: Shughuli "Oda" (A3)
- Mapito yawezekanayo:
  - "Oda imekataliwa" (T4)
  - If this matches, the process ticket will move to Activity: "Process complete" (A5).
  - Kwa nyongeza, Vitendo Vya Mpito vifwatavyo vina tekelezeka:
    - "Move process ticket into the 'Employees' queue" (TA3)
    - "Seti tiketi yenye jukumu kwa 'Mteja'" (TA4)
    - "Kufunga tiketi hakujaifanikiwa" (TA8)
  - "Oda imewekwa" (T5)
  - If this matches, the process ticket will move to Activity: "Incoming" (A4).
  - Kwa nyongeza, Kitendo cha Mpito kifwatacho kitatekelezwa.
    - "Peleka tiketi za mchakato kwenye Foleni ya 'Ofisi ya posta'" (TA6)

#### "Zinazolingia"

- Pointi ya Kuanza: Shughuli "Zinazolingia" (A4)
- Mapito yawezekanayo:
  - "Vilivyosafirishwa vimepokelewa" (T6)
  - If this matches, the process ticket will move to Activity: "Process complete" (A5).
  - Kwa nyongeza, Vitendo Vya Mpito vifwatavyo vina tekelezeka:
    - "Move process ticket into the 'Employees' queue" (TA3)
    - "Seti tiketi yenye jukumu kwa 'Mteja'" (TA4)
    - "Kufunga tiketi kumefanikiwa" (TA7)

Njia kamili ya mchakato wa kuoda vitabu itaonekana kama hivi:

**Figure 5.23. Njia kamili ya mchakato wa kuoda vitabu**



After you finish the process path please click on "Save" button in the lower part of the canvas and then click on "Synchronize All Processes" button. This will gather all processes information from the Database and create a cache file (in Perl language). This cache file is actually the processes configuration that the system will use to create or use process tickets.

Mabadiliko yeyote yaliyofanyika kwenye michakato (katika kiolesura michoro cha mtumiaji) yatahitaji kurudia kulandanisha faili la hifadhi muda ili mabadiliko yawepo kwenye mfumo.

Pia inawezekana kuagiza mchakato mzima kutoka faili la YAML, lakini ni muhimu kutengeneza Sehemu zote Zinazobadilika, Watumiaji, Foleni, na kadh. ambazo zinahitajika na kila mchakato kabla ya kuagiza.

Tambua kwamba kama mchakato unahitaji utumiaji wa ACL hizo zinahitaji pia kusetiwa kwa mikono.

The following is the complete YAML file for the book ordering process example:

```

---
Activities:
  A1:
    ActivityDialogs:
      - AD1
    ChangeTime: 2012-11-23 14:49:22
    Config:
      ActivityDialog:
        1: AD1
    CreateTime: 2012-11-23 11:49:38
    EntityID: A1
    ID: 151
    Name: Recording the demand
  A2:
    ActivityDialogs:
      - AD2
      - AD3
    ChangeTime: 2012-12-13 00:55:12
    Config:

```

```

    ActivityDialog:
      1: AD2
      2: AD3
    CreateTime: 2012-11-23 11:50:11
    EntityID: A2
    ID: 152
    Name: Approval
  A3:
    ActivityDialogs:
      - AD4
      - AD5
    ChangeTime: 2012-11-23 18:12:14
    Config:
      ActivityDialog:
        1: AD4
        2: AD5
    CreateTime: 2012-11-23 11:50:35
    EntityID: A3
    ID: 153
    Name: Order
  A4:
    ActivityDialogs:
      - AD6
    ChangeTime: 2012-11-23 18:12:35
    Config:
      ActivityDialog:
        1: AD6
    CreateTime: 2012-11-23 11:51:00
    EntityID: A4
    ID: 154
    Name: Incoming
  A5:
    ActivityDialogs: []
    ChangeTime: 2012-11-23 11:51:33
    Config: {}
    CreateTime: 2012-11-23 11:51:33
    EntityID: A5
    ID: 155
    Name: Process complete
  ActivityDialogs:
    AD1:
      ChangeTime: 2012-12-06 02:16:21
      Config:
        DescriptionLong: ''
        DescriptionShort: Recoding the demand
        FieldOrder:
          - DynamicField_Author
          - DynamicField_ISBN
          - DynamicField_Title
          - DynamicField_Status
        Fields:
          DynamicField_Author:
            DefaultValue: ''
            DescriptionLong: ''
            DescriptionShort: ''
            Display: 1
          DynamicField_ISBN:
            DefaultValue: ''
            DescriptionLong: ''
            DescriptionShort: ''
            Display: 1
          DynamicField_Status:
            DefaultValue: ''
            DescriptionLong: ''
            DescriptionShort: ''
            Display: 1
          DynamicField_Title:
            DefaultValue: ''
            DescriptionLong: ''
            DescriptionShort: ''
            Display: 1
      Interface:

```

```

- AgentInterface
Permission: ''
RequiredLock: 0
SubmitAdviceText: ''
SubmitButtonText: ''
CreateTime: 2012-11-23 14:34:43
EntityID: AD1
ID: 154
Name: Recording the demand
AD2:
ChangeTime: 2012-11-23 14:57:41
Config:
  DescriptionLong: ''
  DescriptionShort: Approval denied
  FieldOrder:
    - Article
    - DynamicField_Status
  Fields:
    Article:
      Config:
        ArticleType: note-internal
        DefaultValue: ''
        DescriptionLong: ''
        DescriptionShort: ''
        Display: 1
      DynamicField_Status:
        DefaultValue: ''
        DescriptionLong: ''
        DescriptionShort: ''
        Display: 1
    Interface:
      - AgentInterface
      Permission: ''
      RequiredLock: 0
      SubmitAdviceText: ''
      SubmitButtonText: Deny Request
      CreateTime: 2012-11-23 14:36:39
      EntityID: AD2
      ID: 155
      Name: Approval denied
AD3:
ChangeTime: 2012-12-14 03:14:23
Config:
  DescriptionLong: ''
  DescriptionShort: Approved
  FieldOrder:
    - DynamicField_Status
  Fields:
    DynamicField_Status:
      DefaultValue: ''
      DescriptionLong: ''
      DescriptionShort: ''
      Display: 1
    Interface:
      - AgentInterface
      Permission: ''
      RequiredLock: 0
      SubmitAdviceText: ''
      SubmitButtonText: Approve Request
      CreateTime: 2012-11-23 14:37:35
      EntityID: AD3
      ID: 156
      Name: Approved
AD4:
ChangeTime: 2012-11-23 14:58:52
Config:
  DescriptionLong: ''
  DescriptionShort: Order rejected
  FieldOrder:
    - Article
    - DynamicField_Status
  Fields:

```

```

Article:
  Config:
    ArticleType: note-internal
    DefaultValue: ''
    DescriptionLong: ''
    DescriptionShort: ''
    Display: 1
  DynamicField_Status:
    DefaultValue: ''
    DescriptionLong: ''
    DescriptionShort: ''
    Display: 1
Interface:
  - AgentInterface
Permission: ''
RequiredLock: 0
SubmitAdviceText: ''
SubmitButtonText: Reject Order
CreateTime: 2012-11-23 14:38:48
EntityID: AD4
ID: 157
Name: Order rejected
AD5:
  ChangeTime: 2012-12-06 02:20:12
  Config:
    DescriptionLong: ''
    DescriptionShort: Order placed
  FieldOrder:
    - DynamicField_DeliveryDate
    - DynamicField_Price
    - DynamicField_Supplier
    - DynamicField_Status
  Fields:
    DynamicField_DeliveryDate:
      DefaultValue: ''
      DescriptionLong: ''
      DescriptionShort: ''
      Display: 1
    DynamicField_Price:
      DefaultValue: ''
      DescriptionLong: ''
      DescriptionShort: ''
      Display: 1
    DynamicField_Status:
      DefaultValue: ''
      DescriptionLong: ''
      DescriptionShort: ''
      Display: 1
    DynamicField_Supplier:
      DefaultValue: ''
      DescriptionLong: ''
      DescriptionShort: ''
      Display: 1
Interface:
  - AgentInterface
Permission: ''
RequiredLock: 0
SubmitAdviceText: ''
SubmitButtonText: Place Order
CreateTime: 2012-11-23 14:41:28
EntityID: AD5
ID: 158
Name: Order placed
AD6:
  ChangeTime: 2012-11-23 14:42:43
  Config:
    DescriptionLong: ''
    DescriptionShort: Shipment received
  FieldOrder:
    - DynamicField_DateOfReceipt
    - DynamicField_Status
  Fields:

```



```

DynamicField_DateOfReceipt:
  DefaultValue: ''
  DescriptionLong: ''
  DescriptionShort: ''
  Display: 1
DynamicField_Status:
  DefaultValue: ''
  DescriptionLong: ''
  DescriptionShort: ''
  Display: 1
Interface:
  - AgentInterface
Permission: ''
RequiredLock: 0
SubmitAdviceText: ''
SubmitButtonText: ''
CreateTime: 2012-11-23 14:42:43
EntityID: AD6
ID: 159
Name: Shipment received
Process:
Activities:
  - A1
  - A2
  - A3
  - A4
  - A5
ChangeTime: 2012-12-06 02:31:59
Config:
  Description: The process to order a book
  Path:
    A1:
      T1:
        ActivityEntityID: A2
        TransitionAction:
          - TA2
          - TA1
    A2:
      T2:
        ActivityEntityID: A5
        TransitionAction:
          - TA3
          - TA4
          - TA8
    T3:
      ActivityEntityID: A3
      TransitionAction:
        - TA5
    A3:
      T4:
        ActivityEntityID: A5
        TransitionAction:
          - TA3
          - TA4
          - TA8
    T5:
      ActivityEntityID: A4
      TransitionAction:
        - TA6
    A4:
      T6:
        ActivityEntityID: A5
        TransitionAction:
          - TA3
          - TA4
          - TA7
    A5: {}
  StartActivity: A1
  StartActivityDialog: AD1
CreateTime: 2012-11-23 11:45:12
EntityID: P1
ID: 94

```

```
Layout:
  A1:
    left: 172
    top: 63
  A2:
    left: 402
    top: 156
  A3:
    left: 649
    top: 255
  A4:
    left: 774
    top: 391
  A5:
    left: 194
    top: 410
Name: Book ordering
State: Active
StateEntityID: S1
TransitionActions:
  - TA1
  - TA2
  - TA3
  - TA4
  - TA8
  - TA5
  - TA3
  - TA4
  - TA8
  - TA6
  - TA3
  - TA4
  - TA7
Transitions:
  - T1
  - T2
  - T3
  - T4
  - T5
  - T6
TransitionActions:
  TA1:
    ChangeTime: 2012-11-23 16:01:37
    Config:
      Config:
        Queue: Management
        Module: Kernel::System::ProcessManagement::TransitionAction::TicketQueueSet
    CreateTime: 2012-11-23 15:50:59
    EntityID: TA1
    ID: 61
    Name: Move the process ticket into the "Management" queue
  TA2:
    ChangeTime: 2012-11-23 16:02:12
    Config:
      Config:
        Responsible: manager
        Module: Kernel::System::ProcessManagement::TransitionAction::TicketResponsibleSet
    CreateTime: 2012-11-23 15:58:22
    EntityID: TA2
    ID: 62
    Name: Change ticket responsible to "manager"
  TA3:
    ChangeTime: 2012-11-24 14:27:02
    Config:
      Config:
        Queue: Employees
        Module: Kernel::System::ProcessManagement::TransitionAction::TicketQueueSet
    CreateTime: 2012-11-23 16:02:54
    EntityID: TA3
    ID: 63
    Name: Move the process ticket into the "Employees" queue
  TA4:
```

```

ChangeTime: 2012-11-23 16:04:06
Config:
  Responsible: Employee
  Module: Kernel::System::ProcessManagement::TransitionAction::TicketResponsibleSet
CreateTime: 2012-11-23 16:04:06
EntityID: TA4
ID: 64
Name: Change ticket responsible to "Employee"
TA5:
ChangeTime: 2012-12-06 02:18:34
Config:
  Queue: Purchasing
  Module: Kernel::System::ProcessManagement::TransitionAction::TicketQueueSet
CreateTime: 2012-11-23 16:04:54
EntityID: TA5
ID: 65
Name: Move process ticket into the "Purchasing" queue
TA6:
ChangeTime: 2012-12-06 02:18:48
Config:
  Queue: Post office
  Module: Kernel::System::ProcessManagement::TransitionAction::TicketQueueSet
CreateTime: 2012-11-23 16:06:20
EntityID: TA6
ID: 66
Name: Move process ticket into the "Post office" queue
TA7:
ChangeTime: 2012-12-06 02:29:55
Config:
  State: closed successful
  Module: Kernel::System::ProcessManagement::TransitionAction::TicketStateSet
CreateTime: 2012-12-06 02:29:27
EntityID: TA7
ID: 67
Name: Close ticket successfully
TA8:
ChangeTime: 2012-12-06 02:31:12
Config:
  State: closed unsuccessful
  Module: Kernel::System::ProcessManagement::TransitionAction::TicketStateSet
CreateTime: 2012-12-06 02:31:12
EntityID: TA8
ID: 68
Name: Close ticket unsuccessfully
Transitions:
T1:
ChangeTime: 2012-11-23 15:12:20
Config:
  Condition:
    1:
      Fields:
        DynamicField_Status:
          Match: Approval
          Type: String
      Type: and
    ConditionLinking: and
  CreateTime: 2012-11-23 11:53:52
  EntityID: T1
  ID: 94
  Name: Approval
T2:
ChangeTime: 2012-11-23 15:12:50
Config:
  Condition:
    1:
      Fields:
        DynamicField_Status:

```

```
        Match: Approval denied
        Type: String
    Type: and
    ConditionLinking: and
    CreateTime: 2012-11-23 11:54:26
    EntityID: T2
    ID: 95
    Name: Approval denied
T3:
    ChangeTime: 2012-11-23 15:13:29
    Config:
        Condition:
            1:
                Fields:
                    DynamicField_Status:
                        Match: Approved
                        Type: String
                Type: and
            ConditionLinking: and
            CreateTime: 2012-11-23 11:54:54
            EntityID: T3
            ID: 96
            Name: Approved
T4:
    ChangeTime: 2012-11-23 15:14:08
    Config:
        Condition:
            1:
                Fields:
                    DynamicField_Status:
                        Match: Order denied
                        Type: String
                Type: and
            ConditionLinking: and
            CreateTime: 2012-11-23 11:55:25
            EntityID: T4
            ID: 97
            Name: Order denied
T5:
    ChangeTime: 2012-11-23 18:30:33
    Config:
        Condition:
            1:
                Fields:
                    DynamicField_Status:
                        Match: Order placed
                        Type: String
                Type: and
            ConditionLinking: and
            CreateTime: 2012-11-23 11:56:15
            EntityID: T5
            ID: 98
            Name: Order placed
T6:
    ChangeTime: 2012-11-23 15:15:30
    Config:
        Condition:
            1:
                Fields:
                    DynamicField_Status:
                        Match: Shipment received
                        Type: String
                Type: and
            ConditionLinking: and
            CreateTime: 2012-11-23 11:56:48
            EntityID: T6
            ID: 99
            Name: Shipment received
```

## 2.4. Rejea ya sanidi ya mchakato

### 2.4.1. Mchakato

Mchakato unatengeneza njia ya mtiririko wa kazi/mchakato. Pointi za njia katika mwelekeo huu zinaweza kuwa Shughuli au Mapito, tutaongelea haya baadaye.

#### 2.4.1.1. Sanidi ya mchakato

The Process configuration can be done in the file Kernel/Config.pm but it is strongly recommended to create new files like Kernel/Config/Files/MyProcess.pm. Notice that the GUI generates the file Kernel/Config/File/ZZZProcessManagement please avoid to use that filename, otherwise it will be overwritten when you sync processes. Let's see an example process configuration (from process cache file):

```
$Self->{'Process'} = {
  'P1' => {
    Name           => 'Book order',
    CreateTime     => '16-02-2012 13:37:00',
    CreateBy      => '1',
    ChangeTime    => '17-02-2012 13:37:00',
    ChangeBy      => '1',
    State         => 'Active',
    StartActivity  => 'A1',
    StartActivityDialog => 'AD1',
    Path => {
      'A1' => {
        'T1' => {
          ActivityEntityID => 'A2',
        },
      },
      'A2' => {
        'T2' => {
          ActivityEntityID => 'A3',
        },
      },
    },
  },
  'P2' => {
    Name           => 'IT order',
    CreateTime     => '26-02-2012 13:37:00',
    CreateBy      => '1',
    ChangeTime    => '27-02-2012 13:37:00',
    ChangeBy      => '1',
    State         => 'Active',
    StartActivity  => 'A2',
    StartActivityDialog => 'AD2',
    Path => {
      'A2' => {
        'T3' => {
          ActivityEntityID => 'A4',
        },
      },
    },
  },
};
```

#### 2.4.1.2. Jina

Jina la mchakato, hii inaweza kuchaguliwa na wakala wakati wa kutengeneza tiketi ya mchakato mpya.

#### 2.4.1.3. Tengeneza muda

Muda ambao mchakato ulitengenezwa.

#### 2.4.1.4. Imetengenezwa na

UID ya mtumiaji anayetengeneza mchakato.

#### 2.4.1.5. Badilisha muda

Muda ambao mchakato ulibadilishwa.

#### 2.4.1.6. Ilibadilishwa na

UID ya mtumiaji aliyeweka mabadiliko ya mwisho.

#### 2.4.1.7. Hali

Inafafanua hali ya mchakato. Thamani ziwezekanazo:

- 'Amilifu' ni michakato yote ambayo inaweza kutumika katika tiketi mpya za mchakato.
- 'KwanjukaMbali' ni michakato ambayo haiwezi kuchaguliwa tena kwa tiketi mpya, lakini tiketi zilizopo zinaweza kutumia huo mchakato.
- 'Isiyo Amilifu' michakato inalemazwa na haiwezi kutumika kwa tiketi mpya au zilizopo.

#### 2.4.1.8. AnzaShughuli

Wakati wa kutengeneza mchakato mpya wa tiketi, lazima ufafanue ki AnzaShughuli. Mara tu tiketi itakapotengenezwa, hiishughuli ita setiwa na kutumika kama msingi wa kaguzi za kwanza za mpito.

#### 2.4.1.9. AnzaShughuliMaongezi

Kwa tiketi mpya, ki AnzaShughuliMaongezi lazima kifafanuliwe. Hii itaonyeshwa wakati wa kutengeneza mchakato mpya wa tiketi (baada ya mchakato kuchaguliwa). Hapa tiketi bado haipo, itatengenezwa baada ya kuwasilisha ki AnzaShughuliMaongezi.

#### 2.4.1.10. Njia

Njia ina muundo wa Shughuli, na Mapito yanayowezekana kati yao, kwa ajili ya mchakato wa sasa. Na pia Vitendo vya Mpito ambavyo vinatokea wakati wa Mpito. Hii inadhibiti mwelekeo ambao tiketi ya mchakato itachukua. Mfano:

```
'A1' => {
  'T1' => {
    ActivityEntityID => 'A2',
  },
  'T2' => {
    ActivityEntityID => 'A3',
  },
  'T3' => {
    ActivityEntityID => 'A4',
    TransitionAction => ['TA1', 'TA2'],
  },
},
```

Kama tiketi ya mchakato iko kwenye shughuli 'A1', ina njia tatu zinazowezekana kwenda kwenye Shughuli nyingine. Kwenye Mapito 'T1' kwenda 'T3', masharti yamefafanuliwa, ambayo tiketi ya mchakato inabidi iyatimize ili ihamie kwenye Shughuli nyingine.

If in this case all the values of the process ticket and its dynamic fields that are needed for the Transition 'T2' are correct, the ticket will be moved from Activity 'A1' to 'A3'. After an ActivityDialog is submitted, or any other change is made to a ticket, it will be checked

for possible Transitions from the current Activity. If multiple Transitions are possible, the first one will be used (based on numerical sorting of the TransitionIDs).

Kwa nyongeza, inawezekana kugawia Vitendo vya Mpito kwa Mapito katika usanidi wa Njia. Hizi moduli ambazo zinatekelezwa baada ya mpito uliofanikiwa. Inabidi zibainishwe katika fomu ya mkusanyiko kama kwenye mfano, tutaongelea kwa undani baadaye.

## 2.4.2. Shughuli

Shughuli ina Maongezi ya Shughuli ya aina moja au zaidi na inatengeneza 'hatua' katika mchakato. Maongezi ya Shughuli yote ya Shughuli ya sasa yanaonyeshwa katika kuza tiketi na inaweza kutumika mpaka masharti ya Mpito yatimizwe.

### 2.4.2.1. Sanidi ya shughuli

Tuone mfano wa sanidi ya shughuli:

```
$Self->{'Process::Activity'} =
{
  'A1' => {
    Name      => 'Activity 1 optional',
    CreateTime => '16-02-2012 13:37:00',
    CreateBy  => '1',
    ChangeTime => '17-02-2012 13:37:00',
    ChangeBy  => '1',
    ActivityDialog => {
      1 => 'AD1',
    },
  },
  'A2' => {
    Name      => 'Activity 2 optional',
    CreateTime => '16-02-2012 13:37:00',
    CreateBy  => '1',
    ChangeTime => '17-02-2012 13:37:00',
    ChangeBy  => '1',
    ActivityDialog => {
      1 => 'AD5',
      2 => 'AD6',
      3 => 'AD1',
    },
  },
},
};
```

### 2.4.2.2. Jina

Jina la shughuli.

### 2.4.2.3. Tengeneza muda

Muda ambao ilitengenezwa.

### 2.4.2.4. Imetengenezwa na

UID ya mtumiaji aliyetengeneza shughuli.

### 2.4.2.5. Badilisha muda

Muda wa mwisho ilipo badilishwa

### 2.4.2.6. Ilibadilishwa na

UID ya mtumiaji wa mwisho aliyebadilisha shughuli.

## 2.4.2.7. MaongeziShughuli

Maongezi ya Shughuli yana orodha ya maongezi ya shughuli ambayo yanapatikana katika hii shughuli. Maongezi yote ya Shughuli ya sasa yanaonekana katika Kuza tiketi. Oda yao inasetiwa na oda ya kwenye sanidi, hapa 'AD5' inaonyeshwa kabla ya 'AD6' na 'AD1'.

## 2.4.3. MaongeziShughuli

Maongezi ya Shughuli ni skrini maalumu na inaweza kutumika katika shughuli mbali mbali.

### 2.4.3.1. Sanidi ya MaongeziShughuli

Let's see an example config:

```
$Self->{'Process::ActivityDialog'} = {
  'AD1' => {
    Name           => 'ActivityDialog 1 optional',
    DescriptionShort => 'Basic info',
    DescriptionLong => 'Please insert the necesesary basic information for IT orders',
    CreateTime     => '28-02-2012 13:37:00',
    CreateBy       => '1',
    ChangeTime     => '29-02-2012 13:37:00',
    ChangeBy       => '1',
    Fields => {
      PriorityID => {
        DescriptionShort => 'Priority ID',
        DescriptionLong  => 'Enter the priority here',
        Display          => 2,
      },
    },
    FieldOrder     => [ 'PriorityID' ],
    SubmitAdviceText => 'Note: If you submit the form...',
    SubmitButtonText => 'Send request',
  },
  'AD2' => {
    Name           => 'ActivityDialog 2 optional',
    DescriptionShort => 'Basic info',
    DescriptionLong => 'Please insert the necesesary basic information for Book
orders',
    CreateTime     => '28-02-2012 13:37:00',
    CreateBy       => '1',
    ChangeTime     => '29-02-2012 13:37:00',
    ChangeBy       => '1',
    Fields => {
      StateID => {
        DescriptionShort => 'State ID',
        DescriptionLong  => 'Enter the state here',
        Display          => 2,
        DefaultValue     => '2',
      },
      Queue => {
        DescriptionShort => 'Queue ID',
        DescriptionLong  => 'Enter the queue here',
        Display          => 2,
        DefaultValue     => 'Raw',
      },
      Title => {
        DescriptionShort => 'Title',
        DescriptionLong  => 'Enter the title here',
        Display          => 1,
        DefaultValue     => 'Default Title',
      },
      DynamicField_Anzahl => {
        DescriptionShort => 'Amount',
        DescriptionLong  => 'Enter the amount here',
        Display          => 2,
        DefaultValue     => '4',
      },
    },
  },
}
```



```

    },
    FieldOrder      => [ 'DynamicField_Anzahl', 'StateID', 'Queue', 'Title' ],
    SubmitAdviceText => 'Note: If you submit the form...',
    SubmitButtonText => 'Send request',
  },
};

```

### 2.4.3.2. Jina

Jina la Maongezi Shughuli.

### 2.4.3.3. Tengeneza muda

Muda ambao ilitengenezwa.

### 2.4.3.4. Imetengenezwa na

UID ya mtumiaji aliyetengeneza haya Maongezi Shughuli.

### 2.4.3.5. Badilisha muda

Muda wa mwisho ilipo badilishwa

### 2.4.3.6. Ilibadilishwa na

UID ya mtumiaji wa mwisho aliyebadilisha haya Maongezi Shughuli.

### 2.4.3.7. Sehemu

Ina sehemu zote ambazo zinaweza kuonyeshwa katika Maongezi ya Shughuli haya. Sehemu zifuatazo zinaweza kutumika sasa:

```

Title
State
StateID
Priority
PriorityID
Lock
LockID
Queue
QueueID
Customer
CustomerID
CustomerNo
CustomerUserID
Owner
OwnerID
Type
TypeID
SLA
SLAID
Service
ServiceID
Responsible
ResponsibleID
PendingTime
DynamicField_$FieldName # for all dynamic fields

```

Mfano wa sanidi yen

```

StateID => {
  DescriptionShort => 'State ID',
  DescriptionLong  => 'Enter the state here',
}

```

```

    Display      => 2,
    DefaultValue => '2',
  },

```

The field "Article" is a special case. If it is present in a "Fields" configuration, the Activity Dialog will contain a complete Richtext editor with subject field and attachment handling. The entered text will then be added to the ticket as an article and sent by email. Let's see an example Article field configuration:

```

Article => {
  DescriptionShort => 'Please insert your comment here.',
  DescriptionLong => '',
  Display         => 1,
  Config          => {
    ArticleType => 'note-internal',
    LabelSubject => '',
    LabelBody   => '',
  },
},

```

Tuangualie chaguo za usanidi wa sehemu:

#### 2.4.3.7.1. MaelezoMafupi

Maelezo mafupi ya hiari yanayo onyeshwa na mada ya sehemu.

#### 2.4.3.7.2. MaelezoMarefu

Maelezo marefu ya sehemu ya hiari yanayo onyeshwa pale kipanya kinapokuwa juu ya eneo, kwa mfano ushauri wa jinsi ya kujaza eneo.

#### 2.4.3.7.3. Onyesh

Inadhibiti kama sehemu inaonekana au ni ya lazima. Thamani zinazowezezana:

- '0': sehemu haionekani. Hii inakuwa na manufaa kama thamani za sehemu zinatakiwa kusetiwa kiotomatiki. ThamaniChaguo-msingi iliyosanidiwa itahifadhiwa katika kesi hii.
- '1': sehemu inaonekana, lakini ni ya hiari.
- '2': field is visible and mandatory. The following fields can only be invisible or mandatory:

```

QueueID
Queue
State
StateID
Lock
LockID
Priority
PriorityID
Type
TypeID

```

Kama sehemu zimesanidiwa kama za hiari, na hakuna thamani iliyowasilishwa na mtumiaji, Thamani Chaguo-msingi itahifadhiwa wakati Maongezi ya Shughuli yanawasilishwa na mtumiaji.

#### 2.4.3.7.4. ThamaniChaguo-msingi

Kwa sehemu zenye 'Kitambulisho' (kama KitambulishoChaFoleni, KitambulishoChaMmiliki), hii inamaanisha Kitambulisho cha hifadhidata ya thamani. Kwa sehemu nyingine zisizo

na 'Kitambulisho' (kama Foleni, Mmiliki), ThamaniChaguo-msingi lazima iwe na thamani yenyewe. Mfano:

```
Queue => {
  DescriptionShort => 'Queue',
  DescriptionLong => 'Enter the queue here',
  Display          => 2,
  DefaultValue    => 'Raw',
},
```

### 2.4.3.8. OdaSehemu

Hapa mpangilio wa muonekano wa sehemu unasanidiwa. MUHIMU: Sehemu zizi-zoonekana lazima zisanidiwe hapa, kwa sababu sehemu zilizosanidiwa tu zitahusishwa wakati wa kuhifadhi. Sehemu ambazo hazijasanidiwa hazita hifadhiwa.

### 2.4.3.9. WasilishaNakalaUshauri

Nakala ya hiari kuonyeshwa juu ya kitufe cha kuwasilisha kwa msaada zaidi au nakala ya ushauri.

### 2.4.3.10. KitufeWasilishaNakala

Nakala ya kawaida ya hiari kwa ajili ya kitufe cha kuwasilisha.

## 2.4.4. Mpito

Mpito unachagua - kutegemeana na masharti yanayoweza kusanidiwa - njia gani katika Mchakato inachukuliwa, yaani Shughuli gani tiketi ya Mchakato inaweza kupelekwa.

### 2.4.4.1. Usanidi wa mpito

Tuone mfano:

```
$Self->{'Process::Transition'} = {
  'T1' => {
    Name => 'Transition 1',
    CreateTime => '14-03-2012 13:37:00', # optional
    CreateBy => '1', # optional
    ChangeTime => '15-03-2012 13:37:00', # optional
    ChangeBy => '15-03-2012 13:37:00', # optional
    Condition => {
      Cond1 => {
        Fields => {
          StateID => {
            Type => 'String',
            Match => '1',
          },
        },
      },
    },
  },
  'T2' => {
    Name => 'Transition 2 optional',
    CreateTime => 'DATE', # optional
    CreateBy => 'USERID', # optional
    ChangeTime => 'DATE', # optional
    ChangeBy => 'USERID', # optional
    Condition => {
      Cond1 => {
        Queue => 'Raw',
        DynamicField_Farbe => '2',
        DynamicField_Anzahl => '1',
      },
    },
  },
},
```

```

    },
  },
};

```

### 2.4.4.2. Jina

Jina la mpito

### 2.4.4.3. Tengeneza muda

Muda iliyotengenezwa.

### 2.4.4.4. Imetengenezwa na

UID ya mtumiaji aliyetengeneza huu Mpito.

### 2.4.4.5. Badilisha muda

Muda wa mwisho ilipobadilishwa

### 2.4.4.6. Ilibadilishwa na

UID ya mtumiaji wa mwisho aliyebadilisha huu Mpito.

### 2.4.4.7. Sharti

Contains all conditions that are necessary for this Transition to take effect. Example:

```

Condition => {
  Type => 'and',
  Cond1 => {
    Type => 'and',
    Fields => {
      StateID => {
        Type => 'String',
        Match => '1',
      },
      DynamicField_Marke => {
        Type => 'String',
        Match => 'VW',
      },
    },
  },
  Cond2 => {
    Type => 'and',
    Fields => {
      Queue => {
        Type => 'String',
        Match => 'Raw',
      },
    },
  },
},
},

```

Tuangualie sharti la usanidi kwa undani.

#### 2.4.4.7.1. Aina (Sharti)

Inaweka bayana uhusiano wa elementi za masharti kwa nyenzake. Thamani ziwezekana-  
zo:

- 'na': Hili ni chaguo-msingi. Masharti yote lazima yafikiwe ili mpito ufanyike.
- 'au': Angalau sharti moja lilingane.

- 'xor': Lazima sharti moja tu lifanane, siyo zaidi.

#### 2.4.4.7.2. Sharti1

Hili ni jina la mfano wa sharti. Inaweza kuchaguliwa kwa uhuru. Masharti yana tathminiwa katika oda iliyo pangwa.

#### 2.4.4.7.3. Aina (Sharti)

Inaweka bayana uhusiano baina ya vipimo vya maeneo binafsi ya hili sharti. Thamani ziwezekanazo:

- 'na': Hili ni chaguo-msingi. Vipimo vya maeneo yote lazima vifanane ili sharti lilingane.
- 'or' Angalau kipimo kimoja cha sehemu kifanane
- 'xor': Lazima jatribio moja la eneo lifanane sio zaidi.

#### 2.4.4.7.4. Sehemu

Specifies the particular fields whose values should be tested. From our example:

```
Fields => {  
  StateID => {  
    Type => 'String',  
    Match => '1',  
  },  
}
```

#### 2.4.4.7.5. IDyaHali

Example of a field name. The following ticket fields can be used:

```
Title  
State  
StateID  
Priority  
PriorityID  
Lock  
LockID  
Queue  
QueueID  
Customer  
CustomerID  
CustomerNo  
CustomerUserID  
Owner  
OwnerID  
Type  
TypeID  
SLA  
SLAID  
Service  
ServiceID  
Responsible  
ResponsibleID  
DynamicField_FieldName # for all DynamicFields
```

Wakati wa kujaribisha sehemu kwa 'Kitambulisho' (kama Kitambulisho cha SLA), Kitambulisho cha hifadhidata ya sehemu kitatumika kwa ajili ya majaribio, kwa sehemu nyingine (kama SLA) thamani halisi inatumika kwa ajili ya majaribio.

#### 2.4.4.7.6. Aina

Inaamua aina ya kipimo cha eneo. Thamani ziwezekanazo:

- 'Tungo': Inalinganisha thamani ya sehemu na tungo iliyobainishwa katika 'Lingana'. Zi-nalingana kama ziko sawa kabisa.
- 'Hash': Inafananisha thamani ya sehemu (hash) na hash iliyobainishwa kwenye 'Fanana-isha'. Thamani zote za hash lazima ziwe sawa.
- 'Mkusanyiko': Inalinganisha thamani ya sehemu (mkusanyiko) na mkusanyiko uliobain-ishwa kwenye 'Lingana'. Orodha zote mbili lazima ziwe sawa.
- 'Regex': Thamani ya sehemu inaweza kujaribiwa na usemi wa kawaida. Nimuhimu kwamba 'Fanana' ina `qr{xms}` kama sharti la msingi. Katikati ya mabano semi ya kawai-da halisi inaweza kuandikwa.
- 'Moduli': Inakuruhusu kutumia moduli ya Perl kwa ajili ya kukagua masharti. Kama ikirudisha 1, ukaguzi ulikua chanya. Unaweza kupata moduli ya mfano kwenye Ker-nel/System/ProcessManagement/TransitionValidation/ValidateDemo.pm.

## 2.4.5. Vitendo vya mpito

Vitendo vya Mpito ni vitendo ambavyo vinaweza kuchochewa baada ya mapito yaliy-ofanyika kikamilifu (pale tiketi ya mchakato inapohama kutoka shughuli moja hadi nyingine). Vitendo hivi vya Mpito vinaweza kutumika kufanya mabadiliko mengi kwenye tiketi, mf. badilisha Foleni au Mmiliki wa tiketi, na pia unaweza kutengeneza Vitendo vyako vya Mpito kufanya mabadiliko mengine magumu.

### 2.4.5.1. Usanidi wa Vitendo vya Mpito

Tuone mfano:

```
$Self->{'Process::TransitionAction'} = {  
  'TA1' => {  
    Name => 'Queue Move',  
    Module => 'Kernel::System::ProcessManagement::TransitionAction::TicketQueueSet',  
    Config => {  
      Queue => 'Junk',  
      UserID => 123,  
    },  
  },  
};
```

### 2.4.5.2. Jina

Jina la Kitendo cha Mpito.

### 2.4.5.3. Moduli

Inaweka bayana moduli ya Perl itakayotumika.

### 2.4.5.4. Usanidi

This parameter contains all settings which are required for the module. Its content depends on the particular Transition Action module which is used. Please see the documentation of the individual modules for details. In our example, only the Queue must be specified. Nevertheless we are also sending UserID parameter, by using the UserID parameter. The transition action will be executed impersonating the user with the given UserID.

The use of UserID inside the "Config" parameter of a Transition Action is accepted by all Transition Actions (since OTRS 3.2.4). In this example it could be particularly important if the user that triggers the Transition does not have permissions to move the ticket to the queue 'Junk', while the user with the UserID 123 might have.

### 2.4.5.5. Kutumia Moduli za Vitendo vya Mpito kwa kurudia

To use Transition Action modules multiple times, just specify several Transition Actions in your configuration. Example:

```
$Self->{'Process::TransitionAction'} = {
  'TA1' => {
    Name => 'Queue Move Junk',
    Module => 'Kernel::System::ProcessManagement::TransitionAction::TicketQueueSet',
    Config => {
      Queue => 'Junk',
    },
  },
  'TA2' => {
    Name => 'Queue Move Raw',
    Module => 'Kernel::System::ProcessManagement::TransitionAction::TicketQueueSet',
    Config => {
      Queue => 'Raw',
    },
  },
};
```

Hapa moduli ile ile inatumika kuhamisha tiketi ya mchakato kwenda kwenye foleni 'Mbichi', na wakati mwingine kuhamisha kwenda kwenye foleni taka. Kitendo cha Mpito ambacho lazima kitumike kwa Mpito fulani kinajulikana kutoka kwenye mpangilio wa 'Njia' ya usanidi wa Mchakato.

### 2.4.5.6. Vitendo vya Mpito vilivyopo.

OTRS inakuja na Vitendo vya Mpito vingi unavyoweza kutumia katika michakato yako. Hapa utapata nyaraka zake na jinsi zilivyo sanidiwa.

#### 2.4.5.6.1. SetiSehemuInayobadilika

Ina seti sehemu zinazobadilika moja au zaidi katika mchakato wa tiketi. mfano:

```
$Self->{'Process::TransitionAction'} = {
  'TA1' => {
    Name => 'Set DynamicField MasterSlave to Master and Approved to 1',
    Module => 'Kernel::System::ProcessManagement::TransitionAction::DynamicFieldSet',
    Config => {
      MasterSlave => 'Master',
      Approved => '1',
    },
  },
};
```

'Jina' inaweka bayana jina la KitendoChaMpito kilicho sanidiwa.

'MkuuMtumwa' na 'Kubaliwa' inatolewa kama mifano ya majina ya SehemuZinazobadilika. Thamani za sehemu ('Mkuu' na '1') itasetiwa na KitendoChaMpito hiki.

#### 2.4.5.6.2. TengenezaTiketiMakala

Inatengeneza Makala na inaweza kutumika kutengeneza dokezo au majibu ya barua pepe. Mfano:

```
$Self->{'Process::TransitionAction'} = {
  'TA1' => {
    Name => 'Article Create Note Internal',
    Module =>
    'Kernel::System::ProcessManagement::TransitionAction::TicketArticleCreate',
```

```

    Config => {
      ArticleType      => 'note-internal',                #
note-external|phone|fax|sms|...                                #
excluding any email type
      SenderType       => 'agent',                        #
agent|system|customer
      ContentType      => 'text/plain; charset=ISO-8859-15', # or
optional Charset & MimeType (e.g. 'text/html; charset=UTF-8')
      Subject          => 'some short description',        #
required
      Body             => 'the message text',            #
required
      HistoryType      => 'OwnerUpdate',                  #
EmailCustomer|Move|AddNote|PriorityUpdate|WebRequestCustomer|...
      HistoryComment   => 'Some free text!',              #
      From             => 'Some Agent <email@example.com>', #
not required but useful
      To               => 'Some Customer A <customer-a@example.com>', #
not required but useful
      Cc               => 'Some Customer B <customer-b@example.com>', #
not required but useful
      ReplyTo          => 'Some Customer B <customer-b@example.com>', #
not required
      InReplyTo        => '<asdasdasd.12@example.com>',    #
not required but useful
      References       => '<asdasdasd.1@example.com> <asdasdasd.12@example.com>', #
not required but useful
      NoAgentNotify    => 0,                              # if
you don't want to send agent notifications
      AutoResponseType => 'auto reply',                  #
auto reject|auto follow up|auto reply/new ticket|auto remove

      ForceNotificationToUserID => [ 1, 43, 56 ],        # if
you want to force somebody
      ExcludeNotificationToUserID => [ 43, 56 ],
      # if you want full exclude somebody from notifications,
      # will also be removed in To: line of article,
      # higher prio as ForceNotificationToUserID
      ExcludeMuteNotificationToUserID => [ 43, 56 ],
      # the same as ExcludeNotificationToUserID but only the
      # sending gets muted, agent will still shown in To:
      # line of article
    },
  },
};

```

'Jina' inaweka bayana jina la KitendoChaMpito kilicho sanidiwa. Inachaguliwa kwa uhuru, lakini inatakiwa kuakisi maana ya kitendo kilicho sanidiwa.

'Aina ya Makala' inafafanua aina ya makala itakayotengenezwa. Thamani ziwezekanazo: simu, faksi, ujumbe mfupi wa maneno, notisi-ndani, notisi-nje, na notisi-ripoti.

'SenderType' defines the sender type of the article. Possible values: agent, system, customer.

'AinaMaudhui' inafafanua aina ya maudhui ya makala. Thamani ziwezekanazo: 'nakala/ghafi; seti kibambo=ISO-8859-15' au seti kibambo nyingine yoyote halali na aina ya mime.

'Somo' inafafanua mada ya makala. Lazima.

'Kiini' inafafanua maudhui ya makala. Lazima.

'HistoryType' defines the type of the history entry. Possible values: AddNote, Archive-FlagUpdate, Bounce, CustomerUpdate, EmailAgent, EmailCustomer, EscalationResponseTimeNotifyBefore, EscalationResponseTimeStart, EscalationResponseTimeStop, EscalationSolutionTimeNotifyBefore, EscalationSolutionTimeStart, EscalationSolutionTimeS-



top, EscalationUpdateTimeNotifyBefore, EscalationUpdateTimeStart, EscalationUpdateTimeStop, FollowUp, Forward, Lock, LoopProtection, Merged, Misc, Move, NewTicket, OwnerUpdate, PhoneCallAgent, PhoneCallCustomer, PriorityUpdate, Remove, ResponsibleUpdate, SendAgentNotification, SendAnswer, SendAutoFollowUp, SendAutoReject, SendAutoReply, SendCustomerNotification, ServiceUpdate, SetPendingTime, SLAUpdate, StateUpdate, Subscribe, SystemRequest, TicketDynamicFieldUpdate, TicketLinkAdd, TicketLinkDelete, TimeAccounting, TypeUpdate, Unlock, Unsubscribe, WebRequestCustomer.

'HistoriaMaoni' inafafanua maudhui ya ingizo la historia.

'Kutoka', 'Kwa', 'Nakala' na 'JibuKwa' peleka anuani za barua pepe kwenye nukuu zilizobainishwa juu.

'KatikaMajibuKwa' na 'Marejeo' chukua Vitambulisho vya ujumbe wa barua pepe.

'HakunaWakalaArifu'-kama imesetiwa kuwa 1, taarifa ya barua pepe ya Wakala haitatumwa.

'MajibuAinaOtomatiki' inaweza kuchukua thamani zifuatazo: ufwatiliaji otomatiki, ukataaji otomatiki, uondoaji otomatiki, majibu otomatiki, majibu otomatiki/tiketi mpya.

'LazimishaTaarifaKwaKitambulichoChaMtumiaji', 'TenganishaTaarifaKwaKitambulishoChamtumiaji', 'TenganishaNyamazishaTaarifaKwaKitambulishoChaMtumiaji' zinaweza kuchukua orodha ya Vitambulisho vya Watumiaji ambao aidha wanapata taarifa kila wakati, hawapati taarifa au wanawekwa kwenye orodha kama wanapata taarifa lakini hawapati barua pepe ya taarifa.

#### 2.4.5.6.3. TengenezaTiketi

Creates a ticket with an article, the new ticket can be linked with process ticket. Example:

```
$Self->{'Process::TransitionAction'} = {
  'TA1' => {
    Name => 'Ticket Create',
    Module => 'Kernel::System::ProcessManagement::TransitionAction::TicketCreate',
    Config => {

      # ticket required:
      Title => 'Some Ticket Title',
      Queue => 'Raw', # or QueueID => 123,
      Lock => 'unlock',
      Priority => '3 normal', # or PriorityID => 2,
      State => 'new', # or StateID => 5,
      CustomerID => '123465',
      CustomerUser => 'customer@example.com',
      OwnerID => 'someuserlogin', # or OwnerID => 123,

      # ticket optional:
      TN => $TicketObject->TicketCreateNumber(), # optional
      Type => 'Incident', # or TypeID => 1, not required
      Service => 'Service A', # or ServiceID => 1, not required
      SLA => 'SLA A', # or SLAID => 1, not required
      ResponsibleID => 123, # not required
      ArchiveFlag => 'y', # (y/n) not required
      PendingTime => '2011-12-23 23:05:00', # optional (for pending states)
      PendingTimeDiff => 123, # optional (for pending states)

      # article required:
      ArticleType => 'note-internal', # note-external|
phone|fax|sms|... # excluding any
      email type
      SenderType => 'agent', # agent|system|
customer
      ContentType => 'text/plain; charset=ISO-8859-15', # or optional
      Charset & MimeType (e.g. 'text/html; charset=UTF-8')
```

```

Subject      => 'some short description',          # required
Body         => 'the message text',              # required
HistoryType  => 'OwnerUpdate',                   #
EmailCustomer|Move|AddNote|PriorityUpdate|WebRequestCustomer|...
HistoryComment => 'Some free text!',

# article optional:
useful      From          => 'Some Agent <email@example.com>',      # not required but
but useful  To            => 'Some Customer A <customer-a@example.com>', # not required
but useful  Cc            => 'Some Customer B <customer-b@example.com>', # not required
useful      ReplyTo       => 'Some Customer B <customer-b@example.com>', # not required
useful      MessageID     => '<asdasdasd.123@example.com>',          # not required but
useful      InReplyTo     => '<asdasdasd.12@example.com>',          # not required but
not required but useful  References      => '<asdasdasd.1@example.com> <asdasdasd.12@example.com>', #
to send agent notifications  NoAgentNotify  => 0,                          # if you don't want
follow up|auto reply/new ticket|auto remove  AutoResponseType => 'auto reply'                # auto reject|auto
ForceNotificationToUserID => [ 1, 43, 56 ],          # if you want to
force somebody  ExcludeNotificationToUserID => [ 43,56 ],      # if you want full
exclude somebody from notifications,          # will also be
removed in To: line of article,              # higher prio as
ForceNotificationToUserID  ExcludeMuteNotificationToUserID => [ 43,56 ], # the same as
ExcludeNotificationToUserID but only the     # sending gets
muted, agent will still shown in To:         # line of article

TimeUnit      => 123

# other:
DynamicField_NameX => $Value,
LinkAs => $LinkType,          # Normal, Parent,
Child, etc. (respective original ticket)
UserID => 123,                # optional, to
override the UserID from the logged user
    },
};

```

'Jina' inaweka bayana jina la KitendoChampito kilicho sanidiwa. Inachaguliwa kwa uhuru, lakini inatakiwa kuakisi maana ya kitendo kilicho sanidiwa.

'Title' The ticket title.

'Queue' or 'QueueID' specifies the name or id of the queue to be used in the new ticket.

'Lock' or 'LockID' sets the lock status of the ticket.

'Priority' or 'PriorityID' specifies the name or id of the priority to be used in the new ticket.

'State' or 'StateID' specifies the name or id of the state to be used in the new ticket.

'CustomerID', the customer id to be set for the new ticket.

'CustomerUser', the login of the customer that will be assigned in the ticket.

'Owner' or 'OwnerID', specifies the login or id of the agent that will be the new ticket owner.

'TN', custom number for the new ticket.

'Type' or 'TypeID' specifies the name or id of the ticket type to be used in the new ticket.

'Service' or 'ServiceID' specifies the name or id of the service to be used in the new ticket.

'SLA' or 'SLAID' specifies the name or id of the SLA to be used in the new ticket.

'ResponsibleID', the ID of the agent that will be the new ticket responsible.

'PendingTime', a predefined date to set the Ticket Pending Times, when the ticket state belongs to a pending state type.

'PendingTimeDiff', a dynamically date (expressed in seconds from current date/time) to set the Ticket Pending Times, when the ticket state belongs to a pending state type.

'Aina ya Makala' inafafanua aina ya makala itakayotengenezwa. Thamani ziwezekanazo: simu, faksi, ujumbe mfupi wa maneno, notisi-ndani, notisi-nje, na notisi-ripoti.

Aina Ya Mtumaji inafafanua aina ya mtumaji wa makala. Thamani ziwezekanazo: wakala, mfumo, mteja.

'AinaMaudhui' inafafanua aina ya maudhui ya makala. Thamani ziwezekanazo: 'nakala/ghafi; seti kibambo=ISO-8859-15' au seti kibambo nyingine yoyote halali na aina ya mime.

'Somo' inafafanua mada ya makala. Lazima.

'Kiini' inafafanua maudhui ya makala. Lazima.

'HistoryType' defines the type of the history entry. Possible values: AddNote, Archive-FlagUpdate, Bounce, CustomerUpdate, EmailAgent, EmailCustomer, EscalationResponseTimeNotifyBefore, EscalationResponseTimeStart, EscalationResponseTimeStop, EscalationSolutionTimeNotifyBefore, EscalationSolutionTimeStart, EscalationSolutionTimeStop, EscalationUpdateTimeNotifyBefore, EscalationUpdateTimeStart, EscalationUpdateTimeStop, FollowUp, Forward, Lock, LoopProtection, Merged, Misc, Move, NewTicket, OwnerUpdate, PhoneCallAgent, PhoneCallCustomer, PriorityUpdate, Remove, ResponsibleUpdate, SendAgentNotification, SendAnswer, SendAutoFollowUp, SendAutoReject, SendAutoReply, SendCustomerNotification, ServiceUpdate, SetPendingTime, SLAUpdate, StateUpdate, Subscribe, SystemRequest, TicketDynamicFieldUpdate, TicketLinkAdd, TicketLinkDelete, TimeAccounting, TypeUpdate, Unlock, Unsubscribe, WebRequestCustomer.

'HistoriaMaoni' inafafanua maudhui ya ingizo la historia.

'Kutoka', 'Kwa', 'Nakala' na 'JibuKwa' peleka anuani za barua pepe kwenye nukuu zilizobainishwa juu.

'KatikaMajibuKwa' na 'Marejeo' chukua Vitambulisho vya ujumbe wa barua pepe.

'HakunaWakalaArifu'-kama imesetiwa kuwa 1, taarifa ya barua pepe ya Wakala haitatumwa.

'MajibuAinaOtomatiki' inaweza kuchukua thamani zifuatazo: ufwatiliaji otomatiki, ukataaji otomatiki, uondoaji otomatiki, majibu otomatiki, majibu otomatiki/tiketi mpya.

'LazimishaTaarifaKwaKitambulichoChaMtumiaji', 'TenganishaTaarifaKwaKitambulishoChamtumiaji', 'TenganishaNyamazishaTaarifaKwaKitambulishoChaMtumiaji' zinaweza kuchukua orodha ya Vitambulisho vya Watumiaji ambao aidha wanapata taarifa kila wakati, hawapati taarifa au wanawekwa kwenye orodha kama wanapata taarifa lakini hawapati barua pepe ya taarifa.

'TimeUnit' the time invested in the current ticket article expressed in seconds, minutes, hours, etc.

'DynamicField\_NameX' where DynamicField\_ is a required prefix and NameX is the name of a Dynamic Field to be set in the new ticket (on ticket level, not article levels).

'LinkAs' to define the new ticket relation with originator ticket, from the new ticket point of view, for example Normal, Parent, Child etc.

#### 2.4.5.6.4. SetiTiketiMteja

Inaseti mteja wa tiketi ya mchakato. Mfano:

```
$Self->{'Process::TransitionAction'} = {
  'TA1' => {
    Name => 'Customer Set Customer to test',
    Module => 'Kernel::System::Process::TransitionAction::TicketCustomerSet',
    Config => {
      No => 'test',
      User => 'client-user-123',
      # or in other words
      # CustomerID => 'client123',
      # CustomerUserID => 'client-user-123',
    },
  },
};
```

'Jina' inaweka bayana jina la KitendoChMpito kilicho sanidiwa.

'No' or 'CustomerID' set the Customer ID of the customer.

'User' or 'CustomerUserID' set the Username of the customer.

#### 2.4.5.6.5. SetiKitasaTiketi

Inabadilisha ufunguo wa tiketi ya mchakato, Mfano:

```
$Self->{'Process::TransitionAction'} = {
  'TA1' => {
    Name => 'Set Lock to lock',
    Module => 'Kernel::System::ProcessManagement::TransitionAction::TicketLockSet',
    Config => {
      Lock => 'lock',
      # or
      LockID => 2,
    },
  },
};
```

'Jina' inaweka bayana jina la KitendoChMpito kilicho sanidiwa.

'Funga' inafafanua ufungaji mpya wa tiketi ya mchakato.

'Kitambulisho cha Funga' inafafanua kitambulisho cha ndani cha ufungaji mpya.

#### 2.4.5.6.6. SetiMwenyeTiketi

Inabadilisha mmiliki wa tiketi ya nchakato. Mfano:

```
$Self->{'Process::TransitionAction'} = {
  'TA1' => {
    Name => 'Owner Set root@localhost',
```

```

Module => 'Kernel::System::ProcessManagement::TransitionAction::TicketOwnerSet',
Config => {
  Owner => 'root@localhost',
  # or
  OwnerID => 1,
},
};

```

'Jina' inaweka bayana jina la KitendoChampito kilicho sanidiwa.

'Mmiliki' inaweka bayana jina la kuingia la mmiliki mpya.

'Kitambulisho cha Mmiliki' inaweka bayana kitambulisho cha ndani cha mmiliki mpya.

#### 2.4.5.6.7. SetiFoleniTiketi

Inapeleka tiketi kwenye foleni lengwa. Mfano:

```

$self->{'Process::TransitionAction'} = {
  'TA1' => {
    Name => 'Queue Move Raw',
    Module => 'Kernel::System::ProcessManagement::TransitionAction::TicketQueueSet',
    Config => {
      Queue => 'Raw',
      # or
      # QueueID => '2',
    },
  },
};

```

'Jina' inaweka bayana jina la KitendoChampito kilicho sanidiwa.

'Foleni' inaweka bayana jina la foleni lengwa.

'Kitambulisho cha Foleni' inaweka bayana kitambulisho cha ndani cha foleni lengwa.

#### 2.4.5.6.8. SetKuwajibikaTiketi

Inabadilisha tiketi ya mchakato inayohusika. Mfano:

```

$self->{'Process::TransitionAction'} = {
  'TA1' => {
    Name => 'Responsible Set root@localhost',
    Module =>
    'Kernel::System::ProcessManagement::TransitionAction::TicketResponsibleSet',
    Config => {
      Responsible => 'root@localhost',
      # or
      ResponsibleID => 1,
    },
  },
};

```

'Jina' inaweka bayana jina la KitendoChampito kilicho sanidiwa.

'Mhusika' inaweka bayana jina la kuingia la mhusika mpya.

'Kitambulisho cha Mhusika' inaweka bayana kitambulisho cha ndani cha mhusika mpya.

#### 2.4.5.6.9. SetiHudumaTiketi

Inagawia huduma kwa tiketi ya mchakato. Tiketi inahitaji kuwa na mteja na huduma lazima iwe imegawiwa kwa huyo mteja. Mfano:

```
$Self->{'Process::TransitionAction'} = {
  'TA1' => {
    Name => 'Set MyService service',
    Module => 'Kernel::System::ProcessManagement::TransitionAction::TicketServiceSet',
    Config => {
      Service => 'MyService',
      # or
      ServiceID => 123,
    },
  },
};
```

'Jina' inaweka bayana jina la KitendoChaMpito kilicho sanidiwa.

'Huduma' inafanua huduma mpya ya tiketi ya mchakato. Jina kamili linahitajika (mf. HudumaBabu::HudumaBaba::HudumaMtoto ).

'Kitambulisho cha Huduma' inafanua kitambulisho cha ndani cha huduma mpya.

#### 2.4.5.6.10. SetiSLATiketi

Inagawia makubaliano ya ngazi ya huduma kwa tiketi ya mchakato. Tiketi inahitaji kuwa na huduma na SLA lazima igawiwe kwa hiyo huduma. Mfano:

```
$Self->{'Process::TransitionAction'} = {
  'TA1' => {
    Name => 'Set MySLA SLA',
    Module => 'Kernel::System::ProcessManagement::TransitionAction::TicketSLASet',
    Config => {
      SLA => 'MySLA',
      # or
      SLAID => 123,
    },
  },
};
```

'Jina' inaweka bayana jina la KitendoChaMpito kilicho sanidiwa.

'SLA' inafanua makubaliano ya ngazi ya huduma mpya ya mchakato wa tiketi.

'Kitambulisho cha SLA' inafanua kitambulisho cha ndani cha SLA mpya.

#### 2.4.5.6.11. SetiHaliTiketi

Inabadilisha hali ya mchakato wa tiketi. Mfano:

```
$Self->{'Process::TransitionAction'} = {
  'TA1' => {
    Name => 'Set State to open',
    Module => 'Kernel::System::ProcessManagement::TransitionAction::TicketStateSet',
    Config => {
      State => 'open',
      # or
      StateID => 4,

      PendingTimeDiff => 123,
    },
  },
};
```

'Jina' inaweka bayana jina la KitendoChaMpito kilicho sanidiwa.

'Hali' inafanua hali mpya ya tiketi ya mchakato.

'Kitambulisho cha Hali' inafafanua kitambulisho cha ndani cha hali mpya.

'MudaKusubiriTofauti' inatumika kwa ajili ya aina za hali za kusubiri tu, inafafanua utofauti wa muda katika sekunde yenye uhusiano (yenye uhusiano na muda wa utekelezaji wa Kitendo cha Mpito) na muda wa kusubiri wa tiketi uliosetiwa (mf. 3600 inamaanisha muda wa kusubiri ni lisaa 1 baada ya Kitendo cha Mpito kutekelezwa).

#### 2.4.5.6.12. SetiMadaTiketi

Inaseti kichwa cha habari cha tiketi ya mchakato. Mfano:

```
$Self->{'Process::TransitionAction'} = {
  'TA1' => {
    Name => 'Set Ticket Title to Ticket-title',
    Module => 'Kernel::System::ProcessManagement::TransitionAction::TicketTitleSet',
    Config => {
      Title => 'Ticket-title',
    },
  },
};
```

'Jina' inaweka bayana jina la KitendoChaNpito kilicho sanidiwa.

"Kichwa cha Habari" kinaweka bayana kichwa cha habari kipya cha tiketi.

#### 2.4.5.6.13. SetiAinaTiketi

Inaseti aina ya tiketi ya mchakato. Mfano:

```
$Self->{'Process::TransitionAction'} = {
  'TA1' => {
    Name => 'Set Ticket Type to default',
    Module => 'Kernel::System::ProcessManagement::TransitionAction::TicketTypeSet',
    Config => {
      Type => 'default',
      # or
      #TypeID => '1',
    },
  },
};
```

'Jina' inaweka bayana jina la KitendoChaNpito kilicho sanidiwa.

'Aina' inaweka bayana jina la aina ya tiketi.

'Kitambulisho cha Aina' inaweka bayana kitambulisho cha ndani cha aina ya tiketi.

### 2.4.6. Orodha Dhibiti Sikivu

Kwa usaidizi kutoka ACLs, unaweza kuweka kikomo cha vitu vya kuchaguliwa kwenye tiketi za mchakato. Tafadhali ona pia rejea ya ACL kwa maelezo kamili ya sintaksi ya ACL.

#### 2.4.6.1. Usanidi wa ACL

ACL zinaweza kufafanuliwa kwenye Kernel/Config.pm tu. Mfano:

```
$Self->{TicketAcl}->{'001-ACL-ProcessProperties'} = {
  Properties => {
    Process => {
      ProcessEntityID => ['P1'],
      ActivityEntityID => ['A1'],
      ActivityDialogEntityID => ['AD1'],
    },
  },
};
```

```

    }
  },
  Possible => {
    ActivityDialog => ['AD1', 'AD3'],
  },
  PossibleNot => {
    ActivityDialog => ['AD3'],
  },
};

```

### 2.4.6.2. 001-ACL-SifaMchakato

Jina la sheria ya ACL. Kwa maelezo zaidi kuhusu sheria za ACL kwa ujumla, tafadhali nenda mwongozo wa ACL.

### 2.4.6.3. Mchakato

Hii sehemu inatumika lulagua kama ACL laizma itumike. Kama ina thamani zilizowekwa bayana, sheria itatumika. Thamani zifuatazo zinaweza kutumika:

#### 2.4.6.3.1. KitambulishoChaChomboChaMchakato

Kitambulisho cha mchakato ambacho mchakato. Unafanania kama tiketi ikigawiwa kwa huu mchakato.

#### 2.4.6.3.2. KitambulishoChaChomboChaShughuli

Kitambulisho cha Shughuli ambayo tiketi ya mchakato imegawiwa kwa sasa.

#### 2.4.6.3.3. KitambulishoChaChomboChaMaongeziYaShughuli

Kitambulisho cha Maongezi ya Shughuli ambayo yako wazi kwa tiketi ya mchakato kwa sasa.

### 2.4.6.4. Ynawezekana/Yasiyowezekana Maongezi ya Shughuli

Hapa unaweza kuweka bayana orodha ya Vitambulisho vya Maongezi ya Shughuli. Hii orodha itaweka ukomo wa Maongezi ya Shughuli ambayo yanaweza kugawiwa kwa mtumijai katika barakoa ya kuza tiketi.

'Inawezekana' inaorodhesha Maongezi ya Shughuli ambayo yanaruhusiwa. Mpangilio hapo juu utaruhusu 'AD1' na 'AD3' tu kati ya orodha ya Maongezi ya Shughuli yaliyosani-diwa.

'InawezekanaHapana' inaorodhesha Maongezi ya Shughuli ambayo hayaruhusiwi. Kati-ka mfano hapo juu, mpangilio utaondoa 'AD3' kutoka kwenye orodha ya Maongezi ya Shughuli yaliyosani-diwa.

Kama zote 'Inawezekana' na 'InawezekanaHapana' zimewekwa bayana, orodha ya Maongezi ya Shughuli yatachujwa kwanza na 'Inawezekana', na kuacha 'AD1' na 'AD3' tu katika mfano wetu. Kisha 'InawezekanaHapana' itafanyika na kuchuja 'AD3', ili 'AD1' pekee ibaki na inaonyeshwa kama Maongezi ya Shughuli yanayowezekana ambayo mtumiaji anaweza kutumia.

Kama sheria zaidi ya moja za ACL zimefanana, muunganiko wa sheria zote zinazofanana utatafutwa kutengeneza Maongezi ya Shughuli yanayowezekana. Mfano:

Configured Activity Dialogs: 'AD1', 'AD2', 'AD3', 'AD4', 'AD5', 'AD6', 'AD7'.

```

$self->{TicketAcl}->{'001-ACL-Status'} = {
  Properties => {

```



```

    Ticket => {
      Status => 'new',
    }
  },
  Possible => {
    ActivityDialog => ['AD1', 'AD2', 'AD3', 'AD6', 'AD7'],
  },
};
$self->{TicketAcl}->{'002-ACL-Queue'} = {
  Properties => {
    Ticket => {
      Queue => ['Raw']
    }
  },
  Possible => {
    ActivityDialog => ['AD2', 'AD3', 'AD4', 'AD7'],
  },
};
$self->{TicketAcl}->{'003-ACL-Priority'} = {
  Properties => {
    Ticket => {
      Priority => ['3 normal']
    }
  },
  PossibleNot => {
    ActivityDialog => ['AD3', 'AD4'],
  },
};

```

Kama tiketi ya mchakato ina hali 'mpya', iko kwenye foleni 'Mbichi' na ina kipaumbele '3 kawaida', basi sheria zote tatu za ACL zitafanana nayo.

Sheria ya kwanza inapunguza Maongezi ya Shughuli kutoka 'AD1', 'AD2', 'AD3', 'AD4', 'AD5', 'AD6', 'AD7' to 'AD1', 'AD2', 'AD3', 'AD6', 'AD7' na inakataza 'AD4' na 'AD5'.

Sheria ya pili itapunguza zaidi Maongezi ya Shughuli yaliyobaki. Katika mfano wetu, 'AD2', 'AD3', 'AD7' zitabaki.

Sasa sheria ya tatu itapunguza zaidi orodha kwa 'InawezekanaHapana'. 'AD3' inaondolewa kutoka kwenye orodha. 'AD4' haiondolewi, kwa kuwa haikuwa kwenye orodha tangu mwanzo. Mwishoni, 'AD2' na 'AD7' zitabaki kama Maongezi ya Shughuli yanayowezekana ambayo mtumiaji anaweza kutumia.

It is also possible to limit the processes that can be displayed in the "New process ticket" screen. The functionality is similar to limiting the Activity Dialogs with one exception: The ACLs could only be based on Users.

Ona mifano chini:

```

$self->{TicketAcl}->{'200-ACL-Process'} = {
  # match properties
  Properties => {
    User => {
      UserID => [2, 3],
    },
  },
  Possible => {
    Process => ['P1', 'P2', 'P3'],
  },
  PossibleNot => {
    Process => ['P4'],
  },
};

```

```

$self->{TicketAcl}->{'201-ACL-Process'} = {

```

```
# match properties
Properties => {
  User => {
    Group_rw => [ 'MyGroup' ],
  },
},
Possible => {
  Process => ['P1', 'P2', 'P3'],
},
PossibleNot => {
  Process => ['P4'],
},
};
```

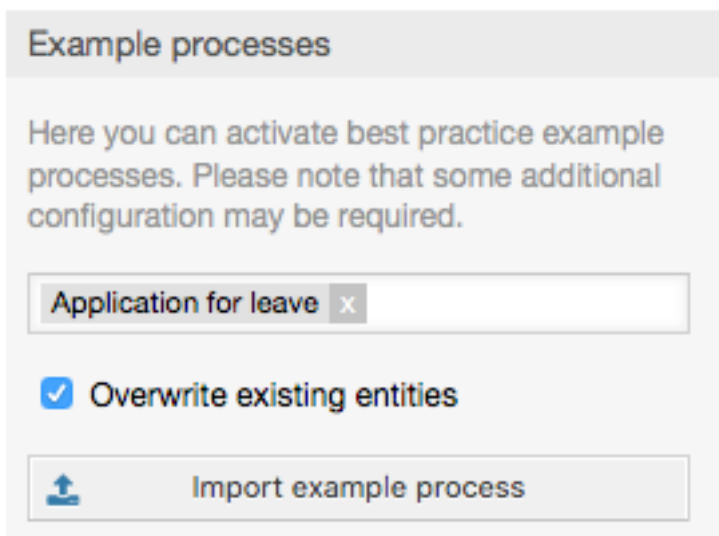
```
$Self->{TicketAcl}->{'202-ACL-Process'} = {
  # match properties
  Properties => {
    User => {
      Role => [ 'MyRole' ],
    },
  },
  Possible => {
    Process => ['P1', 'P2', 'P3'],
  },
  PossibleNot => {
    Process => ['P4'],
  },
};
```

## 2.5. Import example process

### 2.5.1. Agiza

On the *AdminProcessManagement* screen you can find an *Example process* widget, where you can find best practice example processes. Currently, there is only *Application for leave* process available, but you can find additional example processes in the **OTRS Business Solution™**.

**Figure 5.24. Import example process widget**




Example processes

Here you can activate best practice example processes. Please note that some additional configuration may be required.

Application for leave x

Overwrite existing entities

 Import example process

Select process from the drop-down menu and click on the *Import example process* button. After the process is imported, don't forget to deploy changes.

## 3. Creating Your Own Themes

You can create your own themes so as to use the layout you like in the OTRS web frontend. To create own themes, you should customize the output templates to your needs.

More information on the syntax and structure of output templates can be found in the Developer Manual at <http://otrs.github.io/doc>, especially in the chapter on [templates](#).

Kama mfano, fuata hatua zifuatazo kutengeneza mandhari mapya yanayoitwa "Kampuni":

1. Create a directory called `Kernel/Output/HTML/Templates/Company` and copy all files that you like to change, from `Kernel/Output/HTML/Templates/Standard` into the new folder.

### Important

Nakili mafaili yale tu utakayobadilisha. OTRS itapata kiotomatiki mafaili yasiyokuwepo kutoka kwenye maudhui ya Kawaida. Hii itafanya uboreshaji katika ngazi ya baadaye rahisi zaidi.

2. Customize the files in the directory `Kernel/Output/HTML/Templates/Company`, and change the layout to your needs.
3. To activate the new theme, add them in SysConfig under `Frontend::Themes`.

Now the new theme should be usable. You can select it via your personal preferences page.

### Warning

Usibadilishe mafaili ya mandhari yaliyosafirishwa na OTRS, kwani haya mabadiliko yatapotea baada ya usasishaji. Tengeneza mandhari yako mwenyewe kwa kufuata hatua zilizoelezwa hapo juu.

## 4. Localization of the OTRS Front End

Procedures for localization for the OTRS framework, steps to be followed to create a new language translation, as well as procedures for translation customizations, can be found in the "[Language Translations](#)" chapter from the developer manual on <http://otrs.github.io/doc>.

# Chapter 6. Kuboresha Utendaji

Inayoonyeshwa chini ni orodha ya mbinu za kuboresha utendaji wa usakinishaji wako wa OTRS, ikijumuisha usanidi, uandikaji kanuni, matumizi ya kumbukumbu, na mengine.

## 1. OTRS

Kuna njia tofauti za kuboresha utendaji wa OTRS.

### 1.1. ModuliKielelezoTiketi

There are two backend modules for the index for the ticket queue view:

`Kernel::System::Ticket::IndexAccelerator::RuntimeDB`

This is the default option, and will generate each queue view on the fly from the ticket table. You will not have performance trouble until you have about 60,000 open tickets in your system.

`Kernel::System::Ticket::IndexAccelerator::StaticDB`

The most powerful module, should be used when you have above 80,000 open tickets. It uses an extra `ticket_index` table, which will be populated with keywords based on ticket data. Use `bin/otrs.Console.pl Maint::Ticket::QueueIndexRebuild` for generating an initial index after switching backends.

You can change the used `IndexAccelerator` module via `SysConfig`.

### 1.2. SearchIndexModule

This module helps to extend your articles full-text search (From, To, Cc, Subject and Body search). There are two backend modules for the search index:

`Kernel::System::Ticket::ArticleSearchIndex::RuntimeDB`

This is the default option, and will do full-text searches on live data (it works fine for up to 50,000 tickets).

`Kernel::System::Ticket::ArticleSearchIndex::StaticDB`

This module will strip all articles and build an index after article creation, increasing performance of full-text searches up to 50%.

You can change the used `SearchIndexModule` via `SysConfig`.

To create an initial index, use `bin/otrs.Console.pl Maint::Ticket::FulltextIndexRebuild`.

For `StaticDB` module, there are some options available for fine tuning:

`Ticket::SearchIndex::Attribute`

The attribute `"WordCountMax"` defines the maximum of words which will be processed to build up the index. For example only the first 1000 words of an article body are stored in the article search index. The attributes `"WordLengthMin"` and `"WordLengthMax"` are used as word length boundaries. Only words with a length between these two values are stored in the article search index.

## Ticket::SearchIndex::Filters

There are three default filters defined:

- The first filter strips out special chars like: , & < > ? " ! \* | ; [ ] ( ) + \$ ^=
- The second filter strips out words which begin or ends with one of following chars: ' : .
- The third filter strips out words which do not contain a word-character: a-z, A-Z, 0-9, \_

## Ticket::SearchIndex::StopWords

There are so-called stop-words defined for some languages. These stop-words will be skipped while creating the search index.

## 1.3. ModuliHifadhiTiketi

Kuna moduli mbili tofauti za mazingira ya nyuma ya uhifadhi wa tiketi/makala:

### Kernel::System::Ticket::ArticleStorageDB

This default module will store attachments in the database.

#### Note

Don't use it with large setups.

Pro: If your web server isn't running under 'otrs' user, use this module to avoid file permission problems.

Con: It is not advisable to store attachments in your database. Take care that your database is able to store large objects. I.e.: configure MySQL with `set-variable = max_allowed_packet=8M` to store 8 MB objects (the default is 2M).

### Kernel::System::Ticket::ArticleStorageFS

Use this module to store attachments on the local file system.

#### Note

Recommended for large setups.

Faida: Ni ya kasi!

Con: Your web server should run under the 'otrs' user. Also, if you have multiple front-end servers, you must make sure the filesystem is shared between the servers. Place it on an NFS share or preferably a SAN or similar solution.

#### Note

You can switch from one back-end to the other on the fly. You can switch the back-end in the SysConfig, and then run the command line utility `bin/otrs.Console.pl Admin::Article::StorageSwitch` to put the articles from the database onto the filesystem or the other way around. You can use the `--target` option to specify the target backend. Please note that the entire process can take considerable time to run, depending on the number of articles you have and the available CPU power and/or network capacity.

```
shell> bin/otrs.Console.pl Admin::Article::StorageSwitch --target ArticleStorageFS
```

*Hati: Kubadilisha mazingira ya nyuma ya hifadhi kutoka hifadhidata kuwa mfumo wa mafaili*

If you want to keep old attachments in the database, you can activate the SysConfig option `Ticket::StorageModule::CheckAllBackends` to make sure OTRS will still find them.

## 1.4. Kuhifadhi Tiketi

Kwa kuwa OTRS inaweza kutumika kama mfumo wa kuzuia ukaguzi, kufuta tiketi zilizo-fungwa inaweza kuwa sio wazo zuri. Kwa hiyo tumetengeneza kipengele kinachokuruhusu kuhifadhi tiketi kwenye nyaraka.

Tickets that match certain criteria can be marked as "archived". These tickets are not accessed if you do a regular ticket search or run a Generic Agent job. The system itself does not have to deal with a huge amount of tickets any longer as only the "latest" tickets are taken into consideration when using OTRS. This can result in a huge performance gain on large systems.

Kutumia kipengele cha nyaraka fuata hatua zifuatazo kirahisi:

### 1. Amilisha mfumo wa nyaraka katika SysConfig

Katika kurasa ya msimamizi, nenda kwenye SysConfig na chagua Tiketi ya kundi hii. Katika Kiini::Tiketi unakuta chaguo Tiketi::MfumoNyaraka ambao umesetiwa kuwa "hapana" kwa chaguo-msingi. Badilisha mpangilio huu kuwa "ndiyo" na hifadhi mabadiliko.

### 2. Fafanua kazi ya WakalaWajumla

On the Admin page, select GenericAgent and add a new job there.

#### a. Mpangilio wa kazi

Toa jina kwa

#### b. Chujio la Tiketi

Vichujio vya tiketi vinatafuta tiketi ambazo zinafanana na kigezo kilichochaguliwa. Inaweza kuwa wazo zuri kuweka kwenye nyaraka zile tiketi zilizo kwenye hali iliy-ofungwa na zimefungwa miezi michache nyuma.

#### c. Kitendo cha Tiketi

Katika kifungu hiki, seti sehemu yenye lebo "Hifadhi kwenye Nyaraka tiketi zilizochaguliwa" kuwa "hifadhi tiketi kwenye nyaraka".

#### d. Hifadhi kazi

Mwisho wa kurasa utapata chaguo la kuhifadhi kazi.

#### e. Tiketi zilizoathirika.

Mfumo utaonyesha tiketi zote zitakazohifadhiwa kwenye nyaraka wakati wa kutekeleza kazi ya Wakala wa Ujumla.

### 3. Tafuta Tiketi

Ukitafuta tiketi, mfumo kwa kawaida unatafuta tiketi zisizo kwenye nyaraka. Kama ukitaka kutafuta tiketi za kwenye nyaraka pia, ongeza kirahisi "tafuta nyaraka" wakati wa kufafanua vigezo vya kutafuta.

## 1.5. Hifadhi muda

OTRS caches a lot of temporary data in `/opt/otrs/var/tmp`. Please make sure that this uses a high performance file system/storage. If you have enough RAM, you can also try to put this directory on a ramdisk like this:

```
shell> /opt/otrs/bin/otrs.Console.pl Maint::Session::DeleteAll
shell> /opt/otrs/bin/otrs.Console.pl Maint::Cache::Delete
shell> sudo mount -o size=16G -t tmpfs none /opt/otrs/var/tmp

# add persistent mount point in /etc/fstab
```

### Note

Please note that this will be a non-permanent storage that will be lost on server reboot. All your sessions (if you store them in the filesystem) and your cache data will be lost.

There is also a centralized memcached based cache backend available for purchase from OTRS Group.

## 2. Hifadhidata

Masula ya DB yanategemeana na hifadhidata inayotumika. Jifunze kupitia nyaraka za hifadhidata yako au onana na msimamizi wa hifadhidata yako.

### 2.1. MySQL

Kama ukitumia jedwali la MySQL la aina MyISAM (ambalo ni chaguo-msingi), na ukafuta sehemu kubwa ya jedwali au kama umefanya mabadiliko mengi kwenye jedwali yenye safu mlalo zenye urefu unaobadilika (majedwali yenye safuwima VARCHAR, BLOB na NAKALA), lazima uunganishe vipande vya faili la data (majedwali) kwa kutumia amri "sadifisha"

Unatakiwa kujaribu hili kama mysqld daemon inahitaji sana kutoka kwenye muda wako wa CPU. Sadifisha majedwali - tiketi, tiketi\_historia na makala (ona Hati chini).

```
shell> mysql -u user -p database
mysql> optimize table ticket;
mysql> optimize table ticket_history;
mysql> optimize table article;
```

*Hati: Kuongeza ufanisi wa majedwali msingi ya data.*

### 2.2. PostgreSQL

PostgreSQL is best tuned by modifying the `postgresql.conf` file in your PostgreSQL data directory. For advice on how to do this, reference the following articles:

- <http://www.revsys.com/writings/postgresql-performance.html>
- <http://varlena.com/GeneralBits/Tidbits/perf.html>
- [http://varlena.com/GeneralBits/Tidbits/annotated\\_conf\\_e.html](http://varlena.com/GeneralBits/Tidbits/annotated_conf_e.html) Type your translation here

If performance is still not satisfactory, we suggest that you join the PostgreSQL Performance mailing list ( <http://www.postgresql.org/community/lists/> ), and ask questions there. The folks on the PostgreSQL list are very friendly and can probably help.

## 3. Seva ya tovuti

Of course you should use mod\_perl 2.0 ( <http://perl.apache.org/> ). It's much faster (~\*100) than pure CGI, but it needs more RAM.

### 3.1. Miunganiko ya hifadhidata iliyotengenezwa.

You can have the database connections pre-established on startup of the web server. This saves time (see README.webserver).

### 3.2. Moduli zilizopakiwa tayari -startup.pl

Use the startup script scripts/apache2-perl-startup.pl for preloaded/precompiled Perl modules on your mod\_perl webserver to be faster, with a smaller memory footprint (see README.webserver).

### 3.3. Pakia tena moduli za perl zinapo sasishwa kwnye diski

By default Apache::Reload is used in scripts/apache2-httpd.include.conf. Disable it and you will get 8% more speed. But remember to restart the web server if you install any modules via the OTRS Package Manager, or any values in your SysConfig or in Kernel/Config.pm.

#### Important

This would also mean you can't use the OTRS Package Manager via the web interface, you will need to use the console commands: bin/otrs.Console.pl Admin::Package::\*.

### 3.4. Kuchagua mkakati sahihi

If you have a larger installation, e.g. over 1,000 new tickets per day and over 40 agents, it is a good idea to read the chapters on Performance of the mod\_perl User's Guide ( <http://perl.apache.org/docs/2.0/user/index.html> ).

### 3.5. mod\_gzip/mod\_deflate

If your bandwidth is small, use mod\_deflate for Apache2. If you have an html page with 45k, mod\_gzip/mod\_deflate compresses it to about 7k. The drawback is that this increases the load on the server side.



# Appendix A. Rasilimali za Ziada

## otrs.com

The OTRS website with source code, documentation and news is available at [www.otrs.com](http://www.otrs.com). Here you can also find information about professional services and OTRS Administrator training seminars from OTRS Group, the creator of OTRS.

## Mailing Lists

**Table A.1. Mailing Lists**

Name & URL	Maelezo
<a href="mailto:announce@otrs.org">announce@otrs.org</a>	Orodha ya hali chini ya msongamano, kwa Kiingereza, kwa ajili ya matangazo ya matoleo mapya ya OTRS na masuala ya usalama.
<a href="mailto:otrs@otrs.org">otrs@otrs.org</a>	Orodha ya hali ya kati kwenda juu ya msongamano, kwa Kiingereza, ambapo unaweza kupata maswali ya aina zote yanayohusika na msaada kuhusu bidhaa.
<a href="mailto:otrs-de@otrs.org">otrs-de@otrs.org</a>	Orodha ya hali ya kati kwenda juu ya msongamano, kwa Kijerumani, ambapo unaweza kupata maswali ya aina zote yanayohusika na msaada kuhusu bidhaa.
<a href="mailto:dev@otrs.org">dev@otrs.org</a>	Orodha ya hali ya kati, kwa Kiingereza, ambapo waundaji wa OTRS wanajadili masuala mbali mbali ya usanifu na utekelezaji.

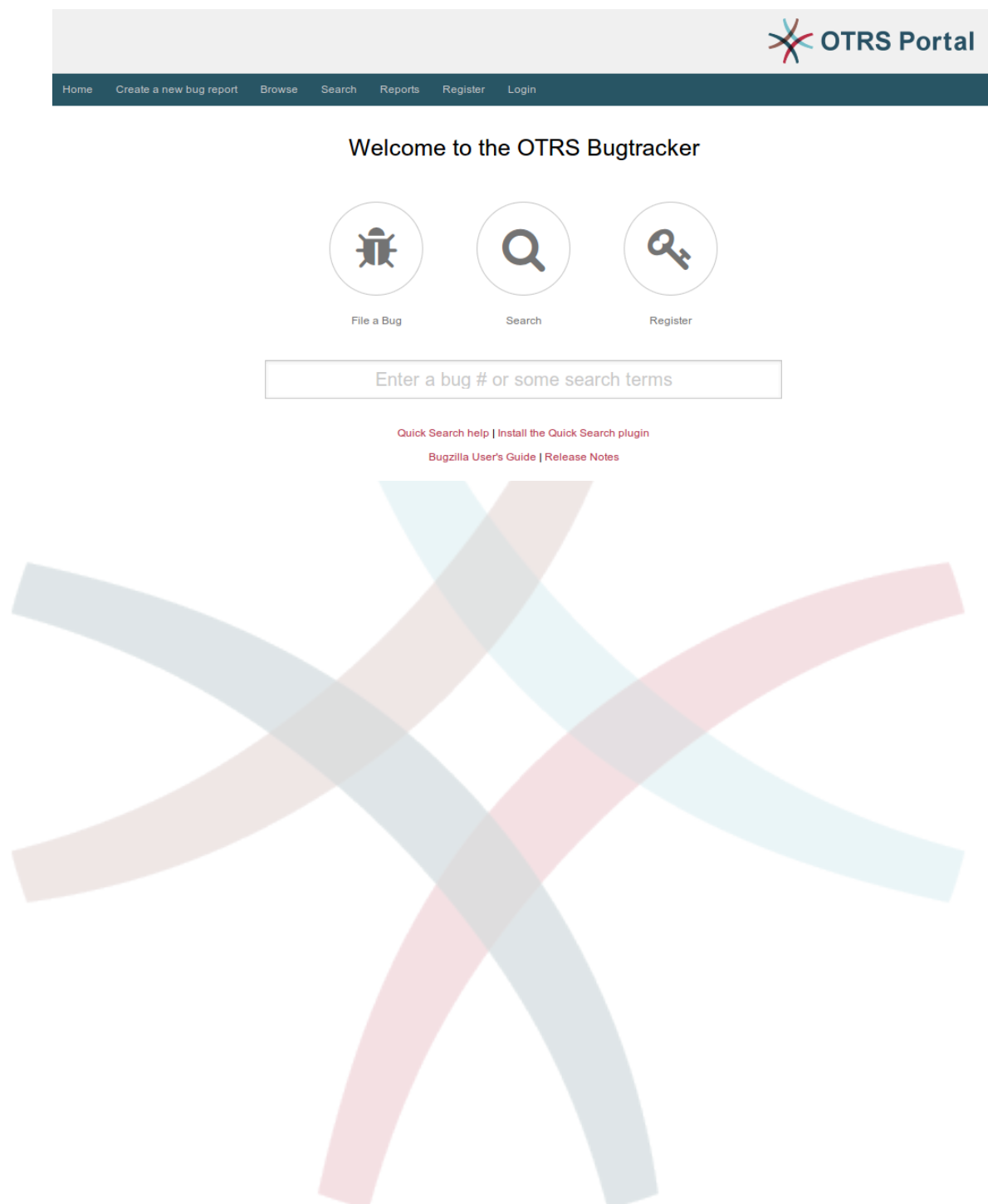
## Translations

You can help translate OTRS to your language at [Transifex](http://Transifex).

## Ufuatiliaji makosa

To report software defects, please visit <http://bugs.otrs.org/> (see figure below). Please take note of the difference between a bug and a configuration issue. Configuration issues are problems that you encounter when setting a system, or general questions regarding the use of OTRS. Bug reports should only be used for issues with the source code of OTRS or other open source OTRS modules itself. For configuration issues, you should either use the [commercial support, available from OTRS](#), or the public mailing lists.

**Figure A.1. Kifaa cha ufwatiliajimakosa**



# Appendix B. Configuration Options Reference

## 1. CloudService

### CloudService → CloudService::Admin::ModuleRegistration

#### CloudService::Admin::Module###100-SupportDataCollector

Cloud service admin module registration for the transport layer.

Thamani chaguo-msingi:

```
$Self->{'CloudService::Admin::Module'}->{'100-SupportDataCollector'} = {
  'ConfigDialog' => 'AdminCloudServiceSupportDataCollector',
  'Description' => 'Configure sending of support data to OTRS Group for improved
support.',
  'Icon' => 'fa fa-compass',
  'Name' => 'Support data collector'
};
```

#### CloudService::Admin::Module###200-SMS

Cloud service admin module registration for the transport layer.

Thamani chaguo-msingi:

```
$Self->{'CloudService::Admin::Module'}->{'200-SMS'} = {
  'ConfigDialog' => 'AdminCloudServiceSMS',
  'Description' => 'This will allow the system to send text messages via SMS.',
  'Icon' => 'fa fa-mobile',
  'IsOTRSBusiness' => '1',
  'Name' => 'SMS'
};
```

### CloudService → Core

#### CloudServices::Disabled

Disables the communication between this system and OTRS Group servers that provides cloud services. If active, some functionality will be lost such as system registration, support data sending, upgrading to and use of OTRS Business Solution™, OTRS Verify™, OTRS News and product News dashboard widgets, among others.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'CloudServices::Disabled'} = '0';
```

### CloudService → Frontend::Agent::ModuleNotify

#### Frontend::NotifyModule###100-CloudServicesDisabled

Defines the module to display a notification if cloud services are disabled.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::NotifyModule'}->{'100-CloudServicesDisabled'} = {
  'Group' => 'admin',
  'Module' => 'Kernel::Output::HTML::Notification::AgentCloudServicesDisabled'
};
```

## 2. Daemon

### Daemon → Core::Daemon::ModuleRegistration

#### DaemonModules###SchedulerGenericAgentTaskManager

The daemon registration for the scheduler generic agent task manager.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'DaemonModules'}->{'SchedulerGenericAgentTaskManager'} = {
  'Module' => 'Kernel::System::Daemon::DaemonModules::SchedulerGenericAgentTaskManager'
};
```

#### DaemonModules###SchedulerCronTaskManager

The daemon registration for the scheduler cron task manager.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'DaemonModules'}->{'SchedulerCronTaskManager'} = {
  'Module' => 'Kernel::System::Daemon::DaemonModules::SchedulerCronTaskManager'
};
```

#### DaemonModules###SchedulerFutureTaskManager

The daemon registration for the scheduler future task manager.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'DaemonModules'}->{'SchedulerFutureTaskManager'} = {
  'Module' => 'Kernel::System::Daemon::DaemonModules::SchedulerFutureTaskManager'
};
```

#### DaemonModules###SchedulerTaskWorker

The daemon registration for the scheduler task worker.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'DaemonModules'}->{'SchedulerTaskWorker'} = {
  'Module' => 'Kernel::System::Daemon::DaemonModules::SchedulerTaskWorker'
};
```

### Daemon → Core::Log

#### Daemon::Log::DaysToKeep

Defines the number of days to keep the daemon log files.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Daemon::Log::DaysToKeep'} = '1';
```

### **Daemon::Log::STDOUT**

If enabled the daemon will redirect the standard output stream to a log file.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Daemon::Log::STDOUT'} = '0';
```

### **Daemon::Log::STDERR**

If enabled the daemon will redirect the standard error stream to a log file.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Daemon::Log::STDERR'} = '1';
```

## **Daemon → Core::Web**

### **Loader::Agent::CommonCSS###001-Daemon**

List of CSS files to always be loaded for the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Loader::Agent::CommonCSS'}->{'001-Daemon'} = [  
  'Core.Agent.DaemonInfo.css'  
];
```

### **Loader::Agent::CommonJS###001-Daemon**

List of JS files to always be loaded for the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Loader::Agent::CommonJS'}->{'001-Daemon'} = [  
  'Core.Agent.DaemonInfo.js'  
];
```

## **Daemon → Daemon**

### **Daemon::PID::Path**

If enabled the daemon will use this directory to create its PID files. Note: Please stop the daemon before any change and use this setting only if <\$OTRSHome>/var/run/ can not be used.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Daemon::PID::Path'} = '/opt/otrs/var/run/';
```

## Daemon → Daemon::SchedulerCronTaskManager::Task

### Daemon::SchedulerCronTaskManager::Task###CoreCacheCleanup

Delete expired cache from core modules.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'CoreCacheCleanup'} = {
  'Function' => 'CleanUp',
  'MaximumParallelInstances' => '1',
  'Module' => 'Kernel::System::Cache',
  'Params' => [
    'Expired',
    '1'
  ],
  'Schedule' => '20 0 * * 0',
  'TaskName' => 'CoreCacheCleanup'
};
```

### Daemon::SchedulerCronTaskManager::Task###LoaderCacheDelete

Delete expired loader cache weekly (Sunday mornings).

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'LoaderCacheDelete'} = {
  'Function' => 'CacheDelete',
  'MaximumParallelInstances' => '1',
  'Module' => 'Kernel::System::Loader',
  'Params' => [],
  'Schedule' => '30 0 * * 0',
  'TaskName' => 'LoaderCacheDelete'
};
```

### Daemon::SchedulerCronTaskManager::Task###FetchMail

Fetch emails via fetchmail.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'FetchMail'} = {
  'Function' => 'Fetch',
  'MaximumParallelInstances' => '1',
  'Module' => 'Kernel::System::FetchMail',
  'Params' => [],
  'Schedule' => '* / 5 * * * *',
  'TaskName' => 'FetchMail'
};
```

### Daemon::SchedulerCronTaskManager::Task###FetchMailSSL

Fetch emails via fetchmail (using SSL).

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'FetchMailSSL'} = {
  'Function' => 'Fetch',
  'MaximumParallelInstances' => '1',
  'Module' => 'Kernel::System::FetchMail',
  'Params' => [
    'SSL',
    '1'
  ],
  'Schedule' => '* / 5 * * * *',
};
```

```
'TaskName' => 'FetchMailSSL'
};
```

### Daemon::SchedulerCronTaskManager::Task###GenerateDashboardStats

Generate dashboard statistics.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'GenerateDashboardStats'} = {
  'Function' => 'Execute',
  'MaximumParallelInstances' => '1',
  'Module' => 'Kernel::System::Console::Command::Maint::Stats::Dashboard::Generate',
  'Params' => [],
  'Schedule' => '5 * * * *',
  'TaskName' => 'GenerateDashboardStats'
};
```

### Daemon::SchedulerCronTaskManager::Task###EscalationCheck

Triggers ticket escalation events and notification events for escalation.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'EscalationCheck'} = {
  'Function' => 'Execute',
  'MaximumParallelInstances' => '1',
  'Module' => 'Kernel::System::Console::Command::Maint::Ticket::EscalationCheck',
  'Params' => [],
  'Schedule' => '* / 5 * * * *',
  'TaskName' => 'EscalationCheck'
};
```

### Daemon::SchedulerCronTaskManager::Task###TicketPendingCheck

Process pending tickets.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'TicketPendingCheck'} = {
  'Function' => 'Execute',
  'MaximumParallelInstances' => '1',
  'Module' => 'Kernel::System::Console::Command::Maint::Ticket::PendingCheck',
  'Params' => [],
  'Schedule' => '45 */ 2 * * * *',
  'TaskName' => 'TicketPendingCheck'
};
```

### Daemon::SchedulerCronTaskManager::Task###SpoolMailsReprocess

Reprocess mails from spool directory that could not be imported in the first place.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'SpoolMailsReprocess'} = {
  'Function' => 'Execute',
  'MaximumParallelInstances' => '1',
  'Module' =>
  'Kernel::System::Console::Command::Maint::PostMaster::SpoolMailsReprocess',
  'Params' => [],
  'Schedule' => '10 0 * * *',
  'TaskName' => 'SpoolMailsReprocess'
};
```

### Daemon::SchedulerCronTaskManager::Task###MailAccountFetch

Fetch incoming emails from configured mail accounts.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'MailAccountFetch'} = {
  'Function' => 'Execute',
  'MaximumParallelInstances' => '1',
  'Module' => 'Kernel::System::Console::Command::Maint::PostMaster::MailAccountFetch',
  'Params' => [],
  'Schedule' => '*/10 * * * *',
  'TaskName' => 'MailAccountFetch'
};
```

### Daemon::SchedulerCronTaskManager::Task###TicketAcceleratorRebuild

Rebuild the ticket index for AgentTicketQueue.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'TicketAcceleratorRebuild'} = {
  'Function' => 'TicketAcceleratorRebuild',
  'MaximumParallelInstances' => '1',
  'Module' => 'Kernel::System::Ticket',
  'Params' => [],
  'Schedule' => '01 01 * * *',
  'TaskName' => 'TicketAcceleratorRebuild'
};
```

### Daemon::SchedulerCronTaskManager::Task###SessionDeleteExpired

Delete expired sessions.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'SessionDeleteExpired'} = {
  'Function' => 'Execute',
  'MaximumParallelInstances' => '1',
  'Module' => 'Kernel::System::Console::Command::Maint::Session::DeleteExpired',
  'Params' => [],
  'Schedule' => '55 */2 * * *',
  'TaskName' => 'SessionDeleteExpired'
};
```

### Daemon::SchedulerCronTaskManager::Task###TicketUnlockTimeout

Unlock tickets that are past their unlock timeout.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'TicketUnlockTimeout'} = {
  'Function' => 'Execute',
  'MaximumParallelInstances' => '1',
  'Module' => 'Kernel::System::Console::Command::Maint::Ticket::UnlockTimeout',
  'Params' => [],
  'Schedule' => '35 * * * *',
  'TaskName' => 'TicketUnlockTimeout'
};
```

### Daemon::SchedulerCronTaskManager::Task###RenewCustomerSMIMECertificates

Renew existing SMIME certificates from customer backend. Note: SMIME and SMIME::FetchFromCustomer needs to be active in SysConfig and customer backend needs to be configured to fetch UserSMIMECertificate attribute.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'RenewCustomerSMIMECertificates'} =
{
  'Function' => 'Execute',
  'MaximumParallelInstances' => '1',
  'Module' =>
  'Kernel::System::Console::Command::Maint::SMIME::CustomerCertificate::Renew',
```



```
'Params' => [],
'Schedule' => '02 02 * * *',
'TaskName' => 'RenewCustomerSMIMECertificates'
};
```

### **Daemon::SchedulerCronTaskManager::Task###Custom1**

Executes a custom command or module. Note: if module is used, function is required.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'Custom1'} = {
  'Function' => '',
  'MaximumParallelInstances' => '1',
  'Module' => '',
  'Params' => [],
  'Schedule' => '* * * * *',
  'TaskName' => 'Custom1'
};
```

### **Daemon::SchedulerCronTaskManager::Task###Custom2**

Executes a custom command or module. Note: if module is used, function is required.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'Custom2'} = {
  'Function' => '',
  'MaximumParallelInstances' => '1',
  'Module' => '',
  'Params' => [],
  'Schedule' => '* * * * *',
  'TaskName' => 'Custom2'
};
```

### **Daemon::SchedulerCronTaskManager::Task###Custom3**

Executes a custom command or module. Note: if module is used, function is required.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'Custom3'} = {
  'Function' => '',
  'MaximumParallelInstances' => '1',
  'Module' => '',
  'Params' => [],
  'Schedule' => '* * * * *',
  'TaskName' => 'Custom3'
};
```

### **Daemon::SchedulerCronTaskManager::Task###Custom4**

Executes a custom command or module. Note: if module is used, function is required.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'Custom4'} = {
  'Function' => '',
  'MaximumParallelInstances' => '1',
  'Module' => '',
  'Params' => [],
};
```

```
'Schedule' => '* * * * *',
'TaskName' => 'Custom4'
};
```

### Daemon::SchedulerCronTaskManager::Task###Custom5

Executes a custom command or module. Note: if module is used, function is required.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'Custom5'} = {
  'Function' => '',
  'MaximumParallelInstances' => '1',
  'Module' => '',
  'Params' => [],
  'Schedule' => '* * * * *',
  'TaskName' => 'Custom5'
};
```

### Daemon::SchedulerCronTaskManager::Task###Custom6

Executes a custom command or module. Note: if module is used, function is required.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'Custom6'} = {
  'Function' => '',
  'MaximumParallelInstances' => '1',
  'Module' => '',
  'Params' => [],
  'Schedule' => '* * * * *',
  'TaskName' => 'Custom6'
};
```

### Daemon::SchedulerCronTaskManager::Task###Custom7

Executes a custom command or module. Note: if module is used, function is required.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'Custom7'} = {
  'Function' => '',
  'MaximumParallelInstances' => '1',
  'Module' => '',
  'Params' => [],
  'Schedule' => '* * * * *',
  'TaskName' => 'Custom7'
};
```

### Daemon::SchedulerCronTaskManager::Task###Custom8

Executes a custom command or module. Note: if module is used, function is required.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'Custom8'} = {
  'Function' => '',
  'MaximumParallelInstances' => '1',
  'Module' => '',
  'Params' => [],
  'Schedule' => '* * * * *',
};
```

```
'TaskName' => 'Custom8'
};
```

### Daemon::SchedulerCronTaskManager::Task###Custom9

Executes a custom command or module. Note: if module is used, function is required.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'Custom9'} = {
  'Function' => '',
  'MaximumParallelInstances' => '1',
  'Module' => '',
  'Params' => [],
  'Schedule' => '* * * * *',
  'TaskName' => 'Custom9'
};
```

### Daemon::SchedulerCronTaskManager::Task###GenericAgentFile1

Run file based generic agent jobs (Note: module name needs to be specified in -configuration-module param e.g. "Kernel::System::GenericAgent").

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'GenericAgentFile1'} = {
  'Function' => 'Execute',
  'MaximumParallelInstances' => '1',
  'Module' => 'Kernel::System::Console::Command::Maint::GenericAgent::Run',
  'Params' => [
    '--configuration-module',
    '<ModuleName>'
  ],
  'Schedule' => '* /20 * * * *',
  'TaskName' => 'GenericAgentFile1'
};
```

### Daemon::SchedulerCronTaskManager::Task###GenericAgentFile2

Run file based generic agent jobs (Note: module name needs to be specified in -configuration-module param e.g. "Kernel::System::GenericAgent").

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'GenericAgentFile2'} = {
  'Function' => 'Execute',
  'MaximumParallelInstances' => '1',
  'Module' => 'Kernel::System::Console::Command::Maint::GenericAgent::Run',
  'Params' => [
    '--configuration-module',
    '<ModuleName>'
  ],
  'Schedule' => '* /20 * * * *',
  'TaskName' => 'GenericAgentFile2'
};
```

### Daemon::SchedulerCronTaskManager::Task###GenericAgentFile3

Run file based generic agent jobs (Note: module name needs to be specified in -configuration-module param e.g. "Kernel::System::GenericAgent").

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'GenericAgentFile3'} = {
  'Function' => 'Execute',
  'MaximumParallelInstances' => '1',
  'Module' => 'Kernel::System::Console::Command::Maint::GenericAgent::Run',
  'Params' => [
    '--configuration-module',
    '<ModuleName>'
  ],
  'Schedule' => '*/*20 * * * *',
  'TaskName' => 'GenericAgentFile3'
};
```

#### **Daemon::SchedulerCronTaskManager::Task###GenericAgentFile4**

Run file based generic agent jobs (Note: module name needs to be specified in -configuration-module param e.g. "Kernel::System::GenericAgent").

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'GenericAgentFile4'} = {
  'Function' => 'Execute',
  'MaximumParallelInstances' => '1',
  'Module' => 'Kernel::System::Console::Command::Maint::GenericAgent::Run',
  'Params' => [
    '--configuration-module',
    '<ModuleName>'
  ],
  'Schedule' => '*/*20 * * * *',
  'TaskName' => 'GenericAgentFile4'
};
```

#### **Daemon::SchedulerCronTaskManager::Task###GenericAgentFile5**

Run file based generic agent jobs (Note: module name needs to be specified in -configuration-module param e.g. "Kernel::System::GenericAgent").

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'GenericAgentFile5'} = {
  'Function' => 'Execute',
  'MaximumParallelInstances' => '1',
  'Module' => 'Kernel::System::Console::Command::Maint::GenericAgent::Run',
  'Params' => [
    '--configuration-module',
    '<ModuleName>'
  ],
  'Schedule' => '*/*20 * * * *',
  'TaskName' => 'GenericAgentFile5'
};
```

#### **Daemon::SchedulerCronTaskManager::Task###RegistrationUpdateSend**

Sends registration information to OTRS group.

This setting can not be changed.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'RegistrationUpdateSend'} = {
  'Function' => 'Execute',
  'MaximumParallelInstances' => '1',
  'Module' => 'Kernel::System::Console::Command::Maint::Registration::UpdateSend',
  'Params' => [],
};
```

```
'Schedule' => '30 * * * *',
'TaskName' => 'RegistrationUpdateSend'
};
```

### **Daemon::SchedulerCronTaskManager::Task###SupportDataCollectAsynchronous**

Collect support data for asynchronous plug-in modules.

This setting can not be changed.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'SupportDataCollectAsynchronous'} =
{
  'Function' => 'Execute',
  'MaximumParallelInstances' => '1',
  'Module' =>
  'Kernel::System::Console::Command::Maint::SupportData::CollectAsynchronous',
  'Params' => [],
  'Schedule' => '1 * * * *',
  'TaskName' => 'SupportDataCollectAsynchronous'
};
```

### **Daemon::SchedulerCronTaskManager::Task###OTRSBusinessEntitlementCheck**

Checks the entitlement status of OTRS Business Solution™.

This setting can not be changed.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'OTRSBusinessEntitlementCheck'} =
{
  'Function' => 'Execute',
  'MaximumParallelInstances' => '1',
  'Module' => 'Kernel::System::Console::Command::Maint::OTRSBusiness::EntitlementCheck',
  'Params' => [],
  'Schedule' => '25,45 */1 * * *',
  'TaskName' => 'OTRSBusinessEntitlementCheck'
};
```

### **Daemon::SchedulerCronTaskManager::Task###OTRSBusinessAvailabilityCheck**

Checks the availability of OTRS Business Solution™ for this system.

This setting can not be changed.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerCronTaskManager::Task'}->{'OTRSBusinessAvailabilityCheck'} =
{
  'Function' => 'Execute',
  'MaximumParallelInstances' => '1',
  'Module' =>
  'Kernel::System::Console::Command::Maint::OTRSBusiness::AvailabilityCheck',
  'Params' => [],
  'Schedule' => '15,35,55 */1 * * *',
  'TaskName' => 'OTRSBusinessAvailabilityCheck'
};
```

## **Daemon → Daemon::SchedulerGenericAgentTaskManager**

### **Daemon::SchedulerGenericAgentTaskManager::TicketLimit**

Defines the maximum number of affected tickets per job.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerGenericAgentTaskManager::TicketLimit'} = '4000';
```

### **Daemon::SchedulerGenericAgentTaskManager::SleepTime**

Defines a sleep time in microseconds between tickets while they are been processed by a job.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerGenericAgentTaskManager::SleepTime'} = '0';
```

### **Daemon → Daemon::SchedulerGenericInterfaceTaskManager**

#### **Daemon::SchedulerGenericInterfaceTaskManager::FutureTaskTimeDiff**

Defines the default the number of seconds (from current time) to re-schedule a generic interface failed task.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerGenericInterfaceTaskManager::FutureTaskTimeDiff'} = '300';
```

### **Daemon → Daemon::SchedulerTaskWorker**

#### **Daemon::SchedulerTaskWorker::MaximumWorkers**

Defines the maximum number of tasks to be executed as the same time.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerTaskWorker::MaximumWorkers'} = '5';
```

#### **Daemon::SchedulerTaskWorker::NotificationRecipientEmail**

Specifies the email addresses to get notification messages from scheduler tasks.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Daemon::SchedulerTaskWorker::NotificationRecipientEmail'} = 'root@localhost';
```

### **Daemon → Frontend::Admin::ModuleRegistration**

#### **Frontend::Module###AgentDaemonInfo**

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentDaemonInfo'} = {  
  'Description' => 'Admin',
```

```
'Group' => [
  'admin'
],
'Title' => 'Shows information on how to start OTRS Daemon'
};
```

## Daemon → Frontend::Agent::ModuleNotify

### Frontend::NotifyModule###800-Daemon-Check

Defines the module to display a notification in the agent interface if the OTRS Daemon is not running.

Thamani chaguo-msingi:

```
$Self->{'Frontend::NotifyModule'}->{'800-Daemon-Check'} = {
  'Module' => 'Kernel::Output::HTML::Notification::DaemonCheck'
};
```

## 3. DynamicFields

### DynamicFields → DynamicFields::Driver::Registration

#### DynamicFields::Driver###Text

DynamicField backend registration.

Thamani chaguo-msingi:

```
$Self->{'DynamicFields::Driver'}->{'Text'} = {
  'ConfigDialog' => 'AdminDynamicFieldText',
  'DisplayName' => 'Text',
  'Module' => 'Kernel::System::DynamicField::Driver::Text'
};
```

#### DynamicFields::Driver###TextArea

DynamicField backend registration.

Thamani chaguo-msingi:

```
$Self->{'DynamicFields::Driver'}->{'TextArea'} = {
  'ConfigDialog' => 'AdminDynamicFieldText',
  'DisplayName' => 'Textarea',
  'Module' => 'Kernel::System::DynamicField::Driver::TextArea'
};
```

#### DynamicFields::Driver###Checkbox

DynamicField backend registration.

Thamani chaguo-msingi:

```
$Self->{'DynamicFields::Driver'}->{'Checkbox'} = {
  'ConfigDialog' => 'AdminDynamicFieldCheckbox',
  'DisplayName' => 'Checkbox',
  'Module' => 'Kernel::System::DynamicField::Driver::Checkbox'
};
```

#### DynamicFields::Driver###Dropdown

DynamicField backend registration.

Thamani chaguo-msingi:

```
$Self->{'DynamicFields::Driver'}->{'Dropdown'} = {
  'ConfigDialog' => 'AdminDynamicFieldDropdown',
  'DisplayName' => 'Dropdown',
  'Module' => 'Kernel::System::DynamicField::Driver::Dropdown'
};
```

### DynamicFields::Driver###DateTime

DynamicField backend registration.

Thamani chaguo-msingi:

```
$Self->{'DynamicFields::Driver'}->{'DateTime'} = {
  'ConfigDialog' => 'AdminDynamicFieldDateTime',
  'DisplayName' => 'Date / Time',
  'Module' => 'Kernel::System::DynamicField::Driver::DateTime'
};
```

### DynamicFields::Driver###Date

DynamicField backend registration.

Thamani chaguo-msingi:

```
$Self->{'DynamicFields::Driver'}->{'Date'} = {
  'ConfigDialog' => 'AdminDynamicFieldDate',
  'DisplayName' => 'Date',
  'Module' => 'Kernel::System::DynamicField::Driver::Date'
};
```

### DynamicFields::Driver###Multiselect

DynamicField backend registration.

Thamani chaguo-msingi:

```
$Self->{'DynamicFields::Driver'}->{'Multiselect'} = {
  'ConfigDialog' => 'AdminDynamicFieldMultiselect',
  'DisplayName' => 'Multiselect',
  'ItemSeparator' => ', ',
  'Module' => 'Kernel::System::DynamicField::Driver::Multiselect'
};
```

## DynamicFields → DynamicFields::ObjectType::Registration

### DynamicFields::ObjectType###Article

DynamicField object registration.

Thamani chaguo-msingi:

```
$Self->{'DynamicFields::ObjectType'}->{'Article'} = {
  'DisplayName' => 'Article',
  'Module' => 'Kernel::System::DynamicField::ObjectType::Article',
  'Prio' => '110'
};
```

### DynamicFields::ObjectType###Ticket

DynamicField object registration.

Thamani chaguo-msingi:

```
$Self->{'DynamicFields::ObjectType'}->{'Ticket'} = {
  'DisplayName' => 'Ticket',
  'Module' => 'Kernel::System::DynamicField::ObjectType::Ticket',
  'Prio' => '100'
};
```



```
};
```

## DynamicFields → Frontend::Admin::ModuleRegistration

### Frontend::Module###AdminDynamicField

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminDynamicField'} = {
  'Description' => 'This module is part of the admin area of OTRS.',
  'Group' => [
    'admin'
  ],
  'Loader' => {
    'CSS' => [
      'Core.Agent.Admin.DynamicField.css'
    ],
    'JavaScript' => [
      'Core.Agent.Admin.DynamicField.js'
    ]
  },
  'NavBarModule' => {
    'Block' => 'Ticket',
    'Description' => 'Create and manage dynamic fields.',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'Dynamic Fields',
    'Prio' => '1000'
  },
  'NavBarName' => 'Admin',
  'Title' => 'Dynamic Fields GUI'
};
```

### Frontend::Module###AdminDynamicFieldText

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminDynamicFieldText'} = {
  'Description' => 'This module is part of the admin area of OTRS.',
  'Group' => [
    'admin'
  ],
  'Loader' => {
    'JavaScript' => [
      'Core.Agent.Admin.DynamicField.js',
      'Core.Agent.Admin.DynamicFieldText.js'
    ]
  },
  'Title' => 'Dynamic Fields Text Backend GUI'
};
```

### Frontend::Module###AdminDynamicFieldCheckbox

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminDynamicFieldCheckbox'} = {
  'Description' => 'This module is part of the admin area of OTRS.',
  'Group' => [
    'admin'
  ],
  'Loader' => {
    'JavaScript' => [
      'Core.Agent.Admin.DynamicField.js'
    ]
  }
};
```

```

},
'Title' => 'Dynamic Fields Checkbox Backend GUI'
};

```

### Frontend::Module###AdminDynamicFieldDropdown

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AdminDynamicFieldDropdown'} = {
  'Description' => 'This module is part of the admin area of OTRS.',
  'Group' => [
    'admin'
  ],
  'Loader' => {
    'CSS' => [
      'Core.Agent.Admin.DynamicField.css'
    ],
    'JavaScript' => [
      'Core.Agent.Admin.DynamicField.js',
      'Core.Agent.Admin.DynamicFieldDropdown.js'
    ]
  },
  'Title' => 'Dynamic Fields Drop-down Backend GUI'
};

```

### Frontend::Module###AdminDynamicFieldDateTime

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AdminDynamicFieldDateTime'} = {
  'Description' => 'This module is part of the admin area of OTRS.',
  'Group' => [
    'admin'
  ],
  'Loader' => {
    'CSS' => [
      'Core.Agent.Admin.DynamicField.css'
    ],
    'JavaScript' => [
      'Core.Agent.Admin.DynamicField.js',
      'Core.Agent.Admin.DynamicFieldDateTime.js'
    ]
  },
  'Title' => 'Dynamic Fields Date Time Backend GUI'
};

```

### Frontend::Module###AdminDynamicFieldMultiselect

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AdminDynamicFieldMultiselect'} = {
  'Description' => 'This module is part of the admin area of OTRS.',
  'Group' => [
    'admin'
  ],
  'Loader' => {
    'CSS' => [
      'Core.Agent.Admin.DynamicField.css'
    ],
    'JavaScript' => [
      'Core.Agent.Admin.DynamicField.js',
      'Core.Agent.Admin.DynamicFieldMultiselect.js'
    ]
  },
};

```

```
'Title' => 'Dynamic Fields Multiselect Backend GUI'
};
```

## DynamicFields → Frontend::Agent::Preferences

### PreferencesGroups###DynamicField

Defines the config parameters of this item, to be shown in the preferences view.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'PreferencesGroups'}->{'DynamicField'} = {
  'Active' => '1',
  'Block' => 'Input',
  'Column' => 'Other Settings',
  'Data' => "[% Env('UserDynamicField_NameX') %]",
  'Desc' => 'Add a default name for Dynamic Field.',
  'Key' => 'Default value for NameX',
  'Label' => 'NameX',
  'Module' => 'Kernel::Output::HTML::Preferences::Generic',
  'PrefKey' => 'UserDynamicField_NameX',
  'Prio' => '7000'
};
```

### PreferencesGroups###DynamicFieldsOverviewPageShown

Parameters for the pages (in which the dynamic fields are shown) of the dynamic fields overview.

Thamani chaguo-msingi:

```
$Self->{'PreferencesGroups'}->{'DynamicFieldsOverviewPageShown'} = {
  'Active' => '0',
  'Column' => 'Other Settings',
  'Data' => {
    '10' => '10',
    '15' => '15',
    '20' => '20',
    '25' => '25',
    '30' => '30',
    '35' => '35'
  },
  'DataSelected' => '25',
  'Key' => 'Dynamic fields limit per page for Dynamic Fields Overview',
  'Label' => 'Dynamic Fields Overview Limit',
  'Module' => 'Kernel::Output::HTML::Preferences::Generic',
  'PrefKey' => 'AdminDynamicFieldsOverviewPageShown',
  'Prio' => '8000'
};
```

## 4. Framework

### Framework → Core

#### SecureMode

Disables the web installer (<http://yourhost.example.com/otrs/installer.pl>), to prevent the system from being hijacked. If set to "No", the system can be reinstalled and the current basic configuration will be used to pre-populate the questions within the installer script. If not active, it also disables the GenericAgent, PackageManager and SQL Box.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SecureMode'} = '0';
```

### **Frontend::DebugMode**

Enables or disables the debug mode over frontend interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::DebugMode'} = '0';
```

### **Frontend::AjaxDebug**

Delivers extended debugging information in the frontend in case any AJAX errors occur, if enabled.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::AjaxDebug'} = '0';
```

### **Frontend::TemplateCache**

Enables or disables the caching for templates. **WARNING: Do NOT disable template caching for production environments for it will cause a massive performance drop! This setting should only be disabled for debugging reasons!**

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::TemplateCache'} = '1';
```

### **ConfigLevel**

Sets the configuration level of the administrator. Depending on the config level, some sysconfig options will be not shown. The config levels are in ascending order: Expert, Advanced, Beginner. The higher the config level is (e.g. Beginner is the highest), the less likely is it that the user can accidentally configure the system in a way that it is not usable any more.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'ConfigLevel'} = '100';
```

### **ConfigImportAllowed**

Controls if the admin is allowed to import a saved system configuration in SysConfig.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'ConfigImportAllowed'} = '1';
```

### **ProductName**

Defines the name of the application, shown in the web interface, tabs and title bar of the web browser.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'ProductName'} = 'OTRS 5s';
```

### SystemID

Defines the system identifier. Every ticket number and http session string contains this ID. This ensures that only tickets which belong to your system will be processed as follow-ups (useful when communicating between two instances of OTRS).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SystemID'} = '10';
```

### FQDN

Defines the fully qualified domain name of the system. This setting is used as a variable, OTRS\_CONFIG\_FQDN which is found in all forms of messaging used by the application, to build links to the tickets within your system.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'FQDN'} = 'yourhost.example.com';
```

### SupportDataCollector::HTTPHostname

Defines the HTTP hostname for the support data collection with the public module 'PublicSupportDataCollector' (e.g. used from the OTRS Daemon).

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'SupportDataCollector::HTTPHostname'} = '';
```

### SupportDataCollector::WebUserAgent::Timeout

Defines the timeout (in seconds, minimum is 20 seconds) for the support data collection with the public module 'PublicSupportDataCollector' (e.g. used from the OTRS Daemon).

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'SupportDataCollector::WebUserAgent::Timeout'} = '20';
```

### NodeID

Defines the cluster node identifier. This is only used in cluster configurations where there is more than one OTRS frontend system. Note: only values from 1 to 99 are allowed.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'NodeID'} = '1';
```

## HttpType

Defines the type of protocol, used by the web server, to serve the application. If https protocol will be used instead of plain http, it must be specified here. Since this has no affect on the web server's settings or behavior, it will not change the method of access to the application and, if it is wrong, it will not prevent you from logging into the application. This setting is only used as a variable, OTRS\_CONFIG\_HttpType which is found in all forms of messaging used by the application, to build links to the tickets within your system.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'HttpType'} = 'http';
```

## ScriptAlias

Sets the prefix to the scripts folder on the server, as configured on the web server. This setting is used as a variable, OTRS\_CONFIG\_ScriptAlias which is found in all forms of messaging used by the application, to build links to the tickets within the system.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'ScriptAlias'} = 'otrs/';
```

## AdminEmail

Defines the system administrator's email address. It will be displayed in the error screens of the application.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'AdminEmail'} = 'admin@example.com';
```

## Organization

Company name which will be included in outgoing emails as an X-Header.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Organization'} = 'Example Company';
```

## DefaultLanguage

Defines the default front-end language. All the possible values are determined by the available language files on the system (see the next setting).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'DefaultLanguage'} = 'en';
```

## DefaultUsedLanguages

Defines all the languages that are available to the application. Specify only English names of languages here.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'DefaultUsedLanguages'} = {
  'ar_SA' => 'Arabic (Saudi Arabia)',
  'bg' => 'Bulgarian',
  'ca' => 'Catalan',
  'cs' => 'Czech',
  'da' => 'Danish',
  'de' => 'German',
  'el' => 'Greek',
  'en' => 'English (United States)',
  'en_CA' => 'English (Canada)',
  'en_GB' => 'English (United Kingdom)',
  'es' => 'Spanish',
  'es_CO' => 'Spanish (Colombia)',
  'es_MX' => 'Spanish (Mexico)',
  'et' => 'Estonian',
  'fa' => 'Persian',
  'fi' => 'Finnish',
  'fr' => 'French',
  'fr_CA' => 'French (Canada)',
  'gl' => 'Galician',
  'he' => 'Hebrew',
  'hi' => 'Hindi',
  'hr' => 'Croatian',
  'hu' => 'Hungarian',
  'id' => 'Indonesian',
  'it' => 'Italian',
  'ja' => 'Japanese',
  'lt' => 'Lithuanian',
  'lv' => 'Latvian',
  'ms' => 'Malay',
  'nb_NO' => 'Norwegian',
  'nl' => 'Nederlands',
  'pl' => 'Polish',
  'pt' => 'Portuguese',
  'pt_BR' => 'Portuguese (Brasil)',
  'ru' => 'Russian',
  'sk_SK' => 'Slovak',
  'sl' => 'Slovenian',
  'sr_Cyrl' => 'Serbian Cyrillic',
  'sr_Latn' => 'Serbian Latin',
  'sv' => 'Swedish',
  'sw' => 'Swahili',
  'th_TH' => 'Thai',
  'tr' => 'Turkish',
  'uk' => 'Ukrainian',
  'vi_VN' => 'Vietnam',
  'zh_CN' => 'Chinese (Simplified)',
  'zh_TW' => 'Chinese (Traditional)';
};
```

### DefaultUsedLanguagesNative

Defines all the languages that are available to the application. Specify only native names of languages here.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'DefaultUsedLanguagesNative'} = {
  'ar_SA' => 'العَرَبِيَّةُ',
  'bg' => 'Български',
  'ca' => 'Català',
  'cs' => 'Česky',
  'da' => 'Dansk',
  'de' => 'Deutsch',
  'el' => 'Ελληνικά',
```

```
'en' => 'English (United States)',
'en_CA' => 'English (Canada)',
'en_GB' => 'English (United Kingdom)',
'es' => 'Español',
'es_CO' => 'Español (Colombia)',
'es_MX' => 'Español (México)',
'et' => 'Eesti',
'fa' => 'فارسی',
'fi' => 'Suomi',
'fr' => 'Français',
'fr_CA' => 'Français (Canada)',
'gl' => 'Galego',
'he' => '#####',
'hi' => '#####',
'hr' => 'Hrvatski',
'hu' => 'Magyar',
'id' => 'Bahasa Indonesia',
'it' => 'Italiano',
'ja' => '日本語',
'lt' => 'Lietuvių kalba',
'lv' => 'Latvijas',
'ms' => 'Melayu',
'nb_NO' => 'Norsk bokmål',
'nl' => 'Nederlandse',
'pl' => 'Polski',
'pt' => 'Português',
'pt_BR' => 'Português Brasileiro',
'ru' => 'Русский',
'sk_SK' => 'Slovenčina',
'sl' => 'Slovenščina',
'sr_Cyrl' => 'Српски',
'sr_Latn' => 'Srpski',
'sv' => 'Svenska',
'sw' => 'Kiswahili',
'th_TH' => '#####',
'tr' => 'Türkçe',
'uk' => 'Українська',
'vi_VN' => 'Việt Nam',
'zh_CN' => '简体中文',
'zh_TW' => '正體中文'
};
```

## DefaultTheme

Defines the default front-end (HTML) theme to be used by the agents and customers. If you like, you can add your own theme. Please refer the administrator manual located at <http://otrs.github.io/doc/>.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'DefaultTheme'} = 'Standard';
```

## DefaultTheme::HostBased

It is possible to configure different themes, for example to distinguish between agents and customers, to be used on a per-domain basis within the application. Using a regular expression (regex), you can configure a Key/Content pair to match a domain. The value in "Key" should match the domain, and the value in "Content" should be a valid theme on your system. Please see the example entries for the proper form of the regex.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'DefaultTheme::HostBased'} = {
  'host1\\.example\\.com' => 'SomeTheme1',
```





Thamani chaguo-msingi:

```
$Self->{'CGILogPrefix'} = 'OTRS-CGI';
```

### **DemoSystem**

Runs the system in "Demo" mode. If set to "Yes", agents can change preferences, such as selection of language and theme via the agent web interface. These changes are only valid for the current session. It will not be possible for agents to change their passwords.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'DemoSystem'} = '0';
```

### **OutOfOfficeMessageTemplate**

Defines out of office message template. Two string parameters (%s) available: end date and number of days left.

Thamani chaguo-msingi:

```
$Self->{'OutOfOfficeMessageTemplate'} = '*** out of office until %s (%s d left) ***';
```

### **SwitchToUser**

Allows the administrators to login as other users, via the users administration panel.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SwitchToUser'} = '0';
```

### **SwitchToCustomer**

Allows the administrators to login as other customers, via the customer user administration panel.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SwitchToCustomer'} = '0';
```

### **SwitchToCustomer::PermissionGroup**

Specifies the group where the user needs rw permissions so that he can access the "SwitchToCustomer" feature.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SwitchToCustomer::PermissionGroup'} = 'admin';
```

### **NotificationSenderName**

Specifies the name that should be used by the application when sending notifications. The sender name is used to build the complete display name for the notification master (i.e. "OTRS Notifications" otrs@your.example.com).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'NotificationSenderName'} = 'OTRS Notifications';
```

### NotificationSenderEmail

Specifies the email address that should be used by the application when sending notifications. The email address is used to build the complete display name for the notification master (i.e. "OTRS Notifications" otrs@your.example.com). You can use the OTRS\_CONFIG\_FQDN variable as set in your configuration, or choose another email address.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'NotificationSenderEmail'} = 'otrs@<OTRS_CONFIG_FQDN>';
```

### System::Customer::Permission

Defines the standard permissions available for customers within the application. If more permissions are needed, you can enter them here. Permissions must be hard coded to be effective. Please ensure, when adding any of the afore mentioned permissions, that the "rw" permission remains the last entry.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'System::Customer::Permission'} = [  
  'ro',  
  'rw'  
];
```

### LanguageDebug

Debugs the translation set. If this is set to "Yes" all strings (text) without translations are written to STDERR. This can be helpful when you are creating a new translation file. Otherwise, this option should remain set to "No".

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'LanguageDebug'} = '0';
```

### Secure::DisableBanner

If enabled, the OTRS version tag will be removed from the Webinterface, the HTTP headers and the X-Headers of outgoing mails. NOTE: If you change this option, please make sure to delete the cache.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Secure::DisableBanner'} = '0';
```

## Framework → Core::Cache

### Cache::Module

Selects the cache backend to use.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Cache::Module'} = 'Kernel::System::Cache::FileStorable';
```

### Cache::InMemory

Should the cache data be held in memory?

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Cache::InMemory'} = '1';
```

### Cache::InBackend

Should the cache data be stored in the selected cache backend?

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Cache::InBackend'} = '1';
```

### Cache::SubdirLevels

Specify how many sub directory levels to use when creating cache files. This should prevent too many cache files being in one directory.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Cache::SubdirLevels'} = '2';
```

## Framework → Core::CustomerCompany

### CustomerCompany::EventModulePost###100-UpdateCustomerUsers

Event module that updates customer users after an update of the Customer.

Thamani chaguo-msingi:

```
$Self->{'CustomerCompany::EventModulePost'}->{'100-UpdateCustomerUsers'} = {
  'Event' => 'CustomerCompanyUpdate',
  'Module' => 'Kernel::System::CustomerCompany::Event::CustomerUserUpdate',
  'Transaction' => '0'
};
```

## Framework → Core::CustomerUser

### CustomerUser::EventModulePost###100-UpdateSearchProfiles

Event module that updates customer user search profiles if login changes.

Thamani chaguo-msingi:

```
$Self->{'CustomerUser::EventModulePost'}->{'100-UpdateSearchProfiles'} = {
  'Event' => 'CustomerUserUpdate',
  'Module' => 'Kernel::System::CustomerUser::Event::SearchProfileUpdate',
  'Transaction' => '0'
};
```

## CustomerUser::EventModulePost###100-UpdateServiceMembership

Event module that updates customer user service membership if login changes.

Thamani chaguo-msingi:

```
$Self->{'CustomerUser::EventModulePost'}->{'100-UpdateServiceMembership'} = {
  'Event' => 'CustomerUserUpdate',
  'Module' => 'Kernel::System::CustomerUser::Event::ServiceMemberUpdate',
  'Transaction' => '0'
};
```

## Framework → Core::Fetchmail

### Fetchmail::Bin

Defines the fall-back path to open fetchmail binary. Note: The name of the binary needs to be 'fetchmail', if it is different please use a symbolic link.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Fetchmail::Bin'} = '/usr/bin/fetchmail';
```

## Framework → Core::LinkObject

### LinkObject::ViewMode

Determines the way the linked objects are displayed in each zoom mask.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'LinkObject::ViewMode'} = 'Simple';
```

### LinkObject::Type###Normal

Defines the link type 'Normal'. If the source name and the target name contain the same value, the resulting link is a non-directional one; otherwise, the result is a directional link.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'LinkObject::Type'}->{'Normal'} = {
  'SourceName' => 'Normal',
  'TargetName' => 'Normal'
};
```

### LinkObject::Type###ParentChild

Defines the link type 'ParentChild'. If the source name and the target name contain the same value, the resulting link is a non-directional one; otherwise, the result is a directional link.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'LinkObject::Type'}->{'ParentChild'} = {
  'SourceName' => 'Parent',
  'TargetName' => 'Child'
};
```

## LinkObject::TypeGroup###0001

Defines the link type groups. The link types of the same group cancel one another. Example: If ticket A is linked per a 'Normal' link with ticket B, then these tickets could not be additionally linked with link of a 'ParentChild' relationship.

Thamani chaguo-msingi:

```
$Self->{'LinkObject::TypeGroup'}->{'0001'} = [  
  'Normal',  
  'ParentChild'  
];
```

## Framework → Core::Log

### LogModule

Defines the log module for the system. "File" writes all messages in a given logfile, "SysLog" uses the syslog daemon of the system, e.g. syslogd.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'LogModule'} = 'Kernel::System::Log::SysLog';
```

### LogModule::SysLog::Facility

If "SysLog" was selected for LogModule, a special log facility can be specified.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'LogModule::SysLog::Facility'} = 'user';
```

### LogModule::SysLog::LogSock

If "SysLog" was selected for LogModule, a special log sock can be specified (on solaris you may need to use 'stream').

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'LogModule::SysLog::LogSock'} = 'unix';
```

### LogModule::SysLog::Charset

If "SysLog" was selected for LogModule, the charset that should be used for logging can be specified.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'LogModule::SysLog::Charset'} = 'utf-8';
```

### LogModule::LogFile

If "file" was selected for LogModule, a logfile must be specified. If the file doesn't exist, it will be created by the system.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'LogModule::LogFile'} = '/tmp/otrs.log';
```

### **LogModule::LogFile::Date**

Adds a suffix with the actual year and month to the OTRS log file. A logfile for every month will be created.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'LogModule::LogFile::Date'} = '0';
```

### **MinimumLogLevel**

Set the minimum log level. If you select 'error', just errors are logged. With 'debug' you get all logging messages. The order of log levels is: 'debug', 'info', 'notice' and 'error'.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'MinimumLogLevel'} = 'error';
```

## **Framework → Core::MIME-Viewer**

### **MIME-Viewer###application/excel**

Specifies the path to the converter that allows the view of Microsoft Excel files, in the web interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'MIME-Viewer'}->{'application/excel'} = 'xlhtml';
```

### **MIME-Viewer###application/msword**

Specifies the path to the converter that allows the view of Microsoft Word files, in the web interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'MIME-Viewer'}->{'application/msword'} = 'wvWare';
```

### **MIME-Viewer###application/pdf**

Specifies the path to the converter that allows the view of PDF documents, in the web interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'MIME-Viewer'}->{'application/pdf'} = 'pdftohtml -stdout -i';
```

### **MIME-Viewer###text/xml**

Specifies the path to the converter that allows the view of XML files, in the web interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'MIME-Viewer'}->{'text/xml'} = '<OTRS_CONFIG_Home>/scripts/tools/xml2html.pl';
```

## Framework → Core::MirrorDB

### Core::MirrorDB::DSN

OTRS can use one or more readonly mirror databases for expensive operations like fulltext search or statistics generation. Here you can specify the DSN for the first mirror database.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Core::MirrorDB::DSN'} = 'DBI:mysql:database=mirrordb;host=mirrordbhost';
```

### Core::MirrorDB::User

Specify the username to authenticate for the first mirror database.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Core::MirrorDB::User'} = 'some_user';
```

### Core::MirrorDB::Password

Specify the password to authenticate for the first mirror database.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Core::MirrorDB::Password'} = 'some_password';
```

### Core::MirrorDB::AdditionalMirrors###1

Configure any additional readonly mirror databases that you want to use.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Core::MirrorDB::AdditionalMirrors'}->{'1'} = {  
  'DSN' => 'DBI:mysql:database=mirrordb;host=mirrordbhost',  
  'Password' => 'some_password',  
  'User' => 'some_user'  
};
```

### Core::MirrorDB::AdditionalMirrors###2

Configure any additional readonly mirror databases that you want to use.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Core::MirrorDB::AdditionalMirrors'}->{'2'} = {  
  'DSN' => 'DBI:mysql:database=mirrordb;host=mirrordbhost',  
  'Password' => 'some_password',  
  'User' => 'some_user'  
};
```



```
};
```

### **Core::MirrorDB::AdditionalMirrors###3**

Configure any additional readonly mirror databases that you want to use.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Core::MirrorDB::AdditionalMirrors'}->{'3'} = {  
  'DSN' => 'DBI:mysql:database=mirrordb;host=mirrordbhost',  
  'Password' => 'some_password',  
  'User' => 'some_user'  
};
```

### **Core::MirrorDB::AdditionalMirrors###4**

Configure any additional readonly mirror databases that you want to use.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Core::MirrorDB::AdditionalMirrors'}->{'4'} = {  
  'DSN' => 'DBI:mysql:database=mirrordb;host=mirrordbhost',  
  'Password' => 'some_password',  
  'User' => 'some_user'  
};
```

### **Core::MirrorDB::AdditionalMirrors###5**

Configure any additional readonly mirror databases that you want to use.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Core::MirrorDB::AdditionalMirrors'}->{'5'} = {  
  'DSN' => 'DBI:mysql:database=mirrordb;host=mirrordbhost',  
  'Password' => 'some_password',  
  'User' => 'some_user'  
};
```

## **Framework → Core::OTRSBusiness**

### **OTRSBusiness::ReleaseChannel**

Specify the channel to be used to fetch OTRS Business Solution™ updates. Warning: Development releases might not be complete, your system might experience unrecoverable errors and on extreme cases could become unresponsive!

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'OTRSBusiness::ReleaseChannel'} = '1';
```

## **Framework → Core::PDF**

### **PDF::LogoFile**

Specifies the path of the file for the logo in the page header (gif|jpg|png, 700 x 100 pixel).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PDF::LogoFile'} = '<OTRS_CONFIG_Home>/var/logo-otrs.png';
```

### **PDF::PageSize**

Defines the standard size of PDF pages.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PDF::PageSize'} = 'a4';
```

### **PDF::MaxPages**

Defines the maximum number of pages per PDF file.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PDF::MaxPages'} = '100';
```

### **PDF::TTFontFile###Proportional**

Defines the path and TTF-File to handle proportional font in PDF documents.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PDF::TTFontFile'}->{'Proportional'} = 'DejaVuSans.ttf';
```

### **PDF::TTFontFile###ProportionalBold**

Defines the path and TTF-File to handle bold proportional font in PDF documents.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PDF::TTFontFile'}->{'ProportionalBold'} = 'DejaVuSans-Bold.ttf';
```

### **PDF::TTFontFile###ProportionalItalic**

Defines the path and TTF-File to handle italic proportional font in PDF documents.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PDF::TTFontFile'}->{'ProportionalItalic'} = 'DejaVuSans-Oblique.ttf';
```

### **PDF::TTFontFile###ProportionalBoldItalic**

Defines the path and TTF-File to handle bold italic proportional font in PDF documents.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PDF::TTFontFile'}->{'ProportionalBoldItalic'} = 'DejaVuSans-BoldOblique.ttf';
```

### **PDF::TTFontFile###Monospaced**

Defines the path and TTF-File to handle monospaced font in PDF documents.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PDF::TTFontFile'}->{'Monospaced'} = 'DejaVuSansMono.ttf';
```

### **PDF::TTFontFile###MonospacedBold**

Defines the path and TTF-File to handle bold monospaced font in PDF documents.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PDF::TTFontFile'}->{'MonospacedBold'} = 'DejaVuSansMono-Bold.ttf';
```

### **PDF::TTFontFile###MonospacedItalic**

Defines the path and TTF-File to handle italic monospaced font in PDF documents.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PDF::TTFontFile'}->{'MonospacedItalic'} = 'DejaVuSansMono-Oblique.ttf';
```

### **PDF::TTFontFile###MonospacedBoldItalic**

Defines the path and TTF-File to handle bold italic monospaced font in PDF documents.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PDF::TTFontFile'}->{'MonospacedBoldItalic'} = 'DejaVuSansMono-BoldOblique.ttf';
```

## **Framework → Core::Package**

### **Package::FileUpload**

Enables file upload in the package manager frontend.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Package::FileUpload'} = '1';
```

### **Package::RepositoryRoot**

Defines the location to get online repository list for additional packages. The first available result will be used.

Thamani chaguo-msingi:

```
$Self->{'Package::RepositoryRoot'} = [  
'https://ftp.otrs.org/pub/otrs/misc/packages/repository.xml'  
];
```

### **Package::RepositoryList**

Defines the list of online repositories. Another installations can be used as repository, for example: Key="http://example.com/otrs/public.pl?Action=PublicRepository;File=" and Content="Some Name".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Package::RepositoryList'} = {  
  'ftp://ftp.example.com/pub/otrs/misc/packages/' => '[Example] ftp://ftp.example.com/'  
};
```

### **Package::RepositoryAccessRegExp**

Defines the IP regular expression for accessing the local repository. You need to enable this to have access to your local repository and the `Package::RepositoryList` is required on the remote host.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Package::RepositoryAccessRegExp'} = '127\\.0\\.0\\.1';
```

### **Package::Timeout**

Sets the timeout (in seconds) for package downloads. Overwrites "WebUserAgent::Timeout".

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Package::Timeout'} = '120';
```

### **Package::Proxy**

Fetches packages via proxy. Overwrites "WebUserAgent::Proxy".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Package::Proxy'} = 'http://proxy.sn.no:8001/';
```

### **Package::AllowLocalModifications**

If this setting is active, local modifications will not be highlighted as errors in the package manager and support data collector.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Package::AllowLocalModifications'} = '0';
```

### **Package::ShowFeatureAddons**

Toggles display of OTRS FeatureAddons list in PackageManager.

Thamani chaguo-msingi:

```
$Self->{'Package::ShowFeatureAddons'} = '1';
```

### **Package::EventModulePost###99-SupportDataSend**

Package event module file a scheduler task for update registration.

Thamani chaguo-msingi:

```
$Self->{'Package::EventModulePost'}->{'99-SupportDataSend'} = {
  'Event' => '(PackageInstall|PackageReinstall|PackageUpgrade|PackageUninstall)',
  'Module' => 'Kernel::System::Package::Event::SupportDataSend',
  'Transaction' => '1'
};
```

## Framework → Core::PerformanceLog

### PerformanceLog

Enables performance log (to log the page response time). It will affect the system performance. Frontend::Module###AdminPerformanceLog must be enabled.

Thamani chaguo-msingi:

```
$Self->{'PerformanceLog'} = '0';
```

### PerformanceLog::File

Specifies the path of the file for the performance log.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PerformanceLog::File'} = '<OTRS_CONFIG_Home>/var/log/Performance.log';
```

### PerformanceLog::FileMax

Defines the maximum size (in MB) of the log file.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PerformanceLog::FileMax'} = '25';
```

## Framework → Core::ReferenceData

### ReferenceData::OwnCountryList

This setting allows you to override the built-in country list with your own list of countries. This is particularly handy if you just want to use a small select group of countries.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'ReferenceData::OwnCountryList'} = {
  'AT' => 'Austria',
  'CH' => 'Switzerland',
  'DE' => 'Germany'
};
```

## Framework → Core::SOAP

### SOAP::User

Defines the username to access the SOAP handle (bin/cgi-bin/rpc.pl).

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'SOAP::User'} = 'some_user';
```

## SOAP::Password

Defines the password to access the SOAP handle (bin/cgi-bin/rpc.pl).

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'SOAP::Password'} = 'some_pass';
```

## SOAP::Keep-Alive

Enable keep-alive connection header for SOAP responses.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SOAP::Keep-Alive'} = '0';
```

## Framework → Core::Sendmail

### SendmailModule

Defines the module to send emails. "Sendmail" directly uses the sendmail binary of your operating system. Any of the "SMTP" mechanisms use a specified (external) mailserver. "DoNotSendEmail" doesn't send emails and it is useful for test systems.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SendmailModule'} = 'Kernel::System::Email::Sendmail';
```

### SendmailModule::CMD

If "Sendmail" was selected as SendmailModule, the location of the sendmail binary and the needed options must be specified.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SendmailModule::CMD'} = '/usr/sbin/sendmail -i -f';
```

### SendmailModule::Host

If any of the "SMTP" mechanisms was selected as SendmailModule, the mailhost that sends out the mails must be specified.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SendmailModule::Host'} = 'mail.example.com';
```

### SendmailModule::Port

If any of the "SMTP" mechanisms was selected as SendmailModule, the port where your mailserver is listening for incoming connections must be specified.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'SendmailModule::Port'} = '25';
```

### **SendmailModule::AuthUser**

If any of the "SMTP" mechanisms was selected as SendmailModule, and authentication to the mail server is needed, an username must be specified.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'SendmailModule::AuthUser'} = 'MailserverLogin';
```

### **SendmailModule::AuthPassword**

If any of the "SMTP" mechanisms was selected as SendmailModule, and authentication to the mail server is needed, a password must be specified.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'SendmailModule::AuthPassword'} = 'MailserverPassword';
```

### **SendmailBcc**

Sends all outgoing email via bcc to the specified address. Please use this only for backup reasons.

Thamani chaguo-msingi:

```
$Self->{'SendmailBcc'} = '';
```

### **SendmailEnvelopeFrom**

If set, this address is used as envelope sender in outgoing messages (not notifications - see below). If no address is specified, the envelope sender is equal to queue e-mail address.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'SendmailEnvelopeFrom'} = '';
```

### **SendmailNotificationEnvelopeFrom**

If set, this address is used as envelope sender header in outgoing notifications. If no address is specified, the envelope sender header is empty (unless SendmailNotificationEnvelopeFrom::FallbackToEmailFrom is set).

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'SendmailNotificationEnvelopeFrom'} = '';
```

### **SendmailNotificationEnvelopeFrom::FallbackToEmailFrom**

If no SendmailNotificationEnvelopeFrom is specified, this setting makes it possible to use the email's from address instead of an empty envelope sender (required in certain mail server configurations).

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'SendmailNotificationEnvelopeFrom::FallbackToEmailFrom'} = '0';
```

### **SendmailEncodingForce**

Forces encoding of outgoing emails (7bit|8bit|quoted-printable|base64).

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'SendmailEncodingForce'} = 'base64';
```

## **Framework → Core::Session**

### **SessionModule**

Defines the module used to store the session data. With "DB" the frontend server can be splitted from the db server. "FS" is faster.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SessionModule'} = 'Kernel::System::AuthSession::DB';
```

### **SessionName**

Defines the name of the session key. E.g. Session, SessionID or OTRS.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SessionName'} = 'OTRSAgentInterface';
```

### **CustomerPanelSessionName**

Defines the name of the key for customer sessions.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerPanelSessionName'} = 'OTRSCustomerInterface';
```

### **SessionCheckRemoteIP**

Turns on the remote ip address check. It should be set to "No" if the application is used, for example, via a proxy farm or a dialup connection, because the remote ip address is mostly different for the requests.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SessionCheckRemoteIP'} = '1';
```

### **SessionDeleteIfNotRemoteID**

Deletes a session if the session id is used with an invalid remote IP address.

This setting can not be deactivated.



Thamani chaguo-msingi:

```
$Self->{'SessionDeleteIfNotRemoteID'} = '1';
```

### **SessionMaxTime**

Defines the maximal valid time (in seconds) for a session id.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SessionMaxTime'} = '57600';
```

### **SessionMaxIdleTime**

Sets the inactivity time (in seconds) to pass before a session is killed and a user is logged out.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SessionMaxIdleTime'} = '7200';
```

### **SessionActiveTime**

DEPRECATED: This config setting will be removed in further versions of OTRS. Sets the time (in seconds) a user is marked as active (minimum active time is 300 seconds).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SessionActiveTime'} = '600';
```

### **SessionDeleteIfTimeToOld**

Deletes requested sessions if they have timed out.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SessionDeleteIfTimeToOld'} = '1';
```

### **SessionUseCookie**

Makes the session management use html cookies. If html cookies are disabled or if the client browser disabled html cookies, then the system will work as usual and append the session id to the links.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SessionUseCookie'} = '1';
```

### **SessionUseCookieAfterBrowserClose**

Stores cookies after the browser has been closed.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SessionUseCookieAfterBrowserClose'} = '0';
```

### SessionCSRFProtection

Protection against CSRF (Cross Site Request Forgery) exploits (for more info see [http://en.wikipedia.org/wiki/Cross-site\\_request\\_forgery](http://en.wikipedia.org/wiki/Cross-site_request_forgery)).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SessionCSRFProtection'} = '1';
```

### AgentSessionLimitPriorWarning

Sets the maximum number of active agents within the timespan defined in SessionMaxIdleTime before a prior warning will be visible for the logged in agents.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'AgentSessionLimitPriorWarning'} = '90';
```

### AgentSessionLimit

Sets the maximum number of active agents within the timespan defined in SessionMaxIdleTime.

Thamani chaguo-msingi:

```
$Self->{'AgentSessionLimit'} = '100';
```

### AgentSessionPerUserLimit

Sets the maximum number of active sessions per agent within the timespan defined in SessionMaxIdleTime.

Thamani chaguo-msingi:

```
$Self->{'AgentSessionPerUserLimit'} = '20';
```

### CustomerSessionLimit

Sets the maximum number of active customers within the timespan defined in SessionMaxIdleTime.

Thamani chaguo-msingi:

```
$Self->{'CustomerSessionLimit'} = '100';
```

### CustomerSessionPerUserLimit

Sets the maximum number of active sessions per customers within the timespan defined in SessionMaxIdleTime.

Thamani chaguo-msingi:

```
$Self->{'CustomerSessionPerUserLimit'} = '20';
```

### SessionDir

If "FS" was selected for SessionModule, a directory where the session data will be stored must be specified.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SessionDir'} = '<OTRS_CONFIG_Home>/var/sessions';
```

## SessionTable

If "DB" was selected for SessionModule, a table in database where session data will be stored must be specified.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SessionTable'} = 'sessions';
```

## Framework → Core::SpellChecker

### SpellChecker

Enables spell checker support.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SpellChecker'} = '0';
```

### SpellCheckerBin

Install ispell or aspell on the system, if you want to use a spell checker. Please specify the path to the aspell or ispell binary on your operating system.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SpellCheckerBin'} = '/usr/bin/ispell';
```

### SpellCheckerDictDefault

Defines the default spell checker dictionary.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SpellCheckerDictDefault'} = 'english';
```

### SpellCheckerIgnore

Defines a default list of words, that are ignored by the spell checker.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SpellCheckerIgnore'} = [  
  'www',  
  'webmail',  
  'https',  
  'http',  
  'html',  
  'rfc'  
];
```

## Framework → Core::Stats

### Stats::StatsHook

Sets the stats hook.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Stats::StatsHook'} = 'Stat#';
```

### Stats::StatsStartNumber

Start number for statistics counting. Every new stat increments this number.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Stats::StatsStartNumber'} = '10000';
```

### Stats::MaxXaxisAttributes

Defines the default maximum number of X-axis attributes for the time scale.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Stats::MaxXaxisAttributes'} = '1000';
```

## Framework → Core::Time

### TimeInputFormat

Defines the date input format used in forms (option or input fields).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeInputFormat'} = 'Option';
```

### TimeShowAlwaysLong

Shows time in long format (days, hours, minutes), if set to "Yes"; or in short format (days, hours), if set to "No".

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeShowAlwaysLong'} = '0';
```

### TimeZone

Sets the system time zone (required a system with UTC as system time). Otherwise this is a diff time to the local time.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'TimeZone'} = '+0';
```

## TimeZoneUser

Sets the user time zone per user (required a system with UTC as system time and UTC under TimeZone). Otherwise this is a diff time to the local time.

Thamani chaguo-msingi:

```
$Self->{'TimeZoneUser'} = '0';
```

## TimeZoneUserBrowserAutoOffset

Sets the user time zone per user based on java script / browser time zone offset feature at login time.

Thamani chaguo-msingi:

```
$Self->{'TimeZoneUserBrowserAutoOffset'} = '1';
```

## MaximumCalendarNumber

Maximum Number of a calendar shown in a dropdown.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'MaximumCalendarNumber'} = '50';
```

## CalendarWeekDayStart

Define the start day of the week for the date picker.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CalendarWeekDayStart'} = '1';
```

## TimeVacationDays

Adds the permanent vacation days. Please use single digit pattern for numbers from 1 to 9 (instead of 01 - 09).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeVacationDays'} = {  
  '1' => {  
    '1' => 'New Year\'s Day'  
  },  
  '12' => {  
    '24' => 'Christmas Eve',  
    '25' => 'First Christmas Day',  
    '26' => 'Second Christmas Day',  
    '31' => 'New Year\'s Eve'  
  },  
  '5' => {  
    '1' => 'International Workers\' Day'  
  }  
};
```

## TimeVacationDaysOneTime

Adds the one time vacation days. Please use single digit pattern for numbers from 1 to 9 (instead of 01 - 09).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeVacationDaysOneTime'} = {  
  '2004' => {  
    '1' => {  
      '1' => 'test'  
    }  
  }  
};
```

## TimeWorkingHours

Defines the hours and week days to count the working time.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeWorkingHours'} = {  
  'Fri' => [  
    '8',  
    '9',  
    '10',  
    '11',  
    '12',  
    '13',  
    '14',  
    '15',  
    '16',  
    '17',  
    '18',  
    '19',  
    '20'  
  ],  
  'Mon' => [  
    '8',  
    '9',  
    '10',  
    '11',  
    '12',  
    '13',  
    '14',  
    '15',  
    '16',  
    '17',  
    '18',  
    '19',  
    '20'  
  ],  
  'Sat' => [],  
  'Sun' => [],  
  'Thu' => [  
    '8',  
    '9',  
    '10',  
    '11',  
    '12',  
    '13',  
    '14',  
    '15',  
    '16',  
    '17',  
    '18',  
    '19',  
    '20'  
  ],  
  'Tue' => [  
    '8',  
    '9',
```

```
'10',
'11',
'12',
'13',
'14',
'15',
'16',
'17',
'18',
'19',
'20'
],
'Wed' => [
'8',
'9',
'10',
'11',
'12',
'13',
'14',
'15',
'16',
'17',
'18',
'19',
'20'
]
];
```

### **TimeShowCompleteDescription**

Shows time use complete description (days, hours, minutes), if set to "Yes"; or just first letter (d, h, m), if set to "No".

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeShowCompleteDescription'} = '0';
```

## **Framework → Core::Time::Calendar1**

### **TimeZone::Calendar1Name**

Defines the name of the indicated calendar.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeZone::Calendar1Name'} = 'Calendar Name 1';
```

### **TimeZone::Calendar1**

Defines the time zone of the indicated calendar, which can be assigned later to a specific queue.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeZone::Calendar1'} = '0';
```

### **CalendarWeekDayStart::Calendar1**

Define the start day of the week for the date picker for the indicated calendar.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CalendarWeekDayStart::Calendar1'} = '1';
```

### TimeVacationDays::Calendar1

Adds the permanent vacation days for the indicated calendar. Please use single digit pattern for numbers from 1 to 9 (instead of 01 - 09).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeVacationDays::Calendar1'} = {
  '1' => {
    '1' => 'New Year\'s Day'
  },
  '12' => {
    '24' => 'Christmas Eve',
    '25' => 'First Christmas Day',
    '26' => 'Second Christmas Day',
    '31' => 'New Year\'s Eve'
  },
  '5' => {
    '1' => 'International Workers\' Day'
  }
};
```

### TimeVacationDaysOneTime::Calendar1

Adds the one time vacation days for the indicated calendar. Please use single digit pattern for numbers from 1 to 9 (instead of 01 - 09).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeVacationDaysOneTime::Calendar1'} = {
  '2004' => {
    '1' => {
      '1' => 'test'
    }
  }
};
```

### TimeWorkingHours::Calendar1

Defines the hours and week days of the indicated calendar, to count the working time.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeWorkingHours::Calendar1'} = {
  'Fri' => [
    '8',
    '9',
    '10',
    '11',
    '12',
    '13',
    '14',
    '15',
    '16',
    '17',
    '18',
    '19',
  ]
};
```



```
'20'  
],  
'Mon' => [  
  '8',  
  '9',  
  '10',  
  '11',  
  '12',  
  '13',  
  '14',  
  '15',  
  '16',  
  '17',  
  '18',  
  '19',  
  '20'  
],  
'Sat' => [],  
'Sun' => [],  
'Thu' => [  
  '8',  
  '9',  
  '10',  
  '11',  
  '12',  
  '13',  
  '14',  
  '15',  
  '16',  
  '17',  
  '18',  
  '19',  
  '20'  
],  
'Tue' => [  
  '8',  
  '9',  
  '10',  
  '11',  
  '12',  
  '13',  
  '14',  
  '15',  
  '16',  
  '17',  
  '18',  
  '19',  
  '20'  
],  
'Wed' => [  
  '8',  
  '9',  
  '10',  
  '11',  
  '12',  
  '13',  
  '14',  
  '15',  
  '16',  
  '17',  
  '18',  
  '19',  
  '20'  
]  
];
```

## Framework → Core::Time::Calendar2

### TimeZone::Calendar2Name

Defines the name of the indicated calendar.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeZone::Calendar2Name'} = 'Calendar Name 2';
```

### TimeZone::Calendar2

Defines the time zone of the indicated calendar, which can be assigned later to a specific queue.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeZone::Calendar2'} = '0';
```

### CalendarWeekDayStart::Calendar2

Define the start day of the week for the date picker for the indicated calendar.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CalendarWeekDayStart::Calendar2'} = '1';
```

### TimeVacationDays::Calendar2

Adds the permanent vacation days for the indicated calendar. Please use single digit pattern for numbers from 1 to 9 (instead of 01 - 09).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeVacationDays::Calendar2'} = {
  '1' => {
    '1' => 'New Year\'s Day'
  },
  '12' => {
    '24' => 'Christmas Eve',
    '25' => 'First Christmas Day',
    '26' => 'Second Christmas Day',
    '31' => 'New Year\'s Eve'
  },
  '5' => {
    '1' => 'International Workers\' Day'
  }
};
```

### TimeVacationDaysOneTime::Calendar2

Adds the one time vacation days for the indicated calendar. Please use single digit pattern for numbers from 1 to 9 (instead of 01 - 09).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeVacationDaysOneTime::Calendar2'} = {
  '2004' => {
    '1' => {
      '1' => 'test'
    }
  }
};
```

```
};
```

## TimeWorkingHours::Calendar2

Defines the hours and week days of the indicated calendar, to count the working time.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeWorkingHours::Calendar2'} = {  
  'Fri' => [  
    '8',  
    '9',  
    '10',  
    '11',  
    '12',  
    '13',  
    '14',  
    '15',  
    '16',  
    '17',  
    '18',  
    '19',  
    '20'  
  ],  
  'Mon' => [  
    '8',  
    '9',  
    '10',  
    '11',  
    '12',  
    '13',  
    '14',  
    '15',  
    '16',  
    '17',  
    '18',  
    '19',  
    '20'  
  ],  
  'Sat' => [],  
  'Sun' => [],  
  'Thu' => [  
    '8',  
    '9',  
    '10',  
    '11',  
    '12',  
    '13',  
    '14',  
    '15',  
    '16',  
    '17',  
    '18',  
    '19',  
    '20'  
  ],  
  'Tue' => [  
    '8',  
    '9',  
    '10',  
    '11',  
    '12',  
    '13',  
    '14',  
    '15',  
    '16',  
    '17',  
    '18',  
    '19',  
    '20'  
  ]  
}
```

```

],
'Wed' => [
  '8',
  '9',
  '10',
  '11',
  '12',
  '13',
  '14',
  '15',
  '16',
  '17',
  '18',
  '19',
  '20'
]
};

```

## Framework → Core::Time::Calendar3

### TimeZone::Calendar3Name

Defines the name of the indicated calendar.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeZone::Calendar3Name'} = 'Calendar Name 3';
```

### TimeZone::Calendar3

Defines the time zone of the indicated calendar, which can be assigned later to a specific queue.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeZone::Calendar3'} = '0';
```

### CalendarWeekDayStart::Calendar3

Define the start day of the week for the date picker for the indicated calendar.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CalendarWeekDayStart::Calendar3'} = '1';
```

### TimeVacationDays::Calendar3

Adds the permanent vacation days for the indicated calendar. Please use single digit pattern for numbers from 1 to 9 (instead of 01 - 09).

This setting can not be deactivated.

Thamani chaguo-msingi:

```

$Self->{'TimeVacationDays::Calendar3'} = {
  '1' => {
    '1' => 'New Year\'s Day'
  },
  '12' => {
    '24' => 'Christmas Eve',
    '25' => 'First Christmas Day',
  }
};

```

```
'26' => 'Second Christmas Day',
'31' => 'New Year\'s Eve'
},
'5' => {
  '1' => 'International Workers\' Day'
}
};
```

### TimeVacationDaysOneTime::Calendar3

Adds the one time vacation days for the indicated calendar. Please use single digit pattern for numbers from 1 to 9 (instead of 01 - 09).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeVacationDaysOneTime::Calendar3'} = {
  '2004' => {
    '1' => {
      '1' => 'test'
    }
  }
};
```

### TimeWorkingHours::Calendar3

Defines the hours and week days of the indicated calendar, to count the working time.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeWorkingHours::Calendar3'} = {
  'Fri' => [
    '8',
    '9',
    '10',
    '11',
    '12',
    '13',
    '14',
    '15',
    '16',
    '17',
    '18',
    '19',
    '20'
  ],
  'Mon' => [
    '8',
    '9',
    '10',
    '11',
    '12',
    '13',
    '14',
    '15',
    '16',
    '17',
    '18',
    '19',
    '20'
  ],
  'Sat' => [],
  'Sun' => [],
  'Thu' => [
    '8',
    '9',
    '10',
```

```
'11',
'12',
'13',
'14',
'15',
'16',
'17',
'18',
'19',
'20'
],
'Tue' => [
'8',
'9',
'10',
'11',
'12',
'13',
'14',
'15',
'16',
'17',
'18',
'19',
'20'
],
'Wed' => [
'8',
'9',
'10',
'11',
'12',
'13',
'14',
'15',
'16',
'17',
'18',
'19',
'20'
]
];
```

## Framework → Core::Time::Calendar4

### TimeZone::Calendar4Name

Defines the name of the indicated calendar.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeZone::Calendar4Name'} = 'Calendar Name 4';
```

### TimeZone::Calendar4

Defines the time zone of the indicated calendar, which can be assigned later to a specific queue.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeZone::Calendar4'} = '0';
```

### CalendarWeekDayStart::Calendar4

Define the start day of the week for the date picker for the indicated calendar.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CalendarWeekDayStart::Calendar4'} = '1';
```

### TimeVacationDays::Calendar4

Adds the permanent vacation days for the indicated calendar. Please use single digit pattern for numbers from 1 to 9 (instead of 01 - 09).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeVacationDays::Calendar4'} = {
  '1' => {
    '1' => 'New Year\'s Day'
  },
  '12' => {
    '24' => 'Christmas Eve',
    '25' => 'First Christmas Day',
    '26' => 'Second Christmas Day',
    '31' => 'New Year\'s Eve'
  },
  '5' => {
    '1' => 'International Workers\' Day'
  }
};
```

### TimeVacationDaysOneTime::Calendar4

Adds the one time vacation days for the indicated calendar. Please use single digit pattern for numbers from 1 to 9 (instead of 01 - 09).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeVacationDaysOneTime::Calendar4'} = {
  '2004' => {
    '1' => {
      '1' => 'test'
    }
  }
};
```

### TimeWorkingHours::Calendar4

Defines the hours and week days of the indicated calendar, to count the working time.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeWorkingHours::Calendar4'} = {
  'Fri' => [
    '8',
    '9',
    '10',
    '11',
    '12',
    '13',
    '14',
    '15',
    '16',
    '17',
    '18',
    '19',
  ]
};
```

```
'20'  
],  
'Mon' => [  
  '8',  
  '9',  
  '10',  
  '11',  
  '12',  
  '13',  
  '14',  
  '15',  
  '16',  
  '17',  
  '18',  
  '19',  
  '20'  
],  
'Sat' => [],  
'Sun' => [],  
'Thu' => [  
  '8',  
  '9',  
  '10',  
  '11',  
  '12',  
  '13',  
  '14',  
  '15',  
  '16',  
  '17',  
  '18',  
  '19',  
  '20'  
],  
'Tue' => [  
  '8',  
  '9',  
  '10',  
  '11',  
  '12',  
  '13',  
  '14',  
  '15',  
  '16',  
  '17',  
  '18',  
  '19',  
  '20'  
],  
'Wed' => [  
  '8',  
  '9',  
  '10',  
  '11',  
  '12',  
  '13',  
  '14',  
  '15',  
  '16',  
  '17',  
  '18',  
  '19',  
  '20'  
]  
];
```

## Framework → Core::Time::Calendar5

### TimeZone::Calendar5Name

Defines the name of the indicated calendar.



This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeZone::Calendar5Name'} = 'Calendar Name 5';
```

### TimeZone::Calendar5

Defines the time zone of the indicated calendar, which can be assigned later to a specific queue.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeZone::Calendar5'} = '0';
```

### CalendarWeekDayStart::Calendar5

Define the start day of the week for the date picker for the indicated calendar.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CalendarWeekDayStart::Calendar5'} = '1';
```

### TimeVacationDays::Calendar5

Adds the permanent vacation days for the indicated calendar. Please use single digit pattern for numbers from 1 to 9 (instead of 01 - 09).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeVacationDays::Calendar5'} = {
  '1' => {
    '1' => 'New Year\'s Day'
  },
  '12' => {
    '24' => 'Christmas Eve',
    '25' => 'First Christmas Day',
    '26' => 'Second Christmas Day',
    '31' => 'New Year\'s Eve'
  },
  '5' => {
    '1' => 'International Workers\' Day'
  }
};
```

### TimeVacationDaysOneTime::Calendar5

Adds the one time vacation days for the indicated calendar. Please use single digit pattern for numbers from 1 to 9 (instead of 01 - 09).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeVacationDaysOneTime::Calendar5'} = {
  '2004' => {
    '1' => {
      '1' => 'test'
    }
  }
};
```

```
};
```

## TimeWorkingHours::Calendar5

Defines the hours and week days of the indicated calendar, to count the working time.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeWorkingHours::Calendar5'} = {  
  'Fri' => [  
    '8',  
    '9',  
    '10',  
    '11',  
    '12',  
    '13',  
    '14',  
    '15',  
    '16',  
    '17',  
    '18',  
    '19',  
    '20'  
  ],  
  'Mon' => [  
    '8',  
    '9',  
    '10',  
    '11',  
    '12',  
    '13',  
    '14',  
    '15',  
    '16',  
    '17',  
    '18',  
    '19',  
    '20'  
  ],  
  'Sat' => [],  
  'Sun' => [],  
  'Thu' => [  
    '8',  
    '9',  
    '10',  
    '11',  
    '12',  
    '13',  
    '14',  
    '15',  
    '16',  
    '17',  
    '18',  
    '19',  
    '20'  
  ],  
  'Tue' => [  
    '8',  
    '9',  
    '10',  
    '11',  
    '12',  
    '13',  
    '14',  
    '15',  
    '16',  
    '17',  
    '18',  
    '19',  
    '20'  
  ]  
}
```

```

],
'Wed' => [
  '8',
  '9',
  '10',
  '11',
  '12',
  '13',
  '14',
  '15',
  '16',
  '17',
  '18',
  '19',
  '20'
]
};

```

## Framework → Core::Time::Calendar6

### TimeZone::Calendar6Name

Defines the name of the indicated calendar.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeZone::Calendar6Name'} = 'Calendar Name 6';
```

### TimeZone::Calendar6

Defines the time zone of the indicated calendar, which can be assigned later to a specific queue.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeZone::Calendar6'} = '0';
```

### CalendarWeekDayStart::Calendar6

Define the start day of the week for the date picker for the indicated calendar.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CalendarWeekDayStart::Calendar6'} = '1';
```

### TimeVacationDays::Calendar6

Adds the permanent vacation days for the indicated calendar. Please use single digit pattern for numbers from 1 to 9 (instead of 01 - 09).

This setting can not be deactivated.

Thamani chaguo-msingi:

```

$Self->{'TimeVacationDays::Calendar6'} = {
  '1' => {
    '1' => 'New Year\'s Day'
  },
  '12' => {
    '24' => 'Christmas Eve',
    '25' => 'First Christmas Day',
  }
};

```

```
'26' => 'Second Christmas Day',
'31' => 'New Year\'s Eve'
},
'5' => {
  '1' => 'International Workers\' Day'
}
};
```

### TimeVacationDaysOneTime::Calendar6

Adds the one time vacation days for the indicated calendar. Please use single digit pattern for numbers from 1 to 9 (instead of 01 - 09).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeVacationDaysOneTime::Calendar6'} = {
  '2004' => {
    '1' => {
      '1' => 'test'
    }
  }
};
```

### TimeWorkingHours::Calendar6

Defines the hours and week days of the indicated calendar, to count the working time.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeWorkingHours::Calendar6'} = {
  'Fri' => [
    '8',
    '9',
    '10',
    '11',
    '12',
    '13',
    '14',
    '15',
    '16',
    '17',
    '18',
    '19',
    '20'
  ],
  'Mon' => [
    '8',
    '9',
    '10',
    '11',
    '12',
    '13',
    '14',
    '15',
    '16',
    '17',
    '18',
    '19',
    '20'
  ],
  'Sat' => [],
  'Sun' => [],
  'Thu' => [
    '8',
    '9',
    '10',
```

```
'11',
'12',
'13',
'14',
'15',
'16',
'17',
'18',
'19',
'20'
],
'Tue' => [
'8',
'9',
'10',
'11',
'12',
'13',
'14',
'15',
'16',
'17',
'18',
'19',
'20'
],
'Wed' => [
'8',
'9',
'10',
'11',
'12',
'13',
'14',
'15',
'16',
'17',
'18',
'19',
'20'
]
];
```

## Framework → Core::Time::Calendar7

### TimeZone::Calendar7Name

Defines the name of the indicated calendar.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeZone::Calendar7Name'} = 'Calendar Name 7';
```

### TimeZone::Calendar7

Defines the time zone of the indicated calendar, which can be assigned later to a specific queue.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeZone::Calendar7'} = '0';
```

### CalendarWeekDayStart::Calendar7

Define the start day of the week for the date picker for the indicated calendar.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CalendarWeekDayStart::Calendar7'} = '1';
```

### TimeVacationDays::Calendar7

Adds the permanent vacation days for the indicated calendar. Please use single digit pattern for numbers from 1 to 9 (instead of 01 - 09).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeVacationDays::Calendar7'} = {
  '1' => {
    '1' => 'New Year\'s Day'
  },
  '12' => {
    '24' => 'Christmas Eve',
    '25' => 'First Christmas Day',
    '26' => 'Second Christmas Day',
    '31' => 'New Year\'s Eve'
  },
  '5' => {
    '1' => 'International Workers\' Day'
  }
};
```

### TimeVacationDaysOneTime::Calendar7

Adds the one time vacation days for the indicated calendar. Please use single digit pattern for numbers from 1 to 9 (instead of 01 - 09).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeVacationDaysOneTime::Calendar7'} = {
  '2004' => {
    '1' => {
      '1' => 'test'
    }
  }
};
```

### TimeWorkingHours::Calendar7

Defines the hours and week days of the indicated calendar, to count the working time.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeWorkingHours::Calendar7'} = {
  'Fri' => [
    '8',
    '9',
    '10',
    '11',
    '12',
    '13',
    '14',
    '15',
    '16',
    '17',
    '18',
    '19',
  ]
};
```

```
'20'  
],  
'Mon' => [  
  '8',  
  '9',  
  '10',  
  '11',  
  '12',  
  '13',  
  '14',  
  '15',  
  '16',  
  '17',  
  '18',  
  '19',  
  '20'  
],  
'Sat' => [],  
'Sun' => [],  
'Thu' => [  
  '8',  
  '9',  
  '10',  
  '11',  
  '12',  
  '13',  
  '14',  
  '15',  
  '16',  
  '17',  
  '18',  
  '19',  
  '20'  
],  
'Tue' => [  
  '8',  
  '9',  
  '10',  
  '11',  
  '12',  
  '13',  
  '14',  
  '15',  
  '16',  
  '17',  
  '18',  
  '19',  
  '20'  
],  
'Wed' => [  
  '8',  
  '9',  
  '10',  
  '11',  
  '12',  
  '13',  
  '14',  
  '15',  
  '16',  
  '17',  
  '18',  
  '19',  
  '20'  
]  
];
```

## Framework → Core::Time::Calendar8

### TimeZone::Calendar8Name

Defines the name of the indicated calendar.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeZone::Calendar8Name'} = 'Calendar Name 8';
```

### TimeZone::Calendar8

Defines the time zone of the indicated calendar, which can be assigned later to a specific queue.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeZone::Calendar8'} = '0';
```

### CalendarWeekDayStart::Calendar8

Define the start day of the week for the date picker for the indicated calendar.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CalendarWeekDayStart::Calendar8'} = '1';
```

### TimeVacationDays::Calendar8

Adds the permanent vacation days for the indicated calendar. Please use single digit pattern for numbers from 1 to 9 (instead of 01 - 09).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeVacationDays::Calendar8'} = {
  '1' => {
    '1' => 'New Year\'s Day'
  },
  '12' => {
    '24' => 'Christmas Eve',
    '25' => 'First Christmas Day',
    '26' => 'Second Christmas Day',
    '31' => 'New Year\'s Eve'
  },
  '5' => {
    '1' => 'International Workers\' Day'
  }
};
```

### TimeVacationDaysOneTime::Calendar8

Adds the one time vacation days for the indicated calendar. Please use single digit pattern for numbers from 1 to 9 (instead of 01 - 09).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeVacationDaysOneTime::Calendar8'} = {
  '2004' => {
    '1' => {
      '1' => 'test'
    }
  }
};
```





```
'8',
'9',
'10',
'11',
'12',
'13',
'14',
'15',
'16',
'17',
'18',
'19',
'20'
]
};
```

## Framework → Core::Time::Calendar9

### TimeZone::Calendar9Name

Defines the name of the indicated calendar.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeZone::Calendar9Name'} = 'Calendar Name 9';
```

### TimeZone::Calendar9

Defines the time zone of the indicated calendar, which can be assigned later to a specific queue.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeZone::Calendar9'} = '0';
```

### CalendarWeekDayStart::Calendar9

Define the start day of the week for the date picker for the indicated calendar.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CalendarWeekDayStart::Calendar9'} = '1';
```

### TimeVacationDays::Calendar9

Adds the permanent vacation days for the indicated calendar. Please use single digit pattern for numbers from 1 to 9 (instead of 01 - 09).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TimeVacationDays::Calendar9'} = {
  '1' => {
    '1' => 'New Year\'s Day'
  },
  '12' => {
    '24' => 'Christmas Eve',
    '25' => 'First Christmas Day',
    '26' => 'Second Christmas Day',
    '31' => 'New Year\'s Eve'
  }
}
```

```

},
'5' => {
  '1' => 'International Workers\' Day'
}
};

```

### TimeVacationDaysOneTime::Calendar9

Adds the one time vacation days for the indicated calendar. Please use single digit pattern for numbers from 1 to 9 (instead of 01 - 09).

This setting can not be deactivated.

Thamani chaguo-msingi:

```

$self->{'TimeVacationDaysOneTime::Calendar9'} = {
  '2004' => {
    '1' => {
      '1' => 'test'
    }
  }
}
};

```

### TimeWorkingHours::Calendar9

Defines the hours and week days of the indicated calendar, to count the working time.

This setting can not be deactivated.

Thamani chaguo-msingi:

```

$self->{'TimeWorkingHours::Calendar9'} = {
  'Fri' => [
    '8',
    '9',
    '10',
    '11',
    '12',
    '13',
    '14',
    '15',
    '16',
    '17',
    '18',
    '19',
    '20'
  ],
  'Mon' => [
    '8',
    '9',
    '10',
    '11',
    '12',
    '13',
    '14',
    '15',
    '16',
    '17',
    '18',
    '19',
    '20'
  ],
  'Sat' => [],
  'Sun' => [],
  'Thu' => [
    '8',
    '9',
    '10',
    '11',
    '12',

```

```

    '13',
    '14',
    '15',
    '16',
    '17',
    '18',
    '19',
    '20'
  ],
  'Tue' => [
    '8',
    '9',
    '10',
    '11',
    '12',
    '13',
    '14',
    '15',
    '16',
    '17',
    '18',
    '19',
    '20'
  ],
  'Wed' => [
    '8',
    '9',
    '10',
    '11',
    '12',
    '13',
    '14',
    '15',
    '16',
    '17',
    '18',
    '19',
    '20'
  ]
]
};

```

## Framework → Core::Web

### Frontend::WebPath

Defines the URL base path of icons, CSS and Java Script.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::WebPath'} = '/otrs-web/';
```

### Frontend::ImagePath

Defines the URL image path of icons for navigation.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::ImagePath'} = '<OTRS_CONFIG_Frontend::WebPath>skins/Agent/default/img/';
```

### Frontend::CSSPath

Defines the URL CSS path.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::CSSPath'} = '<OTRS_CONFIG_Frontend::WebPath>css/';
```

### **Frontend::JavaScriptPath**

Defines the URL java script path.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::JavaScriptPath'} = '<OTRS_CONFIG_Frontend::WebPath>js/';
```

### **Frontend::RichText**

Uses richtext for viewing and editing: articles, salutations, signatures, standard templates, auto responses and notifications.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::RichText'} = '1';
```

### **Frontend::RichTextPath**

Defines the URL rich text editor path.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::RichTextPath'} = '<OTRS_CONFIG_Frontend::WebPath>js/thirdparty/ckeditor-4.5.6/';
```

### **Frontend::RichTextWidth**

Defines the width for the rich text editor component. Enter number (pixels) or percent value (relative).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::RichTextWidth'} = '620';
```

### **Frontend::RichTextHeight**

Defines the height for the rich text editor component. Enter number (pixels) or percent value (relative).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::RichTextHeight'} = '320';
```

### **Frontend::RichText::DefaultCSS**

Defines the default CSS used in rich text editors.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::RichText::DefaultCSS'} = 'font-family:Geneva,Helvetica,Arial,sans-serif; font-size: 12px;';
```

### **Frontend::RichText::EnhancedMode**

Defines if the enhanced mode should be used (enables use of table, replace, subscript, superscript, paste from word, etc.).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::RichText::EnhancedMode'} = '0';
```

### **Frontend::RichText::EnhancedMode::Customer**

Defines if the enhanced mode should be used (enables use of table, replace, subscript, superscript, paste from word, etc.) in customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::RichText::EnhancedMode::Customer'} = '0';
```

### **DisableMSIFrameSecurityRestricted**

Disable restricted security for IFrames in IE. May be required for SSO to work in IE.

Thamani chaguo-msingi:

```
$Self->{'DisableMSIFrameSecurityRestricted'} = '0';
```

### **DisableLoginAutocomplete**

Disable autocomplete in the login screen.

Thamani chaguo-msingi:

```
$Self->{'DisableLoginAutocomplete'} = '0';
```

### **DisableIFrameOriginRestricted**

Disable HTTP header "X-Frame-Options: SAMEORIGIN" to allow OTRS to be included as an IFrame in other websites. Disabling this HTTP header can be a security issue! Only disable it, if you know what you are doing!

Thamani chaguo-msingi:

```
$Self->{'DisableIFrameOriginRestricted'} = '0';
```

### **DisableContentSecurityPolicy**

Disable HTTP header "Content-Security-Policy" to allow loading of external script contents. Disabling this HTTP header can be a security issue! Only disable it, if you know what you are doing!

Thamani chaguo-msingi:

```
$Self->{'DisableContentSecurityPolicy'} = '0';
```

### **DefaultViewNewLine**

Automated line break in text messages after x number of chars.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'DefaultViewNewLine'} = '90';
```

### **DefaultViewLines**

Sets the number of lines that are displayed in text messages (e.g. ticket lines in the QueueZoom).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'DefaultViewLines'} = '6000';
```

### **Frontend::AnimationEnabled**

Turns on the animations used in the GUI. If you have problems with these animations (e.g. performance issues), you can turn them off here.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::AnimationEnabled'} = '1';
```

### **Frontend::MenuDragDropEnabled**

Turns on drag and drop for the main navigation.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::MenuDragDropEnabled'} = '1';
```

### **AttachmentDownloadType**

Allows choosing between showing the attachments of a ticket in the browser (inline) or just make them downloadable (attachment).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'AttachmentDownloadType'} = 'attachment';
```

### **WebMaxFileUpload**

Defines the maximal size (in bytes) for file uploads via the browser. Warning: Setting this option to a value which is too low could cause many masks in your OTRS instance to stop working (probably any mask which takes input from the user).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'WebMaxFileUpload'} = '24000000';
```

### **WebUploadCacheModule**

Selects the module to handle uploads via the web interface. "DB" stores all uploads in the database, "FS" uses the file system.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'WebUploadCacheModule'} = 'Kernel::System::Web::UploadCache::DB';
```

### Frontend::Output::FilterText###AAAURL

Defines the filter that processes the text in the articles, in order to highlight URLs.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Output::FilterText'}->{'AAAURL'} = {
  'Module' => 'Kernel::Output::HTML::FilterText::URL',
  'Templates' => {
    'AgentTicketZoom' => '1'
  }
};
```

### Frontend::Themes

Activates the available themes on the system. Value 1 means active, 0 means inactive.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Themes'} = {
  'Lite' => '0',
  'Standard' => '1'
};
```

### Frontend::Output::FilterText###OutputFilterTextAutoLink

Defines a filter to process the text in the articles, in order to highlight predefined keywords.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Output::FilterText'}->{'OutputFilterTextAutoLink'} = {
  'Module' => 'Kernel::Output::HTML::FilterText::AutoLink',
  'Templates' => {
    'AgentTicketZoom' => '1'
  }
};
```

### Frontend::Output::OutputFilterTextAutoLink###CVE

Defines a filter for html output to add links behind CVE numbers. The element Image allows two input kinds. At once the name of an image (e.g. faq.png). In this case the OTRS image path will be used. The second possibility is to insert the link to the image.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Output::OutputFilterTextAutoLink'}->{'CVE'} = {
  'RegExp' => [
    '(CVE|CAN)\-(\d{3,4})\-(\d{2})'
  ],
  'Templates' => {
    'AgentTicketZoom' => '1'
  },
  'URL1' => {
    'Description' => 'Mitre',
    'Image' => 'http://cve.mitre.org/favicon.ico',
    'Target' => '_blank',
    'URL' => 'http://cve.mitre.org/cgi-bin/cvename.cgi?name=<MATCH1>-<MATCH2>-<MATCH3>'
  }
};
```



```

},
'URL2' => {
  'Description' => 'Google',
  'Image' => 'http://www.google.de/favicon.ico',
  'Target' => '_blank',
  'URL' => 'http://google.com/search?q=<MATCH1>-<MATCH2>-<MATCH3>'
},
'URL3' => {
  'Description' => 'US-CERT NVD',
  'Image' => 'http://nvd.nist.gov/favicon.ico',
  'Target' => '_blank',
  'URL' => 'http://nvd.nist.gov/nvd.cfm?cvename=<MATCH1>-<MATCH2>-<MATCH3>'
}
};

```

### Frontend::Output::OutputFilterTextAutoLink###Bugtraq

Defines a filter for html output to add links behind bugtraq numbers. The element Image allows two input kinds. At once the name of an image (e.g. faq.png). In this case the OTRS image path will be used. The second possibility is to insert the link to the image.

This setting is not active by default.

Thamani chaguo-msingi:

```

$self->{'Frontend::Output::OutputFilterTextAutoLink'}->{'Bugtraq'} = {
  'RegExp' => [
    'Bugtraq[\\s\\w\\t]*?ID[\\s\\w\\t]*?:[\\s\\w\\t]*?(\\d{2,8})',
    'Bugtraq[\\s\\w\\t]*?ID[\\s\\w\\t]*?(\\d{2,8})',
    'Bugtraq[\\s\\w\\t]*?:[\\s\\w\\t]*?(\\d{2,8})',
    'Bugtraq[\\s\\w\\t]*?(\\d{2,8})',
    'BID[\\s\\w\\t]*?:[\\s\\w\\t]*?(\\d{2,8})',
    'BID[\\s\\w\\t]*?(\\d{2,8})'
  ],
  'Templates' => {
    'AgentTicketZoom' => '1'
  },
  'URL1' => {
    'Description' => 'Security Focus',
    'Image' => 'http://www.securityfocus.com/favicon.ico',
    'Target' => '_blank',
    'URL' => 'http://www.securityfocus.com/bid/<MATCH1>/info'
  },
  'URL2' => {
    'Description' => 'Google',
    'Image' => 'http://www.google.de/favicon.ico',
    'Target' => '_blank',
    'URL' => 'http://google.com/search?q=<MATCH>'
  }
};

```

### Frontend::Output::OutputFilterTextAutoLink###MSBulletins

Defines a filter for html output to add links behind MSBulletin numbers. The element Image allows two input kinds. At once the name of an image (e.g. faq.png). In this case the OTRS image path will be used. The second possibility is to insert the link to the image.

This setting is not active by default.

Thamani chaguo-msingi:

```

$self->{'Frontend::Output::OutputFilterTextAutoLink'}->{'MSBulletins'} = {
  'RegExp' => [
    'MS[^A-Za-z]{0,5}(\\d\\d)?.?(\\d{2,4})'
  ],
  'Templates' => {
    'AgentTicketZoom' => '1'
  }
};

```

```

},
'URL1' => {
  'Description' => 'Microsoft Technet',
  'Image' => 'http://www.microsoft.com/favicon.ico',
  'Target' => '_blank',
  'URL' => 'http://www.microsoft.com/technet/security/bulletin/MS<MATCH1>-
<MATCH2>.mspx'
},
'URL2' => {
  'Description' => 'Google',
  'Image' => 'http://www.google.de/favicon.ico',
  'Target' => '_blank',
  'URL' => 'http://google.com/search?q=MS<MATCH1>-<MATCH2>'
}
};

```

### Frontend::Output::OutputFilterTextAutoLink###Setting1

Define a filter for html output to add links behind a defined string. The element Image allows two input kinds. At once the name of an image (e.g. faq.png). In this case the OTRS image path will be used. The second possibility is to insert the link to the image.

This setting is not active by default.

Thamani chaguo-msingi:

```

$self->{'Frontend::Output::OutputFilterTextAutoLink'}->{'Setting1'} = {
  'RegExp' => [
    'RegExp'
  ],
  'Templates' => {
    'AgentTicketZoom' => '1'
  },
  'URL1' => {
    'Description' => 'Description',
    'Image' => 'right-small.png',
    'Target' => '_blank',
    'URL' => 'URL'
  },
  'URL2' => {
    'Description' => 'Description',
    'Image' => 'Image',
    'Target' => '_blank',
    'URL' => 'URL'
  }
};

```

### Frontend::Output::OutputFilterTextAutoLink###Setting2

Defines a filter for html output to add links behind a defined string. The element Image allows two input kinds. At once the name of an image (e.g. faq.png). In this case the OTRS image path will be used. The second possibility is to insert the link to the image.

This setting is not active by default.

Thamani chaguo-msingi:

```

$self->{'Frontend::Output::OutputFilterTextAutoLink'}->{'Setting2'} = {
  'RegExp' => [
    'RegExp'
  ],
  'Templates' => {
    'AgentTicketZoom' => '1'
  },
  'URL1' => {
    'Description' => 'Description',
    'Image' => 'right-small.png',
    'Target' => '_blank',
    'URL' => 'URL'
  }
};

```

```

},
'URL2' => {
  'Description' => 'Description',
  'Image' => 'Image',
  'Target' => '_blank',
  'URL' => 'URL'
},
'URL3' => {
  'Description' => 'Description',
  'Image' => 'Image',
  'Target' => '_blank',
  'URL' => 'URL'
}
};

```

### Loader::Enabled::CSS

If enabled, OTRS will deliver all CSS files in minified form. WARNING: If you turn this off, there will likely be problems in IE 7, because it cannot load more than 32 CSS files.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Loader::Enabled::CSS'} = '1';
```

### Loader::Enabled::JS

If enabled, OTRS will deliver all JavaScript files in minified form.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Loader::Enabled::JS'} = '1';
```

### Loader::Agent::CommonCSS###000-Framework

List of CSS files to always be loaded for the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```

$Self->{'Loader::Agent::CommonCSS'}->{'000-Framework'} = [
  'Core.Reset.css',
  'Core.Default.css',
  'Core.Header.css',
  'Core.OverviewControl.css',
  'Core.OverviewSmall.css',
  'Core.OverviewMedium.css',
  'Core.OverviewLarge.css',
  'Core.Footer.css',
  'Core.PageLayout.css',
  'Core.Form.css',
  'Core.Table.css',
  'Core.Widget.css',
  'Core.WidgetMenu.css',
  'Core.TicketDetail.css',
  'Core.Tooltip.css',
  'Core.Dialog.css',
  'Core.InputFields.css',
  'Core.Print.css',
  'thirdparty/fontawesome/font-awesome.css'
];

```

### Loader::Agent::ResponsiveCSS###000-Framework

List of responsive CSS files to always be loaded for the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Loader::Agent::ResponsiveCSS'}->{'000-Framework'} = [
  'Core.Responsive.css'
];
```

### Loader::Agent::CommonJS###000-Framework

List of JS files to always be loaded for the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Loader::Agent::CommonJS'}->{'000-Framework'} = [
  'thirdparty/jquery-2.1.4/jquery.js',
  'thirdparty/jquery-browser-detection/jquery-browser-detection.js',
  'thirdparty/jquery-ui-1.11.4/jquery-ui.js',
  'thirdparty/jquery-ui-touch-punch-0.2.3/jquery.ui.touch-punch.js',
  'thirdparty/jquery-validate-1.14.0/jquery.validate.js',
  'thirdparty/stacktrace-0.6.4/stacktrace.js',
  'thirdparty/jquery-pubsub/pubsub.js',
  'thirdparty/jquery-jstree-3.1.1/jquery.jstree.js',
  'Core.JavaScriptEnhancements.js',
  'Core.Debug.js',
  'Core.Exception.js',
  'Core.Data.js',
  'Core.Config.js',
  'Core.JSON.js',
  'Core.App.js',
  'Core.App.Responsive.js',
  'Core.AJAX.js',
  'Core.UI.js',
  'Core.UI.InputFields.js',
  'Core.UI.Accordion.js',
  'Core.UI.Datepicker.js',
  'Core.UI.DnD.js',
  'Core.UI.Floater.js',
  'Core.UI.Resizable.js',
  'Core.UI.Table.js',
  'Core.UI.Accessibility.js',
  'Core.UI.RichTextEditor.js',
  'Core.UI.Dialog.js',
  'Core.UI.ActionRow.js',
  'Core.UI.Popup.js',
  'Core.UI.TreeSelection.js',
  'Core.UI.Autocomplete.js',
  'Core.Form.js',
  'Core.Form.ErrorTooltips.js',
  'Core.Form.Validate.js',
  'Core.Agent.js',
  'Core.Agent.Search.js',
  'Core.Agent.CustomerInformationCenterSearch.js',
  'Core.UI.Notification.js',
  'Core.Agent.Responsive.js'
];
```

### Loader::Agent::CommonJS###001-JQueryMigrate

List of JS files to always be loaded for the agent interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Loader::Agent::CommonJS'}->{'001-JQueryMigrate'} = [
  'thirdparty/jquery-migrate-1.2.1/jquery-migrate.js'
];
```

### Loader::Customer::CommonCSS###000-Framework

List of CSS files to always be loaded for the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Loader::Customer::CommonCSS'}->{'000-Framework'} = [
  'Core.Reset.css',
  'Core.Default.css',
  'Core.Form.css',
  'Core.Dialog.css',
  'Core.Tooltip.css',
  'Core.Login.css',
  'Core.Control.css',
  'Core.Table.css',
  'Core.TicketZoom.css',
  'Core.InputFields.css',
  'Core.Print.css',
  'thirdparty/fontawesome/font-awesome.css'
];
```

### Loader::Customer::ResponsiveCSS###000-Framework

List of responsive CSS files to always be loaded for the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Loader::Customer::ResponsiveCSS'}->{'000-Framework'} = [
  'Core.Responsive.css'
];
```

### Loader::Customer::CommonJS###000-Framework

List of JS files to always be loaded for the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Loader::Customer::CommonJS'}->{'000-Framework'} = [
  'thirdparty/jquery-2.1.4/jquery.js',
  'thirdparty/jquery-browser-detection/jquery-browser-detection.js',
  'thirdparty/jquery-validate-1.14.0/jquery.validate.js',
  'thirdparty/jquery-ui-1.11.4/jquery-ui.js',
  'thirdparty/stacktrace-0.6.4/stacktrace.js',
  'thirdparty/jquery-pubsub/pubsub.js',
  'thirdparty/jquery-jstree-3.1.1/jquery.jstree.js',
  'Core.Debug.js',
  'Core.Exception.js',
  'Core.Data.js',
  'Core.JSON.js',
  'Core.JavaScriptEnhancements.js',
  'Core.Config.js',
  'Core.App.js',
  'Core.App.Responsive.js',
  'Core.AJAX.js',
  'Core.UI.js',
  'Core.UI.InputFields.js',
  'Core.UI.Accessibility.js',
  'Core.UI.Dialog.js',
  'Core.UI.Floater.js',
  'Core.UI.RichTextEditor.js',
  'Core.UI.Datepicker.js',
  'Core.UI.Popup.js',
  'Core.UI.TreeSelection.js',
  'Core.UI.Autocomplete.js',
];
```

```
'Core.Form.js',  
'Core.Form.ErrorTooltips.js',  
'Core.Form.Validate.js',  
'Core.Customer.js',  
'Core.Customer.Responsive.js'  
];
```

### **Loader::Customer::CommonJS###001-JQueryMigrate**

List of JS files to always be loaded for the agent interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Loader::Customer::CommonJS'}->{'001-JQueryMigrate'} = [  
  'thirdparty/jquery-migrate-1.2.1/jquery-migrate.js'  
];
```

## **Framework → Core::WebUserAgent**

### **WebUserAgent::Timeout**

Sets the timeout (in seconds) for http/ftp downloads.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'WebUserAgent::Timeout'} = '15';
```

### **WebUserAgent::Proxy**

Defines the connections for http/ftp, via a proxy.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'WebUserAgent::Proxy'} = 'http://proxy.sn.no:8001/';
```

### **WebUserAgent::DisableSSLVerification**

Turns off SSL certificate validation, for example if you use a transparent HTTPS proxy. Use at your own risk!

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'WebUserAgent::DisableSSLVerification'} = '0';
```

## **Framework → Crypt::PGP**

### **PGP**

Enables PGP support. When PGP support is enabled for signing and encrypting mail, it is HIGHLY recommended that the web server runs as the OTRS user. Otherwise, there will be problems with the privileges when accessing .gnupg folder.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PGP'} = '0';
```

### PGP::Bin

Defines the path to PGP binary.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PGP::Bin'} = '/usr/bin/gpg';
```

### PGP::Options

Sets the options for PGP binary.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PGP::Options'} = '--homedir /opt/otrs/.gnupg/ --batch --no-tty --yes';
```

### PGP::Key::Password

Sets the password for private PGP key.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PGP::Key::Password'} = {
  '488A0B8F' => 'SomePassword',
  'D2DF79FA' => 'SomePassword'
};
```

### PGP::TrustedNetwork

Set this to yes if you trust in all your public and private ppg keys, even if they are not certified with a trusted signature.

Thamani chaguo-msingi:

```
$Self->{'PGP::TrustedNetwork'} = '0';
```

### PGP::Log

Configure your own log text for PGP.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PGP::Log'} = {
  'BADSIG' => 'The PGP signature with the keyid has not been verified successfully.',
  'ERRSIG' => 'It was not possible to check the PGP signature, this may be caused by a
missing public key or an unsupported algorithm.',
  'EXPKEYSIG' => 'The PGP signature was made by an expired key.',
  'GOODSIG' => 'Good PGP signature.',
  'KEYREVOKED' => 'The PGP signature was made by a revoked key, this could mean that the
signature is forged.',
  'NODATA' => 'No valid OpenPGP data found.',
  'NO_PUBKEY' => 'No public key found.',
  'REVKEYSIG' => 'The PGP signature was made by a revoked key, this could mean that the
signature is forged.',
  'SIGEXPIRED' => 'The PGP signature is expired.',
  'SIG_ID' => 'Signature data.',
  'TRUST_UNDEFINED' => 'This key is not certified with a trusted signature!.',
  'VALIDSIG' => 'The PGP signature with the keyid is good.'
};
```

## PGP::StoreDecryptedData

If this option is disabled, articles will not automatically be decrypted and stored in the database. Please note that this also means no decryption will take place and the articles will be shown in ticket zoom in their original (encrypted) form.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PGP::StoreDecryptedData'} = '1';
```

## Framework → Crypt::SMIME

### SMIME

Enables S/MIME support.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SMIME'} = '0';
```

### SMIME::Bin

Defines the path to open ssl binary. It may need a HOME env ( $\$ENV\{HOME\} = '/var/lib/wwwrun';$ ).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SMIME::Bin'} = '/usr/bin/openssl';
```

### SMIME::CertPath

Specifies the directory where SSL certificates are stored.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SMIME::CertPath'} = '/etc/ssl/certs';
```

### SMIME::PrivatePath

Specifies the directory where private SSL certificates are stored.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SMIME::PrivatePath'} = '/etc/ssl/private';
```

### SMIME::CacheTTL

Cache time in seconds for the SSL certificate attributes.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SMIME::CacheTTL'} = '86400';
```



## SMIME::StoreDecryptedData

If this option is disabled, articles will not automatically be decrypted and stored in the database. Please note that this also means no decryption will take place and the articles will be shown in ticket zoom in their original (encrypted) form.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SMIME::StoreDecryptedData'} = '1';
```

## SMIME::FetchFromCustomer

Enables fetch S/MIME from CustomerUser backend support.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SMIME::FetchFromCustomer'} = '0';
```

## Framework → CustomerInformationCenter

### AgentCustomerInformationCenter::MainMenu###010-EditCustomerID

Main menu registration.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'AgentCustomerInformationCenter::MainMenu'}->{'010-EditCustomerID'} = {
  'Link' => "[% Env("Baselink")
  %]Action=AdminCustomerCompany;Subaction=Change;CustomerID=[% Data.CustomerID | uri
  %];Nav=0',
  'Name' => 'Edit customer company'
};
```

## Framework → Frontend::Admin

### Events###Package

List of all Package events to be displayed in the GUI.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Events'}->{'Package'} = [
  'PackageInstall',
  'PackageReinstall',
  'PackageUpgrade',
  'PackageUninstall'
];
```

### Events###DynamicField

List of all DynamicField events to be displayed in the GUI.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Events'}->{'DynamicField'} = [
  'DynamicFieldAdd',
```

```
'DynamicFieldUpdate',
'DynamicFieldDelete'
];
```

### Events###CustomerUser

List of all CustomerUser events to be displayed in the GUI.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Events'}->{'CustomerUser'} = [
'CustomerUserAdd',
'CustomerUserUpdate'
];
```

### Events###CustomerCompany

List of all CustomerCompany events to be displayed in the GUI.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Events'}->{'CustomerCompany'} = [
'CustomerCompanyAdd',
'CustomerCompanyUpdate'
];
```

## Framework → Frontend::Admin::AdminCustomerCompany

### AdminCustomerCompany::RunInitialWildcardSearch

Runs an initial wildcard search of the existing customer company when accessing the AdminCustomerCompany module.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'AdminCustomerCompany::RunInitialWildcardSearch'} = '1';
```

## Framework → Frontend::Admin::AdminCustomerUser

### AdminCustomerUser::RunInitialWildcardSearch

Runs an initial wildcard search of the existing customer users when accessing the AdminCustomerUser module.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'AdminCustomerUser::RunInitialWildcardSearch'} = '1';
```

## Framework → Frontend::Admin::AdminSelectBox

### AdminSelectBox::AllowDatabaseModification

Controls if the admin is allowed to make changes to the database via AdminSelectBox.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'AdminSelectBox::AllowDatabaseModification'} = '0';
```

## Framework → Frontend::Admin::ModuleRegistration

### Frontend::Module###Admin

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'Admin'} = {
  'Description' => 'Admin Area.',
  'Group' => [
    'admin'
  ],
  'Loader' => {
    'CSS' => [
      'Core.Agent.Admin.css'
    ],
    'JavaScript' => [
      'Core.Agent.Admin.SysConfig.js'
    ]
  },
  'NavBar' => [
    {
      'AccessKey' => 'a',
      'Block' => 'ItemArea',
      'Description' => '',
      'Link' => 'Action=Admin',
      'LinkOption' => '',
      'Name' => 'Admin',
      'NavBar' => 'Admin',
      'Prio' => '10000',
      'Type' => 'Menu'
    }
  ],
  'NavBarModule' => {
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin'
  },
  'NavBarName' => 'Admin',
  'Title' => ''
};
```

### Frontend::Module###AdminInit

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminInit'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'NavBarName' => '',
  'Title' => 'Init'
};
```

### Frontend::Module###AdminUser

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminUser'} = {
  'Description' => 'Create and manage agents.',
  'Group' => [
    'admin'
  ],
};
```

```
'NavBarModule' => {
  'Block' => 'Agent',
  'Description' => 'Create and manage agents.',
  'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
  'Name' => 'Agents',
  'Prio' => '100'
},
'NavBarName' => 'Admin',
'Title' => 'Agents'
};
```

### Frontend::Module###AdminGroup

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminGroup'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'NavBarModule' => {
    'Block' => 'Agent',
    'Description' => 'Create and manage groups.',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'Groups',
    'Prio' => '150'
  },
  'NavBarName' => 'Admin',
  'Title' => 'Groups'
};
```

### Frontend::Module###AdminUserGroup

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminUserGroup'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'NavBarModule' => {
    'Block' => 'Agent',
    'Description' => 'Link agents to groups.',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'Agents <-> Groups',
    'Prio' => '200'
  },
  'NavBarName' => 'Admin',
  'Title' => 'Agents <-> Groups'
};
```

### Frontend::Module###AdminCustomerUser

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminCustomerUser'} = {
  'Description' => 'Edit Customer Users.',
  'Group' => [
    'admin',
    'users'
  ],
  'GroupRo' => [
    ''
  ],
};
```

```
'Loader' => {
  'JavaScript' => [
    'Core.Agent.TicketAction.js'
  ]
},
'NavBar' => [
  {
    'AccessKey' => '',
    'Block' => 'ItemArea',
    'Description' => '',
    'Link' => 'Action=AdminCustomerUser;Nav=Agent',
    'LinkOption' => '',
    'Name' => 'Customer User Administration',
    'NavBar' => 'Customers',
    'Prio' => '9000',
    'Type' => ''
  }
],
'NavBarModule' => {
  'Block' => 'Customer',
  'Description' => 'Create and manage customer users.',
  'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
  'Name' => 'Customer User',
  'Prio' => '300'
},
'NavBarName' => 'Customers',
'Title' => 'Customer Users'
};
```

### Frontend::Module###AdminCustomerCompany

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminCustomerCompany'} = {
  'Description' => 'Edit Customer Companies.',
  'Group' => [
    'admin',
    'users'
  ],
  'GroupRo' => [
    ''
  ],
  'NavBar' => [
    {
      'AccessKey' => '',
      'Block' => 'ItemArea',
      'Description' => '',
      'Link' => 'Action=AdminCustomerCompany;Nav=Agent',
      'LinkOption' => '',
      'Name' => 'Customer Administration',
      'NavBar' => 'Customers',
      'Prio' => '9100',
      'Type' => ''
    }
  ],
  'NavBarModule' => {
    'Block' => 'Customer',
    'Description' => 'Create and manage customers.',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'Customers',
    'Prio' => '310'
  },
  'NavBarName' => 'Customers',
  'Title' => 'Customer Companies'
};
```

### Frontend::Module###AdminCustomerUserGroup

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminCustomerUserGroup'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'NavBarModule' => {
    'Block' => 'Customer',
    'Description' => 'Link customer user to groups.',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'Customer User <-> Groups',
    'Prio' => '400'
  },
  'NavBarName' => 'Admin',
  'Title' => 'Customers <-> Groups'
};
```

### Frontend::Module###AdminCustomerUserService

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminCustomerUserService'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'NavBarModule' => {
    'Block' => 'Customer',
    'Description' => 'Link customer user to services.',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'Customer User <-> Services',
    'Prio' => '500'
  },
  'NavBarName' => 'Admin',
  'Title' => 'Customer User <-> Services'
};
```

### Frontend::Module###AdminRole

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminRole'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'NavBarModule' => {
    'Block' => 'Agent',
    'Description' => 'Create and manage roles.',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'Roles',
    'Prio' => '600'
  },
  'NavBarName' => 'Admin',
  'Title' => 'Roles'
};
```

### Frontend::Module###AdminRoleUser

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminRoleUser'} = {
  'Description' => 'Admin',
```

```
'Group' => [
  'admin'
],
'NavBarModule' => {
  'Block' => 'Agent',
  'Description' => 'Link agents to roles.',
  'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
  'Name' => 'Agents <-> Roles',
  'Prio' => '700'
},
'NavBarName' => 'Admin',
'Title' => 'Agents <-> Roles'
};
```

### Frontend::Module###AdminRoleGroup

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminRoleGroup'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'NavBarModule' => {
    'Block' => 'Agent',
    'Description' => 'Link roles to groups.',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'Roles <-> Groups',
    'Prio' => '800'
  },
  'NavBarName' => 'Admin',
  'Title' => 'Roles <-> Groups'
};
```

### Frontend::Module###AdminSMIME

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminSMIME'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'NavBarModule' => {
    'Block' => 'Email',
    'Description' => 'Manage S/MIME certificates for email encryption.',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'S/MIME Certificates',
    'Prio' => '1100'
  },
  'NavBarName' => 'Admin',
  'Title' => 'S/MIME Management'
};
```

### Frontend::Module###AdminPGP

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminPGP'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'NavBarModule' => {
```

```
'Block' => 'Email',
'Description' => 'Manage PGP keys for email encryption.',
'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
'Name' => 'PGP Keys',
'Prio' => '1200'
},
'NavBarName' => 'Admin',
'Title' => 'PGP Key Management'
};
```

### Frontend::Module###AdminMailAccount

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminMailAccount'} = {
'Description' => 'Admin',
'Group' => [
'admin'
],
'NavBarModule' => {
'Block' => 'Email',
'Description' => 'Manage POP3 or IMAP accounts to fetch email from.',
'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
'Name' => 'PostMaster Mail Accounts',
'Prio' => '100'
},
'NavBarName' => 'Admin',
'Title' => 'Mail Accounts'
};
```

### Frontend::Module###AdminPostMasterFilter

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminPostMasterFilter'} = {
'Description' => 'Admin',
'Group' => [
'admin'
],
'NavBarModule' => {
'Block' => 'Email',
'Description' => 'Filter incoming emails.',
'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
'Name' => 'PostMaster Filters',
'Prio' => '200'
},
'NavBarName' => 'Admin',
'Title' => 'PostMaster Filters'
};
```

### Frontend::Module###AdminEmail

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminEmail'} = {
'Description' => 'Admin',
'Group' => [
'admin'
],
'NavBarModule' => {
'Block' => 'System',
'Description' => 'Send notifications to users.',
'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
'Name' => 'Admin Notification',
```



```
'Prio' => '400'
},
'NavBarName' => 'Admin',
'Title' => 'Admin Notification'
};
```

### Frontend::Module###AdminSession

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminSession'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'NavBarModule' => {
    'Block' => 'System',
    'Description' => 'Manage existing sessions.',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'Session Management',
    'Prio' => '500'
  },
  'NavBarName' => 'Admin',
  'Title' => 'Session Management'
};
```

### Frontend::Module###AdminPerformanceLog

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminPerformanceLog'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'Loader' => {
    'CSS' => [
      'Core.Agent.Admin.PerformanceLog.css'
    ]
  },
  'NavBarModule' => {
    'Block' => 'System',
    'Description' => 'View performance benchmark results.',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'Performance Log',
    'Prio' => '550'
  },
  'NavBarName' => 'Admin',
  'Title' => 'Performance Log'
};
```

### Frontend::Module###AdminRegistration

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminRegistration'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'Loader' => {
    'CSS' => [
      'Core.Agent.Admin.Registration.css'
    ]
  },
};
```

```
'NavBarModule' => {
  'Block' => 'System',
  'Description' => 'Manage system registration.',
  'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
  'Name' => 'System Registration',
  'Prio' => '350'
},
'NavBarName' => 'Admin',
'Title' => 'System Registration'
};
```

### Frontend::Module###AdminOTRSBusiness

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminOTRSBusiness'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'Loader' => {
    'CSS' => [
      'Core.Agent.Admin.OTRSBusiness.css'
    ]
  },
  'NavBarModule' => {
    'Block' => 'System',
    'Description' => 'Deploy and manage OTRS Business Solution™.',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'OTRS Business Solution™',
    'Prio' => '360'
  },
  'NavBarName' => 'Admin',
  'Title' => 'OTRS Business Solution™'
};
```

### Frontend::Module###AdminSupportDataCollector

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminSupportDataCollector'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'Loader' => {
    'CSS' => [
      'Core.Agent.Admin.SupportDataCollector.css'
    ]
  },
  'NavBarModule' => {
    'Block' => 'System',
    'Description' => 'Manage support data.',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'Support Data Collector',
    'Prio' => '370'
  },
  'NavBarName' => 'Admin',
  'Title' => 'Support Data Collector'
};
```

### Frontend::Module###AdminCloudServices

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminCloudServices'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'Loader' => {
    'CSS' => [
      'Core.Agent.Admin.CloudServices.css'
    ]
  },
  'NavBarModule' => {
    'Block' => 'System',
    'Description' => 'Manage OTRS Group cloud services.',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'Cloud Services',
    'Prio' => '380'
  },
  'NavBarName' => 'Admin',
  'Title' => 'Cloud Services'
};
```

### Frontend::Module###AdminLog

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminLog'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'NavBarModule' => {
    'Block' => 'System',
    'Description' => 'View system log messages.',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'System Log',
    'Prio' => '600'
  },
  'NavBarName' => 'Admin',
  'Title' => 'System Log'
};
```

### Frontend::Module###AdminSelectBox

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminSelectBox'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'NavBarModule' => {
    'Block' => 'System',
    'Description' => 'Execute SQL statements.',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'SQL Box',
    'Prio' => '700'
  },
  'NavBarName' => 'Admin',
  'Title' => 'SQL Box'
};
```

### Frontend::Module###AdminPackageManager

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminPackageManager'} = {
  'Description' => 'Software Package Manager.',
  'Group' => [
    'admin'
  ],
  'NavBarModule' => {
    'Block' => 'System',
    'Description' => 'Update and extend your system with software packages.',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'Package Manager',
    'Prio' => '1000'
  },
  'NavBarName' => 'Admin',
  'Title' => 'Package Manager'
};
```

### Frontend::Module###AdminSystemMaintenance

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminSystemMaintenance'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'NavBarModule' => {
    'Block' => 'System',
    'Description' => 'Schedule a maintenance period.',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'System Maintenance',
    'Prio' => '501'
  },
  'NavBarName' => 'Admin',
  'Title' => 'System Maintenance'
};
```

### Frontend::Module###AdminCloudServiceSupportDataCollector

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminCloudServiceSupportDataCollector'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'Loader' => {
    'CSS' => [
      'Core.Agent.Admin.CloudService.SupportDataCollector.css'
    ]
  },
  'Title' => 'Support data collector'
};
```

## Framework → Frontend::Agent

### AgentLogo

The logo shown in the header of the agent interface. The URL to the image can be a relative URL to the skin image directory, or a full URL to a remote web server.

Thamani chaguo-msingi:

```
$Self->{'AgentLogo'} = {
  'StyleHeight' => '55px',
  'StyleRight' => '24px',
```

```
'StyleTop' => '7px',
'StyleWidth' => '300px',
'URL' => 'skins/Agent/default/img/logo_bg.png'
};
```

### AgentLogoCustom###default

The logo shown in the header of the agent interface for the skin "default". See "Agent-Logo" for further description.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'AgentLogoCustom'}->{'default'} = {
'StyleHeight' => '55px',
'StyleRight' => '24px',
'StyleTop' => '7px',
'StyleWidth' => '300px',
'URL' => 'skins/Agent/default/img/logo_bg.png'
};
```

### AgentLogoCustom###slim

The logo shown in the header of the agent interface for the skin "slim". See "Agent-Logo" for further description.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'AgentLogoCustom'}->{'slim'} = {
'StyleHeight' => '55px',
'StyleRight' => '24px',
'StyleTop' => '7px',
'StyleWidth' => '300px',
'URL' => 'skins/Agent/default/img/logo_bg.png'
};
```

### AgentLogoCustom###ivory

The logo shown in the header of the agent interface for the skin "ivory". See "Agent-Logo" for further description.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'AgentLogoCustom'}->{'ivory'} = {
'StyleHeight' => '55px',
'StyleRight' => '24px',
'StyleTop' => '7px',
'StyleWidth' => '300px',
'URL' => 'skins/Agent/default/img/logo_bg.png'
};
```

### AgentLogoCustom###ivory-slim

The logo shown in the header of the agent interface for the skin "ivory-slim". See "Agent-Logo" for further description.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'AgentLogoCustom'}->{'ivory-slim'} = {
'StyleHeight' => '45px',
'StyleRight' => '45px',
```

```
'StyleTop' => '10px',
'StyleWidth' => '220px',
'URL' => 'skins/Agent/default/img/logo_bg.png'
};
```

### AgentLoginLogo

The logo shown on top of the login box of the agent interface. The URL to the image must be relative URL to the skin image directory.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'AgentLoginLogo'} = {
  'StyleHeight' => '50px',
  'URL' => 'skins/Agent/default/img/loginlogo_default.png'
};
```

### LoginURL

Defines an alternate URL, where the login link refers to.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'LoginURL'} = 'http://host.example.com/login.html';
```

### LogoutURL

Defines an alternate URL, where the logout link refers to.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'LogoutURL'} = 'http://host.example.com/thanks-for-using-otrs.html';
```

### PreApplicationModule###AgentInfo

Defines a useful module to load specific user options or to display news.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'PreApplicationModule'}->{'AgentInfo'} = 'Kernel::Modules::AgentInfo';
```

### InfoKey

Defines the key to be checked with Kernel::Modules::AgentInfo module. If this user preferences key is true, the message is accepted by the system.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'InfoKey'} = 'wpt22';
```

### InfoFile

File that is displayed in the Kernel::Modules::AgentInfo module, if located under Kernel/Output/HTML/Templates/Standard/AgentInfo.tt.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'InfoFile'} = 'AgentInfo';
```

### LostPassword

Activates lost password feature for agents, in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'LostPassword'} = '1';
```

### ShowMotd

Shows the message of the day on login screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'ShowMotd'} = '0';
```

### NotificationSubjectLostPasswordToken

Defines the subject for notification mails sent to agents, with token about new requested password.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'NotificationSubjectLostPasswordToken'} = 'New OTRS password request';
```

### NotificationBodyLostPasswordToken

Defines the body text for notification mails sent to agents, with token about new requested password (after using this link the new password will be sent).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'NotificationBodyLostPasswordToken'} = 'Hi <OTRS_USERFIRSTNAME>,  
  
You or someone impersonating you has requested to change your OTRS  
password.  
  
If you want to do this, click on the link below. You will receive another email  
containing the password.  
  
<OTRS_CONFIG_ContentType>://<OTRS_CONFIG_FQDN>/<OTRS_CONFIG_ScriptAlias>index.pl?  
Action=LostPassword;Token=<OTRS_TOKEN>  
  
If you did not request a new password, please ignore this email.  
';
```

### NotificationSubjectLostPassword

Defines the subject for notification mails sent to agents, about new password.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'NotificationSubjectLostPassword'} = 'New OTRS password';
```

## NotificationBodyLostPassword

Defines the body text for notification mails sent to agents, about new password (after using this link the new password will be sent).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'NotificationBodyLostPassword'} = 'Hi <OTRS_USERFIRSTNAME>,

Here\'s your new OTRS password.

New password: <OTRS_NEWPW>

You can log in via the following URL:

<OTRS_CONFIG_ContentType>://<OTRS_CONFIG_FQDN>/<OTRS_CONFIG_ScriptAlias>index.pl';
```

## OpenMainMenuOnHover

If enabled, the first level of the main menu opens on mouse hover (instead of click only).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'OpenMainMenuOnHover'} = '0';
```

## FirstnameLastnameOrder

Specifies the order in which the firstname and the lastname of agents will be displayed.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'FirstnameLastnameOrder'} = '0';
```

## Loader::Agent::Skin###000-default

Default skin for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Loader::Agent::Skin'}->{'000-default'} = {
  'Description' => 'This is the default orange - black skin.',
  'HomePage' => 'www.otrs.org',
  'InternalName' => 'default',
  'VisibleName' => 'Default'
};
```

## Loader::Agent::Skin###001-slim

Default skin for the agent interface (slim version).

Thamani chaguo-msingi:

```
$Self->{'Loader::Agent::Skin'}->{'001-slim'} = {
  'Description' => '"Slim" skin which tries to save screen space for power users.',
  'HomePage' => 'www.otrs.org',
  'InternalName' => 'slim',
  'VisibleName' => 'Default (Slim)'
};
```



### Loader::Agent::Skin###001-ivory

Balanced white skin by Felix Niklas.

Thamani chaguo-msingi:

```
$Self->{'Loader::Agent::Skin'}->{'001-ivory'} = {
  'Description' => 'Balanced white skin by Felix Niklas.',
  'HomePage' => 'www.felixniklas.de',
  'InternalName' => 'ivory',
  'VisibleName' => 'Ivory'
};
```

### Loader::Agent::Skin###001-ivory-slim

Balanced white skin by Felix Niklas (slim version).

Thamani chaguo-msingi:

```
$Self->{'Loader::Agent::Skin'}->{'001-ivory-slim'} = {
  'Description' => 'Balanced white skin by Felix Niklas (slim version).',
  'HomePage' => 'www.felixniklas.de',
  'InternalName' => 'ivory-slim',
  'VisibleName' => 'Ivory (Slim)'
};
```

### Loader::Agent::DefaultSelectedSkin

The agent skin's InternalName which should be used in the agent interface. Please check the available skins in Frontend::Agent::Skins.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Loader::Agent::DefaultSelectedSkin'} = 'default';
```

### Loader::Agent::DefaultSelectedSkin::HostBased

It is possible to configure different skins, for example to distinguish between different agents, to be used on a per-domain basis within the application. Using a regular expression (regex), you can configure a Key/Content pair to match a domain. The value in "Key" should match the domain, and the value in "Content" should be a valid skin on your system. Please see the example entries for the proper form of the regex.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Loader::Agent::DefaultSelectedSkin::HostBased'} = {
  'host1\\.example\\.com' => 'SomeSkin1',
  'host2\\.example\\.com' => 'SomeSkin2'
};
```

### AutoComplete::Agent###Default

Defines the config options for the autocompletion feature.

Thamani chaguo-msingi:

```
$Self->{'AutoComplete::Agent'}->{'Default'} = {
  'AutoCompleteActive' => '1',
  'ButtonText' => 'Search',
  'MaxResultsDisplayed' => '20',
  'MinQueryLength' => '2',
  'QueryDelay' => '100'
};
```

## AutoComplete::Agent###CustomerSearch

Defines the config options for the autocomplete feature.

Thamani chaguo-msingi:

```
$Self->{'AutoComplete::Agent'}->{'CustomerSearch'} = {
  'AutoCompleteActive' => '1',
  'ButtonText' => 'Search Customer',
  'MaxResultsDisplayed' => '20',
  'MinQueryLength' => '2',
  'QueryDelay' => '100'
};
```

## AutoComplete::Agent###UserSearch

Defines the config options for the autocomplete feature.

Thamani chaguo-msingi:

```
$Self->{'AutoComplete::Agent'}->{'UserSearch'} = {
  'AutoCompleteActive' => '1',
  'ButtonText' => 'Search User',
  'MaxResultsDisplayed' => '20',
  'MinQueryLength' => '2',
  'QueryDelay' => '100'
};
```

## PossibleNextActions

Defines the list of possible next actions on an error screen, a full path is required, then is possible to add external links if needed.

Thamani chaguo-msingi:

```
$Self->{'PossibleNextActions'} = {
  'Go to dashboard!' => "[% Env(\ 'CGIHandle\ ' ) %]?Action=AgentDashboard"
};
```

## ModernizeFormFields

Use new type of select and autocomplete fields in agent interface, where applicable (InputFields).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'ModernizeFormFields'} = '1';
```

## Framework → Frontend::Agent::Auth::TwoFactor

### AuthTwoFactorModule

Defines the two-factor module to authenticate agents.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'AuthTwoFactorModule'} =
  'Kernel::System::Auth::TwoFactor::GoogleAuthenticator';
```

### AuthTwoFactorModule::SecretPreferencesKey

Defines the agent preferences key where the shared secret key is stored.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'AuthTwoFactorModule::SecretPreferencesKey'} =
'UserGoogleAuthenticatorSecretKey';
```

### **AuthTwoFactorModule::AllowEmptySecret**

Defines if agents should be allowed to login if they have no shared secret stored in their preferences and therefore are not using two-factor authentication.

Thamani chaguo-msingi:

```
$Self->{'AuthTwoFactorModule::AllowEmptySecret'} = '1';
```

### **AuthTwoFactorModule::AllowPreviousToken**

Defines if the previously valid token should be accepted for authentication. This is slightly less secure but gives users 30 seconds more time to enter their one-time password.

Thamani chaguo-msingi:

```
$Self->{'AuthTwoFactorModule::AllowPreviousToken'} = '1';
```

## **Framework → Frontend::Agent::Dashboard**

### **AgentCustomerInformationCenter::Backend###0600-CIC-CustomerCompanyInformation**

Parameters for the dashboard backend of the customer company information of the agent interface. "Group" is used to restrict the access to the plugin (e. g. Group: admin;group1;group2;). "Default" determines if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" is the cache time in minutes for the plugin.

Thamani chaguo-msingi:

```
$Self->{'AgentCustomerInformationCenter::Backend'}->{'0600-CIC-
CustomerCompanyInformation'} = {
  'Attributes' => '',
  'Block' => 'ContentSmall',
  'Default' => '1',
  'Description' => 'Customer Information',
  'Group' => '',
  'Module' => 'Kernel::Output::HTML::Dashboard::CustomerCompanyInformation',
  'Title' => 'Customer Information'
};
```

### **DashboardBackend###0000-ProductNotify**

Defines the parameters for the dashboard backend. "Group" is used to restrict access to the plugin (e. g. Group: admin;group1;group2;). "Default" indicates if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" defines the cache expiration period in minutes for the plugin.

Thamani chaguo-msingi:

```
$Self->{'DashboardBackend'}->{'0000-ProductNotify'} = {
  'Block' => 'ContentLarge',
  'CacheTTLLocal' => '1440',
  'Default' => '1',
  'Description' => 'News about OTRS releases!',
  'Group' => 'admin',
  'Module' => 'Kernel::Output::HTML::Dashboard::ProductNotify',
```

```
'Title' => 'Product News'
};
```

### DashboardBackend###0390-UserOutOfOffice

Defines the parameters for the dashboard backend. "Limit" defines the number of entries displayed by default. "Group" is used to restrict access to the plugin (e. g. Group: admin;group1;group2;). "Default" indicates if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLocal" defines the cache expiration period in minutes for the plugin.

Thamani chaguo-msingi:

```
$Self->{'DashboardBackend'}->{'0390-UserOutOfOffice'} = {
  'Block' => 'ContentSmall',
  'CacheTTLocal' => '5',
  'Default' => '1',
  'Description' => '',
  'Group' => '',
  'Limit' => '10',
  'Module' => 'Kernel::Output::HTML::Dashboard::UserOutOfOffice',
  'SortBy' => 'UserFullname',
  'Title' => 'Out Of Office'
};
```

### DashboardBackend###0400-UserOnline

Defines the parameters for the dashboard backend. "Limit" defines the number of entries displayed by default. "Group" is used to restrict access to the plugin (e. g. Group: admin;group1;group2;). "Default" indicates if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLocal" defines the cache expiration period in minutes for the plugin.

Thamani chaguo-msingi:

```
$Self->{'DashboardBackend'}->{'0400-UserOnline'} = {
  'Block' => 'ContentSmall',
  'CacheTTLocal' => '5',
  'Default' => '0',
  'Description' => '',
  'Filter' => 'Agent',
  'Group' => '',
  'Limit' => '10',
  'Module' => 'Kernel::Output::HTML::Dashboard::UserOnline',
  'ShowEmail' => '0',
  'SortBy' => 'UserFullname',
  'Title' => 'Logged-In Users'
};
```

### DashboardBackend###0405-News

Defines the parameters for the dashboard backend. "Limit" defines the number of entries displayed by default. "Group" is used to restrict access to the plugin (e. g. Group: admin;group1;group2;). "Default" indicates if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTL" indicates the cache expiration period in minutes for the plugin.

Thamani chaguo-msingi:

```
$Self->{'DashboardBackend'}->{'0405-News'} = {
  'Block' => 'ContentSmall',
  'CacheTTL' => '360',
  'Default' => '1',
  'Description' => '',
  'Group' => '',
  'Limit' => '6',
  'Module' => 'Kernel::Output::HTML::Dashboard::News',
};
```

```
'Title' => 'OTRS News'
};
```

### DashboardBackend###0410-RSS

Defines the parameters for the dashboard backend. "Limit" defines the number of entries displayed by default. "Group" is used to restrict access to the plugin (e. g. Group: admin;group1;group2;). "Default" indicates if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTL" indicates the cache expiration period in minutes for the plugin.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'DashboardBackend'}->{'0410-RSS'} = {
  'Block' => 'ContentSmall',
  'CacheTTL' => '360',
  'Default' => '1',
  'Description' => '',
  'Group' => '',
  'Limit' => '6',
  'Module' => 'Kernel::Output::HTML::Dashboard::RSS',
  'Title' => 'Custom RSS Feed',
  'URL' => 'http://www.otrs.com/en/rss.xml',
  'URL_de' => 'http://www.otrs.com/de/rss.xml',
  'URL_es' => 'http://www.otrs.com/es/rss.xml',
  'URL_nl' => 'http://www.otrs.com/nl/rss.xml',
  'URL_ru' => 'http://www.otrs.com/ru/rss.xml',
  'URL_zh' => 'http://www.otrs.com/cn/rss.xml'
};
```

### DashboardBackend###0420-CommandOutput

Defines the parameters for the dashboard backend. "Cmd" is used to specify command with parameters. "Group" is used to restrict access to the plugin (e. g. Group: admin;group1;group2;). "Default" indicates if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTL" indicates the cache expiration period in minutes for the plugin.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'DashboardBackend'}->{'0420-CommandOutput'} = {
  'Block' => 'ContentSmall',
  'CacheTTL' => '60',
  'Cmd' => '/bin/echo Configure me please.',
  'Default' => '0',
  'Description' => '',
  'Group' => '',
  'Module' => 'Kernel::Output::HTML::Dashboard::CommandOutput',
  'Title' => 'Sample command output'
};
```

### DashboardBackend###0200-Image

Defines the parameters for the dashboard backend. "Group" is used to restrict access to the plugin (e. g. Group: admin;group1;group2;). "Default" indicates if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTL" indicates the cache expiration period in minutes for the plugin.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'DashboardBackend'}->{'0200-Image'} = {
```

```
'Block' => 'ContentLarge',
'Default' => '1',
'Description' => 'Some picture description!',
'Group' => '',
'Height' => '140',
'Link' => 'http://otrs.org/',
'LinkTitle' => 'http://otrs.org/',
'Module' => 'Kernel::Output::HTML::Dashboard::Image',
'Title' => 'A picture',
'URL' => 'http://www.otrs.com/wp-uploads//2013/10/OTRS_Logo-300x170.png',
'Width' => '198'
};
```

### DashboardBackend###0210-MOTD

Shows the message of the day (MOTD) in the agent dashboard. "Group" is used to restrict access to the plugin (e. g. Group: admin;group1;group2;). "Default" indicates if the plugin is enabled by default or if the user needs to enable it manually.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'DashboardBackend'}->{'0210-MOTD'} = {
  'Block' => 'ContentLarge',
  'Default' => '1',
  'Group' => '',
  'Module' => 'Kernel::Output::HTML::Dashboard::MOTD',
  'Title' => 'Message of the Day'
};
```

### DashboardBackend###0300-IFrame

Defines the parameters for the dashboard backend. "Group" is used to restrict access to the plugin (e. g. Group: admin;group1;group2;). "Default" indicates if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTL" indicates the cache expiration period in minutes for the plugin.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'DashboardBackend'}->{'0300-IFrame'} = {
  'Align' => 'left',
  'Block' => 'ContentLarge',
  'Default' => '1',
  'Description' => 'Some description!',
  'Frameborder' => '1',
  'Group' => '',
  'Height' => '800',
  'Link' => 'http://otrs.org/',
  'LinkTitle' => 'OTRS.org/',
  'Marginheight' => '5',
  'Marginwidth' => '5',
  'Module' => 'Kernel::Output::HTML::Dashboard::IFrame',
  'Scrolling' => 'auto',
  'Title' => 'A Website',
  'URL' => 'http://www.otrs.org/',
  'Width' => '1024'
};
```

### AgentCustomerInformationCenter::Backend###0050-CIC-CustomerUserList

Parameters for the dashboard backend of the customer user list overview of the agent interface. "Limit" is the number of entries shown by default. "Group" is used to restrict the access to the plugin (e. g. Group: admin;group1;group2;). "Default" determines if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" is the cache time in minutes for the plugin.

Thamani chaguo-msingi:

```
$Self->{'AgentCustomerInformationCenter::Backend'}->{'0050-CIC-CustomerUserList'} = {
  'Attributes' => '',
  'Block' => 'ContentLarge',
  'CacheTTLLocal' => '0.5',
  'Default' => '1',
  'Description' => 'All customer users of a CustomerID',
  'Group' => '',
  'Limit' => '10',
  'Module' => 'Kernel::Output::HTML::Dashboard::CustomerUserList',
  'Permission' => 'ro',
  'Title' => 'Customer Users'
};
```

## Framework → Frontend::Agent::LinkObject

### Frontend::AgentLinkObject::WildcardSearch

Starts a wildcard search of the active object after the link object mask is started.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::AgentLinkObject::WildcardSearch'} = '0';
```

## Framework → Frontend::Agent::ModuleMetaHead

### Frontend::HeaderMetaModule###100-Refresh

Defines the module to generate code for periodic page reloads.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::HeaderMetaModule'}->{'100-Refresh'} = {
  'Module' => 'Kernel::Output::HTML::HeaderMeta::Refresh'
};
```

## Framework → Frontend::Agent::ModuleNotify

### Frontend::NotifyModule###100-OTRSBusiness

Defines the module to display a notification in different interfaces on different occasions for OTRS Business Solution™.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::NotifyModule'}->{'100-OTRSBusiness'} = {
  'Group' => 'admin',
  'Module' => 'Kernel::Output::HTML::Notification::AgentOTRSBusiness'
};
```

### Frontend::NotifyModule###200-UID-Check

Defines the module to display a notification in the agent interface, if the system is used by the admin user (normally you shouldn't work as admin).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::NotifyModule'}->{'200-UID-Check'} = {
  'Module' => 'Kernel::Output::HTML::Notification::UIDCheck'
};
```

### Frontend::NotifyModule###250-AgentSessionLimit

Defines the module to display a notification in the agent interface, if the agent session limit prior warning is reached.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::NotifyModule'}->{'250-AgentSessionLimit'} = {
  'Module' => 'Kernel::Output::HTML::Notification::AgentSessionLimit'
};
```

### Frontend::NotifyModule###300-ShowAgentOnline

Defines the module that shows all the currently logged in agents in the agent interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Frontend::NotifyModule'}->{'300-ShowAgentOnline'} = {
  'Module' => 'Kernel::Output::HTML::Notification::AgentOnline',
  'ShowEmail' => '1'
};
```

### Frontend::NotifyModule###400-ShowCustomerOnline

Defines the module that shows all the currently logged in customers in the agent interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Frontend::NotifyModule'}->{'400-ShowCustomerOnline'} = {
  'Module' => 'Kernel::Output::HTML::Notification::CustomerOnline',
  'ShowEmail' => '1'
};
```

### Frontend::NotifyModule###500-OutofOffice-Check

Defines the module to display a notification in the agent interface, if the agent is logged in while having out-of-office active.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::NotifyModule'}->{'500-OutofOffice-Check'} = {
  'Module' => 'Kernel::Output::HTML::Notification::OutofOfficeCheck'
};
```

### Frontend::NotifyModule###600-SystemMaintenance-Check

Defines the module to display a notification in the agent interface, if the agent is logged in while having system maintenance active.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::NotifyModule'}->{'600-SystemMaintenance-Check'} = {
```



```
'Module' => 'Kernel::Output::HTML::Notification::SystemMaintenanceCheck'
};
```

### Frontend::NotifyModule###900-Generic

Defines the module that shows a generic notification in the agent interface. Either "Text" - if configured - or the contents of "File" will be displayed.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Frontend::NotifyModule'}->{'900-Generic'} = {
  'File' => '<OTRS_CONFIG_Home>/var/notify.txt',
  'Link' => 'http://www.otrs.com',
  'Module' => 'Kernel::Output::HTML::Notification::Generic',
  'Priority' => 'Warning',
  'Text' => 'The OTRS Website'
};
```

## Framework → Frontend::Agent::ModuleRegistration

### Frontend::Module###Logout

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'Logout'} = {
  'Description' => 'Logout',
  'NavBarName' => '',
  'Title' => ''
};
```

### Frontend::Module###AgentDashboard

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentDashboard'} = {
  'Description' => 'Agent Dashboard',
  'Loader' => {
    'CSS' => [
      'Core.Agent.Dashboard.css',
      'Core.AllocationList.css',
      'thirdparty/fullcalendar-2.4.0/fullcalendar.min.css',
      'thirdparty/nvd3-1.7.1/nv.d3.css'
    ],
    'JavaScript' => [
      'thirdparty/momentjs-2.10.6/moment.min.js',
      'thirdparty/fullcalendar-2.4.0/fullcalendar.min.js',
      'thirdparty/d3-3.5.6/d3.min.js',
      'thirdparty/nvd3-1.7.1/nvd3.min.js',
      'thirdparty/nvd3-1.7.1/models/OTRSLineChart.js',
      'thirdparty/nvd3-1.7.1/models/OTRSMultiBarChart.js',
      'thirdparty/nvd3-1.7.1/models/OTRSStackedAreaChart.js',
      'thirdparty/canvg-1.4/rgbcolor.js',
      'thirdparty/canvg-1.4/StackBlur.js',
      'thirdparty/canvg-1.4/canvg.js',
      'thirdparty/StringView-8/stringview.js',
      'Core.UI.AdvancedChart.js',
      'Core.UI.AllocationList.js',
      'Core.Agent.TableFilters.js',
      'Core.Agent.Dashboard.js'
    ]
  },
  'NavBar' => [
    {

```

```

    'AccessKey' => 'd',
    'Block' => 'ItemArea',
    'Description' => '',
    'Link' => 'Action=AgentDashboard',
    'LinkOption' => '',
    'Name' => 'Dashboard',
    'NavBar' => 'Dashboard',
    'Prio' => '50',
    'Type' => 'Menu'
  }
],
'NavBarName' => 'Dashboard',
'Title' => ''
};

```

### Frontend::Module###AgentCustomerInformationCenter

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AgentCustomerInformationCenter'} = {
  'Description' => 'Customer Information Center.',
  'Loader' => {
    'CSS' => [
      'Core.AllocationList.css'
    ],
    'JavaScript' => [
      'Core.UI.AllocationList.js',
      'Core.Agent.Dashboard.js',
      'Core.Agent.TableFilters.js'
    ]
  },
  'NavBar' => [
    {
      'AccessKey' => 'c',
      'Block' => 'ItemArea',
      'Description' => '',
      'Link' => 'Action=AgentCustomerInformationCenter',
      'LinkOption' => 'onclick="window.setTimeout(function()
{Core.Agent.CustomerInformationCenterSearch.OpenSearchDialog();}, 0); return false;"',
      'Name' => 'Customer Information Center',
      'NavBar' => 'Customers',
      'Prio' => '50',
      'Type' => ''
    },
    {
      'AccessKey' => '',
      'Block' => 'ItemArea',
      'Description' => '',
      'Link' => 'Action=AgentCustomerInformationCenter',
      'LinkOption' => '',
      'Name' => 'Customers',
      'NavBar' => 'Customers',
      'Prio' => '60',
      'Type' => 'Menu'
    }
  ],
  'NavBarName' => 'Customers',
  'Title' => ''
};

```

### Frontend::Module###AgentCustomerInformationCenterSearch

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AgentCustomerInformationCenterSearch'} = {
  'Description' => 'Customer Information Center Search.',
  'Title' => ''
};

```

```
};
```

### Frontend::Module###AgentPreferences

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentPreferences'} = {  
  'Description' => 'Agent Preferences.',  
  'Loader' => {  
    'CSS' => [  
      'Core.Agent.Preferences.css'  
    ]  
  },  
  'NavBarName' => 'Preferences',  
  'Title' => ''  
};
```

### Frontend::Module###PictureUpload

Frontend module registration for the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'PictureUpload'} = {  
  'Description' => 'Picture upload module.',  
  'NavBarName' => 'Ticket',  
  'Title' => 'Picture Upload'  
};
```

### Frontend::Module###AgentSpelling

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentSpelling'} = {  
  'Description' => 'Spell checker.',  
  'Loader' => {  
    'JavaScript' => [  
      'Core.Agent.TicketAction.js'  
    ]  
  },  
  'NavBarName' => '',  
  'Title' => 'Spell Checker'  
};
```

### Frontend::Module###SpellingInline

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'SpellingInline'} = {  
  'Description' => 'Spell checker.',  
  'NavBarName' => '',  
  'Title' => 'Spell Checker'  
};
```

### Frontend::Module###AgentBook

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentBook'} = {
```

```
'Description' => 'Address book of CustomerUser sources.',
'Loader' => {
  'JavaScript' => [
    'Core.Agent.CustomerSearch.js',
    'Core.Agent.TicketAction.js'
  ]
},
'NavBarName' => '',
'Title' => 'Address Book'
};
```

### Frontend::Module###AgentLinkObject

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentLinkObject'} = {
  'Description' => 'Link Object.',
  'NavBarName' => '',
  'Title' => 'Link Object'
};
```

### Frontend::Module###AgentInfo

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentInfo'} = {
  'Description' => 'Generic Info module.',
  'NavBarName' => '',
  'Title' => 'Info'
};
```

### Frontend::Module###AgentSearch

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentSearch'} = {
  'Description' => 'Global Search Module.',
  'NavBarName' => '',
  'Title' => 'Search'
};
```

### Frontend::Module###AgentOTRSBusiness

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentOTRSBusiness'} = {
  'Description' => 'Agent',
  'Loader' => {
    'CSS' => [
      'Core.Agent.Admin.OTRSBusiness.css'
    ]
  },
  'NavBarName' => '',
  'Title' => 'OTRS Business Solution™'
};
```

### CustomerFrontend::Module###SpellingInline

Frontend module registration for the customer interface.

Thamani chaguo-msingi:

```
$Self->{'CustomerFrontend::Module'}->{'SpellingInline'} = {
  'Description' => 'Spell checker.',
  'NavBarName' => '',
  'Title' => 'Spell Checker'
};
```

### Frontend::Module###AgentHTMLReference

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentHTMLReference'} = {
  'Description' => 'HTML Reference.',
  'Group' => [
    'users'
  ],
  'GroupRo' => [
    'users'
  ],
  'Loader' => {
    'CSS' => [
      'Core.Agent.HTMLReference.css'
    ]
  },
  'NavBarName' => '',
  'Title' => 'HTML Reference'
};
```

### Frontend::Module###AgentStatistics

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentStatistics'} = {
  'Description' => '',
  'Group' => [
    'stats'
  ],
  'GroupRo' => [
    'stats'
  ],
  'Loader' => {
    'CSS' => [
      'thirdparty/nvd3-1.7.1/nv.d3.css',
      'Core.Agent.Statistics.css'
    ],
    'JavaScript' => [
      'thirdparty/d3-3.5.6/d3.min.js',
      'thirdparty/nvd3-1.7.1/nvd3.min.js',
      'thirdparty/nvd3-1.7.1/models/OTRSLineChart.js',
      'thirdparty/nvd3-1.7.1/models/OTRSMultiBarChart.js',
      'thirdparty/nvd3-1.7.1/models/OTRSStackedAreaChart.js',
      'thirdparty/canvg-1.4/rgbcolor.js',
      'thirdparty/canvg-1.4/StackBlur.js',
      'thirdparty/canvg-1.4/canvg.js',
      'thirdparty/StringView-8/stringview.js',
      'Core.Agent.Statistics.js',
      'Core.UI.AdvancedChart.js'
    ]
  },
  'NavBar' => [
    {
      'AccessKey' => '',
      'Block' => 'ItemArea',
      'Description' => '',
      'Link' => 'Action=AgentStatistics;Subaction=0verview',
      'LinkOption' => '',
      'Name' => 'Reports',
      'NavBar' => 'Reports',
    }
  ]
};
```

```

    'Prio' => '8500',
    'Type' => 'Menu'
  },
  {
    'AccessKey' => '',
    'Block' => '',
    'Description' => '',
    'GroupRo' => [
      'stats'
    ],
    'Link' => 'Action=AgentStatisticsReports;Subaction=Overview',
    'LinkOption' => 'class="OTRSBusinessRequired"',
    'Name' => 'Reports (OTRS Business Solution™)',
    'NavBar' => 'Reports',
    'Prio' => '100',
    'Type' => ''
  },
  {
    'AccessKey' => '',
    'Block' => '',
    'Description' => '',
    'GroupRo' => [
      'stats'
    ],
    'Link' => 'Action=AgentStatistics;Subaction=Overview',
    'LinkOption' => '',
    'Name' => 'Statistics',
    'NavBar' => 'Reports',
    'Prio' => '200',
    'Type' => ''
  }
],
'NavBarName' => 'Reports',
'Title' => 'Statistics'
};

```

## Framework → Frontend::Agent::NavBarModule

### Frontend::NavBarModule###6-CustomerCompany

Frontend module registration (disable company link if no company feature is used).

Thamani chaguo-msingi:

```

$self->{'Frontend::NavBarModule'}->{'6-CustomerCompany'} = {
  'Module' => 'Kernel::Output::HTML::NavBar::CustomerCompany'
};

```

### Frontend::NavBarModule###7-AgentTicketService

Frontend module registration (disable AgentTicketService link if Ticket Service feature is not used).

Thamani chaguo-msingi:

```

$self->{'Frontend::NavBarModule'}->{'7-AgentTicketService'} = {
  'Module' => 'Kernel::Output::HTML::NavBar::AgentTicketService'
};

```

## Framework → Frontend::Agent::Preferences

### PreferencesTable

Defines the name of the table where the user preferences are stored.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PreferencesTable'} = 'user_preferences';
```

### PreferencesTableKey

Defines the column to store the keys for the preferences table.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PreferencesTableKey'} = 'preferences_key';
```

### PreferencesTableValue

Defines the name of the column to store the data in the preferences table.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PreferencesTableValue'} = 'preferences_value';
```

### PreferencesTableUserID

Defines the name of the column to store the user identifier in the preferences table.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PreferencesTableUserID'} = 'user_id';
```

### PreferencesView

Sets the display order of the different items in the preferences view.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PreferencesView'} = [
  'User Profile',
  'Notification Settings',
  'Other Settings'
];
```

### PreferencesGroups###Password

Defines the config parameters of this item, to be shown in the preferences view. 'PasswordRegExp' allows to match passwords against a regular expression. Define the minimum number of characters using 'PasswordMinSize'. Define if at least 2 lowercase and 2 uppercase letter characters are needed by setting the appropriate option to '1'. 'PasswordMin2Characters' defines if the password needs to contain at least 2 letter characters (set to 0 or 1). 'PasswordNeedDigit' controls the need of at least 1 digit (set to 0 or 1 to control). 'PasswordMaxLoginFailed' allows to set an agent to invalid-temporarily if max failed logins reached.

Thamani chaguo-msingi:

```
$Self->{'PreferencesGroups'}->{'Password'} = {
  'Active' => '1',
  'Area' => 'Agent',
  'Column' => 'User Profile',
  'Desc' => 'Set a new password by filling in your current password and a new one.',
  'Label' => 'Change password',
```

```
'Module' => 'Kernel::Output::HTML::Preferences::Password',
'PasswordMaxLoginFailed' => '0',
'PasswordMin2Characters' => '0',
'PasswordMin2Lower2UpperCharacters' => '0',
'PasswordMinSize' => '0',
'PasswordNeedDigit' => '0',
'PasswordRegExp' => '',
'Prio' => '0500'
};
```

### PreferencesGroups###GoogleAuthenticatorSecretKey

Defines the config parameters of this item, to be shown in the preferences view.

Thamani chaguo-msingi:

```
$Self->{'PreferencesGroups'}->{'GoogleAuthenticatorSecretKey'} = {
'Active' => '0',
'Block' => 'Input',
'Column' => 'User Profile',
'Desc' => 'Enter your shared secret to enable two factor authentication.',
'Key' => 'Shared Secret',
'Label' => 'Google Authenticator',
'Module' => 'Kernel::Output::HTML::Preferences::Generic',
'PrefKey' => 'UserGoogleAuthenticatorSecretKey',
'Prio' => '0600'
};
```

### PreferencesGroups###SpellDict

Defines the config parameters of this item, to be shown in the preferences view. Take care to maintain the dictionaries installed in the system in the data section.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'PreferencesGroups'}->{'SpellDict'} = {
'Active' => '1',
'Column' => 'User Profile',
'Data' => {
'deutsch' => 'Deutsch',
'english' => 'English'
},
'DataSelected' => 'english',
'Desc' => 'Select your default spelling dictionary.',
'Key' => 'Default spelling dictionary',
'Label' => 'Spelling Dictionary',
'Module' => 'Kernel::Output::HTML::Preferences::Generic',
'PrefKey' => 'UserSpellDict',
'Prio' => '2000'
};
```

### PreferencesGroups###Comment

Defines the config parameters of this item, to be shown in the preferences view.

Thamani chaguo-msingi:

```
$Self->{'PreferencesGroups'}->{'Comment'} = {
'Active' => '0',
'Block' => 'Input',
'Column' => 'Other Settings',
'Data' => "[% Env('UserComment') %]",
'Desc' => 'Add a comment.',
'Key' => 'Comment',
'Label' => 'Comment',
'Module' => 'Kernel::Output::HTML::Preferences::Generic',
'PrefKey' => 'UserComment',
'Prio' => '6000'
};
```



```
};
```

### PreferencesGroups###Language

Defines the config parameters of this item, to be shown in the preferences view.

Thamani chaguo-msingi:

```
$Self->{'PreferencesGroups'}->{'Language'} = {
  'Active' => '1',
  'Column' => 'User Profile',
  'Desc' => 'Select the main interface language.',
  'Key' => 'Language',
  'Label' => 'Language',
  'Module' => 'Kernel::Output::HTML::Preferences::Language',
  'PrefKey' => 'UserLanguage',
  'Prio' => '1000'
};
```

### PreferencesGroups###Skin

Defines the config parameters of this item, to be shown in the preferences view.

Thamani chaguo-msingi:

```
$Self->{'PreferencesGroups'}->{'Skin'} = {
  'Active' => '1',
  'Column' => 'Other Settings',
  'Desc' => 'Select your preferred layout for OTRS.',
  'Key' => 'Skin',
  'Label' => 'Skin',
  'Module' => 'Kernel::Output::HTML::Preferences::Skin',
  'PrefKey' => 'UserSkin',
  'Prio' => '100'
};
```

### PreferencesGroups###Theme

Defines the config parameters of this item, to be shown in the preferences view.

Thamani chaguo-msingi:

```
$Self->{'PreferencesGroups'}->{'Theme'} = {
  'Active' => '1',
  'Column' => 'User Profile',
  'Desc' => 'Select your preferred theme for OTRS.',
  'Key' => 'Frontend theme',
  'Label' => 'Theme',
  'Module' => 'Kernel::Output::HTML::Preferences::Theme',
  'PrefKey' => 'UserTheme',
  'Prio' => '3000'
};
```

### PreferencesGroups###OutOfOffice

Defines the config parameters of this item, to be shown in the preferences view.

Thamani chaguo-msingi:

```
$Self->{'PreferencesGroups'}->{'OutOfOffice'} = {
  'Active' => '1',
  'Block' => 'OutOfOffice',
  'Column' => 'User Profile',
  'Desc' => 'If you\'re going to be out of office, you may wish to let other users know
by setting the exact dates of your absence.',
  'Key' => '',
  'Label' => 'Out Of Office Time',
  'Module' => 'Kernel::Output::HTML::Preferences::OutOfOffice',
  'PrefKey' => 'UserOutOfOffice',
};
```

```
'Prio' => '4000'
};
```

### PreferencesGroups###TimeZone

Defines the config parameters of this item, to be shown in the preferences view.

Thamani chaguo-msingi:

```
$Self->{'PreferencesGroups'}->{'TimeZone'} = {
  'Active' => '1',
  'Column' => 'User Profile',
  'Desc' => 'Select your time zone.',
  'Key' => 'Time Zone',
  'Label' => 'Time Zone',
  'Module' => 'Kernel::Output::HTML::Preferences::TimeZone',
  'PrefKey' => 'UserTimeZone',
  'Prio' => '5000'
};
```

### PreferencesGroups###CSVSeparator

Gives end users the possibility to override the separator character for CSV files, defined in the translation files.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'PreferencesGroups'}->{'CSVSeparator'} = {
  'Active' => '1',
  'Column' => 'Other Settings',
  'Data' => {
    '' => ',',
    ',' => ',',
    ';' => ';',
    '\\t' => 'tab',
    '|' => '|'
  },
  'DataSelected' => '0',
  'Desc' => 'Select the separator character used in CSV files (stats and searches). If you don\\t select a separator here, the default separator for your language will be used.',
  'Key' => 'CSV Separator',
  'Label' => 'CSV Separator',
  'Module' => 'Kernel::Output::HTML::Preferences::Generic',
  'PrefKey' => 'UserCSVSeparator',
  'Prio' => '4000'
};
```

## Framework → Frontend::Agent::SearchRouter

### Frontend::SearchDefault

Search backend default router.

Thamani chaguo-msingi:

```
$Self->{'Frontend::SearchDefault'} = 'Action=AgentTicketSearch;Subaction=AJAX';
```

## Framework → Frontend::Agent::Stats

### Stats::SearchPageShown

Defines the default maximum number of statistics per page on the overview screen.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Stats::SearchPageShown'} = '50';
```

### **Stats::DefaultSelectedDynamicObject**

Defines the default selection at the drop down menu for dynamic objects (Form: Common Specification).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Stats::DefaultSelectedDynamicObject'} = 'Ticket';
```

### **Stats::DefaultSelectedPermissions**

Defines the default selection at the drop down menu for permissions (Form: Common Specification).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Stats::DefaultSelectedPermissions'} = [  
  'stats'  
];
```

### **Stats::DefaultSelectedFormat**

Defines the default selection at the drop down menu for stats format (Form: Common Specification). Please insert the format key (see Stats::Format).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Stats::DefaultSelectedFormat'} = [  
  'Print',  
  'CSV',  
  'Excel',  
  'D3::BarChart',  
  'D3::LineChart',  
  'D3::StackedAreaChart'  
];
```

### **Stats::SearchLimit**

Defines the search limit for the stats.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Stats::SearchLimit'} = '1000';
```

### **Stats::Format**

Defines all the possible stats output formats.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Stats::Format'} = {  
  'CSV' => 'CSV',
```

```
'D3::BarChart' => 'Graph: Bar Chart',
'D3::LineChart' => 'Graph: Line Chart',
'D3::StackedAreaChart' => 'Graph: Stacked Area Chart',
'Excel' => 'Excel',
'Print' => 'Print'
};
```

### **Stats::ExchangeAxis**

Allows agents to exchange the axis of a stat if they generate one.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Stats::ExchangeAxis'} = '0';
```

### **Stats::UseAgentElementInStats**

Allows agents to generate individual-related stats.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Stats::UseAgentElementInStats'} = '0';
```

### **Stats::UseInvalidAgentInStats**

Allows invalid agents to generate individual-related stats.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Stats::UseInvalidAgentInStats'} = '1';
```

### **Stats::CustomerIDAsMultiSelect**

Shows all the customer identifiers in a multi-select field (not useful if you have a lot of customer identifiers).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Stats::CustomerIDAsMultiSelect'} = '1';
```

### **Stats::CustomerUserLoginsAsMultiSelect**

Shows all the customer user identifiers in a multi-select field (not useful if you have a lot of customer user identifiers).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Stats::CustomerUserLoginsAsMultiSelect'} = '0';
```

## **Framework → Frontend::Customer**

### **CustomerHeadline**

The headline shown in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerHeadline'} = 'Example Company';
```

### CustomerLogo

The logo shown in the header of the customer interface. The URL to the image can be a relative URL to the skin image directory, or a full URL to a remote web server.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'CustomerLogo'} = {  
  'StyleHeight' => '45px',  
  'StyleRight' => '25px',  
  'StyleTop' => '9px',  
  'StyleWidth' => '300px',  
  'URL' => 'skins/Customer/default/img/logo.png'  
};
```

### CustomerPanelUserID

Defines the user identifier for the customer panel.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerPanelUserID'} = '1';
```

### CustomerGroupSupport

Activates support for customer groups.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerGroupSupport'} = '0';
```

### CustomerGroupAlwaysGroups

Defines the groups every customer user will be in (if CustomerGroupSupport is enabled and you don't want to manage every user for these groups).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerGroupAlwaysGroups'} = [  
  'users'  
];
```

### CustomerPanelLoginURL

Defines an alternate login URL for the customer panel..

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'CustomerPanelLoginURL'} = 'http://host.example.com/cgi-bin/login.pl';
```

## CustomerPanelLogoutURL

Defines an alternate logout URL for the customer panel.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'CustomerPanelLogoutURL'} = 'http://host.example.com/cgi-bin/login.pl';
```

## Frontend::CustomerUser::Item###1-GoogleMaps

Defines a customer item, which generates a google maps icon at the end of a customer info block.

Thamani chaguo-msingi:

```
$Self->{'Frontend::CustomerUser::Item'}->{'1-GoogleMaps'} = {
  'Attributes' => 'UserStreet;UserCity;UserCountry;',
  'CSS' => 'Core.Agent.CustomerUser.GoogleMaps.css',
  'CSSClass' => 'GoogleMaps',
  'IconName' => 'fa-globe',
  'Module' => 'Kernel::Output::HTML::CustomerUser::Generic',
  'Required' => 'UserStreet;UserCity;',
  'Target' => '_blank',
  'Text' => 'Location',
  'URL' => 'http://maps.google.com/maps?z=7&q='
};
```

## Frontend::CustomerUser::Item###2-Google

Defines a customer item, which generates a google icon at the end of a customer info block.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Frontend::CustomerUser::Item'}->{'2-Google'} = {
  'Attributes' => 'UserFirstname;UserLastname;',
  'CSS' => 'Core.Agent.CustomerUser.Google.css',
  'CSSClass' => 'Google',
  'IconName' => 'fa-google',
  'Module' => 'Kernel::Output::HTML::CustomerUser::Generic',
  'Required' => 'UserFirstname;UserLastname;',
  'Target' => '_blank',
  'Text' => 'Google',
  'URL' => 'http://google.com/search?q='
};
```

## Frontend::CustomerUser::Item###2-LinkedIn

Defines a customer item, which generates a LinkedIn icon at the end of a customer info block.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Frontend::CustomerUser::Item'}->{'2-LinkedIn'} = {
  'Attributes' => 'UserFirstname;UserLastname;',
  'CSS' => 'Core.Agent.CustomerUser.Linkedin.css',
  'CSSClass' => 'LinkedIn',
  'IconName' => 'fa-linkedin',
  'Module' => 'Kernel::Output::HTML::CustomerUser::Generic',
  'Required' => 'UserFirstname;UserLastname;',
  'Target' => '_blank',
};
```

```
'Text' => 'LinkedIn',
'URL' => 'http://www.linkedin.com/commonSearch?type=people&keywords='
};
```

### Frontend::CustomerUser::Item###3-XING

Defines a customer item, which generates a XING icon at the end of a customer info block.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Frontend::CustomerUser::Item'}->{'3-XING'} = {
  'Attributes' => 'UserFirstname;UserLastname;',
  'CSS' => 'Core.Agent.CustomerUser.Xing.css',
  'CSSClass' => 'Xing',
  'IconName' => 'fa-xing',
  'Module' => 'Kernel::Output::HTML::CustomerUser::Generic',
  'Required' => 'UserFirstname;UserLastname;',
  'Target' => '_blank',
  'Text' => 'XING',
  'URL' => 'https://www.xing.com/app/search?op=search;keywords='
};
```

### CustomerPanelPreApplicationModule###CustomerAccept

This module and its PreRun() function will be executed, if defined, for every request. This module is useful to check some user options or to display news about new applications.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'CustomerPanelPreApplicationModule'}->{'CustomerAccept'} =
'Kernel::Modules::CustomerAccept';
```

### CustomerPanel::InfoKey

Defines the key to check with CustomerAccept. If this user preferences key is true, then the message is accepted by the system.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'CustomerPanel::InfoKey'} = 'CustomerAccept1';
```

### CustomerPanel::InfoFile

Defines the path of the shown info file, that is located under Kernel/Output/HTML/Templates/Standard/CustomerAccept.tt.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'CustomerPanel::InfoFile'} = 'CustomerAccept';
```

### CustomerPanelLostPassword

Activates lost password feature for customers.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerPanelLostPassword'} = '1';
```

### **CustomerPanelCreateAccount**

Enables customers to create their own accounts.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerPanelCreateAccount'} = '1';
```

### **CustomerPanelCreateAccount::MailRestrictions::Whitelist**

If active, one of the regular expressions has to match the user's email address to allow registration.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'CustomerPanelCreateAccount::MailRestrictions::Whitelist'} = [  
  '\\@your\\.domain\\.example$'  
];
```

### **CustomerPanelCreateAccount::MailRestrictions::Blacklist**

If active, none of the regular expressions may match the user's email address to allow registration.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'CustomerPanelCreateAccount::MailRestrictions::Blacklist'} = [  
  '\\@your\\.domain\\.example$'  
];
```

### **CustomerPanelSubjectLostPasswordToken**

Defines the subject for notification mails sent to customers, with token about new requested password.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerPanelSubjectLostPasswordToken'} = 'New OTRS password request';
```

### **CustomerPanelBodyLostPasswordToken**

Defines the body text for notification mails sent to customers, with token about new requested password (after using this link the new password will be sent).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerPanelBodyLostPasswordToken'} = 'Hi <OTRS_USERFIRSTNAME>,'
```

```
You or someone impersonating you has requested to change your OTRS  
password.
```



If you want to do this, click on this link. You will receive another email containing the password.

```
<OTRS_CONFIG_ContentType>://<OTRS_CONFIG_FQDN>/<OTRS_CONFIG_ScriptAlias>customer.pl?
Action=CustomerLostPassword;Token=<OTRS_TOKEN>
```

If you did not request a new password, please ignore this email.

### CustomerPanelSubjectLostPassword

Defines the subject for notification mails sent to customers, about new password.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerPanelSubjectLostPassword'} = 'New OTRS password';
```

### CustomerPanelBodyLostPassword

Defines the body text for notification mails sent to customers, about new password (after using this link the new password will be sent).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerPanelBodyLostPassword'} = 'Hi <OTRS_USERFIRSTNAME>,
New password: <OTRS_NEWPW>
<OTRS_CONFIG_ContentType>://<OTRS_CONFIG_FQDN>/<OTRS_CONFIG_ScriptAlias>customer.pl';
```

### CustomerPanelSubjectNewAccount

Defines the subject for notification mails sent to customers, about new account.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerPanelSubjectNewAccount'} = 'New OTRS Account!';
```

### CustomerPanelBodyNewAccount

Defines the body text for notification mails sent to customers, about new account.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerPanelBodyNewAccount'} = 'Hi <OTRS_USERFIRSTNAME>,
You or someone impersonating you has created a new OTRS account for
you.
Full name: <OTRS_USERFIRSTNAME> <OTRS_USERLASTNAME>
User name: <OTRS_USERLOGIN>
Password : <OTRS_USERPASSWORD>
You can log in via the following URL. We encourage you to change your password
via the Preferences button after logging in.
<OTRS_CONFIG_ContentType>://<OTRS_CONFIG_FQDN>/<OTRS_CONFIG_ScriptAlias>customer.pl';
```

### **Loader::Customer::Skin###000-default**

Default skin for the customer interface.

Thamani chaguo-msingi:

```
$Self->{'Loader::Customer::Skin'}->{'000-default'} = {  
  'Description' => 'This is the default orange - black skin for the customer  
  interface.',  
  'HomePage' => 'www.otrs.org',  
  'InternalName' => 'default',  
  'VisibleName' => 'Default'  
};
```

### **Loader::Customer::SelectedSkin**

The customer skin's InternalName which should be used in the customer interface. Please check the available skins in Frontend::Customer::Skins.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Loader::Customer::SelectedSkin'} = 'default';
```

### **Loader::Customer::SelectedSkin::HostBased**

It is possible to configure different skins, for example to distinguish between different customers, to be used on a per-domain basis within the application. Using a regular expression (regex), you can configure a Key/Content pair to match a domain. The value in "Key" should match the domain, and the value in "Content" should be a valid skin on your system. Please see the example entries for the proper form of the regex.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Loader::Customer::SelectedSkin::HostBased'} = {  
  'host1\\.example\\.com' => 'Someskin1',  
  'host2\\.example\\.com' => 'Someskin2'  
};
```

### **AutoComplete::Customer###Default**

Defines the config options for the autocomplete feature.

Thamani chaguo-msingi:

```
$Self->{'AutoComplete::Customer'}->{'Default'} = {  
  'AutoCompleteActive' => '1',  
  'ButtonText' => 'Search',  
  'MaxResultsDisplayed' => '20',  
  'MinQueryLength' => '2',  
  'QueryDelay' => '100'  
};
```

### **ModernizeCustomerFormFields**

Use new type of select and autocomplete fields in customer interface, where applicable (InputFields).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'ModernizeCustomerFormFields'} = '1';
```

---

## Framework → Frontend::Customer::Auth

### Customer::AuthModule

Defines the module to authenticate customers.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule'} = 'Kernel::System::CustomerAuth::DB';
```

### Customer::AuthModule::DB::CryptType

If "DB" was selected for Customer::AuthModule, the crypt type of passwords must be specified.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::DB::CryptType'} = 'sha2';
```

### Customer::AuthModule::DB::Table

If "DB" was selected for Customer::AuthModule, the name of the table where your customer data should be stored must be specified.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::DB::Table'} = 'customer_user';
```

### Customer::AuthModule::DB::CustomerKey

If "DB" was selected for Customer::AuthModule, the name of the column for the CustomerKey in the customer table must be specified.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::DB::CustomerKey'} = 'login';
```

### Customer::AuthModule::DB::CustomerPassword

If "DB" was selected for Customer::AuthModule, the column name for the CustomerPassword in the customer table must be specified.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::DB::CustomerPassword'} = 'pw';
```

### Customer::AuthModule::DB::DSN

If "DB" was selected for Customer::AuthModule, the DSN for the connection to the customer table must be specified.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::DB::DSN'} =  
'DBI:mysql:database=customerdb;host=customerdbhost';
```

### **Customer::AuthModule::DB::User**

If "DB" was selected for Customer::AuthModule, a username to connect to the customer table can be specified.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::DB::User'} = 'some_user';
```

### **Customer::AuthModule::DB::Password**

If "DB" was selected for Customer::AuthModule, a password to connect to the customer table can be specified.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::DB::Password'} = 'some_password';
```

### **Customer::AuthModule::DB::Type**

If "DB" was selected for Customer::AuthModule, a database driver (normally autodetection is used) can be specified.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::DB::Type'} = 'mysql';
```

### **Customer::AuthModule::HTTPBasicAuth::Replace**

If "HTTPBasicAuth" was selected for Customer::AuthModule, you can specify to strip leading parts of user names (e. g. for domains like example\_domain\user to user).

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::HTTPBasicAuth::Replace'} = 'example_domain\\';
```

### **Customer::AuthModule::HTTPBasicAuth::ReplaceRegExp**

If "HTTPBasicAuth" was selected for Customer::AuthModule, you can specify (by using a RegExp) to strip parts of REMOTE\_USER (e. g. for to remove trailing domains). RegExp-Note, \$1 will be the new Login.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::HTTPBasicAuth::ReplaceRegExp'} = '^(.+?)@.+?';
```

### **Customer::AuthModule::LDAP::Host**

If "LDAP" was selected for Customer::AuthModule, the LDAP host can be specified.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::LDAP::Host'} = 'ldap.example.com';
```

### **Customer::AuthModule::LDAP::BaseDN**

If "LDAP" was selected for Customer::AuthModule, the BaseDN must be specified.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::LDAP::BaseDN'} = 'dc=example,dc=com';
```

### **Customer::AuthModule::LDAP::UID**

If "LDAP" was selected for Customer::AuthModule, the user identifier must be specified.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::LDAP::UID'} = 'uid';
```

### **Customer::AuthModule::LDAP::GroupDN**

If "LDAP" was selected for Customer::AuthModule, you can check if the user is allowed to authenticate because he is in a posixGroup, e.g. user needs to be in a group xyz to use OTRS. Specify the group, who may access the system.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::LDAP::GroupDN'} =  
'cn=otrsallow,ou=posixGroups,dc=example,dc=com';
```

### **Customer::AuthModule::LDAP::AccessAttr**

If "LDAP" was selected for Customer::AuthModule, you can specify access attributes here.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::LDAP::AccessAttr'} = 'memberUid';
```

### **Customer::AuthModule::LDAP::UserAttr**

If "LDAP" was selected for Customer::AuthModule, user attributes can be specified. For LDAP posixGroups use UID, for non LDAP posixGroups use full user DN.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::LDAP::UserAttr'} = 'UID';
```

### **Customer::AuthModule::LDAP::SearchUserDN**

If "LDAP" was selected for Customer::AuthModule and your users have only anonymous access to the LDAP tree, but you want to search through the data, you can do this with a user who has access to the LDAP directory. Specify the username for this special user here.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::LDAP::SearchUserDN'} =  
'cn=binduser,ou=users,dc=example,dc=com';
```

### **Customer::AuthModule::LDAP::SearchUserPw**

If "LDAP" was selected for Customer::AuthModule and your users have only anonymous access to the LDAP tree, but you want to search through the data, you can do this with a user who has access to the LDAP directory. Specify the password for this special user here.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::LDAP::SearchUserPw'} = 'some_password';
```

### **Customer::AuthModule::LDAP::AlwaysFilter**

If "LDAP" was selected, you can add a filter to each LDAP query, e.g. (mail=\*), (objectclass=user) or (!objectclass=computer).

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::LDAP::AlwaysFilter'} = '(!objectclass=computer)';
```

### **Customer::AuthModule::LDAP::UserSuffix**

If "LDAP" was selected for Customer::AuthModule and if you want to add a suffix to every customer login name, specify it here, e. g. you just want to write the username user but in your LDAP directory exists user@domain.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::LDAP::UserSuffix'} = '@domain.com';
```

### **Customer::AuthModule::LDAP::Params**

If "LDAP" was selected for Customer::AuthModule and special parameters are needed for the Net::LDAP perl module, you can specify them here. See "perldoc Net::LDAP" for more information about the parameters.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::LDAP::Params'} = {  
  'async' => '0',  
  'port' => '389',  
  'timeout' => '120',  
  'version' => '3'  
};
```

### **Customer::AuthModule::LDAP::Die**

If "LDAP" was selected for Customer::AuthModule, you can specify if the applications will stop if e. g. a connection to a server can't be established due to network problems.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::LDAP::Die'} = '1';
```

### **Customer::AuthModule::Radius::Host**

If "Radius" was selected for Customer::AuthModule, the radius host must be specified.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::Radius::Host'} = 'radiushost';
```

### **Customer::AuthModule::Radius::Password**

If "Radius" was selected for Customer::AuthModule, the password to authenticate to the radius host must be specified.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::Radius::Password'} = 'radiussecret';
```

### **Customer::AuthModule::Radius::Die**

If "Radius" was selected for Customer::AuthModule, you can specify if the applications will stop if e. g. a connection to a server can't be established due to network problems.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthModule::Radius::Die'} = '1';
```

## **Framework → Frontend::Customer::Auth::TwoFactor**

### **Customer::AuthTwoFactorModule**

Defines the two-factor module to authenticate customers.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthTwoFactorModule'} =  
'Kernel::System::CustomerAuth::TwoFactor::GoogleAuthenticator';
```

### **Customer::AuthTwoFactorModule::SecretPreferencesKey**

Defines the customer preferences key where the shared secret key is stored.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthTwoFactorModule::SecretPreferencesKey'} =  
'UserGoogleAuthenticatorSecretKey';
```

### **Customer::AuthTwoFactorModule::AllowEmptySecret**

Defines if customers should be allowed to login if they have no shared secret stored in their preferences and therefore are not using two-factor authentication.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthTwoFactorModule::AllowEmptySecret'} = '1';
```

### Customer::AuthTwoFactorModule::AllowPreviousToken

Defines if the previously valid token should be accepted for authentication. This is slightly less secure but gives users 30 seconds more time to enter their one-time password.

Thamani chaguo-msingi:

```
$Self->{'Customer::AuthTwoFactorModule::AllowPreviousToken'} = '1';
```

## Framework → Frontend::Customer::ModuleMetaHead

### CustomerFrontend::HeaderMetaModule###1-Refresh

Defines the module to generate code for periodic page reloads.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerFrontend::HeaderMetaModule'}->{'1-Refresh'} = {  
  'Module' => 'Kernel::Output::HTML::HeaderMeta::Refresh'  
};
```

## Framework → Frontend::Customer::ModuleNotify

### CustomerFrontend::NotifyModule###1-OTRSBusiness

Defines the module to display a notification in different interfaces on different occasions for OTRS Business Solution™.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerFrontend::NotifyModule'}->{'1-OTRSBusiness'} = {  
  'Module' => 'Kernel::Output::HTML::Notification::CustomerOTRSBusiness'  
};
```

### CustomerFrontend::NotifyModule###1-ShowAgentOnline

Defines the module that shows the currently logged in agents in the customer interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'CustomerFrontend::NotifyModule'}->{'1-ShowAgentOnline'} = {  
  'Module' => 'Kernel::Output::HTML::Notification::AgentOnline',  
  'ShowEmail' => '1'  
};
```

### CustomerFrontend::NotifyModule###1-ShowCustomerOnline

Defines the module that shows the currently logged in customers in the customer interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'CustomerFrontend::NotifyModule'}->{'1-ShowCustomerOnline'} = {
```



```
'Module' => 'Kernel::Output::HTML::Notification::CustomerOnline',
'ShowEmail' => '1'
};
```

### CustomerFrontend::NotifyModule###6-CustomerSystemMaintenance-Check

Defines the module to display a notification in the agent interface, if the agent is logged in while having system maintenance active.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerFrontend::NotifyModule'}->{'6-CustomerSystemMaintenance-Check'} = {
  'Module' => 'Kernel::Output::HTML::Notification::CustomerSystemMaintenanceCheck'
};
```

## Framework → Frontend::Customer::ModuleRegistration

### CustomerFrontend::Module###Logout

Frontend module registration for the customer interface.

Thamani chaguo-msingi:

```
$Self->{'CustomerFrontend::Module'}->{'Logout'} = {
  'Description' => 'Logout of customer panel.',
  'NavBarName' => '',
  'Title' => ''
};
```

### CustomerFrontend::Module###CustomerPreferences

Frontend module registration for the customer interface.

Thamani chaguo-msingi:

```
$Self->{'CustomerFrontend::Module'}->{'CustomerPreferences'} = {
  'Description' => 'Customer preferences.',
  'NavBarName' => '',
  'Title' => 'Preferences'
};
```

### CustomerFrontend::Module###CustomerAccept

Frontend module registration for the customer interface.

Thamani chaguo-msingi:

```
$Self->{'CustomerFrontend::Module'}->{'CustomerAccept'} = {
  'Description' => 'To accept login information, such as an EULA or license.',
  'NavBarName' => '',
  'Title' => 'Info'
};
```

### CustomerFrontend::Module###PictureUpload

Frontend module registration for the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerFrontend::Module'}->{'PictureUpload'} = {
  'Description' => 'Picture upload module.',
  'NavBarName' => 'Ticket',
};
```

```
'Title' => 'Picture-Upload'
};
```

## Framework → Frontend::Customer::Preferences

### CustomerPreferences

Defines the parameters for the customer preferences table.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerPreferences'} = {
  'Module' => 'Kernel::System::CustomerUser::Preferences::DB',
  'Params' => {
    'Table' => 'customer_preferences',
    'TableKey' => 'preferences_key',
    'TableUserID' => 'user_id',
    'TableValue' => 'preferences_value'
  }
};
```

### CustomerPreferencesView

Sets the order of the different items in the customer preferences view.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerPreferencesView'} = [
  'User Profile',
  'Other Settings'
];
```

### CustomerPreferencesGroups###Password

Defines all the parameters for this item in the customer preferences. 'PasswordRegExp' allows to match passwords against a regular expression. Define the minimum number of characters using 'PasswordMinSize'. Define if at least 2 lowercase and 2 uppercase letter characters are needed by setting the appropriate option to '1'. 'PasswordMin2Characters' defines if the password needs to contain at least 2 letter characters (set to 0 or 1). 'PasswordNeedDigit' controls the need of at least 1 digit (set to 0 or 1 to control).

Thamani chaguo-msingi:

```
$Self->{'CustomerPreferencesGroups'}->{'Password'} = {
  'Active' => '1',
  'Area' => 'Customer',
  'Column' => 'Other Settings',
  'Desc' => 'Set a new password by filling in your current password and a new one.',
  'Label' => 'Change password',
  'Module' => 'Kernel::Output::HTML::Preferences::Password',
  'PasswordMin2Characters' => '0',
  'PasswordMin2Lower2UpperCharacters' => '0',
  'PasswordMinSize' => '0',
  'PasswordNeedDigit' => '0',
  'PasswordRegExp' => '',
  'Prio' => '1000'
};
```

### CustomerPreferencesGroups###GoogleAuthenticatorSecretKey

Defines the config parameters of this item, to be shown in the preferences view.

Thamani chaguo-msingi:

```
$Self->{'CustomerPreferencesGroups'}->{'GoogleAuthenticatorSecretKey'} = {
  'Active' => '0',
  'Block' => 'Input',
  'Column' => 'Other Settings',
  'Desc' => 'Enter your shared secret to enable two factor authentication.',
  'Key' => 'Shared Secret',
  'Label' => 'Google Authenticator',
  'Module' => 'Kernel::Output::HTML::Preferences::Generic',
  'PrefKey' => 'UserGoogleAuthenticatorSecretKey',
  'Prio' => '1100'
};
```

### CustomerPreferencesGroups###Language

Defines all the parameters for this item in the customer preferences.

Thamani chaguo-msingi:

```
$Self->{'CustomerPreferencesGroups'}->{'Language'} = {
  'Active' => '1',
  'Column' => 'User Profile',
  'Desc' => 'Select the main interface language.',
  'Key' => 'Language',
  'Label' => 'Interface language',
  'Module' => 'Kernel::Output::HTML::Preferences::Language',
  'PrefKey' => 'UserLanguage',
  'Prio' => '2000'
};
```

### CustomerPreferencesGroups###Theme

Defines all the parameters for this item in the customer preferences.

Thamani chaguo-msingi:

```
$Self->{'CustomerPreferencesGroups'}->{'Theme'} = {
  'Active' => '0',
  'Column' => 'User Profile',
  'Desc' => 'Select your preferred theme for OTRS.',
  'Key' => 'Frontend theme.',
  'Label' => 'Theme',
  'Module' => 'Kernel::Output::HTML::Preferences::Theme',
  'PrefKey' => 'UserTheme',
  'Prio' => '1000'
};
```

### CustomerPreferencesGroups###TimeZone

Defines all the parameters for this item in the customer preferences.

Thamani chaguo-msingi:

```
$Self->{'CustomerPreferencesGroups'}->{'TimeZone'} = {
  'Active' => '1',
  'Column' => 'User Profile',
  'Desc' => 'This is a description for TimeZone on Customer side.',
  'Key' => 'Time Zone',
  'Label' => 'Time Zone',
  'Module' => 'Kernel::Output::HTML::Preferences::TimeZone',
  'PrefKey' => 'UserTimeZone',
  'Prio' => '5000'
};
```

### CustomerPreferencesGroups###PGP

Defines all the parameters for this item in the customer preferences.

Thamani chaguo-msingi:

```
$Self->{'CustomerPreferencesGroups'}->{'PGP'} = {
  'Active' => '1',
  'Column' => 'Other Settings',
  'Desc' => 'Upload your PGP key.',
  'Key' => 'PGP Key',
  'Label' => 'PGP Key',
  'Module' => 'Kernel::Output::HTML::Preferences::PGP',
  'PrefKey' => 'UserPGPKey',
  'Prio' => '10000'
};
```

### CustomerPreferencesGroups###SMIME

Defines all the parameters for this item in the customer preferences.

Thamani chaguo-msingi:

```
$Self->{'CustomerPreferencesGroups'}->{'SMIME'} = {
  'Active' => '1',
  'Column' => 'Other Settings',
  'Desc' => 'Upload your S/MIME certificate.',
  'Key' => 'S/MIME Certificate',
  'Label' => 'S/MIME Certificate',
  'Module' => 'Kernel::Output::HTML::Preferences::SMIME',
  'PrefKey' => 'UserSMIMEKey',
  'Prio' => '11000'
};
```

## Framework → Frontend::Public

### PublicFrontend::FooterLinks

Defines the shown links in the footer area of the customer and public interface of this OTRS system. The value in "Key" is the external URL, the value in "Content" is the shown label.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'PublicFrontend::FooterLinks'} = {
  'https://www.otrs.com' => 'OTRS Homepage'
};
```

### PublicFrontend::CommonParam###Action

Defines the default value for the action parameter for the public frontend. The action parameter is used in the scripts of the system.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PublicFrontend::CommonParam'}->{'Action'} = 'PublicDefault';
```

## Framework → Frontend::Public::ModuleRegistration

### PublicFrontend::Module###PublicDefault

Frontend module registration for the public interface.

Thamani chaguo-msingi:

```
$Self->{'PublicFrontend::Module'}->{'PublicDefault'} = {
  'Description' => 'PublicDefault',
};
```

```
'NavBarName' => '',  
'Title' => 'PublicDefault'  
};
```

### **PublicFrontend::Module###PublicRepository**

Frontend module registration for the public interface.

Thamani chaguo-msingi:

```
$Self->{'PublicFrontend::Module'}->{'PublicRepository'} = {  
  'Description' => 'PublicRepository',  
  'NavBarName' => '',  
  'Title' => 'PublicRepository'  
};
```

### **PublicFrontend::Module###PublicSupportDataCollector**

Frontend module registration for the public interface.

Thamani chaguo-msingi:

```
$Self->{'PublicFrontend::Module'}->{'PublicSupportDataCollector'} = {  
  'Description' => 'PublicSupportDataCollector',  
  'NavBarName' => '',  
  'Title' => 'PublicSupportDataCollector'  
};
```

## **Framework → SystemMaintenance**

### **SystemMaintenance::TimeNotifyUpcomingMaintenance**

Sets the minutes a notification is shown for notice about upcoming system maintenance period.

Thamani chaguo-msingi:

```
$Self->{'SystemMaintenance::TimeNotifyUpcomingMaintenance'} = '30';
```

### **SystemMaintenance::IsActiveDefaultNotification**

Sets the default message for the notification is shown on a running system maintenance period.

Thamani chaguo-msingi:

```
$Self->{'SystemMaintenance::IsActiveDefaultNotification'} = 'We are performing  
scheduled maintenance.';
```

### **SystemMaintenance::IsActiveDefaultLoginMessage**

Sets the default message for the login screen on Agent and Customer interface, it's shown when a running system maintenance period is active.

Thamani chaguo-msingi:

```
$Self->{'SystemMaintenance::IsActiveDefaultLoginMessage'} = 'We are performing  
scheduled maintenance. We should be back online shortly.';
```

### **SystemMaintenance::IsActiveDefaultLoginErrorMessage**

Sets the default error message for the login screen on Agent and Customer interface, it's shown when a running system maintenance period is active.

Thamani chaguo-msingi:

```
$Self->{'SystemMaintenance::IsActiveDefaultLoginErrorMessage'} = 'We are performing scheduled maintenance. Login is temporarily not available.';
```

## 5. GenericInterface

### GenericInterface → Core::CustomerCompany

#### CustomerCompany::EventModulePost###1000-GenericInterface

Performs the configured action for each event (as an Invoker) for each configured Webservice.

Thamani chaguo-msingi:

```
$Self->{'CustomerCompany::EventModulePost'}->{'1000-GenericInterface'} = {
  'Event' => '',
  'Module' => 'Kernel::GenericInterface::Event::Handler',
  'Transaction' => '1'
};
```

### GenericInterface → Core::CustomerUser

#### CustomerUser::EventModulePost###1000-GenericInterface

Performs the configured action for each event (as an Invoker) for each configured Webservice.

Thamani chaguo-msingi:

```
$Self->{'CustomerUser::EventModulePost'}->{'1000-GenericInterface'} = {
  'Event' => '',
  'Module' => 'Kernel::GenericInterface::Event::Handler',
  'Transaction' => '1'
};
```

### GenericInterface → Core::DynamicField

#### DynamicField::EventModulePost###1000-GenericInterface

Performs the configured action for each event (as an Invoker) for each configured Webservice.

Thamani chaguo-msingi:

```
$Self->{'DynamicField::EventModulePost'}->{'1000-GenericInterface'} = {
  'Event' => '',
  'Module' => 'Kernel::GenericInterface::Event::Handler',
  'Transaction' => '1'
};
```

### GenericInterface → Core::Package

#### Package::EventModulePost###1000-GenericInterface

Performs the configured action for each event (as an Invoker) for each configured Webservice.

Thamani chaguo-msingi:

```
$Self->{'Package::EventModulePost'}->{'1000-GenericInterface'} = {
  'Event' => '',
  'Module' => 'Kernel::GenericInterface::Event::Handler',
  'Transaction' => '1'
};
```

```
};
```

## GenericInterface → Core::Queue

### Queue::EventModulePost###1000-GenericInterface

Performs the configured action for each event (as an Invoker) for each configured Webservice.

Thamani chaguo-msingi:

```
$Self->{'Queue::EventModulePost'}->{'1000-GenericInterface'} = {
  'Event' => '',
  'Module' => 'Kernel::GenericInterface::Event::Handler',
  'Transaction' => '1'
};
```

## GenericInterface → Core::Ticket

### Ticket::EventModulePost###999-GenericInterface

Performs the configured action for each event (as an Invoker) for each configured Webservice.

Thamani chaguo-msingi:

```
$Self->{'Ticket::EventModulePost'}->{'999-GenericInterface'} = {
  'Event' => '',
  'Module' => 'Kernel::GenericInterface::Event::Handler',
  'Transaction' => '1'
};
```

## GenericInterface → Frontend::Admin::ModuleRegistration

### Frontend::Module###AdminGenericInterfaceDebugger

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminGenericInterfaceDebugger'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'Loader' => {
    'CSS' => [
      'Core.Agent.Admin.GenericInterface.css'
    ],
    'JavaScript' => [
      'Core.Agent.Admin.GenericInterfaceDebugger.js'
    ]
  },
  'Title' => 'GenericInterface Debugger GUI'
};
```

### Frontend::Module###AdminGenericInterfaceWebservice

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminGenericInterfaceWebservice'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ]
};
```

```

],
'Loader' => {
  'CSS' => [
    'Core.Agent.Admin.GenericInterface.css'
  ],
  'JavaScript' => [
    'Core.Agent.Admin.GenericInterfaceWebservice.js'
  ]
},
'NavBarModule' => {
  'Block' => 'System',
  'Description' => 'Create and manage web services.',
  'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
  'Name' => 'Web Services',
  'Prio' => '1000'
},
'NavBarName' => 'Admin',
'Title' => 'GenericInterface Web Service GUI'
};

```

### Frontend::Module###AdminGenericInterfaceTransportHTTPSOAP

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AdminGenericInterfaceTransportHTTPSOAP'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'Loader' => {
    'CSS' => [
      'Core.Agent.Admin.GenericInterface.css',
      'Core.Agent.SortedTree.css'
    ],
    'JavaScript' => [
      'Core.Agent.SortedTree.js'
    ]
  },
  'Title' => 'GenericInterface TransportHTTPSOAP GUI'
};

```

### Frontend::Module###AdminGenericInterfaceTransportHTTPREST

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AdminGenericInterfaceTransportHTTPREST'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'Loader' => {
    'CSS' => [
      'Core.Agent.Admin.GenericInterface.css'
    ]
  },
  'Title' => 'GenericInterface TransportHTTPREST GUI'
};

```

### Frontend::Module###AdminGenericInterfaceWebserviceHistory

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AdminGenericInterfaceWebserviceHistory'} = {
  'Description' => 'Admin',

```



```
'Group' => [
  'admin'
],
'Loader' => {
  'CSS' => [
    'Core.Agent.Admin.GenericInterface.css'
  ],
  'JavaScript' => [
    'Core.Agent.Admin.GenericInterfaceWebserviceHistory.js'
  ]
},
'Title' => 'GenericInterface Webservice History GUI'
};
```

### Frontend::Module###AdminGenericInterfaceOperationDefault

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminGenericInterfaceOperationDefault'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'Loader' => {
    'CSS' => [
      'Core.Agent.Admin.GenericInterface.css'
    ],
    'JavaScript' => [
      'Core.Agent.Admin.GenericInterfaceOperation.js'
    ]
  },
  'Title' => 'GenericInterface Operation GUI'
};
```

### Frontend::Module###AdminGenericInterfaceInvokerDefault

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminGenericInterfaceInvokerDefault'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'Loader' => {
    'CSS' => [
      'Core.Agent.Admin.GenericInterface.css'
    ],
    'JavaScript' => [
      'Core.Agent.Admin.GenericInterfaceInvoker.js'
    ]
  },
  'Title' => 'GenericInterface Invoker GUI'
};
```

### Frontend::Module###AdminGenericInterfaceMappingSimple

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminGenericInterfaceMappingSimple'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'Loader' => {
```

```
'CSS' => [
  'Core.Agent.Admin.GenericInterface.css'
],
'JavaScript' => [
  'Core.Agent.Admin.GenericInterfaceMappingSimple.js'
]
},
'Title' => 'GenericInterface Webservice Mapping GUI'
};
```

### Frontend::Module###AdminGenericInterfaceMappingXSLT

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminGenericInterfaceMappingXSLT'} = {
  'Description' => 'Admin',
  'Group' => [
    'admin'
  ],
  'Loader' => {
    'CSS' => [
      'Core.Agent.Admin.GenericInterface.css'
    ]
  },
  'Title' => 'GenericInterface Webservice Mapping GUI'
};
```

### GenericInterface

### GenericInterface::Invoker::ModuleRegistration

#### GenericInterface::Invoker::Module###Test::Test

GenericInterface module registration for the invoker layer.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Invoker::Module'}->{'Test::Test'} = {
  'ConfigDialog' => 'AdminGenericInterfaceInvokerDefault',
  'Controller' => 'Test',
  'Name' => 'Test'
};
```

#### GenericInterface::Invoker::Module###Test::TestSimple

GenericInterface module registration for the invoker layer.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Invoker::Module'}->{'Test::TestSimple'} = {
  'ConfigDialog' => 'AdminGenericInterfaceInvokerDefault',
  'Controller' => 'Test',
  'Name' => 'TestSimple'
};
```

### GenericInterface

### GenericInterface::Mapping::ModuleRegistration

#### GenericInterface::Mapping::Module###Test

GenericInterface module registration for the mapping layer.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Mapping::Module'}->{'Test'} = {
  'ConfigDialog' => ''
};
```

### **GenericInterface::Mapping::Module###Simple**

GenericInterface module registration for the mapping layer.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Mapping::Module'}->{'Simple'} = {
  'ConfigDialog' => 'AdminGenericInterfaceMappingSimple'
};
```

### **GenericInterface::Mapping::Module###XSLT**

GenericInterface module registration for the mapping layer.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Mapping::Module'}->{'XSLT'} = {
  'ConfigDialog' => 'AdminGenericInterfaceMappingXSLT'
};
```

## **GenericInterface**

### **GenericInterface::Operation::ModuleRegistration**

#### **GenericInterface::Operation::Module###Test::Test**

GenericInterface module registration for the operation layer.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Operation::Module'}->{'Test::Test'} = {
  'ConfigDialog' => 'AdminGenericInterfaceOperationDefault',
  'Controller' => 'Test',
  'Name' => 'Test'
};
```

#### **GenericInterface::Operation::Module###Session::SessionCreate**

GenericInterface module registration for the operation layer.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Operation::Module'}->{'Session::SessionCreate'} = {
  'ConfigDialog' => 'AdminGenericInterfaceOperationDefault',
  'Controller' => 'Session',
  'Name' => 'SessionCreate'
};
```

#### **GenericInterface::Operation::Module###Ticket::TicketCreate**

GenericInterface module registration for the operation layer.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Operation::Module'}->{'Ticket::TicketCreate'} = {
  'ConfigDialog' => 'AdminGenericInterfaceOperationDefault',
```

```
'Controller' => 'Ticket',
'Name' => 'TicketCreate'
};
```

### GenericInterface::Operation::Module###Ticket::TicketUpdate

GenericInterface module registration for the operation layer.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Operation::Module'}->{'Ticket::TicketUpdate'} = {
'ConfigDialog' => 'AdminGenericInterfaceOperationDefault',
'Controller' => 'Ticket',
'Name' => 'TicketUpdate'
};
```

### GenericInterface::Operation::Module###Ticket::TicketGet

GenericInterface module registration for the operation layer.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Operation::Module'}->{'Ticket::TicketGet'} = {
'ConfigDialog' => 'AdminGenericInterfaceOperationDefault',
'Controller' => 'Ticket',
'Name' => 'TicketGet'
};
```

### GenericInterface::Operation::Module###Ticket::TicketSearch

GenericInterface module registration for the operation layer.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Operation::Module'}->{'Ticket::TicketSearch'} = {
'ConfigDialog' => 'AdminGenericInterfaceOperationDefault',
'Controller' => 'Ticket',
'Name' => 'TicketGet'
};
```

## GenericInterface

### GenericInterface::Operation::ResponseLoggingMaxSize →

#### GenericInterface::Operation::ResponseLoggingMaxSize

Defines the maximum size in KiloByte of GenericInterface responses that get logged to the gi\_debugger\_entry\_content table.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Operation::ResponseLoggingMaxSize'} = '200';
```

## GenericInterface → GenericInterface::Operation::TicketCreate

### GenericInterface::Operation::TicketCreate###ArticleType

Defines the default type of the article for this operation.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Operation::TicketCreate'}->{'ArticleType'} = 'webrequest';
```

### **GenericInterface::Operation::TicketCreate###HistoryType**

Defines the history type for this operation, which gets used for ticket history in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Operation::TicketCreate'}->{'HistoryType'} = 'NewTicket';
```

### **GenericInterface::Operation::TicketCreate###HistoryComment**

Defines the history comment for this operation, which gets used for ticket history in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Operation::TicketCreate'}->{'HistoryComment'} = '%GenericInterface Create';
```

### **GenericInterface::Operation::TicketCreate###AutoResponseType**

Defines the default auto response type of the article for this operation.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Operation::TicketCreate'}->{'AutoResponseType'} = 'auto reply';
```

## **GenericInterface → GenericInterface::Operation::TicketSearch**

### **GenericInterface::Operation::TicketSearch###SearchLimit**

Maximum number of tickets to be displayed in the result of this operation.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Operation::TicketSearch'}->{'SearchLimit'} = '500';
```

### **GenericInterface::Operation::TicketSearch###SortBy::Default**

Defines the default ticket attribute for ticket sorting of the ticket search result of this operation.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Operation::TicketSearch'}->{'SortBy::Default'} = 'Age';
```

### **GenericInterface::Operation::TicketSearch###Order::Default**

Defines the default ticket order in the ticket search result of the this operation. Up: oldest on top. Down: latest on top.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Operation::TicketSearch'}->{'Order::Default'} = 'Down';
```

## GenericInterface → GenericInterface::Operation::TicketUpdate

### GenericInterface::Operation::TicketUpdate###ArticleType

Defines the default type of the article for this operation.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Operation::TicketUpdate'}->{'ArticleType'} = 'webrequest';
```

### GenericInterface::Operation::TicketUpdate###HistoryType

Defines the history type for this operation, which gets used for ticket history in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Operation::TicketUpdate'}->{'HistoryType'} = 'AddNote';
```

### GenericInterface::Operation::TicketUpdate###HistoryComment

Defines the history comment for this operation, which gets used for ticket history in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Operation::TicketUpdate'}->{'HistoryComment'} = '%GenericInterface Note';
```

### GenericInterface::Operation::TicketUpdate###AutoResponseType

Defines the default auto response type of the article for this operation.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Operation::TicketUpdate'}->{'AutoResponseType'} = 'auto follow up';
```

## GenericInterface →

## GenericInterface::Transport::ModuleRegistration

### GenericInterface::Transport::Module###HTTP::SOAP

GenericInterface module registration for the transport layer.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Transport::Module'}->{'HTTP::SOAP'} = {
  'ConfigDialog' => 'AdminGenericInterfaceTransportHTTPSOAP',
  'Name' => 'SOAP',
  'Protocol' => 'HTTP'
};
```

### GenericInterface::Transport::Module###HTTP::REST

GenericInterface module registration for the transport layer.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Transport::Module'}->{'HTTP::REST'} = {
  'ConfigDialog' => 'AdminGenericInterfaceTransportHTTPREST',
  'Name' => 'REST',
  'Protocol' => 'HTTP'
};
```

### **GenericInterface::Transport::Module###HTTP::Test**

GenericInterface module registration for the transport layer.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Transport::Module'}->{'HTTP::Test'} = {
  'ConfigDialog' => 'AdminGenericInterfaceTransportHTTPTest',
  'Name' => 'Test',
  'Protocol' => 'HTTP'
};
```

## **GenericInterface → GenericInterface::Webservice**

### **GenericInterface::WebserviceConfig::CacheTTL**

Cache time in seconds for the web service config backend.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::WebserviceConfig::CacheTTL'} = '86400';
```

### **GenericInterface::Operation::Common::CachedAuth::AgentCacheTTL**

Cache time in seconds for agent authentication in the GenericInterface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Operation::Common::CachedAuth::AgentCacheTTL'} = '300';
```

### **GenericInterface::Operation::Common::CachedAuth::CustomerCacheTTL**

Cache time in seconds for customer authentication in the GenericInterface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'GenericInterface::Operation::Common::CachedAuth::CustomerCacheTTL'} = '300';
```

# **6. ProcessManagement**

## **ProcessManagement → Core**

### **Process::DynamicFieldProcessManagementProcessID**

This option defines the dynamic field in which a Process Management process entity id is stored.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Process::DynamicFieldProcessManagementProcessID'} =  
'ProcessManagementProcessID';
```

### **Process::DynamicFieldProcessManagementActivityID**

This option defines the dynamic field in which a Process Management activity entity id is stored.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Process::DynamicFieldProcessManagementActivityID'} =  
'ProcessManagementActivityID';
```

### **Process::DefaultQueue**

This option defines the process tickets default queue.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Process::DefaultQueue'} = 'Raw';
```

### **Process::DefaultState**

This option defines the process tickets default state.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Process::DefaultState'} = 'new';
```

### **Process::DefaultLock**

This option defines the process tickets default lock.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Process::DefaultLock'} = 'unlock';
```

### **Process::DefaultPriority**

This option defines the process tickets default priority.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Process::DefaultPriority'} = '3 normal';
```

### **Process::Entity::Prefix**

Default ProcessManagement entity prefixes for entity IDs that are automatically generated.

This setting can not be deactivated.

Thamani chaguo-msingi:



```
$Self->{'Process::Entity::Prefix'} = {
  'Activity' => 'A',
  'ActivityDialog' => 'AD',
  'Process' => 'P',
  'Transition' => 'T',
  'TransitionAction' => 'TA'
};
```

### Process::CacheTTL

Cache time in seconds for the DB process backend.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Process::CacheTTL'} = '3600';
```

### Process::NavBarOutput::CacheTTL

Cache time in seconds for the ticket process navigation bar output module.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Process::NavBarOutput::CacheTTL'} = '900';
```

## ProcessManagement → Core::Ticket

### Ticket::EventModulePost###998-TicketProcessTransitions

Event module registration. For more performance you can define a trigger event (e.g. Event => TicketCreate).

Thamani chaguo-msingi:

```
$Self->{'Ticket::EventModulePost'}->{'998-TicketProcessTransitions'} = {
  'Event' => '',
  'Module' => 'Kernel::System::Ticket::Event::TicketProcessTransitions',
  'Transaction' => '1'
};
```

## ProcessManagement → Core::Transition

### ProcessManagement::Transition::Debug::Enabled

If enabled debugging information for transitions is logged.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'ProcessManagement::Transition::Debug::Enabled'} = '0';
```

### ProcessManagement::Transition::Debug::LogPriority

Defines the priority in which the information is logged and presented.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'ProcessManagement::Transition::Debug::LogPriority'} = 'debug';
```

## ProcessManagement::Transition::Debug::Filter###00-Default

Filter for debugging Transitions. Note: More filters can be added in the format <OTRS\_TICKET\_Attribute> e.g. <OTRS\_TICKET\_Priority>.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'ProcessManagement::Transition::Debug::Filter'}->{'00-Default'} = {
  '<OTRS_TICKET_TicketNumber>' => '',
  'TransitionEntityID' => ''
};
```

## ProcessManagement → DynamicFields::Driver::Registration

### DynamicFields::Driver###ProcessID

DynamicField backend registration.

Thamani chaguo-msingi:

```
$Self->{'DynamicFields::Driver'}->{'ProcessID'} = {
  'ConfigDialog' => 'AdminDynamicFieldText',
  'DisabledAdd' => '1',
  'DisplayName' => 'ProcessID',
  'Module' => 'Kernel::System::DynamicField::Driver::ProcessManagement::ProcessID'
};
```

### DynamicFields::Driver###ActivityID

DynamicField backend registration.

Thamani chaguo-msingi:

```
$Self->{'DynamicFields::Driver'}->{'ActivityID'} = {
  'ConfigDialog' => 'AdminDynamicFieldText',
  'DisabledAdd' => '1',
  'DisplayName' => 'ActivityID',
  'Module' => 'Kernel::System::DynamicField::Driver::ProcessManagement::ActivityID'
};
```

## ProcessManagement → Frontend::Admin::ModuleRegistration

### Frontend::Module###AdminProcessManagement

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminProcessManagement'} = {
  'Description' => 'This module is part of the admin area of OTRS.',
  'Group' => [
    'admin'
  ],
  'Loader' => {
    'CSS' => [
      'Core.Agent.Admin.ProcessManagement.css',
      'Core.AllocationList.css'
    ],
    'JavaScript' => [
      'thirdparty/jsplumb-1.6.4/jsplumb.js',
      'thirdparty/farahey-0.5/farahey.js',
      'thirdparty/jsplumb-labelspacer/label-spacer.js',
      'Core.Agent.Admin.ProcessManagement.js',
      'Core.Agent.Admin.ProcessManagement.Canvas.js',
      'Core.UI.AllocationList.js'
    ]
  }
};
```

```

    ],
  },
  'NavBarModule' => {
    'Block' => 'System',
    'Description' => 'Configure Processes.',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'Process Management',
    'Prio' => '750'
  },
  },
  'NavBarName' => 'Admin',
  'Title' => 'Process Management'
};

```

### Frontend::Module###AdminProcessManagementActivity

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AdminProcessManagementActivity'} = {
  'Description' => 'This module is part of the admin area of OTRS.',
  'Group' => [
    'admin'
  ],
  'Loader' => {
    'CSS' => [
      'Core.Agent.Admin.ProcessManagement.css',
      'Core.AllocationList.css'
    ],
    'JavaScript' => [
      'Core.Agent.Admin.ProcessManagement.js',
      'Core.UI.AllocationList.js'
    ]
  },
  'Title' => 'Process Management Activity GUI'
};

```

### Frontend::Module###AdminProcessManagementActivityDialog

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AdminProcessManagementActivityDialog'} = {
  'Description' => 'This module is part of the admin area of OTRS.',
  'Group' => [
    'admin'
  ],
  'Loader' => {
    'CSS' => [
      'Core.Agent.Admin.ProcessManagement.css',
      'Core.AllocationList.css'
    ],
    'JavaScript' => [
      'Core.Agent.Admin.ProcessManagement.js',
      'Core.UI.AllocationList.js'
    ]
  },
  'Title' => 'Process Management Activity Dialog GUI'
};

```

### Frontend::Module###AdminProcessManagementTransition

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AdminProcessManagementTransition'} = {
  'Description' => 'This module is part of the admin area of OTRS.',
  'Group' => [

```

```

    'admin'
  ],
  'Loader' => {
    'CSS' => [
      'Core.Agent.Admin.ProcessManagement.css'
    ],
    'JavaScript' => [
      'Core.Agent.Admin.ProcessManagement.js'
    ]
  },
  'Title' => 'Process Management Transition GUI'
};

```

### Frontend::Module###AdminProcessManagementTransitionAction

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AdminProcessManagementTransitionAction'} = {
  'Description' => 'This module is part of the admin area of OTRS.',
  'Group' => [
    'admin'
  ],
  'Loader' => {
    'CSS' => [
      'Core.Agent.Admin.ProcessManagement.css'
    ],
    'JavaScript' => [
      'Core.Agent.Admin.ProcessManagement.js'
    ]
  },
  'Title' => 'Process Management Transition Action GUI'
};

```

### Frontend::Module###AdminProcessManagementPath

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AdminProcessManagementPath'} = {
  'Description' => 'This module is part of the admin area of OTRS.',
  'Group' => [
    'admin'
  ],
  'Loader' => {
    'CSS' => [
      'Core.Agent.Admin.ProcessManagement.css',
      'Core.AllocationList.css'
    ],
    'JavaScript' => [
      'Core.Agent.Admin.ProcessManagement.js',
      'Core.UI.AllocationList.js'
    ]
  },
  'Title' => 'Process Management Path GUI'
};

```

## ProcessManagement → Frontend::Agent::Dashboard

### DashboardBackend###0140-RunningTicketProcess

Parameters for the dashboard backend of the running process tickets overview of the agent interface. "Limit" is the number of entries shown by default. "Group" is used to restrict the access to the plugin (e. g. Group: admin;group1;group2;). "Default" determines if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" is the cache time in minutes for the plugin.

Thamani chaguo-msingi:

```
$Self->{'DashboardBackend'}->{'0140-RunningTicketProcess'} = {
  'Attributes' => 'StateType=new;StateType=open;StateType=pending
reminder;StateType=pending auto',
  'Block' => 'ContentLarge',
  'CacheTTLLocal' => '0.5',
  'Default' => '0',
  'DefaultColumns' => {
    'Age' => '2',
    'Changed' => '1',
    'CustomerID' => '1',
    'CustomerName' => '1',
    'CustomerUserID' => '1',
    'DynamicField_ProcessManagementActivityID' => '2',
    'DynamicField_ProcessManagementProcessID' => '2',
    'EscalationResponseTime' => '1',
    'EscalationSolutionTime' => '1',
    'EscalationTime' => '1',
    'EscalationUpdateTime' => '1',
    'Lock' => '1',
    'Owner' => '1',
    'PendingTime' => '1',
    'Priority' => '1',
    'Queue' => '1',
    'Responsible' => '1',
    'SLA' => '1',
    'Service' => '1',
    'State' => '1',
    'TicketNumber' => '2',
    'Title' => '2',
    'Type' => '1'
  },
  'Description' => 'All tickets with a reminder set where the reminder date has been
reached',
  'Group' => '',
  'IsProcessWidget' => '1',
  'Limit' => '10',
  'Module' => 'Kernel::Output::HTML::Dashboard::TicketGeneric',
  'Permission' => 'rw',
  'Time' => 'UntilTime',
  'Title' => 'Running Process Tickets'
};
```

## ProcessManagement → Frontend::Agent::ModuleRegistration

### Frontend::Module###AgentTicketProcess

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentTicketProcess'} = {
  'Description' => 'Create new process ticket.',
  'Loader' => {
    'CSS' => [
      'Core.Agent.TicketProcess.css'
    ],
    'JavaScript' => [
      'Core.Agent.CustomerSearch.js',
      'Core.Agent.TicketAction.js',
      'Core.Agent.TicketProcess.js'
    ]
  },
  'NavBar' => [
    {
      'AccessKey' => 'p',
      'Block' => '',
      'Description' => 'Create New process ticket.',
      'Link' => 'Action=AgentTicketProcess',
      'LinkOption' => ''
    }
  ]
};
```

```
'Name' => 'New process ticket',
'NavBar' => 'Ticket',
'Prio' => '220',
'Type' => ''
}
],
'NavBarName' => 'Ticket',
'Title' => 'New process ticket'
};
```

## ProcessManagement → Frontend::Agent::NavBarModule

### Frontend::NavBarModule###1-TicketProcesses

Frontend module registration (disable ticket processes screen if no process available).

Thamani chaguo-msingi:

```
$Self->{'Frontend::NavBarModule'}->{'1-TicketProcesses'} = {
  'Module' => 'Kernel::Output::HTML::NavBar::AgentTicketProcess'
};
```

## ProcessManagement → Frontend::Agent::Ticket::MenuModule

### Ticket::Frontend::MenuModule###480-Process

Shows a link in the menu to enroll a ticket into a process in the ticket zoom view of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MenuModule'}->{'480-Process'} = {
  'Action' => 'AgentTicketProcess',
  'Cluster' => '',
  'Description' => 'Enroll process for this ticket',
  'Link' => 'Action=AgentTicketProcess;IsProcessEnroll=1;TicketID=[% Data.TicketID |
html %]',
  'Module' => 'Kernel::Output::HTML::TicketMenu::Process',
  'Name' => 'Process',
  'PopupType' => 'TicketAction',
  'Target' => ''
};
```

## ProcessManagement → Frontend::Agent::Ticket::ViewProcess

### Ticket::Frontend::AgentTicketProcess###StateType

Determines the next possible ticket states, for process tickets in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketProcess'}->{'StateType'} = [
  'new',
  'open',
  'pending auto',
  'pending reminder',
  'closed'
];
```

### Ticket::Frontend::AgentTicketProcess::CustomerIDReadOnly

Controls if CustomerID is read-only in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketProcess::CustomerIDReadOnly'} = '1';
```

## ProcessManagement → Frontend::Agent::Ticket::ViewZoom

### Ticket::Frontend::AgentTicketZoom###ProcessDisplay

Display settings to override defaults for Process Tickets.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketZoom'}->{'ProcessDisplay'} = {
  'NavBarName' => 'Processes',
  'WidgetTitle' => 'Process Information'
};
```

### Ticket::Frontend::AgentTicketZoom###ProcessWidgetDynamicFieldGroups

Dynamic fields groups for process widget. The key is the name of the group, the value contains the fields to be shown. Example: 'Key => My Group', 'Content: Name\_X, NameY'.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketZoom'}->{'ProcessWidgetDynamicFieldGroups'} = {};
```

### Ticket::Frontend::AgentTicketZoom###ProcessWidgetDynamicField

Dynamic fields shown in the process widget in ticket zoom screen of the agent interface. Possible settings: 0 = Disabled, 1 = Enabled.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketZoom'}->{'ProcessWidgetDynamicField'} = {};
```

## ProcessManagement → Frontend::Customer::ModuleRegistration

### CustomerFrontend::Module###CustomerTicketProcess

Frontend module registration for the customer interface.

Thamani chaguo-msingi:

```
$Self->{'CustomerFrontend::Module'}->{'CustomerTicketProcess'} = {
  'Description' => 'Process Ticket.',
  'Loader' => {
    'CSS' => [
      'Core.Customer.TicketProcess.css'
    ]
  },
  'NavBar' => [
    {
      'AccessKey' => 'o',
      'Block' => '',
      'Description' => 'Create new process ticket.',
      'Link' => 'Action=CustomerTicketProcess',
      'LinkOption' => ''
    }
  ]
};
```

```
'Name' => 'New process ticket',
'NavBar' => 'Ticket',
'Prio' => '220',
'Type' => 'Submenu'
}
],
'NavBarName' => 'Ticket',
'Title' => 'Process ticket'
};
```

## ProcessManagement → Frontend::Customer::NavBarModule

### CustomerFrontend::NavBarModule###10-CustomerTicketProcesses

Frontend module registration (disable ticket processes screen if no process available) for Customer.

Thamani chaguo-msingi:

```
$Self->{'CustomerFrontend::NavBarModule'}->{'10-CustomerTicketProcesses'} = {
  'Module' => 'Kernel::Output::HTML::NavBar::CustomerTicketProcess'
};
```

## ProcessManagement → Frontend::Customer::Ticket::ViewProcess

### Ticket::Frontend::CustomerTicketProcess###StateType

Determines the next possible ticket states, for process tickets in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketProcess'}->{'StateType'} = [
  'new',
  'open'
];
```

# 7. Ticket

## Ticket → Core::CustomerCompany

### CustomerCompany::EventModulePost###110-UpdateTickets

Event module that updates tickets after an update of the Customer.

Thamani chaguo-msingi:

```
$Self->{'CustomerCompany::EventModulePost'}->{'110-UpdateTickets'} = {
  'Event' => 'CustomerCompanyUpdate',
  'Module' => 'Kernel::System::CustomerCompany::Event::TicketUpdate',
  'Transaction' => '0'
};
```

### CustomerUser::EventModulePost###120-UpdateTickets

Event module that updates tickets after an update of the Customer User.

Thamani chaguo-msingi:

```
$Self->{'CustomerUser::EventModulePost'}->{'120-UpdateTickets'} = {
  'Event' => 'CustomerUserUpdate',
};
```



```
'Module' => 'Kernel::System::CustomerUser::Event::TicketUpdate',
'Transaction' => '0'
};
```

## Ticket → Core::FulltextSearch

### Ticket::SearchIndexModule

Helps to extend your articles full-text search (From, To, Cc, Subject and Body search). Runtime will do full-text searches on live data (it works fine for up to 50.000 tickets). StaticDB will strip all articles and will build an index after article creation, increasing fulltext searches about 50%. To create an initial index use "bin/otrs.Console.pl Maint::Ticket::FulltextIndexRebuild".

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::SearchIndexModule'} =
'Kernel::System::Ticket::ArticleSearchIndex::RuntimeDB';
```

### Ticket::SearchIndex::WarnOnStopWordUsage

Display a warning and prevent search when using stop words within fulltext search.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::SearchIndex::WarnOnStopWordUsage'} = '0';
```

### Ticket::SearchIndex::Attribute

Basic fulltext index settings. Execute "bin/otrs.Console.pl Maint::Ticket::FulltextIndexRebuild" in order to generate a new index.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::SearchIndex::Attribute'} = {
'WordCountMax' => '1000',
'WordLengthMax' => '30',
'WordLengthMin' => '3'
};
```

### Ticket::SearchIndex::Filters

Fulltext index regex filters to remove parts of the text.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::SearchIndex::Filters'} = [
'[,\\&\\<\\>\\?\"\\!\\*\\|\\;\\[\\]\\(\\)\\+\\$\\^=]',
'^[\\.:][\\':.]+$ ',
'^[\\^\\w]+$ '
];
```

### Ticket::SearchIndex::StopWords###en

English stop words for fulltext index. These words will be removed from the search index.

Thamani chaguo-msingi:

```
$Self->{'Ticket::SearchIndex::StopWords'}->{'en'} = [  
'a',  
'about',  
'above',  
'after',  
'again',  
'against',  
'all',  
'am',  
'an',  
'and',  
'any',  
'are',  
'aren\'t',  
'as',  
'at',  
'be',  
'because',  
'been',  
'before',  
'being',  
'below',  
'between',  
'both',  
'but',  
'by',  
'can\'t',  
'cannot',  
'could',  
'couldn\'t',  
'did',  
'didn\'t',  
'do',  
'does',  
'doesn\'t',  
'doing',  
'don\'t',  
'down',  
'during',  
'each',  
'few',  
'for',  
'from',  
'further',  
'had',  
'hadn\'t',  
'has',  
'hasn\'t',  
'have',  
'haven\'t',  
'having',  
'he',  
'he\'d',  
'he\'ll',  
'he\'s',  
'her',  
'here',  
'here\'s',  
'hers',  
'herself',  
'him',  
'himself',  
'his',  
'how',  
'how\'s',  
'i',  
'i\'d',  
'i\'ll',  
'i\'m',  
'i\'ve',
```

'if',  
'in',  
'into',  
'is',  
'isn\'t',  
'it',  
'it\'s',  
'its',  
'itself',  
'let\'s',  
'me',  
'more',  
'most',  
'mustn\'t',  
'my',  
'myself',  
'no',  
'nor',  
'not',  
'of',  
'off',  
'on',  
'once',  
'only',  
'or',  
'other',  
'ought',  
'our',  
'ours',  
'ourselves',  
'out',  
'over',  
'own',  
'same',  
'shan\'t',  
'she',  
'she\'d',  
'she\'ll',  
'she\'s',  
'should',  
'shouldn\'t',  
'so',  
'some',  
'such',  
'than',  
'that',  
'that\'s',  
'the',  
'their',  
'theirs',  
'them',  
'themselves',  
'then',  
'there',  
'there\'s',  
'these',  
'they',  
'they\'d',  
'they\'ll',  
'they\'re',  
'they\'ve',  
'this',  
'those',  
'through',  
'to',  
'too',  
'under',  
'until',  
'up',  
'very',  
'was',  
'wasn\'t',

```
'we',  
'we\'d',  
'we\'ll',  
'we\'re',  
'we\'ve',  
'were',  
'weren\'t',  
'what',  
'what\'s',  
'when',  
'when\'s',  
'where',  
'where\'s',  
'which',  
'while',  
'who',  
'who\'s',  
'whom',  
'why',  
'why\'s',  
'with',  
'won\'t',  
'would',  
'wouldn\'t',  
'you',  
'you\'d',  
'you\'ll',  
'you\'re',  
'you\'ve',  
'your',  
'yours',  
'yourself',  
'yourselves'  
];
```

### **Ticket::SearchIndex::StopWords###de**

German stop words for fulltext index. These words will be removed from the search index.

Thamani chaguo-msingi:

```
$Self->{'Ticket::SearchIndex::StopWords'}->{'de'} = [  
'aber',  
'als',  
'am',  
'an',  
'auch',  
'auf',  
'aus',  
'bei',  
'bin',  
'bis',  
'bist',  
'da',  
'dadurch',  
'daher',  
'darum',  
'das',  
'daß',  
'dass',  
'dein',  
'deine',  
'dem',  
'den',  
'der',  
'des',  
'dessen',  
'deshalb',  
'die',  
'dies',  
'dieser',
```

'dieses',  
'doch',  
'dort',  
'du',  
'durch',  
'ein',  
'eine',  
'einem',  
'einen',  
'einer',  
'eines',  
'er',  
'es',  
'euer',  
'eure',  
'für',  
'hatte',  
'hatten',  
'hattest',  
'hattet',  
'hier',  
'hinter',  
'ich',  
'ihr',  
'ihre',  
'im',  
'in',  
'ist',  
'ja',  
'jede',  
'jedem',  
'jeden',  
'jeder',  
'jedes',  
'jener',  
'jenes',  
'jetzt',  
'kann',  
'kannst',  
'können',  
'könnt',  
'machen',  
'mein',  
'meine',  
'mit',  
'muß',  
'mußt',  
'musst',  
'müssen',  
'mußt',  
'nach',  
'nachdem',  
'nein',  
'nicht',  
'nun',  
'oder',  
'seid',  
'sein',  
'seine',  
'sich',  
'sie',  
'sind',  
'soll',  
'sollen',  
'sollst',  
'sollt',  
'sonst',  
'soweit',  
'sowie',  
'und',  
'unser',  
'unsere',

```
'unter',
'vom',
'von',
'vor',
'wann',
'warum',
'was',
'weiter',
'weitere',
'wenn',
'wer',
'werde',
'werden',
'werdet',
'weshalb',
'wie',
'wieder',
'wieso',
'wir',
'wird',
'wirst',
'wo',
'woher',
'wohin',
'zu',
'zum',
'zur',
'über'
];
```

### **Ticket::SearchIndex::StopWords###nl**

Dutch stop words for fulltext index. These words will be removed from the search index.

Thamani chaguo-msingi:

```
$Self->{'Ticket::SearchIndex::StopWords'}->{'nl'} = [
'de',
'zijn',
'een',
'en',
'in',
'je',
'het',
'van',
'op',
'ze',
'hebben',
'het',
'hij',
'niet',
'met',
'er',
'dat',
'die',
'te',
'wat',
'voor',
'naar',
'gaan',
'kunnen',
'zeggen',
'dat',
'maar',
'aan',
'veel',
'zijn',
'worden',
'uit',
'ook',
'komen',
```

'als',  
'om',  
'moeten',  
'we',  
'doen',  
'bij',  
'goed',  
'haar',  
'dan',  
'nog',  
'of',  
'maken',  
'zo',  
'wel',  
'mijn',  
'zien',  
'over',  
'willen',  
'staan',  
'door',  
'kijken',  
'zullen',  
'heel',  
'nu',  
'weten',  
'zitten',  
'hem',  
'schrijven',  
'vinden',  
'woord',  
'hoe',  
'geen',  
'dit',  
'mens',  
'al',  
'jij',  
'ander',  
'groot',  
'waar',  
'maar',  
'weer',  
'kind',  
'me',  
'vragen',  
'een',  
'denken',  
'twee',  
'horen',  
'iets',  
'deze',  
'krijgen',  
'ons',  
'zich',  
'lezen',  
'hun',  
'welk',  
'zin',  
'laten',  
'mogen',  
'hier',  
'jullie',  
'toch',  
'geven',  
'jaar',  
'tegen',  
'al',  
'eens',  
'echt',  
'houden',  
'alleen',  
'lopen',  
'mee',

```
'ja',
'roepen',
'tijd',
'dag',
'elkaar',
'even',
'lang',
'land',
'liggen',
'waarom',
'zetten',
'vader',
'laat',
'beginnen',
'blijven',
'nee',
'moeder',
'huis',
'nou',
'na',
'af',
'keer',
'dus',
'tot',
'vertellen',
'wie',
'net',
'jou',
'les',
'want',
'man',
'nieuw',
'elk',
'tekst',
'omdat',
'gebruiken',
'u'
];
```

### **Ticket::SearchIndex::StopWords###es**

Spanish stop words for fulltext index. These words will be removed from the search index.

Thamani chaguo-msingi:

```
$Self->{'Ticket::SearchIndex::StopWords'}->{'es'} = [
'un',
'una',
'unas',
'unos',
'uno',
'sobre',
'todo',
'también',
'tras',
'otro',
'algún',
'alguno',
'alguna',
'algunos',
'algunas',
'ser',
'es',
'soy',
'eres',
'somos',
'sois',
'estoy',
'esta',
'estamos',
'estais',
```



'estan',  
'como',  
'en',  
'para',  
'atras',  
'porque',  
'por qué',  
'estado',  
'estaba',  
'ante',  
'antes',  
'siendo',  
'ambos',  
'pero',  
'por',  
'poder',  
'puede',  
'puedo',  
'podemos',  
'podeis',  
'pueden',  
'fui',  
'fue',  
'fuimos',  
'fueron',  
'hacer',  
'hago',  
'hace',  
'hacemos',  
'haceis',  
'hacen',  
'cada',  
'fin',  
'incluso',  
'primero',  
'desde',  
'conseguir',  
'consigo',  
'consigue',  
'consigues',  
'conseguimos',  
'consiguen',  
'ir',  
'voy',  
'va',  
'vamos',  
'vais',  
'van',  
'vaya',  
'gueno',  
'ha',  
'tener',  
'tengo',  
'tiene',  
'tenemos',  
'teneis',  
'tienen',  
'el',  
'la',  
'lo',  
'las',  
'los',  
'su',  
'aqui',  
'mio',  
'tuyo',  
'ellos',  
'ellas',  
'nos',  
'nosotros',  
'vosotros',  
'vosotras',

'si',  
'dentro',  
'solo',  
'solamente',  
'saber',  
'sabes',  
'sabe',  
'sabemos',  
'sabeis',  
'saben',  
'ultimo',  
'largo',  
'bastante',  
'haces',  
'muchos',  
'aquellos',  
'aquellas',  
'sus',  
'entonces',  
'tiempo',  
'verdad',  
'verdadero',  
'verdadera',  
'cierto',  
'ciertos',  
'cierta',  
'ciertas',  
'intentar',  
'intento',  
'intenta',  
'intentas',  
'intentamos',  
'intentais',  
'intentan',  
'dos',  
'bajo',  
'arriba',  
'encima',  
'usar',  
'uso',  
'usas',  
'usa',  
'usamos',  
'usais',  
'usan',  
'emplear',  
'empleo',  
'empleas',  
'emplean',  
'empleamos',  
'empleais',  
'valor',  
'muy',  
'era',  
'eras',  
'eramos',  
'eran',  
'modo',  
'bien',  
'cual',  
'cuando',  
'donde',  
'mientras',  
'quien',  
'con',  
'entre',  
'sin',  
'trabajo',  
'trabajar',  
'trabajas',  
'trabaja',  
'trabajamos',

```
'trabajais',  
'trabajan',  
'podria',  
'podrias',  
'podriamos',  
'podrian',  
'podriais',  
'yo',  
'aquel'  
];
```

### **Ticket::SearchIndex::StopWords###fr**

French stop words for fulltext index. These words will be removed from the search index.

Thamani chaguo-msingi:

```
$Self->{'Ticket::SearchIndex::StopWords'}->{'fr'} = [  
'alors',  
'au',  
'aucuns',  
'aussi',  
'autre',  
'avant',  
'avec',  
'avoir',  
'bon',  
'car',  
'ce',  
'cela',  
'ces',  
'ceux',  
'chaque',  
'ci',  
'comme',  
'comment',  
'dans',  
'des',  
'du',  
'dedans',  
'dehors',  
'depuis',  
'deux',  
'devrait',  
'doit',  
'donc',  
'dos',  
'droite',  
'début',  
'elle',  
'elles',  
'en',  
'encore',  
'essai',  
'est',  
'et',  
'eu',  
'fait',  
'faites',  
'fois',  
'font',  
'force',  
'haut',  
'hors',  
'ici',  
'il',  
'ils',  
'je',  
'juste',  
'la',  
'le',
```

'les',  
'leur',  
'là',  
'ma',  
'maintenant',  
'mais',  
'mes',  
'mine',  
'moins',  
'mon',  
'mot',  
'même',  
'ni',  
'nommés',  
'notre',  
'nous',  
'nouveaux',  
'ou',  
'où',  
'par',  
'parce',  
'parole',  
'pas',  
'personnes',  
'peut',  
'peu',  
'pièce',  
'plupart',  
'pour',  
'pourquoi',  
'quand',  
'que',  
'quel',  
'quelle',  
'quelles',  
'quels',  
'qui',  
'sa',  
'sans',  
'ses',  
'seulement',  
'si',  
'sien',  
'son',  
'sont',  
'sous',  
'soyez',  
'sujet',  
'sur',  
'ta',  
'tandis',  
'tellement',  
'tels',  
'tes',  
'ton',  
'tous',  
'tout',  
'trop',  
'très',  
'tu',  
'valeur',  
'voie',  
'voient',  
'vont',  
'votre',  
'vous',  
'vu',  
'ça',  
'étaient',  
'état',  
'étions',  
'été',

```
'être'  
];
```

### **Ticket::SearchIndex::StopWords###it**

Italian stop words for fulltext index. These words will be removed from the search index.

Thamani chaguo-msingi:

```
$Self->{'Ticket::SearchIndex::StopWords'}->{'it'} = [  
'a',  
'adesso',  
'ai',  
'al',  
'alla',  
'allo',  
'allora',  
'altre',  
'altri',  
'altro',  
'anche',  
'ancora',  
'avere',  
'aveva',  
'avevano',  
'ben',  
'buono',  
'che',  
'chi',  
'cinque',  
'comprare',  
'con',  
'consecutivi',  
'consecutivo',  
'cosa',  
'cui',  
'da',  
'del',  
'della',  
'dello',  
'dentro',  
'deve',  
'devo',  
'di',  
'doppio',  
'due',  
'e',  
'ecco',  
'fare',  
'fine',  
'fino',  
'fra',  
'gente',  
'giu',  
'ha',  
'hai',  
'hanno',  
'ho',  
'il',  
'indietro',  
'invece',  
'io',  
'la',  
'lavoro',  
'le',  
'lei',  
'lo',  
'loro',  
'lui',  
'lungo',  
'ma',
```

'me',  
'meglio',  
'molta',  
'molti',  
'molto',  
'nei',  
'nella',  
'no',  
'noi',  
'nome',  
'nostro',  
'nove',  
'nuovi',  
'nuovo',  
'o',  
'oltre',  
'ora',  
'otto',  
'peggio',  
'pero',  
'persone',  
'piu',  
'poco',  
'primo',  
'promesso',  
'qua',  
'quarto',  
'quasi',  
'quattro',  
'quello',  
'questo',  
'qui',  
'quindi',  
'quinto',  
'rispetto',  
'sara',  
'secondo',  
'sei',  
'sembra',  
'sembrava',  
'senza',  
'sette',  
'sia',  
'siamo',  
'siete',  
'solo',  
'sono',  
'sopra',  
'soprattutto',  
'sotto',  
'stati',  
'stato',  
'stesso',  
'su',  
'subito',  
'sul',  
'sulla',  
'tanto',  
'te',  
'tempo',  
'terzo',  
'tra',  
'tre',  
'triplo',  
'ultimo',  
'un',  
'una',  
'uno',  
'va',  
'vai',  
'voi',  
'volte',

```
'vostro'
];
```

### **Ticket::SearchIndex::StopWords###Custom**

Customizable stop words for fulltext index. These words will be removed from the search index.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::SearchIndex::StopWords'}->{'Custom'} = [
  'MyStopWord'
];
```

### **Ticket::EventModulePost###098-ArticleSearchIndex**

Builds an article index right after the article's creation.

Thamani chaguo-msingi:

```
$Self->{'Ticket::EventModulePost'}->{'098-ArticleSearchIndex'} = {
  'Event' => '(ArticleCreate|ArticleUpdate)',
  'Module' => 'Kernel::System::Ticket::Event::ArticleSearchIndex'
};
```

## **Ticket → Core::LinkObject**

### **LinkObject::PossibleLink###0200**

Links 2 tickets with a "Normal" type link.

Thamani chaguo-msingi:

```
$Self->{'LinkObject::PossibleLink'}->{'0200'} = {
  'Object1' => 'Ticket',
  'Object2' => 'Ticket',
  'Type' => 'Normal'
};
```

### **LinkObject::PossibleLink###0201**

Links 2 tickets with a "ParentChild" type link.

Thamani chaguo-msingi:

```
$Self->{'LinkObject::PossibleLink'}->{'0201'} = {
  'Object1' => 'Ticket',
  'Object2' => 'Ticket',
  'Type' => 'ParentChild'
};
```

### **LinkObject::IgnoreLinkedTicketStateTypes**

Defines, which tickets of which ticket state types should not be listed in linked ticket lists.

Thamani chaguo-msingi:

```
$Self->{'LinkObject::IgnoreLinkedTicketStateTypes'} = [
  'merged',
  'removed'
];
```

---

## Ticket → Core::PostMaster

### PostmasterMaxEmails

Maximal auto email responses to own email-address a day (Loop-Protection).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PostmasterMaxEmails'} = '40';
```

### PostMasterMaxEmailSize

Maximal size in KBytes for mails that can be fetched via POP3/POP3S/IMAP/IMAPS (KBytes).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PostMasterMaxEmailSize'} = '16384';
```

### PostMasterReconnectMessage

The maximum number of mails fetched at once before reconnecting to the server.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PostMasterReconnectMessage'} = '20';
```

### LoopProtectionModule

Default loop protection module.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'LoopProtectionModule'} = 'Kernel::System::PostMaster::LoopProtection::DB';
```

### LoopProtectionLog

Path for the log file (it only applies if "FS" was selected for LoopProtectionModule and it is mandatory).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'LoopProtectionLog'} = '<OTRS_CONFIG_Home>/var/Log/LoopProtection';
```

### PostmasterAutoHTML2Text

Converts HTML mails into text messages.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PostmasterAutoHTML2Text'} = '1';
```



---

### **PostmasterUserID**

Specifies user id of the postmaster data base.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PostmasterUserID'} = '1';
```

### **PostmasterDefaultQueue**

Defines the postmaster default queue.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PostmasterDefaultQueue'} = 'Raw';
```

### **PostmasterDefaultPriority**

Defines the default priority of new tickets.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PostmasterDefaultPriority'} = '3 normal';
```

### **PostmasterDefaultState**

Defines the default state of new tickets.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PostmasterDefaultState'} = 'new';
```

### **PostmasterFollowUpState**

Defines the state of a ticket if it gets a follow-up.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PostmasterFollowUpState'} = 'open';
```

### **PostmasterFollowUpStateClosed**

Defines the state of a ticket if it gets a follow-up and the ticket was already closed.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'PostmasterFollowUpStateClosed'} = 'open';
```

### **PostmasterFollowUpOnUnlockAgentNotifyOnlyToOwner**

Sends agent follow-up notification only to the owner, if a ticket is unlocked (the default is to send the notification to all agents).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PostmasterFollowUpOnUnlockAgentNotifyOnlyToOwner'} = '0';
```

### PostmasterHeaderFieldCount

Defines the number of header fields in frontend modules for add and update postmaster filters. It can be up to 99 fields.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PostmasterHeaderFieldCount'} = '12';
```

### PostmasterX-Header

Defines all the X-headers that should be scanned.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PostmasterX-Header'} = [
  'From',
  'To',
  'Cc',
  'Reply-To',
  'ReplyTo',
  'Subject',
  'Message-ID',
  'Message-Id',
  'Resent-To',
  'Resent-From',
  'Precedence',
  'Mailing-List',
  'List-Id',
  'List-Archive',
  'Errors-To',
  'References',
  'In-Reply-To',
  'Auto-Submitted',
  'X-Loop',
  'X-Spam',
  'X-Spam-Flag',
  'X-Spam-Level',
  'X-Spam-Score',
  'X-Spam-Status',
  'X-No-Loop',
  'X-Priority',
  'Importance',
  'X-Mailer',
  'User-Agent',
  'Organization',
  'X-Original-To',
  'Delivered-To',
  'Envelope-To',
  'X-Envelope-To',
  'Return-Path',
  'X-OTRS-Owner',
  'X-OTRS-OwnerID',
  'X-OTRS-Responsible',
  'X-OTRS-ResponsibleID',
  'X-OTRS-Loop',
  'X-OTRS-Priority',
  'X-OTRS-Queue',
  'X-OTRS-Lock',
  'X-OTRS-Ignore',
```

```
'X-OTRS-State',
'X-OTRS-State-PendingTime',
'X-OTRS-Type',
'X-OTRS-Service',
'X-OTRS-SLA',
'X-OTRS-CustomerNo',
'X-OTRS-CustomerUser',
'X-OTRS-SenderType',
'X-OTRS-ArticleType',
'X-OTRS-FollowUp-Priority',
'X-OTRS-FollowUp-Queue',
'X-OTRS-FollowUp-Lock',
'X-OTRS-FollowUp-State',
'X-OTRS-FollowUp-State-PendingTime',
'X-OTRS-FollowUp-Type',
'X-OTRS-FollowUp-Service',
'X-OTRS-FollowUp-SLA',
'X-OTRS-FollowUp-SenderType',
'X-OTRS-FollowUp-ArticleType',
'X-OTRS-BodyDecrypted'
];
```

### PostMaster::PreFilterModule###1-Match

Module to filter and manipulate incoming messages. Block/ignore all spam email with From: noreply@ address.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'PostMaster::PreFilterModule'}->{'1-Match'} = {
  'Match' => {
    'From' => 'noreply@'
  },
  'Module' => 'Kernel::System::PostMaster::Filter::Match',
  'Set' => {
    'X-OTRS-Ignore' => 'yes'
  }
};
```

### PostMaster::PreFilterModule###2-Match

Module to filter and manipulate incoming messages. Get a 4 digit number to ticket free text, use regex in Match e. g. From => '(.+?)@.+?', and use () as [\*\*\*] in Set =>.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'PostMaster::PreFilterModule'}->{'2-Match'} = {
  'Match' => {
    'Subject' => 'SomeNumber:(\\d\\d\\d\\d)'
  },
  'Module' => 'Kernel::System::PostMaster::Filter::Match',
  'Set' => {
    'X-OTRS-DynamicField-TicketFreeKey1' => 'SomeNumber',
    'X-OTRS-DynamicField-TicketFreeText1' => '***'
  }
};
```

### PostMaster::PreFilterModule###3-NewTicketReject

Blocks all the incoming emails that do not have a valid ticket number in subject with From: @example.com address.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'PostMaster::PreFilterModule'}->{'3-NewTicketReject'} = {
  'Match' => {
    'From' => '@example.com'
  },
  'Module' => 'Kernel::System::PostMaster::Filter::NewTicketReject',
  'Set' => {
    'X-OTRS-Ignore' => 'yes'
  }
};
```

### PostMaster::PreFilterModule::NewTicketReject::Sender

Defines the sender for rejected emails.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'PostMaster::PreFilterModule::NewTicketReject::Sender'} =
'noreply@example.com';
```

### PostMaster::PreFilterModule::NewTicketReject::Subject

Defines the subject for rejected emails.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PostMaster::PreFilterModule::NewTicketReject::Subject'} = 'Email Rejected';
```

### PostMaster::PreFilterModule::NewTicketReject::Body

Defines the body text for rejected emails.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PostMaster::PreFilterModule::NewTicketReject::Body'} = '
Dear Customer,

Unfortunately we could not detect a valid ticket number
in your subject, so this email can\'t be processed.

Please create a new ticket via the customer panel.

Thanks for your help!

Your Helpdesk Team
';
```

### PostMaster::PreFilterModule###4-CMD

CMD example setup. Ignores emails where external CMD returns some output on STD-OUT (email will be piped into STDIN of some.bin).

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'PostMaster::PreFilterModule'}->{'4-CMD'} = {
  'CMD' => '/usr/bin/some.bin',
  'Module' => 'Kernel::System::PostMaster::Filter::CMD',
  'Set' => {
    'X-OTRS-Ignore' => 'yes'
  }
};
```

### PostMaster::PreFilterModule###5-SpamAssassin

Spam Assassin example setup. Ignores emails that are marked with SpamAssassin.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'PostMaster::PreFilterModule'}->{'5-SpamAssassin'} = {
  'CMD' => '/usr/bin/spamassassin | grep -i "X-Spam-Status: yes"',
  'Module' => 'Kernel::System::PostMaster::Filter::CMD',
  'Set' => {
    'X-OTRS-Ignore' => 'yes'
  }
};
```

### PostMaster::PreFilterModule###6-SpamAssassin

Spam Assassin example setup. Moves marked mails to spam queue.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'PostMaster::PreFilterModule'}->{'6-SpamAssassin'} = {
  'CMD' => '/usr/bin/spamassassin | grep -i "X-Spam-Status: yes"',
  'Module' => 'Kernel::System::PostMaster::Filter::CMD',
  'Set' => {
    'X-OTRS-Queue' => 'spam'
  }
};
```

### PostMaster::PreFilterModule###000-MatchDBSource

Module to use database filter storage.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PostMaster::PreFilterModule'}->{'000-MatchDBSource'} = {
  'Module' => 'Kernel::System::PostMaster::Filter::MatchDBSource'
};
```

### PostMaster::PreCreateFilterModule###000-FollowUpArticleTypeCheck

Module to check if arrived emails should be marked as email-internal (because of original forwarded internal email). ArticleType and SenderType define the values for the arrived email/article.

Thamani chaguo-msingi:

```
$Self->{'PostMaster::PreCreateFilterModule'}->{'000-FollowUpArticleTypeCheck'} = {
  'ArticleType' => 'email-internal',
  'Module' => 'Kernel::System::PostMaster::Filter::FollowUpArticleTypeCheck',
  'SenderType' => 'customer'
};
```

### PostMaster::PreFilterModule###000-ExternalTicketNumberRecognition1

Recognize if a ticket is a follow-up to an existing ticket using an external ticket number.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'PostMaster::PreFilterModule'}->{'000-ExternalTicketNumberRecognition1'} = {
```

```
'ArticleType' => 'note-report',
'DynamicFieldName' => 'Name_X',
'FromAddressRegExp' => '\\s*@example.com',
'Module' => 'Kernel::System::PostMaster::Filter::ExternalTicketNumberRecognition',
'Name' => 'Some Description',
'NumberRegExp' => '\\s*Incident-(\\d.*)\\s*',
'SearchInBody' => '1',
'SearchInSubject' => '1',
'SenderType' => 'system',
'TicketStateTypes' => 'new;open'
};
```

### **PostMaster::PreFilterModule###000-ExternalTicketNumberRecognition2**

Recognize if a ticket is a follow-up to an existing ticket using an external ticket number.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'PostMaster::PreFilterModule'}->{'000-ExternalTicketNumberRecognition2'} = {
'ArticleType' => 'note-report',
'DynamicFieldName' => 'Name_X',
'FromAddressRegExp' => '\\s*@example.com',
'Module' => 'Kernel::System::PostMaster::Filter::ExternalTicketNumberRecognition',
'Name' => 'Some Description',
'NumberRegExp' => '\\s*Incident-(\\d.*)\\s*',
'SearchInBody' => '1',
'SearchInSubject' => '1',
'SenderType' => 'system',
'TicketStateTypes' => 'new;open'
};
```

### **PostMaster::PreFilterModule###000-ExternalTicketNumberRecognition3**

Recognize if a ticket is a follow-up to an existing ticket using an external ticket number.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'PostMaster::PreFilterModule'}->{'000-ExternalTicketNumberRecognition3'} = {
'ArticleType' => 'note-report',
'DynamicFieldName' => 'Name_X',
'FromAddressRegExp' => '\\s*@example.com',
'Module' => 'Kernel::System::PostMaster::Filter::ExternalTicketNumberRecognition',
'Name' => 'Some Description',
'NumberRegExp' => '\\s*Incident-(\\d.*)\\s*',
'SearchInBody' => '1',
'SearchInSubject' => '1',
'SenderType' => 'system',
'TicketStateTypes' => 'new;open'
};
```

### **PostMaster::PreFilterModule###000-ExternalTicketNumberRecognition4**

Recognize if a ticket is a follow-up to an existing ticket using an external ticket number.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'PostMaster::PreFilterModule'}->{'000-ExternalTicketNumberRecognition4'} = {
'ArticleType' => 'note-report',
'DynamicFieldName' => 'Name_X',
'FromAddressRegExp' => '\\s*@example.com',
'Module' => 'Kernel::System::PostMaster::Filter::ExternalTicketNumberRecognition',
'Name' => 'Some Description',
'NumberRegExp' => '\\s*Incident-(\\d.*)\\s*',
'SearchInBody' => '1',
```

```
'SearchInSubject' => '1',
'SenderType' => 'system',
'TicketStateTypes' => 'new;open'
};
```

### **PostMaster::PreFilterModule###000-DecryptBody**

Module to filter encrypted bodies of incoming messages.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'PostMaster::PreFilterModule'}->{'000-DecryptBody'} = {
  'Module' => 'Kernel::System::PostMaster::Filter::Decrypt',
  'StoreDecryptedBody' => '0'
};
```

### **PostMaster::PreFilterModule###000-SMIMEFetchFromCustomer**

Module to fetch customer users SMIME certificates of incoming messages.

Thamani chaguo-msingi:

```
$Self->{'PostMaster::PreFilterModule'}->{'000-SMIMEFetchFromCustomer'} = {
  'Module' => 'Kernel::System::PostMaster::Filter::SMIMEFetchFromCustomer'
};
```

### **PostMaster::CheckFollowUpModule###0100-Subject**

Checks if an E-Mail is a followup to an existing ticket by searching the subject for a valid ticket number.

Thamani chaguo-msingi:

```
$Self->{'PostMaster::CheckFollowUpModule'}->{'0100-Subject'} = {
  'Module' => 'Kernel::System::PostMaster::FollowUpCheck::Subject'
};
```

### **PostMaster::CheckFollowUpModule###0200-References**

Executes follow-up checks on In-Reply-To or References headers for mails that don't have a ticket number in the subject.

Thamani chaguo-msingi:

```
$Self->{'PostMaster::CheckFollowUpModule'}->{'0200-References'} = {
  'Module' => 'Kernel::System::PostMaster::FollowUpCheck::References'
};
```

### **PostMaster::CheckFollowUpModule###0300-Body**

Executes follow-up checks on email body for mails that don't have a ticket number in the subject.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'PostMaster::CheckFollowUpModule'}->{'0300-Body'} = {
  'Module' => 'Kernel::System::PostMaster::FollowUpCheck::Body'
};
```

### **PostMaster::CheckFollowUpModule###0400-Attachments**

Executes follow-up checks on attachment contents for mails that don't have a ticket number in the subject.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'PostMaster::CheckFollowUpModule'}->{'0400-Attachments'} = {
  'Module' => 'Kernel::System::PostMaster::FollowUpCheck::Attachments'
};
```

### **PostMaster::CheckFollowUpModule###0500-RawEmail**

Executes follow-up checks on the raw source email for mails that don't have a ticket number in the subject.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'PostMaster::CheckFollowUpModule'}->{'0500-RawEmail'} = {
  'Module' => 'Kernel::System::PostMaster::FollowUpCheck::RawEmail'
};
```

### **PostMaster::NewTicket::AutoAssignCustomerIDForUnknownCustomers**

Controls if CustomerID is automatically copied from the sender address for unknown customers.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'PostMaster::NewTicket::AutoAssignCustomerIDForUnknownCustomers'} = '1';
```

### **SendNoAutoResponseRegExp**

If this regex matches, no message will be send by the autoresponder.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'SendNoAutoResponseRegExp'} = '(MAILER-DAEMON|postmaster|abuse)@.+?\\.\\.\\.+?';
```

### **AutoResponseForWebTickets**

If this option is set to 'Yes', tickets created via the web interface, via Customers or Agents, will receive an autoresponse if configured. If this option is set to 'No', no autoresponses will be sent.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'AutoResponseForWebTickets'} = '1';
```

## **Ticket → Core::Queue**

### **Queue::EventModulePost###130-UpdateQueue**

Event module that performs an update statement on TicketIndex to rename the queue name there if needed and if StaticDB is actually used.

Thamani chaguo-msingi:

```
$Self->{'Queue::EventModulePost'}->{'130-UpdateQueue'} = {
  'Event' => 'QueueUpdate',
};
```



```
'Module' => 'Kernel::System::Queue::Event::TicketAcceleratorUpdate',
'Transaction' => '0'
};
```

## Ticket → Core::Stats

### Stats::DynamicObjectRegistration###Ticket

Module to generate ticket statistics.

Thamani chaguo-msingi:

```
$Self->{'Stats::DynamicObjectRegistration'}->{'Ticket'} = {
'Module' => 'Kernel::System::Stats::Dynamic::Ticket'
};
```

### Stats::DynamicObjectRegistration###TicketList

Determines if the statistics module may generate ticket lists.

Thamani chaguo-msingi:

```
$Self->{'Stats::DynamicObjectRegistration'}->{'TicketList'} = {
'Module' => 'Kernel::System::Stats::Dynamic::TicketList'
};
```

### Stats::DynamicObjectRegistration###TicketAccountedTime

Module to generate accounted time ticket statistics.

Thamani chaguo-msingi:

```
$Self->{'Stats::DynamicObjectRegistration'}->{'TicketAccountedTime'} = {
'Module' => 'Kernel::System::Stats::Dynamic::TicketAccountedTime'
};
```

### Stats::DynamicObjectRegistration###TicketSolutionResponseTime

Module to generate ticket solution and response time statistics.

Thamani chaguo-msingi:

```
$Self->{'Stats::DynamicObjectRegistration'}->{'TicketSolutionResponseTime'} = {
'Module' => 'Kernel::System::Stats::Dynamic::TicketSolutionResponseTime'
};
```

## Ticket → Core::Ticket

### Ticket::Hook

The identifier for a ticket, e.g. Ticket#, Call#, MyTicket#. The default is Ticket#.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Hook'} = 'Ticket#';
```

### Ticket::HookDivider

The divider between TicketHook and ticket number. E.g ': '.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::HookDivider'} = '';
```

### **Ticket::SubjectSize**

Max size of the subjects in an email reply and in some overview screens.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::SubjectSize'} = '100';
```

### **Ticket::SubjectRe**

The text at the beginning of the subject in an email reply, e.g. RE, AW, or AS.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::SubjectRe'} = 'Re';
```

### **Ticket::SubjectFwd**

The text at the beginning of the subject when an email is forwarded, e.g. FW, Fwd, or WG.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::SubjectFwd'} = 'Fwd';
```

### **Ticket::SubjectFormat**

The format of the subject. 'Left' means '[TicketHook#:12345] Some Subject', 'Right' means 'Some Subject [TicketHook#:12345]', 'None' means 'Some Subject' and no ticket number. In the latter case you should verify that the setting PostMaster::CheckFollowUpModule###0200-References is activated to recognize followups based on email headers.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::SubjectFormat'} = 'Left';
```

### **Ticket::MergeDynamicFields**

A list of dynamic fields that are merged into the main ticket during a merge operation. Only dynamic fields that are empty in the main ticket will be set.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::MergeDynamicFields'} = [];
```

### **Ticket::CustomQueue**

Name of custom queue. The custom queue is a queue selection of your preferred queues and can be selected in the preferences settings.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::CustomQueue'} = 'My Queues';
```

### **Ticket::CustomService**

Name of custom service. The custom service is a service selection of your preferred services and can be selected in the preferences settings.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::CustomService'} = 'My Services';
```

### **Ticket::NewArticleIgnoreSystemSender**

Ignore system sender article types (e. g. auto responses or email notifications) to be flagged as 'Unread Article' in AgentTicketZoom or expanded automatically in Large view screens.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::NewArticleIgnoreSystemSender'} = '0';
```

### **Ticket::ChangeOwnerToEveryone**

Changes the owner of tickets to everyone (useful for ASP). Normally only agent with rw permissions in the queue of the ticket will be shown.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::ChangeOwnerToEveryone'} = '0';
```

### **Ticket::Responsible**

Enables ticket responsible feature, to keep track of a specific ticket.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Responsible'} = '0';
```

### **Ticket::ResponsibleAutoSet**

Automatically sets the owner of a ticket as the responsible for it (if ticket responsible feature is enabled). This will only work by manually actions of the logged in user. It does not work for automated actions e.g. GenericAgent, Postmaster and GenericInterface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::ResponsibleAutoSet'} = '1';
```

### **Ticket::Type**

Allows defining new types for ticket (if ticket type feature is enabled).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Type'} = '0';
```

### **Ticket::Type::Default**

Defines the default ticket type.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Type::Default'} = 'Unclassified';
```

### **Ticket::Service**

Allows defining services and SLAs for tickets (e. g. email, desktop, network, ...), and escalation attributes for SLAs (if ticket service/SLA feature is enabled).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Service'} = '0';
```

### **Ticket::Service::KeepChildren**

Retains all services in listings even if they are children of invalid elements.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Service::KeepChildren'} = '0';
```

### **Ticket::Service::Default::UnknownCustomer**

Allows default services to be selected also for non existing customers.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Service::Default::UnknownCustomer'} = '0';
```

### **Ticket::ArchiveSystem**

Activates the ticket archive system to have a faster system by moving some tickets out of the daily scope. To search for these tickets, the archive flag has to be enabled in the ticket search.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::ArchiveSystem'} = '0';
```

### **Ticket::ArchiveSystem::RemoveSeenFlags**

Controls if the ticket and article seen flags are removed when a ticket is archived.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::ArchiveSystem::RemoveSeenFlags'} = '1';
```

### **Ticket::ArchiveSystem::RemoveTicketWatchers**

Removes the ticket watcher information when a ticket is archived.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::ArchiveSystem::RemoveTicketWatchers'} = '1';
```

### **Ticket::CustomerArchiveSystem**

Activates the ticket archive system search in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::CustomerArchiveSystem'} = '0';
```

### **Ticket::NumberGenerator**

Selects the ticket number generator module. "AutoIncrement" increments the ticket number, the SystemID and the counter are used with SystemID.counter format (e.g. 1010138, 1010139). With "Date" the ticket numbers will be generated by the current date, the SystemID and the counter. The format looks like Year.Month.Day.SystemID.counter (e.g. 200206231010138, 200206231010139). With "DateChecksum" the counter will be appended as checksum to the string of date and SystemID. The checksum will be rotated on a daily basis. The format looks like Year.Month.Day.SystemID.Counter.CheckSum (e.g. 2002070110101520, 2002070110101535). "Random" generates randomized ticket numbers in the format "SystemID.Random" (e.g. 100057866352, 103745394596).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::NumberGenerator'} = 'Kernel::System::Ticket::Number::DateChecksum';
```

### **Ticket::NumberGenerator::CheckSystemID**

Checks the SystemID in ticket number detection for follow-ups (use "No" if SystemID has been changed after using the system).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::NumberGenerator::CheckSystemID'} = '1';
```

### **Ticket::NumberGenerator::MinCounterSize**

Sets the minimal ticket counter size if "AutoIncrement" was selected as TicketNumberGenerator. Default is 5, this means the counter starts from 10000.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::NumberGenerator::MinCounterSize'} = '5';
```

### **Ticket::NumberGenerator::Date::UseFormattedCounter**

Enables the minimal ticket counter size (if "Date" was selected as TicketNumberGenerator).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::NumberGenerator::Date::UseFormattedCounter'} = '0';
```

### **Ticket::CounterLog**

Log file for the ticket counter.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::CounterLog'} = '<OTRS_CONFIG_Home>/var/log/TicketCounter.log';
```

### **Ticket::IndexModule**

IndexAccelerator: to choose your backend TicketViewAccelerator module. "RuntimeDB" generates each queue view on the fly from ticket table (no performance problems up to approx. 60.000 tickets in total and 6.000 open tickets in the system). "StaticDB" is the most powerful module, it uses an extra ticket-index table that works like a view (recommended if more than 80.000 and 6.000 open tickets are stored in the system). Use the command "bin/otrs.Console.pl Maint::Ticket::QueueIndexRebuild" for initial index creation.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::IndexModule'} =  
'Kernel::System::Ticket::IndexAccelerator::RuntimeDB';
```

### **Ticket::StorageModule**

Saves the attachments of articles. "DB" stores all data in the database (not recommended for storing big attachments). "FS" stores the data on the filesystem; this is faster but the webserver should run under the OTRS user. You can switch between the modules even on a system that is already in production without any loss of data. Note: Searching for attachment names is not supported when "FS" is used.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::StorageModule'} = 'Kernel::System::Ticket::ArticleStorageDB';
```

### **Ticket::StorageModule::CheckAllBackends**

Specifies whether all storage backends should be checked when looking for attachments. This is only required for installations where some attachments are in the file system, and others in the database.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::StorageModule::CheckAllBackends'} = '0';
```

### **ArticleDir**

Specifies the directory to store the data in, if "FS" was selected for TicketStorageModule.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'ArticleDir'} = '<OTRS_CONFIG_Home>/var/article';
```

### **OTRSEscalationEvents::DecayTime**

The duration in minutes after emitting an event, in which the new escalation notify and start events are suppressed.

Thamani chaguo-msingi:

```
$Self->{'OTRSEscalationEvents::DecayTime'} = '1440';
```

### **Ticket::EventModulePost###100-ArchiveRestore**

Restores a ticket from the archive (only if the event is a state change to any open available state).

Thamani chaguo-msingi:

```
$Self->{'Ticket::EventModulePost'}->{'100-ArchiveRestore'} = {
  'Event' => 'TicketStateUpdate',
  'Module' => 'Kernel::System::Ticket::Event::ArchiveRestore'
};
```

### **Ticket::EventModulePost###110-AcceleratorUpdate**

Updates the ticket index accelerator.

Thamani chaguo-msingi:

```
$Self->{'Ticket::EventModulePost'}->{'110-AcceleratorUpdate'} = {
  'Event' => 'TicketStateUpdate|TicketQueueUpdate|TicketLockUpdate',
  'Module' => 'Kernel::System::Ticket::Event::TicketAcceleratorUpdate'
};
```

### **Ticket::EventModulePost###120-ForceOwnerResetOnMove**

Resets and unlocks the owner of a ticket if it was moved to another queue.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::EventModulePost'}->{'120-ForceOwnerResetOnMove'} = {
  'Event' => 'TicketQueueUpdate',
  'Module' => 'Kernel::System::Ticket::Event::ForceOwnerReset'
};
```

### **Ticket::EventModulePost###130-ForceStateChangeOnLock**

Forces to choose a different ticket state (from current) after lock action. Define the current state as key, and the next state after lock action as content.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::EventModulePost'}->{'130-ForceStateChangeOnLock'} = {
  'Event' => 'TicketLockUpdate',
  'Module' => 'Kernel::System::Ticket::Event::ForceState',
  'new' => 'open'
};
```

### **Ticket::EventModulePost###140-ResponsibleAutoSet**

Automatically sets the responsible of a ticket (if it is not set yet) after the first owner update.

Thamani chaguo-msingi:

```
$Self->{'Ticket::EventModulePost'}->{'140-ResponsibleAutoSet'} = {
  'Event' => 'TicketOwnerUpdate',
  'Module' => 'Kernel::System::Ticket::Event::ResponsibleAutoSet'
};
```

### **Ticket::EventModulePost###150-TicketPendingTimeReset**

Sets the PendingTime of a ticket to 0 if the state is changed to a non-pending state.

Thamani chaguo-msingi:

```
$Self->{'Ticket::EventModulePost'}->{'150-TicketPendingTimeReset'} = {
  'Event' => 'TicketStateUpdate',
  'Module' => 'Kernel::System::Ticket::Event::TicketPendingTimeReset'
};
```

### **Ticket::EventModulePost###500-NotificationEvent**

Sends the notifications which are configured in the admin interface under "Ticket Notifications".

Thamani chaguo-msingi:

```
$Self->{'Ticket::EventModulePost'}->{'500-NotificationEvent'} = {
  'Event' => '',
  'Module' => 'Kernel::System::Ticket::Event::NotificationEvent',
  'Transaction' => '1'
};
```

### **Ticket::EventModulePost###910-EscalationIndex**

Updates the ticket escalation index after a ticket attribute got updated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::EventModulePost'}->{'910-EscalationIndex'} = {
  'Event' => 'TicketSLAUpdate|TicketQueueUpdate|TicketStateUpdate|TicketCreate|
ArticleCreate',
  'Module' => 'Kernel::System::Ticket::Event::TicketEscalationIndex'
};
```

### **Ticket::EventModulePost###920-EscalationStopEvents**

Ticket event module that triggers the escalation stop events.

Thamani chaguo-msingi:

```
$Self->{'Ticket::EventModulePost'}->{'920-EscalationStopEvents'} = {
  'Event' => 'TicketSLAUpdate|TicketQueueUpdate|TicketStateUpdate|ArticleCreate',
  'Module' => 'Kernel::System::Ticket::Event::TriggerEscalationStopEvents'
};
```

### **Ticket::EventModulePost###930-ForceUnlockOnMove**

Forces to unlock tickets after being moved to another queue.

Thamani chaguo-msingi:

```
$Self->{'Ticket::EventModulePost'}->{'930-ForceUnlockOnMove'} = {
  'Event' => 'TicketQueueUpdate',
  'Module' => 'Kernel::System::Ticket::Event::ForceUnlock'
};
```



```
};
```

### **Ticket::EventModulePost###940-TicketArticleNewMessageUpdate**

Update Ticket "Seen" flag if every article got seen or a new Article got created.

Thamani chaguo-msingi:

```
$Self->{'Ticket::EventModulePost'}->{'940-TicketArticleNewMessageUpdate'} = {
  'Event' => 'ArticleCreate|ArticleFlagSet',
  'Module' => 'Kernel::System::Ticket::Event::TicketNewMessageUpdate'
};
```

### **DynamicFieldFromCustomerUser::Mapping**

Define a mapping between variables of the customer user data (keys) and dynamic fields of a ticket (values). The purpose is to store customer user data in ticket dynamic fields. The dynamic fields must be present in the system and should be enabled for AgentTicketFreeText, so that they can be set/updated manually by the agent. They mustn't be enabled for AgentTicketPhone, AgentTicketEmail and AgentTicketCustomer. If they were, they would have precedence over the automatically set values. To use this mapping, you have to also activate the next setting below.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'DynamicFieldFromCustomerUser::Mapping'} = {
  'UserFirstname' => 'CustomerFirstname'
};
```

### **Ticket::EventModulePost###950-DynamicFieldFromCustomerUser**

This event module stores attributes from CustomerUser as DynamicFields tickets. Please see the setting above for how to configure the mapping.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::EventModulePost'}->{'950-DynamicFieldFromCustomerUser'} = {
  'Event' => '(TicketCreate|TicketCustomerUpdate)',
  'Module' => 'Kernel::System::Ticket::Event::DynamicFieldFromCustomerUser'
};
```

### **Ticket::CustomModule###001-CustomModule**

Overloads (redefines) existing functions in Kernel::System::Ticket. Used to easily add customizations.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::CustomModule'}->{'001-CustomModule'} =
  'Kernel::System::Ticket::Custom';
```

### **Ticket::ViewableSenderTypes**

Defines the default viewable sender types of a ticket (default: customer).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::ViewableSenderTypes'} = [
```

```
'\customer\  
];
```

### **Ticket::ViewableLocks**

Defines the viewable locks of a ticket. NOTE: When you change this setting, make sure to delete the cache in order to use the new value. Default: unlock, tmp\_lock.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::ViewableLocks'} = [  
  '\unlock\  
  '\tmp_lock\  
];
```

### **Ticket::ViewableStateType**

Defines the valid state types for a ticket.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::ViewableStateType'} = [  
  'new',  
  'open',  
  'pending reminder',  
  'pending auto'  
];
```

### **Ticket::UnlockStateType**

Defines the valid states for unlocked tickets. To unlock tickets the script "bin/otrs.Console.pl Maint::Ticket::UnlockTimeout" can be used.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::UnlockStateType'} = [  
  'new',  
  'open'  
];
```

### **Ticket::PendingNotificationOnlyToOwner**

Sends reminder notifications of unlocked ticket after reaching the reminder date (only sent to ticket owner).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::PendingNotificationOnlyToOwner'} = '0';
```

### **Ticket::PendingNotificationNotToResponsible**

Disables sending reminder notifications to the responsible agent of a ticket (Ticket::Responsible needs to be activated).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::PendingNotificationNotToResponsible'} = '0';
```

### **Ticket::PendingReminderStateType**

Defines the state type of the reminder for pending tickets.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::PendingReminderStateType'} = [  
  'pending reminder'  
];
```

### **Ticket::PendingAutoStateType**

Determines the possible states for pending tickets that changed state after reaching time limit.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::PendingAutoStateType'} = [  
  'pending auto'  
];
```

### **Ticket::StateAfterPending**

Defines which states should be set automatically (Content), after the pending time of state (Key) has been reached.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::StateAfterPending'} = {  
  'pending auto close+' => 'closed successful',  
  'pending auto close-' => 'closed unsuccessful'  
};
```

### **System::Permission**

Standard available permissions for agents within the application. If more permissions are needed, they can be entered here. Permissions must be defined to be effective. Some other good permissions have also been provided built-in: note, close, pending, customer, freetext, move, compose, responsible, forward, and bounce. Make sure that "rw" is always the last registered permission.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'System::Permission'} = [  
  'ro',  
  'move_into',  
  'create',  
  'note',  
  'owner',  
  'priority',  
  'rw'  
];
```

### **Ticket::Permission###1-OwnerCheck**

Module to grant access to the owner of a ticket.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Permission'}->{'1-OwnerCheck'} = {
  'Granted' => '1',
  'Module' => 'Kernel::System::Ticket::Permission::OwnerCheck',
  'Required' => '0'
};
```

### **Ticket::Permission::OwnerCheck::Queues**

Optional queue limitation for the OwnerCheck permission module. If set, permission is only granted for tickets in the specified queues.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Permission::OwnerCheck::Queues'} = {
  'Misc' => 'note',
  'Postmaster' => 'ro, move, note',
  'Raw' => 'rw'
};
```

### **Ticket::Permission###2-ResponsibleCheck**

Module to grant access to the agent responsible of a ticket.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Permission'}->{'2-ResponsibleCheck'} = {
  'Granted' => '1',
  'Module' => 'Kernel::System::Ticket::Permission::ResponsibleCheck',
  'Required' => '0'
};
```

### **Ticket::Permission::ResponsibleCheck::Queues**

Optional queue limitation for the ResponsibleCheck permission module. If set, permission is only granted for tickets in the specified queues.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Permission::ResponsibleCheck::Queues'} = {
  'Misc' => 'note',
  'Postmaster' => 'ro, move, note',
  'Raw' => 'rw'
};
```

### **Ticket::Permission###3-GroupCheck**

Module to check the group permissions for the access to tickets.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Permission'}->{'3-GroupCheck'} = {
  'Granted' => '1',
  'Module' => 'Kernel::System::Ticket::Permission::GroupCheck',
  'Required' => '0'
};
```

### **Ticket::Permission###4-WatcherCheck**

Module to grant access to the watcher agents of a ticket.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Permission'}->{'4-WatcherCheck'} = {
```

```
'Granted' => '1',
'Module' => 'Kernel::System::Ticket::Permission::WatcherCheck',
'Required' => '0'
};
```

### **Ticket::Permission###5-CreatorCheck**

Module to grant access to the creator of a ticket.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Permission'}->{'5-CreatorCheck'} = {
'Granted' => '1',
'Module' => 'Kernel::System::Ticket::Permission::CreatorCheck',
'Required' => '0'
};
```

### **Ticket::Permission::CreatorCheck::Queues**

Optional queue limitation for the CreatorCheck permission module. If set, permission is only granted for tickets in the specified queues.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Permission::CreatorCheck::Queues'} = {
'Misc' => 'note',
'Postmaster' => 'ro, move, note',
'Raw' => 'rw'
};
```

### **Ticket::Permission###6-InvolvedCheck**

Module to grant access to any agent that has been involved in a ticket in the past (based on ticket history entries).

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Permission'}->{'6-InvolvedCheck'} = {
'Granted' => '1',
'Module' => 'Kernel::System::Ticket::Permission::InvolvedCheck',
'Required' => '0'
};
```

### **Ticket::Permission::InvolvedCheck::Queues**

Optional queue limitation for the InvolvedCheck permission module. If set, permission is only granted for tickets in the specified queues.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Permission::InvolvedCheck::Queues'} = {
'Misc' => 'note',
'Postmaster' => 'ro, move, note',
'Raw' => 'rw'
};
```

### **CustomerTicket::Permission###1-GroupCheck**

Module to check the group permissions for customer access to tickets.

Thamani chaguo-msingi:

```
$Self->{'CustomerTicket::Permission'}->{'1-GroupCheck'} = {
  'Granted' => '0',
  'Module' => 'Kernel::System::Ticket::CustomerPermission::GroupCheck',
  'Required' => '1'
};
```

### **CustomerTicket::Permission###2-CustomerUserIDCheck**

Module to grant access if the CustomerUserID of the ticket matches the CustomerUserID of the customer.

Thamani chaguo-msingi:

```
$Self->{'CustomerTicket::Permission'}->{'2-CustomerUserIDCheck'} = {
  'Granted' => '1',
  'Module' => 'Kernel::System::Ticket::CustomerPermission::CustomerUserIDCheck',
  'Required' => '0'
};
```

### **CustomerTicket::Permission###3-CustomerIDCheck**

Module to grant access if the CustomerID of the ticket matches the CustomerID of the customer.

Thamani chaguo-msingi:

```
$Self->{'CustomerTicket::Permission'}->{'3-CustomerIDCheck'} = {
  'Granted' => '1',
  'Module' => 'Kernel::System::Ticket::CustomerPermission::CustomerIDCheck',
  'Required' => '0'
};
```

### **Ticket::DefineEmailFrom**

Defines how the From field from the emails (sent from answers and email tickets) should look like.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::DefineEmailFrom'} = 'SystemAddressName';
```

### **Ticket::DefineEmailFromSeparator**

Defines the separator between the agents real name and the given queue email address.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::DefineEmailFromSeparator'} = 'via';
```

### **CustomerNotifyJustToRealCustomer**

Sends customer notifications just to the mapped customer.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerNotifyJustToRealCustomer'} = '0';
```

### **AgentSelfNotifyOnAction**

Specifies if an agent should receive email notification of his own actions.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'AgentSelfNotifyOnAction'} = '0';
```

### **Ticket::EventModulePost###900-GenericAgent**

Event module registration. For more performance you can define a trigger event (e. g. Event => TicketCreate).

Thamani chaguo-msingi:

```
$Self->{'Ticket::EventModulePost'}->{'900-GenericAgent'} = {  
  'Event' => '',  
  'Module' => 'Kernel::System::Ticket::Event::GenericAgent',  
  'Transaction' => '1'  
};
```

### **Ticket::GenericAgentTicketSearch###ExtendedSearchCondition**

Allows extended search conditions in ticket search of the generic agent interface. With this feature you can search e. g. ticket title with this kind of conditions like "(\*key1\*&&\*key2\*)" or "(\*key1\*||\*key2\*)".

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::GenericAgentTicketSearch'}->{'ExtendedSearchCondition'} = '1';
```

### **Ticket::GenericAgentRunLimit**

Set the limit of tickets that will be executed on a single genericagent job execution.

Thamani chaguo-msingi:

```
$Self->{'Ticket::GenericAgentRunLimit'} = '4000';
```

### **Ticket::GenericAgentAllowCustomScriptExecution**

Allows generic agent to execute custom command line scripts.

Thamani chaguo-msingi:

```
$Self->{'Ticket::GenericAgentAllowCustomScriptExecution'} = '1';
```

### **Ticket::GenericAgentAllowCustomModuleExecution**

Allows generic agent to execute custom modules.

Thamani chaguo-msingi:

```
$Self->{'Ticket::GenericAgentAllowCustomModuleExecution'} = '1';
```

### **Ticket::UnlockOnAway**

Unlock tickets whenever a note is added and the owner is out of office.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::UnlockOnAway'} = '1';
```

### **Ticket::IncludeUnknownTicketCustomers**

Include unknown customers in ticket filter.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::IncludeUnknownTicketCustomers'} = '0';
```

### **StandardTemplate::Types**

Defines the list of types for templates.

Thamani chaguo-msingi:

```
$Self->{'StandardTemplate::Types'} = {
  'Answer' => 'Answer',
  'Create' => 'Create',
  'Email' => 'Email',
  'Forward' => 'Forward',
  'Note' => 'Note',
  'PhoneCall' => 'Phone call'
};
```

### **StandardTemplate2QueueByCreating**

List of default Standard Templates which are assigned automatically to new Queues upon creation.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'StandardTemplate2QueueByCreating'} = [
  ''
];
```

### **Ticket::Frontend::DefaultRecipientDisplayType**

Default display type for recipient (To,Cc) names in AgentTicketZoom and CustomerTicketZoom.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::DefaultRecipientDisplayType'} = 'Realname';
```

### **Ticket::Frontend::DefaultSenderDisplayType**

Default display type for sender (From) names in AgentTicketZoom and CustomerTicketZoom.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::DefaultSenderDisplayType'} = 'Realname';
```

## **Ticket → Core::TicketACL**

### **Ticket::Acl::Module###1-Ticket::Acl::Module**

ACL module that allows closing parent tickets only if all its children are already closed ("State" shows which states are not available for the parent ticket until all child tickets are closed).



This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Acl::Module'}->{'1-Ticket::Acl::Module'} = {  
  'Module' => 'Kernel::System::Ticket::Acl::CloseParentAfterClosedChilds',  
  'State' => [  
    'closed successful',  
    'closed unsuccessful'  
  ]  
};
```

### **TicketACL::Default::Action**

Default ACL values for ticket actions.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TicketACL::Default::Action'} = {};
```

### **ACLKeysLevel1Match**

Defines which items are available in first level of the ACL structure.

Thamani chaguo-msingi:

```
$Self->{'ACLKeysLevel1Match'} = {  
  'Properties' => 'Properties',  
  'PropertiesDatabase' => 'PropertiesDatabase'  
};
```

### **ACLKeysLevel1Change**

Defines which items are available in first level of the ACL structure.

Thamani chaguo-msingi:

```
$Self->{'ACLKeysLevel1Change'} = {  
  'Possible' => 'Possible',  
  'PossibleAdd' => 'PossibleAdd',  
  'PossibleNot' => 'PossibleNot'  
};
```

### **ACLKeysLevel2::Possible**

Defines which items are available in second level of the ACL structure.

Thamani chaguo-msingi:

```
$Self->{'ACLKeysLevel2::Possible'} = {  
  'Action' => 'Action',  
  'ActivityDialog' => 'ActivityDialog',  
  'Process' => 'Process',  
  'Ticket' => 'Ticket'  
};
```

### **ACLKeysLevel2::PossibleAdd**

Defines which items are available in second level of the ACL structure.

Thamani chaguo-msingi:

```
$Self->{'ACLKeysLevel2::PossibleAdd'} = {  
  'Action' => 'Action',  
  'ActivityDialog' => 'ActivityDialog',
```

```
'Process' => 'Process',
'Ticket' => 'Ticket'
};
```

### ACLKeysLevel2::PossibleNot

Defines which items are available in second level of the ACL structure.

Thamani chaguo-msingi:

```
$Self->{'ACLKeysLevel2::PossibleNot'} = {
  'Action' => 'Action',
  'ActivityDialog' => 'ActivityDialog',
  'Process' => 'Process',
  'Ticket' => 'Ticket'
};
```

### ACLKeysLevel2::Properties

Defines which items are available in second level of the ACL structure.

Thamani chaguo-msingi:

```
$Self->{'ACLKeysLevel2::Properties'} = {
  'CustomerUser' => 'CustomerUser',
  'DynamicField' => 'DynamicField',
  'Frontend' => 'Frontend',
  'Owner' => 'Owner',
  'Priority' => 'Priority',
  'Process' => 'Process',
  'Queue' => 'Queue',
  'Responsible' => 'Responsible',
  'SLA' => 'SLA',
  'Service' => 'Service',
  'State' => 'State',
  'Ticket' => 'Ticket',
  'Type' => 'Type',
  'User' => 'User'
};
```

### ACLKeysLevel2::PropertiesDatabase

Defines which items are available in second level of the ACL structure.

Thamani chaguo-msingi:

```
$Self->{'ACLKeysLevel2::PropertiesDatabase'} = {
  'CustomerUser' => 'CustomerUser',
  'DynamicField' => 'DynamicField',
  'Owner' => 'Owner',
  'Priority' => 'Priority',
  'Process' => 'Process',
  'Queue' => 'Queue',
  'Responsible' => 'Responsible',
  'SLA' => 'SLA',
  'Service' => 'Service',
  'State' => 'State',
  'Ticket' => 'Ticket',
  'Type' => 'Type',
  'User' => 'User'
};
```

### ACLKeysLevel3::Actions###100-Default

Defines which items are available for 'Action' in third level of the ACL structure.

Thamani chaguo-msingi:

```
$Self->{'ACLKeysLevel3::Actions'}->{'100-Default'} = [
```

```
'AgentTicketBounce',
'AgentTicketClose',
'AgentTicketCompose',
'AgentTicketCustomer',
'AgentTicketForward',
'AgentTicketEmailOutbound',
'AgentTicketFreeText',
'AgentTicketHistory',
'AgentTicketLink',
'AgentTicketLock',
'AgentTicketMerge',
'AgentTicketMove',
'AgentTicketNote',
'AgentTicketOwner',
'AgentTicketPending',
'AgentTicketPhone',
'AgentTicketPhoneInbound',
'AgentTicketPhoneOutbound',
'AgentTicketPlain',
'AgentTicketPrint',
'AgentTicketPriority',
'AgentTicketProcess',
'AgentTicketResponsible',
'AgentTicketSearch',
'AgentTicketWatcher',
'AgentTicketZoom',
'AgentLinkObject',
'CustomerTicketProcess'
];
```

### **ACL::CacheTTL**

Cache time in seconds for the DB ACL backend.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'ACL::CacheTTL'} = '3600';
```

### **TicketACL::Debug::Enabled**

If enabled debugging information for ACLs is logged.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'TicketACL::Debug::Enabled'} = '0';
```

### **TicketACL::Debug::LogPriority**

Defines the priority in which the information is logged and presented.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'TicketACL::Debug::LogPriority'} = 'debug';
```

### **TicketACL::Debug::Filter###00-Default**

Filter for debugging ACLs. Note: More ticket attributes can be added in the format <OTRS\_TICKET\_Attribute> e.g. <OTRS\_TICKET\_Priority>.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'TicketACL::Debug::Filter'}->{'00-Default'} = {
  '<OTRS_TICKET_TicketNumber>' => '',
  'ACLName' => ''
};
```

## Ticket → Core::TicketBulkAction

### Ticket::Frontend::BulkFeature

Enables ticket bulk action feature for the agent frontend to work on more than one ticket at a time.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::BulkFeature'} = '1';
```

### Ticket::Frontend::BulkFeatureGroup

Enables ticket bulk action feature only for the listed groups.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::BulkFeatureGroup'} = [
  'admin',
  'users'
];
```

## Ticket → Core::TicketDynamicFieldDefault

### Ticket::EventModulePost###TicketDynamicFieldDefault

Event module registration. For more performance you can define a trigger event (e.g. Event => TicketCreate). This is only possible if all Ticket dynamic fields need the same event.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::EventModulePost'}->{'TicketDynamicFieldDefault'} = {
  'Module' => 'Kernel::System::Ticket::Event::TicketDynamicFieldDefault',
  'Transaction' => '1'
};
```

### Ticket::TicketDynamicFieldDefault###Element1

Configures a default TicketDynamicField setting. "Name" defines the dynamic field which should be used, "Value" is the data that will be set, and "Event" defines the trigger event. Please check the developer manual (<http://otrs.github.io/doc/>), chapter "Ticket Event Module".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::TicketDynamicFieldDefault'}->{'Element1'} = {
  'Event' => 'TicketCreate',
  'Name' => 'Field1',
  'Value' => 'Default'
};
```

### **Ticket::TicketDynamicFieldDefault###Element2**

Configures a default TicketDynamicField setting. "Name" defines the dynamic field which should be used, "Value" is the data that will be set, and "Event" defines the trigger event. Please check the developer manual (<http://otrs.github.io/doc/>), chapter "Ticket Event Module".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::TicketDynamicFieldDefault'}->{'Element2'} = {  
  'Event' => '',  
  'Name' => '',  
  'Value' => ''  
};
```

### **Ticket::TicketDynamicFieldDefault###Element3**

Configures a default TicketDynamicField setting. "Name" defines the dynamic field which should be used, "Value" is the data that will be set, and "Event" defines the trigger event. Please check the developer manual (<http://otrs.github.io/doc/>), chapter "Ticket Event Module".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::TicketDynamicFieldDefault'}->{'Element3'} = {  
  'Event' => '',  
  'Name' => '',  
  'Value' => ''  
};
```

### **Ticket::TicketDynamicFieldDefault###Element4**

Configures a default TicketDynamicField setting. "Name" defines the dynamic field which should be used, "Value" is the data that will be set, and "Event" defines the trigger event. Please check the developer manual (<http://otrs.github.io/doc/>), chapter "Ticket Event Module".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::TicketDynamicFieldDefault'}->{'Element4'} = {  
  'Event' => '',  
  'Name' => '',  
  'Value' => ''  
};
```

### **Ticket::TicketDynamicFieldDefault###Element5**

Configures a default TicketDynamicField setting. "Name" defines the dynamic field which should be used, "Value" is the data that will be set, and "Event" defines the trigger event. Please check the developer manual (<http://otrs.github.io/doc/>), chapter "Ticket Event Module".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::TicketDynamicFieldDefault'}->{'Element5'} = {  
  'Event' => '',  
  'Name' => '',  
  'Value' => ''  
};
```

```
};
```

### **Ticket::TicketDynamicFieldDefault###Element6**

Configures a default TicketDynamicField setting. "Name" defines the dynamic field which should be used, "Value" is the data that will be set, and "Event" defines the trigger event. Please check the developer manual (<http://otrs.github.io/doc/>), chapter "Ticket Event Module".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::TicketDynamicFieldDefault'}->{'Element6'} = {  
  'Event' => '',  
  'Name' => '',  
  'Value' => ''  
};
```

### **Ticket::TicketDynamicFieldDefault###Element7**

Configures a default TicketDynamicField setting. "Name" defines the dynamic field which should be used, "Value" is the data that will be set, and "Event" defines the trigger event. Please check the developer manual (<http://otrs.github.io/doc/>), chapter "Ticket Event Module".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::TicketDynamicFieldDefault'}->{'Element7'} = {  
  'Event' => '',  
  'Name' => '',  
  'Value' => ''  
};
```

### **Ticket::TicketDynamicFieldDefault###Element8**

Configures a default TicketDynamicField setting. "Name" defines the dynamic field which should be used, "Value" is the data that will be set, and "Event" defines the trigger event. Please check the developer manual (<http://otrs.github.io/doc/>), chapter "Ticket Event Module".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::TicketDynamicFieldDefault'}->{'Element8'} = {  
  'Event' => '',  
  'Name' => '',  
  'Value' => ''  
};
```

### **Ticket::TicketDynamicFieldDefault###Element9**

Configures a default TicketDynamicField setting. "Name" defines the dynamic field which should be used, "Value" is the data that will be set, and "Event" defines the trigger event. Please check the developer manual (<http://otrs.github.io/doc/>), chapter "Ticket Event Module".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::TicketDynamicFieldDefault'}->{'Element9'} = {  
  'Event' => '',
```

```
'Name' => '',  
'Value' => ''  
};
```

### **Ticket::TicketDynamicFieldDefault###Element10**

Configures a default TicketDynamicField setting. "Name" defines the dynamic field which should be used, "Value" is the data that will be set, and "Event" defines the trigger event. Please check the developer manual (<http://otrs.github.io/doc/>), chapter "Ticket Event Module".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::TicketDynamicFieldDefault'}->{'Element10'} = {  
  'Event' => '',  
  'Name' => '',  
  'Value' => ''  
};
```

### **Ticket::TicketDynamicFieldDefault###Element11**

Configures a default TicketDynamicField setting. "Name" defines the dynamic field which should be used, "Value" is the data that will be set, and "Event" defines the trigger event. Please check the developer manual (<http://otrs.github.io/doc/>), chapter "Ticket Event Module".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::TicketDynamicFieldDefault'}->{'Element11'} = {  
  'Event' => '',  
  'Name' => '',  
  'Value' => ''  
};
```

### **Ticket::TicketDynamicFieldDefault###Element12**

Configures a default TicketDynamicField setting. "Name" defines the dynamic field which should be used, "Value" is the data that will be set, and "Event" defines the trigger event. Please check the developer manual (<http://otrs.github.io/doc/>), chapter "Ticket Event Module".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::TicketDynamicFieldDefault'}->{'Element12'} = {  
  'Event' => '',  
  'Name' => '',  
  'Value' => ''  
};
```

### **Ticket::TicketDynamicFieldDefault###Element13**

Configures a default TicketDynamicField setting. "Name" defines the dynamic field which should be used, "Value" is the data that will be set, and "Event" defines the trigger event. Please check the developer manual (<http://otrs.github.io/doc/>), chapter "Ticket Event Module".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::TicketDynamicFieldDefault'}->{'Element13'} = {  
  'Event' => '',  
  'Name' => '',  
  'Value' => ''  
};
```

### **Ticket::TicketDynamicFieldDefault###Element14**

Configures a default TicketDynamicField setting. "Name" defines the dynamic field which should be used, "Value" is the data that will be set, and "Event" defines the trigger event. Please check the developer manual (<http://otrs.github.io/doc/>), chapter "Ticket Event Module".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::TicketDynamicFieldDefault'}->{'Element14'} = {  
  'Event' => '',  
  'Name' => '',  
  'Value' => ''  
};
```

### **Ticket::TicketDynamicFieldDefault###Element15**

Configures a default TicketDynamicField setting. "Name" defines the dynamic field which should be used, "Value" is the data that will be set, and "Event" defines the trigger event. Please check the developer manual (<http://otrs.github.io/doc/>), chapter "Ticket Event Module".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::TicketDynamicFieldDefault'}->{'Element15'} = {  
  'Event' => '',  
  'Name' => '',  
  'Value' => ''  
};
```

### **Ticket::TicketDynamicFieldDefault###Element16**

Configures a default TicketDynamicField setting. "Name" defines the dynamic field which should be used, "Value" is the data that will be set, and "Event" defines the trigger event. Please check the developer manual (<http://otrs.github.io/doc/>), chapter "Ticket Event Module".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::TicketDynamicFieldDefault'}->{'Element16'} = {  
  'Event' => '',  
  'Name' => '',  
  'Value' => ''  
};
```

## **Ticket → Core::TicketWatcher**

### **Ticket::Watcher**

Enables or disables the ticket watcher feature, to keep track of tickets without being the owner nor the responsible.

This setting can not be deactivated.



Thamani chaguo-msingi:

```
$Self->{'Ticket::Watcher'} = '0';
```

### **Ticket::WatcherGroup**

Enables ticket watcher feature only for the listed groups.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::WatcherGroup'} = [
  'admin',
  'users'
];
```

## **Ticket → Frontend::Admin**

### **Events###Ticket**

List of all ticket events to be displayed in the GUI.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Events'}->{'Ticket'} = [
  'TicketCreate',
  'TicketDelete',
  'TicketTitleUpdate',
  'TicketUnlockTimeoutUpdate',
  'TicketQueueUpdate',
  'TicketTypeUpdate',
  'TicketServiceUpdate',
  'TicketSLAUpdate',
  'TicketCustomerUpdate',
  'TicketPendingTimeUpdate',
  'TicketLockUpdate',
  'TicketArchiveFlagUpdate',
  'TicketStateUpdate',
  'TicketOwnerUpdate',
  'TicketResponsibleUpdate',
  'TicketPriorityUpdate',
  'HistoryAdd',
  'HistoryDelete',
  'TicketAccountTime',
  'TicketMerge',
  'TicketSubscribe',
  'TicketUnsubscribe',
  'TicketFlagSet',
  'TicketFlagDelete',
  'TicketSlaveLinkAdd',
  'TicketSlaveLinkDelete',
  'TicketMasterLinkDelete',
  'EscalationResponseTimeNotifyBefore',
  'EscalationUpdateTimeNotifyBefore',
  'EscalationSolutionTimeNotifyBefore',
  'EscalationResponseTimeStart',
  'EscalationUpdateTimeStart',
  'EscalationSolutionTimeStart',
  'EscalationResponseTimeStop',
  'EscalationUpdateTimeStop',
  'EscalationSolutionTimeStop',
  'NotificationNewTicket',
  'NotificationFollowUp',
  'NotificationLockTimeout',
  'NotificationOwnerUpdate',
  'NotificationResponsibleUpdate',
  'NotificationAddNote',
```

```
'NotificationMove',
'NotificationPendingReminder',
'NotificationEscalation',
'NotificationEscalationNotifyBefore',
'NotificationServiceUpdate'
];
```

### Events###Article

List of all article events to be displayed in the GUI.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Events'}->{'Article'} = [
'ArticleCreate',
'ArticleUpdate',
'ArticleSend',
'ArticleBounce',
'ArticleAgentNotification',
'ArticleCustomerNotification',
'ArticleAutoResponse',
'ArticleFlagSet',
'ArticleFlagDelete',
'ArticleAgentNotification',
'ArticleCustomerNotification'
];
```

### Events###Queue

List of all queue events to be displayed in the GUI.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Events'}->{'Queue'} = [
'QueueCreate',
'QueueUpdate'
];
```

## Ticket → Frontend::Admin::AdminNotificationEvent

### Frontend::Admin::AdminNotificationEvent###RichText

Uses richtext for viewing and editing ticket notification.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Admin::AdminNotificationEvent'}->{'RichText'} = '1';
```

### Frontend::Admin::AdminNotificationEvent###RichTextWidth

Defines the width for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Frontend::Admin::AdminNotificationEvent'}->{'RichTextWidth'} = '620';
```

### Frontend::Admin::AdminNotificationEvent###RichTextHeight

Defines the height for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Frontend::Admin::AdminNotificationEvent'}->{'RichTextHeight'} = '320';
```

### Notification::Transport###Email

Defines all the parameters for this notification transport.

Thamani chaguo-msingi:

```
$Self->{'Notification::Transport'}->{'Email'} = {
  'AgentEnabledByDefault' => '1',
  'Icon' => 'fa fa-envelope',
  'IsOTRSBusinessTransport' => '0',
  'Module' => 'Kernel::System::Ticket::Event::NotificationEvent::Transport::Email',
  'Name' => 'Email',
  'Prio' => '100'
};
```

### Notification::Transport###NotificationView

Defines all the parameters for this notification transport.

Thamani chaguo-msingi:

```
$Self->{'Notification::Transport'}->{'NotificationView'} = {
  'AgentEnabledByDefault' => '0',
  'Icon' => 'fa fa-th-list',
  'IsOTRSBusinessTransport' => '1',
  'Module' =>
  'Kernel::System::Ticket::Event::NotificationEvent::Transport::NotificationView',
  'Name' => 'Web View',
  'Prio' => '110'
};
```

### Notification::Transport###SMS

Defines all the parameters for this notification transport.

Thamani chaguo-msingi:

```
$Self->{'Notification::Transport'}->{'SMS'} = {
  'AgentEnabledByDefault' => '0',
  'Icon' => 'fa fa-mobile',
  'IsOTRSBusinessTransport' => '1',
  'Module' => 'Kernel::System::Ticket::Event::NotificationEvent::Transport::SMS',
  'Name' => 'SMS (Short Message Service)',
  'Prio' => '120'
};
```

### Notification::CharactersPerLine

Defines the number of character per line used in case an HTML article preview replacement on TemplateGenerator for EventNotifications.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Notification::CharactersPerLine'} = '80';
```

## Ticket → Frontend::Admin::ModuleRegistration

### Frontend::Module###AdminACL

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminACL'} = {
```

```
'Description' => 'This module is part of the admin area of OTRS.',
'Group' => [
  'admin'
],
'Loader' => {
  'CSS' => [
    'Core.Agent.Admin.ACL.css'
  ],
  'JavaScript' => [
    'Core.Agent.Admin.ACL.js'
  ]
},
'NavBarModule' => {
  'Block' => 'Ticket',
  'Description' => 'Configure and manage ACLs.',
  'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
  'Name' => 'Access Control Lists (ACL)',
  'Prio' => '750'
},
'NavBarName' => 'Admin',
'Title' => 'Access Control Lists (ACL)'
};
```

### Frontend::Module###AdminQueue

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminQueue'} = {
  'Description' => 'This module is part of the admin area of OTRS.',
  'Group' => [
    'admin'
  ],
  'NavBarModule' => {
    'Block' => 'Queue',
    'Description' => 'Create and manage queues.',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'Queues',
    'Prio' => '100'
  },
  'NavBarName' => 'Admin',
  'Title' => 'Queues'
};
```

### Frontend::Module###AdminTemplate

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminTemplate'} = {
  'Description' => 'This module is part of the admin area of OTRS.',
  'Group' => [
    'admin'
  ],
  'NavBarModule' => {
    'Block' => 'Queue',
    'Description' => 'Create and manage templates.',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'Templates',
    'Prio' => '200'
  },
  'NavBarName' => 'Admin',
  'Title' => 'Templates'
};
```

### Frontend::Module###AdminQueueTemplates

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminQueueTemplates'} = {  
  'Description' => 'This module is part of the admin area of OTRS.',  
  'Group' => [  
    'admin'  
  ],  
  'NavBarModule' => {  
    'Block' => 'Queue',  
    'Description' => 'Link templates to queues.',  
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',  
    'Name' => 'Templates <-> Queues',  
    'Prio' => '300'  
  },  
  'NavBarName' => 'Admin',  
  'Title' => 'Templates <-> Queues'  
};
```

### **Frontend::Module###AdminAutoResponse**

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminAutoResponse'} = {  
  'Description' => 'This module is part of the admin area of OTRS.',  
  'Group' => [  
    'admin'  
  ],  
  'NavBarModule' => {  
    'Block' => 'Queue',  
    'Description' => 'Create and manage responses that are automatically sent.',  
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',  
    'Name' => 'Auto Responses',  
    'Prio' => '400'  
  },  
  'NavBarName' => 'Admin',  
  'Title' => 'Auto Responses'  
};
```

### **Frontend::Module###AdminQueueAutoResponse**

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminQueueAutoResponse'} = {  
  'Description' => 'This module is part of the admin area of OTRS.',  
  'Group' => [  
    'admin'  
  ],  
  'NavBarModule' => {  
    'Block' => 'Queue',  
    'Description' => 'Link queues to auto responses.',  
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',  
    'Name' => 'Auto Responses <-> Queues',  
    'Prio' => '500'  
  },  
  'NavBarName' => 'Admin',  
  'Title' => 'Auto Responses <-> Queues'  
};
```

### **Frontend::Module###AdminAttachment**

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminAttachment'} = {  
  'Description' => 'This module is part of the admin area of OTRS.',
```

```
'Group' => [
  'admin'
],
'NavBarModule' => {
  'Block' => 'Queue',
  'Description' => 'Create and manage attachments.',
  'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
  'Name' => 'Attachments',
  'Prio' => '600'
},
'NavBarName' => 'Admin',
'Title' => 'Attachments'
};
```

### Frontend::Module###AdminTemplateAttachment

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminTemplateAttachment'} = {
  'Description' => 'This module is part of the admin area of OTRS.',
  'Group' => [
    'admin'
  ],
  'NavBarModule' => {
    'Block' => 'Queue',
    'Description' => 'Link attachments to templates.',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'Attachments <-> Templates',
    'Prio' => '700'
  },
  'NavBarName' => 'Admin',
  'Title' => 'Attachments <-> Templates'
};
```

### Frontend::Module###AdminSalutation

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminSalutation'} = {
  'Description' => 'This module is part of the admin area of OTRS.',
  'Group' => [
    'admin'
  ],
  'NavBarModule' => {
    'Block' => 'Queue',
    'Description' => 'Create and manage salutations.',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'Salutations',
    'Prio' => '800'
  },
  'NavBarName' => 'Admin',
  'Title' => 'Salutations'
};
```

### Frontend::Module###AdminSignature

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminSignature'} = {
  'Description' => 'This module is part of the admin area of OTRS.',
  'Group' => [
    'admin'
  ],
  'NavBarModule' => {
```

```
'Block' => 'Queue',
'Description' => 'Create and manage signatures.',
'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
'Name' => 'Signatures',
'Prio' => '900'
},
'NavBarName' => 'Admin',
'Title' => 'Signatures'
};
```

### Frontend::Module###AdminSystemAddress

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminSystemAddress'} = {
'Description' => 'This module is part of the admin area of OTRS.',
'Group' => [
'admin'
],
'NavBarModule' => {
'Block' => 'Email',
'Description' => 'Set sender email addresses for this system.',
'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
'Name' => 'Email Addresses',
'Prio' => '300'
},
'NavBarName' => 'Admin',
'Title' => 'Email Addresses'
};
```

### Frontend::Module###AdminNotificationEvent

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminNotificationEvent'} = {
'Description' => 'This module is part of the admin area of OTRS.',
'Group' => [
'admin'
],
'Loader' => {
'CSS' => [
'Core.Agent.Admin.NotificationEvent.css'
],
'JavaScript' => [
'Core.Agent.Admin.NotificationEvent.js'
]
},
'NavBarModule' => {
'Block' => 'Ticket',
'Description' => 'Create and manage ticket notifications.',
'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
'Name' => 'Ticket Notifications',
'Prio' => '400'
},
'NavBarName' => 'Admin',
'Title' => 'Ticket Notifications'
};
```

### Frontend::Module###AdminService

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminService'} = {
'Description' => 'This module is part of the admin area of OTRS.',
```

```
'Group' => [
  'admin'
],
'NavBarModule' => {
  'Block' => 'Ticket',
  'Description' => 'Create and manage services.',
  'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
  'Name' => 'Services',
  'Prio' => '900'
},
'NavBarName' => 'Admin',
'Title' => 'Services'
};
```

### Frontend::Module###AdminSLA

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminSLA'} = {
  'Description' => 'This module is part of the admin area of OTRS.',
  'Group' => [
    'admin'
  ],
  'NavBarModule' => {
    'Block' => 'Ticket',
    'Description' => 'Create and manage Service Level Agreements (SLAs).',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'Service Level Agreements',
    'Prio' => '1000'
  },
  'NavBarName' => 'Admin',
  'Title' => 'Service Level Agreements'
};
```

### Frontend::Module###AdminType

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminType'} = {
  'Description' => 'This module is part of the admin area of OTRS.',
  'Group' => [
    'admin'
  ],
  'NavBarModule' => {
    'Block' => 'Ticket',
    'Description' => 'Create and manage ticket types.',
    'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
    'Name' => 'Types',
    'Prio' => '700'
  },
  'NavBarName' => 'Admin',
  'Title' => 'Types'
};
```

### Frontend::Module###AdminState

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminState'} = {
  'Description' => 'This module is part of the admin area of OTRS.',
  'Group' => [
    'admin'
  ],
  'NavBarModule' => {
```



```
'Block' => 'Ticket',
'Description' => 'Create and manage ticket states.',
'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
'Name' => 'States',
'Prio' => '800'
},
'NavBarName' => 'Admin',
'Title' => 'States'
};
```

### Frontend::Module###AdminPriority

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminPriority'} = {
'Description' => 'This module is part of the admin area of OTRS.',
'Group' => [
'admin'
],
'NavBarModule' => {
'Block' => 'Ticket',
'Description' => 'Create and manage ticket priorities.',
'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
'Name' => 'Priorities',
'Prio' => '850'
},
'NavBarName' => 'Admin',
'Title' => 'Priorities'
};
```

### Frontend::Module###AdminGenericAgent

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AdminGenericAgent'} = {
'Description' => 'This module is part of the admin area of OTRS.',
'Group' => [
'admin'
],
'Loader' => {
'JavaScript' => [
'Core.Agent.Admin.GenericAgent.js'
]
},
'NavBarModule' => {
'Block' => 'System',
'Description' => 'Manage tasks triggered by event or time based execution.',
'Module' => 'Kernel::Output::HTML::NavBar::ModuleAdmin',
'Name' => 'GenericAgent',
'Prio' => '300'
},
'NavBarName' => 'Admin',
'Title' => 'GenericAgent'
};
```

## Ticket → Frontend::Agent

### Ticket::Frontend::PendingDiffTime

Time in seconds that gets added to the actual time if setting a pending-state (default: 86400 = 1 day).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::PendingDiffTime'} = '86400';
```

### **Ticket::Frontend::MaxQueueLevel**

Define the max depth of queues.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MaxQueueLevel'} = '5';
```

### **Ticket::Frontend::ListType**

Shows existing parent/child queue lists in the system in the form of a tree or a list.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::ListType'} = 'tree';
```

### **Ticket::Frontend::TextAreaEmail**

Permitted width for compose email windows.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::TextAreaEmail'} = '82';
```

### **Ticket::Frontend::TextAreaNote**

Permitted width for compose note windows.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::TextAreaNote'} = '78';
```

### **Ticket::Frontend::InformAgentMaxSize**

Max size (in rows) of the informed agents box in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::InformAgentMaxSize'} = '3';
```

### **Ticket::Frontend::InvolvedAgentMaxSize**

Max size (in rows) of the involved agents box in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::InvolvedAgentMaxSize'} = '3';
```

### **Ticket::Frontend::BlockLoadingRemoteContent**

Makes the application block external content loading.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::BlockLoadingRemoteContent'} = '0';
```

### **Ticket::Frontend::CustomerInfoCompose**

Shows the customer user information (phone and email) in the compose screen.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerInfoCompose'} = '1';
```

### **Ticket::Frontend::CustomerInfoComposeMaxSize**

Max size (in characters) of the customer information table (phone and email) in the compose screen.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerInfoComposeMaxSize'} = '22';
```

### **Ticket::Frontend::CustomerInfoZoom**

Shows the customer user's info in the ticket zoom view.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerInfoZoom'} = '1';
```

### **Ticket::Frontend::CustomerInfoZoomMaxSize**

Maximum size (in characters) of the customer information table in the ticket zoom view.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerInfoZoomMaxSize'} = '22';
```

### **Ticket::Frontend::DynamicFieldsZoomMaxSizeSidebar**

Maximum length (in characters) of the dynamic field in the sidebar of the ticket zoom view.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::DynamicFieldsZoomMaxSizeSidebar'} = '18';
```

### **Ticket::Frontend::DynamicFieldsZoomMaxSizeArticle**

Maximum length (in characters) of the dynamic field in the article of the ticket zoom view.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::DynamicFieldsZoomMaxSizeArticle'} = '160';
```

### **Ticket::Frontend::AccountTime**

Activates time accounting.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AccountTime'} = '1';
```

### **Ticket::Frontend::TimeUnits**

Sets the preferred time units (e.g. work units, hours, minutes).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::TimeUnits'} = ' (work units)';
```

### **Ticket::Frontend::NeedAccountedTime**

Defines if time accounting is mandatory in the agent interface. If activated, a note must be entered for all ticket actions (no matter if the note itself is configured as active or is originally mandatory for the individual ticket action screen).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::NeedAccountedTime'} = '0';
```

### **Ticket::Frontend::BulkAccountedTime**

Defines if time accounting must be set to all tickets in bulk action.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::BulkAccountedTime'} = '1';
```

### **Ticket::Frontend::NeedSpellCheck**

Defines if composed messages have to be spell checked in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::NeedSpellCheck'} = '0';
```

### **Ticket::Frontend::NewOwnerSelection**

Shows an owner selection in phone and email tickets in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::NewOwnerSelection'} = '1';
```

### **Ticket::Frontend::NewResponsibleSelection**

Show a responsible selection in phone and email tickets in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::NewResponsibleSelection'} = '1';
```

### **Ticket::Frontend::NewQueueSelectionType**

Defines the recipient target of the phone ticket and the sender of the email ticket ("Queue" shows all queues, "System address" displays all system addresses) in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::NewQueueSelectionType'} = 'Queue';
```

### **Ticket::Frontend::NewQueueSelectionString**

Determines the strings that will be shown as recipient (To:) of the phone ticket and as sender (From:) of the email ticket in the agent interface. For Queue as NewQueueSelectionType "<Queue>" shows the names of the queues and for SystemAddress "<Realname> <<Email>>" shows the name and email of the recipient.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::NewQueueSelectionString'} = '<Queue>';
```

### **Ticket::Frontend::NewQueueOwnSelection**

Determines which options will be valid of the recipient (phone ticket) and the sender (email ticket) in the agent interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::NewQueueOwnSelection'} = {  
  '1' => 'First Queue',  
  '2' => 'Second Queue'  
};
```

### **Ticket::Frontend::ShowCustomerTickets**

Shows customer history tickets in AgentTicketPhone, AgentTicketEmail and AgentTicketCustomer.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::ShowCustomerTickets'} = '1';
```

### **NewTicketInNewWindow::Enabled**

If enabled, TicketPhone and TicketEmail will be open in new windows.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'NewTicketInNewWindow::Enabled'} = '0';
```

### CustomerDBLink

Defines an external link to the database of the customer (e.g. 'http://yourhost/customer.php?CID=[% Data.CustomerID %]' or '').

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerDBLink'} = "[% Env("CGIHandle") %]?  
Action=AgentCustomerInformationCenter;CustomerID=[% Data.CustomerID | uri %]";
```

### CustomerDBLinkTarget

Defines the target attribute in the link to external customer database. E.g. 'target="cd-b"'.  
This setting can not be deactivated.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerDBLinkTarget'} = '';
```

### CustomerDBLinkClass

Defines the target attribute in the link to external customer database. E.g. 'AsPopup PopupType\_TicketAction'.  
This setting can not be deactivated.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerDBLinkClass'} = '';
```

### Frontend::CommonParam###Action

Defines the default used Frontend-Module if no Action parameter given in the url on the agent interface.  
This setting can not be deactivated.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::CommonParam'}->{'Action'} = 'AgentDashboard';
```

### Frontend::CommonParam###QueueID

Default queue ID used by the system in the agent interface.  
This setting can not be deactivated.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::CommonParam'}->{'QueueID'} = '0';
```

### Frontend::CommonParam###TicketID

Default ticket ID used by the system in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Frontend::CommonParam'}->{'TicketID'} = '';
```

## DefaultOverviewColumns

General ticket data shown in the ticket overviews (fall-back). Possible settings: 0 = Disabled, 1 = Available, 2 = Enabled by default. Note that TicketNumber can not be disabled, because it is necessary.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'DefaultOverviewColumns'} = {
  'Age' => '2',
  'Changed' => '1',
  'Created' => '1',
  'CustomerCompanyName' => '1',
  'CustomerID' => '2',
  'CustomerName' => '1',
  'CustomerUserID' => '1',
  'EscalationResponseTime' => '1',
  'EscalationSolutionTime' => '1',
  'EscalationTime' => '1',
  'EscalationUpdateTime' => '1',
  'Lock' => '2',
  'Owner' => '2',
  'PendingTime' => '1',
  'Priority' => '1',
  'Queue' => '2',
  'Responsible' => '1',
  'SLA' => '1',
  'Service' => '1',
  'State' => '2',
  'TicketNumber' => '2',
  'Title' => '2',
  'Type' => '1'
};
```

## Ticket → Frontend::Agent::Dashboard

### DashboardBackend###0100-TicketPendingReminder

Parameters for the dashboard backend of the ticket pending reminder overview of the agent interface. "Limit" is the number of entries shown by default. "Group" is used to restrict the access to the plugin (e. g. Group: admin;group1;group2;). "Default" determines if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" is the cache time in minutes for the plugin. Note: Only Ticket attributes and Dynamic Fields (DynamicField\_NameX) are allowed for DefaultColumns. Possible settings: 0 = Disabled, 1 = Available, 2 = Enabled by default.

Thamani chaguo-msingi:

```
$Self->{'DashboardBackend'}->{'0100-TicketPendingReminder'} = {
  'Attributes' => 'TicketPendingTimeOlderMinutes=1;StateType=pending
  reminder;SortBy=PendingTime;OrderBy=Down;',
  'Block' => 'ContentLarge',
  'CacheTTLLocal' => '0.5',
  'Default' => '1',
  'DefaultColumns' => {
    'Age' => '2',
    'Changed' => '1',
    'Created' => '1',
    'CustomerCompanyName' => '1',
    'CustomerID' => '1',
```

```

'CustomerName' => '1',
'CustomerUserID' => '1',
'EscalationResponseTime' => '1',
'EscalationSolutionTime' => '1',
'EscalationTime' => '1',
'EscalationUpdateTime' => '1',
'Lock' => '1',
'Owner' => '1',
'PendingTime' => '1',
'Priority' => '1',
'Queue' => '1',
'Responsible' => '1',
'SLA' => '1',
'Service' => '1',
'State' => '1',
'TicketNumber' => '2',
'Title' => '2',
'Type' => '1'
},
'Description' => 'All tickets with a reminder set where the reminder date has been
reached',
'Filter' => 'Locked',
'Group' => '',
'Limit' => '10',
'Module' => 'Kernel::Output::HTML::Dashboard::TicketGeneric',
'Permission' => 'rw',
'Time' => 'UntilTime',
'Title' => 'Reminder Tickets'
};

```

### DashboardBackend###0110-TicketEscalation

Parameters for the dashboard backend of the ticket escalation overview of the agent interface. "Limit" is the number of entries shown by default. "Group" is used to restrict the access to the plugin (e. g. Group: admin;group1;group2;). "Default" determines if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" is the cache time in minutes for the plugin. Note: Only Ticket attributes and Dynamic Fields (DynamicField\_NameX) are allowed for DefaultColumns. Possible settings: 0 = Disabled, 1 = Available, 2 = Enabled by default.

Thamani chaguo-msingi:

```

$self->{'DashboardBackend'}->{'0110-TicketEscalation'} = {
  'Attributes' =>
  'TicketEscalationTimeOlderMinutes=1;SortBy=EscalationTime;OrderBy=Down;',
  'Block' => 'ContentLarge',
  'CacheTTLLocal' => '0.5',
  'Default' => '1',
  'DefaultColumns' => {
    'Age' => '2',
    'Changed' => '1',
    'Created' => '1',
    'CustomerCompanyName' => '1',
    'CustomerID' => '1',
    'CustomerName' => '1',
    'CustomerUserID' => '1',
    'EscalationResponseTime' => '1',
    'EscalationSolutionTime' => '1',
    'EscalationTime' => '1',
    'EscalationUpdateTime' => '1',
    'Lock' => '1',
    'Owner' => '1',
    'PendingTime' => '1',
    'Priority' => '1',
    'Queue' => '1',
    'Responsible' => '1',
    'SLA' => '1',
    'Service' => '1',
    'State' => '1',
    'TicketNumber' => '2',

```



```

    'Title' => '2',
    'Type' => '1'
  },
  'Description' => 'All escalated tickets',
  'Filter' => 'All',
  'Group' => '',
  'Limit' => '10',
  'Module' => 'Kernel::Output::HTML::Dashboard::TicketGeneric',
  'Permission' => 'rw',
  'Time' => 'EscalationTime',
  'Title' => 'Escalated Tickets'
};

```

### DashboardBackend###0120-TicketNew

Parameters for the dashboard backend of the new tickets overview of the agent interface. "Limit" is the number of entries shown by default. "Group" is used to restrict the access to the plugin (e. g. Group: admin;group1;group2;). "Default" determines if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" is the cache time in minutes for the plugin. Note: Only Ticket attributes and Dynamic Fields (DynamicField\_NameX) are allowed for DefaultColumns. Possible settings: 0 = Disabled, 1 = Available, 2 = Enabled by default.

Thamani chaguo-msingi:

```

$self->{'DashboardBackend'}->{'0120-TicketNew'} = {
  'Attributes' => 'StateType=new;',
  'Block' => 'ContentLarge',
  'CacheTTLLocal' => '0.5',
  'Default' => '1',
  'DefaultColumns' => {
    'Age' => '2',
    'Changed' => '1',
    'Created' => '1',
    'CustomerCompanyName' => '1',
    'CustomerID' => '1',
    'CustomerName' => '1',
    'CustomerUserID' => '1',
    'EscalationResponseTime' => '1',
    'EscalationSolutionTime' => '1',
    'EscalationTime' => '1',
    'EscalationUpdateTime' => '1',
    'Lock' => '1',
    'Owner' => '1',
    'PendingTime' => '1',
    'Priority' => '1',
    'Queue' => '1',
    'Responsible' => '1',
    'SLA' => '1',
    'Service' => '1',
    'State' => '1',
    'TicketNumber' => '2',
    'Title' => '2',
    'Type' => '1'
  },
  'Description' => 'All new tickets, these tickets have not been worked on yet',
  'Filter' => 'All',
  'Group' => '',
  'Limit' => '10',
  'Module' => 'Kernel::Output::HTML::Dashboard::TicketGeneric',
  'Permission' => 'rw',
  'Time' => 'Age',
  'Title' => 'New Tickets'
};

```

### DashboardBackend###0130-TicketOpen

Parameters for the dashboard backend of the open tickets overview of the agent interface. "Limit" is the number of entries shown by default. "Group" is used to restrict

the access to the plugin (e. g. Group: admin;group1;group2;). "Default" determines if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" is the cache time in minutes for the plugin. Note: Only Ticket attributes and Dynamic Fields (DynamicField\_NameX) are allowed for DefaultColumns. Possible settings: 0 = Disabled, 1 = Available, 2 = Enabled by default.

Thamani chaguo-msingi:

```
$Self->{'DashboardBackend'}->{'0130-TicketOpen'} = {
  'Attributes' => 'StateType=open;',
  'Block' => 'ContentLarge',
  'CacheTTLLocal' => '0.5',
  'Default' => '1',
  'DefaultColumns' => {
    'Age' => '2',
    'Changed' => '1',
    'Created' => '1',
    'CustomerCompanyName' => '1',
    'CustomerID' => '1',
    'CustomerName' => '1',
    'CustomerUserID' => '1',
    'EscalationResponseTime' => '1',
    'EscalationSolutionTime' => '1',
    'EscalationTime' => '1',
    'EscalationUpdateTime' => '1',
    'Lock' => '1',
    'Owner' => '1',
    'PendingTime' => '1',
    'Priority' => '1',
    'Queue' => '1',
    'Responsible' => '1',
    'SLA' => '1',
    'Service' => '1',
    'State' => '1',
    'TicketNumber' => '2',
    'Title' => '2',
    'Type' => '1'
  },
  'Description' => 'All open tickets, these tickets have already been worked on, but
  need a response',
  'Filter' => 'All',
  'Group' => '',
  'Limit' => '10',
  'Module' => 'Kernel::Output::HTML::Dashboard::TicketGeneric',
  'Permission' => 'rw',
  'Time' => 'Age',
  'Title' => 'Open Tickets / Need to be answered'
};
```

### DashboardBackend###0250-TicketStats

Parameters for the dashboard backend of the ticket stats of the agent interface. "Limit" is the number of entries shown by default. "Group" is used to restrict the access to the plugin (e. g. Group: admin;group1;group2;). "Default" determines if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" is the cache time in minutes for the plugin.

Thamani chaguo-msingi:

```
$Self->{'DashboardBackend'}->{'0250-TicketStats'} = {
  'Block' => 'ContentSmall',
  'CacheTTLLocal' => '30',
  'Changed' => '1',
  'Closed' => '1',
  'Default' => '1',
  'Group' => '',
  'Module' => 'Kernel::Output::HTML::Dashboard::TicketStatsGeneric',
  'Permission' => 'rw',
  'Title' => '7 Day Stats'
```

```
};
```

### DashboardBackend###0260-TicketCalendar

Parameters for the dashboard backend of the upcoming events widget of the agent interface. "Limit" is the number of entries shown by default. "Group" is used to restrict the access to the plugin (e. g. Group: admin;group1;group2;). "Default" determines if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" is the cache time in minutes for the plugin.

Thamani chaguo-msingi:

```
$Self->{'DashboardBackend'}->{'0260-TicketCalendar'} = {
  'Block' => 'ContentSmall',
  'CacheTTL' => '2',
  'Default' => '1',
  'Group' => '',
  'Limit' => '6',
  'Module' => 'Kernel::Output::HTML::Dashboard::Calendar',
  'OwnerOnly' => '',
  'Permission' => 'rw',
  'Title' => 'Upcoming Events'
};
```

### DashboardBackend###0270-TicketQueueOverview

Parameters for the dashboard backend of the queue overview widget of the agent interface. "Group" is used to restrict the access to the plugin (e. g. Group: admin;group1;group2;). "QueuePermissionGroup" is not mandatory, queues are only listed if they belong to this permission group if you enable it. "States" is a list of states, the key is the sort order of the state in the widget. "Default" determines if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" is the cache time in minutes for the plugin.

Thamani chaguo-msingi:

```
$Self->{'DashboardBackend'}->{'0270-TicketQueueOverview'} = {
  'Block' => 'ContentLarge',
  'CacheTTLLocal' => '2',
  'Default' => '1',
  'Description' => 'Provides a matrix overview of the tickets per state per queue.',
  'Group' => '',
  'Module' => 'Kernel::Output::HTML::Dashboard::TicketQueueOverview',
  'Permission' => 'rw',
  'QueuePermissionGroup' => 'users',
  'Sort' => 'SortBy=Age;OrderBy=Up',
  'States' => {
    '1' => 'new',
    '4' => 'open',
    '6' => 'pending reminder'
  },
  'Title' => 'Ticket Queue Overview'
};
```

### DashboardBackend###0280-DashboardEventsTicketCalendar

Parameters for the dashboard backend of the ticket events calendar of the agent interface. "Limit" is the number of entries shown by default. "Group" is used to restrict the access to the plugin (e. g. Group: admin;group1;group2;). "Default" determines if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" is the cache time in minutes for the plugin.

Thamani chaguo-msingi:

```
$Self->{'DashboardBackend'}->{'0280-DashboardEventsTicketCalendar'} = {
  'Block' => 'ContentLarge',
  'CacheTTL' => '0',
```

```
'Default' => '0',
'Group' => '',
'Module' => 'Kernel::Output::HTML::Dashboard::EventsTicketCalendar',
'Title' => 'Events Ticket Calendar'
};
```

### AgentCustomerInformationCenter::Backend###0100-CIC-TicketPendingReminder

Parameters for the dashboard backend of the ticket pending reminder overview of the agent interface . "Limit" is the number of entries shown by default. "Group" is used to restrict the access to the plugin (e. g. Group: admin;group1;group2;). "Default" determines if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" is the cache time in minutes for the plugin. Note: Only Ticket attributes and Dynamic Fields (DynamicField\_NameX) are allowed for DefaultColumns. Possible settings: 0 = Disabled, 1 = Available, 2 = Enabled by default.

Thamani chaguo-msingi:

```
$Self->{'AgentCustomerInformationCenter::Backend'}->{'0100-CIC-TicketPendingReminder'}
= {
  'Attributes' => 'TicketPendingTimeOlderMinutes=1;StateType=pending
reminder;SortBy=PendingTime;OrderBy=Down;',
  'Block' => 'ContentLarge',
  'CacheTTLLocal' => '0.5',
  'Default' => '1',
  'DefaultColumns' => {
    'Age' => '2',
    'Changed' => '1',
    'Created' => '1',
    'CustomerCompanyName' => '1',
    'CustomerID' => '1',
    'CustomerName' => '1',
    'CustomerUserID' => '1',
    'EscalationResponseTime' => '1',
    'EscalationSolutionTime' => '1',
    'EscalationTime' => '1',
    'EscalationUpdateTime' => '1',
    'Lock' => '1',
    'Owner' => '1',
    'PendingTime' => '1',
    'Priority' => '1',
    'Queue' => '1',
    'Responsible' => '1',
    'SLA' => '1',
    'Service' => '1',
    'State' => '1',
    'TicketNumber' => '2',
    'Title' => '2',
    'Type' => '1'
  },
  'Description' => 'All tickets with a reminder set where the reminder date has been
reached',
  'Filter' => 'Locked',
  'Group' => '',
  'Limit' => '10',
  'Module' => 'Kernel::Output::HTML::Dashboard::TicketGeneric',
  'Permission' => 'ro',
  'Time' => 'UntilTime',
  'Title' => 'Reminder Tickets'
};
```

### AgentCustomerInformationCenter::Backend###0110-CIC-TicketEscalation

Parameters for the dashboard backend of the ticket escalation overview of the agent interface . "Limit" is the number of entries shown by default. "Group" is used to restrict the access to the plugin (e. g. Group: admin;group1;group2;). "Default" determines if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" is the cache time in minutes for the plugin. Note: Only Ticket attributes and

Dynamic Fields (DynamicField\_NameX) are allowed for DefaultColumns. Possible settings: 0 = Disabled, 1 = Available, 2 = Enabled by default.

Thamani chaguo-msingi:

```
$Self->{'AgentCustomerInformationCenter::Backend'}->{'0110-CIC-TicketEscalation'} = {
  'Attributes' =>
  'TicketEscalationTimeOlderMinutes=1;SortBy=EscalationTime;OrderBy=Down;',
  'Block' => 'ContentLarge',
  'CacheTTLLocal' => '0.5',
  'Default' => '1',
  'DefaultColumns' => {
    'Age' => '2',
    'Changed' => '1',
    'Created' => '1',
    'CustomerCompanyName' => '1',
    'CustomerID' => '1',
    'CustomerName' => '1',
    'CustomerUserID' => '1',
    'EscalationResponseTime' => '1',
    'EscalationSolutionTime' => '1',
    'EscalationTime' => '1',
    'EscalationUpdateTime' => '1',
    'Lock' => '1',
    'Owner' => '1',
    'PendingTime' => '1',
    'Priority' => '1',
    'Queue' => '1',
    'Responsible' => '1',
    'SLA' => '1',
    'Service' => '1',
    'State' => '1',
    'TicketNumber' => '2',
    'Title' => '2',
    'Type' => '1'
  },
  'Description' => 'All escalated tickets',
  'Filter' => 'All',
  'Group' => '',
  'Limit' => '10',
  'Module' => 'Kernel::Output::HTML::Dashboard::TicketGeneric',
  'Permission' => 'ro',
  'Time' => 'EscalationTime',
  'Title' => 'Escalated Tickets'
};
```

### AgentCustomerInformationCenter::Backend###0120-CIC-TicketNew

Parameters for the dashboard backend of the new tickets overview of the agent interface. "Limit" is the number of entries shown by default. "Group" is used to restrict the access to the plugin (e. g. Group: admin;group1;group2;). "Default" determines if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" is the cache time in minutes for the plugin. Note: Only Ticket attributes and Dynamic Fields (DynamicField\_NameX) are allowed for DefaultColumns. Possible settings: 0 = Disabled, 1 = Available, 2 = Enabled by default.

Thamani chaguo-msingi:

```
$Self->{'AgentCustomerInformationCenter::Backend'}->{'0120-CIC-TicketNew'} = {
  'Attributes' => 'StateType=new;',
  'Block' => 'ContentLarge',
  'CacheTTLLocal' => '0.5',
  'Default' => '1',
  'DefaultColumns' => {
    'Age' => '2',
    'Changed' => '1',
    'Created' => '1',
    'CustomerCompanyName' => '1',
    'CustomerID' => '1',
    'CustomerName' => '1',
  }
};
```

```

'CustomerUserID' => '1',
'EscalationResponseTime' => '1',
'EscalationSolutionTime' => '1',
'EscalationTime' => '1',
'EscalationUpdateTime' => '1',
'Lock' => '1',
'Owner' => '1',
'PendingTime' => '1',
'Priority' => '1',
'Queue' => '1',
'Responsible' => '1',
'SLA' => '1',
'Service' => '1',
'State' => '1',
'TicketNumber' => '2',
'Title' => '2',
'Type' => '1'
},
'Description' => 'All new tickets, these tickets have not been worked on yet',
'Filter' => 'All',
'Group' => '',
'Limit' => '10',
'Module' => 'Kernel::Output::HTML::Dashboard::TicketGeneric',
'Permission' => 'ro',
'Time' => 'Age',
'Title' => 'New Tickets'
};

```

### AgentCustomerInformationCenter::Backend###0130-CIC-TicketOpen

Parameters for the dashboard backend of the open tickets overview of the agent interface. "Limit" is the number of entries shown by default. "Group" is used to restrict the access to the plugin (e. g. Group: admin;group1;group2;). "Default" determines if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" is the cache time in minutes for the plugin. Note: Only Ticket attributes and Dynamic Fields (DynamicField\_NameX) are allowed for DefaultColumns. Possible settings: 0 = Disabled, 1 = Available, 2 = Enabled by default.

Thamani chaguo-msingi:

```

$self->{'AgentCustomerInformationCenter::Backend'}->{'0130-CIC-TicketOpen'} = {
  'Attributes' => 'StateType=open;',
  'Block' => 'ContentLarge',
  'CacheTTLLocal' => '0.5',
  'Default' => '1',
  'DefaultColumns' => {
    'Age' => '2',
    'Changed' => '1',
    'Created' => '1',
    'CustomerCompanyName' => '1',
    'CustomerID' => '1',
    'CustomerName' => '1',
    'CustomerUserID' => '1',
    'EscalationResponseTime' => '1',
    'EscalationSolutionTime' => '1',
    'EscalationTime' => '1',
    'EscalationUpdateTime' => '1',
    'Lock' => '1',
    'Owner' => '1',
    'PendingTime' => '1',
    'Priority' => '1',
    'Queue' => '1',
    'Responsible' => '1',
    'SLA' => '1',
    'Service' => '1',
    'State' => '1',
    'TicketNumber' => '2',
    'Title' => '2',
    'Type' => '1'
  },
};

```

```
'Description' => 'All open tickets, these tickets have already been worked on, but
need a response',
'Filter' => 'All',
'Group' => '',
'Limit' => '10',
'Module' => 'Kernel::Output::HTML::Dashboard::TicketGeneric',
'Permission' => 'ro',
'Time' => 'Age',
'Title' => 'Open Tickets / Need to be answered'
};
```

### **AgentCustomerInformationCenter::Backend###0500-CIC-CustomerIDStatus**

Parameters for the dashboard backend of the customer id status widget of the agent interface . "Group" is used to restrict the access to the plugin (e. g. Group: admin;group1;group2;). "Default" determines if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" is the cache time in minutes for the plugin.

Thamani chaguo-msingi:

```
$Self->{'AgentCustomerInformationCenter::Backend'}->{'0500-CIC-CustomerIDStatus'} = {
  'Attributes' => '',
  'Block' => 'ContentSmall',
  'CacheTTLLocal' => '0.5',
  'Default' => '1',
  'Description' => 'Company Status',
  'Group' => '',
  'Module' => 'Kernel::Output::HTML::Dashboard::CustomerIDStatus',
  'Permission' => 'ro',
  'Title' => 'Company Status'
};
```

### **Ticket → Frontend::Agent::Dashboard::EventsTicketCalendar**

#### **DashboardEventsTicketCalendar###CalendarWidth**

Defines the calendar width in percent. Default is 95%.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'DashboardEventsTicketCalendar'}->{'CalendarWidth'} = '95';
```

#### **DashboardEventsTicketCalendar###Queues**

Defines queues that's tickets are used for displaying as calendar events.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'DashboardEventsTicketCalendar'}->{'Queues'} = [
  'Raw'
];
```

#### **DashboardEventsTicketCalendar::DynamicFieldStartTime**

Define dynamic field name for start time. This field has to be manually added to the system as Ticket: "Date / Time" and must be activated in ticket creation screens and/or in any other ticket action screens.

Thamani chaguo-msingi:

```
$Self->{'DashboardEventsTicketCalendar::DynamicFieldStartTime'} =
  'TicketCalendarStartTime';
```

## DashboardEventsTicketCalendar::DynamicFieldEndTime

Define dynamic field name for end time. This field has to be manually added to the system as Ticket: "Date / Time" and must be activated in ticket creation screens and/or in any other ticket action screens.

Thamani chaguo-msingi:

```
$Self->{'DashboardEventsTicketCalendar::DynamicFieldEndTime'} =
'TicketCalendarEndTime';
```

## DashboardEventsTicketCalendar::DynamicFieldsForEvents

Defines the dynamic fields that are used for displaying on calendar events.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'DashboardEventsTicketCalendar::DynamicFieldsForEvents'} = [
'TicketCalendarStartTime',
'TicketCalendarEndTime'
];
```

## DashboardEventsTicketCalendar::TicketFieldsForEvents

Defines the ticket fields that are going to be displayed calendar events. The "Key" defines the field or ticket attribute and the "Content" defines the display name.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'DashboardEventsTicketCalendar::TicketFieldsForEvents'} = {
'CustomerID' => 'Customer ID',
'CustomerUserID' => 'Customer user',
'Priority' => 'Priority',
'Queue' => 'Queue',
'SLA' => 'SLA',
'Service' => 'Service',
'State' => 'State',
'Title' => 'Title',
'Type' => 'Type'
};
```

## Ticket → Frontend::Agent::Dashboard::TicketFilters

### OnlyValuesOnTicket

Defines if the values for filters should be retrieved from all available tickets. If set to "Yes", only values which are actually used in any ticket will be available for filtering. Please note: The list of customers will always be retrieved like this.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'OnlyValuesOnTicket'} = '1';
```

## Ticket → Frontend::Agent::LinkObject

### LinkObject::ComplexTable::SettingsVisibility###Ticket

Define Actions where a settings button is available in the linked objects widget (LinkObject::ViewMode = "complex"). Please note that these Actions must have reg-



istered the following JS and CSS files: Core.AllocationList.css, Core.UI.AllocationList.js, Core.UI.Table.Sort.js, Core.Agent.TableFilters.js.

Thamani chaguo-msingi:

```
$Self->{'LinkObject::ComplexTable::SettingsVisibility'}->{'Ticket'} = [
  'AgentTicketZoom'
];
```

### LinkObject::ComplexTable###Ticket

Define which columns are shown in the linked tickets widget (LinkObject::ViewMode = "complex"). Note: Only Ticket attributes and Dynamic Fields (DynamicField\_NameX) are allowed for DefaultColumns. Possible settings: 0 = Disabled, 1 = Available, 2 = Enabled by default.

Thamani chaguo-msingi:

```
$Self->{'LinkObject::ComplexTable'}->{'Ticket'} = {
  'DefaultColumns' => {
    'Age' => '1',
    'Changed' => '1',
    'Created' => '2',
    'CustomerCompanyName' => '1',
    'CustomerID' => '1',
    'CustomerName' => '1',
    'CustomerUserID' => '1',
    'EscalationResponseTime' => '1',
    'EscalationSolutionTime' => '1',
    'EscalationTime' => '1',
    'EscalationUpdateTime' => '1',
    'Lock' => '1',
    'Owner' => '1',
    'PendingTime' => '1',
    'Priority' => '1',
    'Queue' => '2',
    'Responsible' => '1',
    'SLA' => '1',
    'Service' => '1',
    'State' => '2',
    'TicketNumber' => '2',
    'Title' => '2',
    'Type' => '1'
  },
  'Module' => 'Kernel::Output::HTML::LinkObject::Ticket.pm',
  'Priority' => {
    'Age' => '110',
    'Changed' => '120',
    'Created' => '310',
    'CustomerCompanyName' => '320',
    'CustomerID' => '240',
    'CustomerName' => '250',
    'CustomerUserID' => '260',
    'EscalationResponseTime' => '160',
    'EscalationSolutionTime' => '150',
    'EscalationTime' => '140',
    'EscalationUpdateTime' => '170',
    'Lock' => '200',
    'Owner' => '220',
    'PendingTime' => '130',
    'Priority' => '300',
    'Queue' => '210',
    'Responsible' => '230',
    'SLA' => '290',
    'Service' => '280',
    'State' => '190',
    'TicketNumber' => '100',
    'Title' => '180',
    'Type' => '270'
  }
}
```

```
};
```

## Ticket → Frontend::Agent::ModuleMetaHead

### Frontend::HeaderMetaModule###2-TicketSearch

Module to generate html OpenSearch profile for short ticket search in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::HeaderMetaModule'}->{'2-TicketSearch'} = {
  'Action' => 'AgentTicketSearch',
  'Module' => 'Kernel::Output::HTML::HeaderMeta::AgentTicketSearch'
};
```

## Ticket → Frontend::Agent::ModuleNotify

### Frontend::NotifyModule###5-Ticket::TicketEscalation

Module to show notifications and escalations (ShownMax: max. shown escalations, EscalationInMinutes: Show ticket which will escalation in, CacheTime: Cache of calculated escalations in seconds).

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Frontend::NotifyModule'}->{'5-Ticket::TicketEscalation'} = {
  'CacheTime' => '40',
  'EscalationInMinutes' => '120',
  'Module' => 'Kernel::Output::HTML::Notification::AgentTicketEscalation',
  'ShownMax' => '25'
};
```

## Ticket → Frontend::Agent::ModuleRegistration

### Frontend::Module###AgentTicketQueue

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentTicketQueue'} = {
  'Description' => 'Overview of all open Tickets.',
  'Loader' => {
    'CSS' => [
      'Core.AgentTicketQueue.css',
      'Core.AllocationList.css'
    ],
    'JavaScript' => [
      'Core.UI.AllocationList.js',
      'Core.Agent.TableFilters.js'
    ]
  },
  'NavBar' => [
    {
      'AccessKey' => 'o',
      'Block' => '',
      'Description' => 'Overview of all open Tickets.',
      'Link' => 'Action=AgentTicketQueue',
      'LinkOption' => '',
      'Name' => 'Queue view',
      'NavBar' => 'Ticket',
      'Prio' => '100',
      'Type' => ''
    }
  ],
};
```

```

{
  'AccessKey' => 't',
  'Block' => 'ItemArea',
  'Description' => '',
  'Link' => 'Action=AgentTicketQueue',
  'LinkOption' => '',
  'Name' => 'Tickets',
  'NavBar' => 'Ticket',
  'Prio' => '200',
  'Type' => 'Menu'
}
],
'NavBarName' => 'Ticket',
'Title' => 'QueueView'
};

```

### Frontend::Module###AgentTicketService

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AgentTicketService'} = {
  'Description' => 'Overview of all open Tickets.',
  'Loader' => {
    'CSS' => [
      'Core.AgentTicketService.css',
      'Core.AllocationList.css'
    ],
    'JavaScript' => [
      'Core.UI.AllocationList.js',
      'Core.Agent.TableFilters.js'
    ]
  },
  'NavBar' => [
    {
      'AccessKey' => '0',
      'Block' => '',
      'Description' => 'Overview of all open Tickets.',
      'Link' => 'Action=AgentTicketService',
      'LinkOption' => '',
      'Name' => 'Service view',
      'NavBar' => 'Ticket',
      'Prio' => '105',
      'Type' => ''
    }
  ],
  'NavBarName' => 'Ticket',
  'Title' => 'ServiceView'
};

```

### Frontend::Module###AgentTicketPhone

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AgentTicketPhone'} = {
  'Description' => 'Create new phone ticket.',
  'Loader' => {
    'JavaScript' => [
      'Core.Agent.CustomerSearch.js',
      'Core.Agent.TicketAction.js'
    ]
  },
  'NavBar' => [
    {
      'AccessKey' => 'n',
      'Block' => '',
      'Description' => 'Create new phone ticket (inbound).',
      'Link' => 'Action=AgentTicketPhone',

```

```

    'LinkOption' => '',
    'Name' => 'New phone ticket',
    'NavBar' => 'Ticket',
    'Prio' => '200',
    'Type' => ''
  }
],
'NavBarName' => 'Ticket',
'Title' => 'New phone ticket'
};

```

### Frontend::Module###AgentTicketPhoneOutbound

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AgentTicketPhoneOutbound'} = {
  'Description' => 'Phone Call.',
  'Loader' => {
    'JavaScript' => [
      'Core.Agent.TicketAction.js'
    ]
  },
  'NavBarName' => 'Ticket',
  'Title' => 'Phone-Ticket'
};

```

### Frontend::Module###AgentTicketPhoneInbound

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AgentTicketPhoneInbound'} = {
  'Description' => 'Incoming Phone Call.',
  'Loader' => {
    'JavaScript' => [
      'Core.Agent.TicketAction.js'
    ]
  },
  'NavBarName' => 'Ticket',
  'Title' => 'Phone-Ticket'
};

```

### Frontend::Module###AgentTicketEmail

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AgentTicketEmail'} = {
  'Description' => 'Create new email ticket.',
  'Loader' => {
    'JavaScript' => [
      'Core.Agent.CustomerSearch.js',
      'Core.Agent.TicketAction.js'
    ]
  },
  'NavBar' => [
    {
      'AccessKey' => 'm',
      'Block' => '',
      'Description' => 'Create new email ticket and send this out (outbound).',
      'Link' => 'Action=AgentTicketEmail',
      'LinkOption' => '',
      'Name' => 'New email ticket',
      'NavBar' => 'Ticket',
      'Prio' => '210',
      'Type' => ''
    }
  ]
};

```

```

    }
  ],
  'NavBarName' => 'Ticket',
  'Title' => 'New email ticket'
};

```

### Frontend::Module###AgentTicketSearch

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AgentTicketSearch'} = {
  'Description' => 'Search Ticket.',
  'Loader' => {
    'JavaScript' => [
      'Core.UI.AllocationList.js',
      'Core.Agent.TableFilters.js'
    ]
  },
  'NavBar' => [
    {
      'AccessKey' => 's',
      'Block' => '',
      'Description' => 'Search Tickets.',
      'Link' => 'Action=AgentTicketSearch',
      'LinkOption' => 'onclick="window.setTimeout(function()
{Core.Agent.Search.OpenSearchDialog(\'AgentTicketSearch\');}, 0); return false;"',
      'Name' => 'Search',
      'NavBar' => 'Ticket',
      'Prio' => '300',
      'Type' => ''
    }
  ],
  'NavBarName' => 'Ticket',
  'Title' => 'Search'
};

```

### Frontend::Module###AgentTicketLockedView

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AgentTicketLockedView'} = {
  'Description' => 'Locked Tickets.',
  'Loader' => {
    'CSS' => [
      'Core.AgentTicketQueue.css',
      'Core.AllocationList.css'
    ],
    'JavaScript' => [
      'Core.UI.AllocationList.js',
      'Core.Agent.TableFilters.js'
    ]
  },
  'NavBarName' => 'Ticket',
  'Title' => 'Locked Tickets'
};

```

### Frontend::Module###AgentTicketResponsibleView

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AgentTicketResponsibleView'} = {
  'Description' => 'Responsible Tickets.',
  'Loader' => {
    'CSS' => [

```

```

    'Core.AllocationList.css'
  ],
  'JavaScript' => [
    'Core.UI.AllocationList.js',
    'Core.Agent.TableFilters.js'
  ]
},
'NavBarName' => 'Ticket',
'Title' => 'Responsible Tickets'
};

```

### Frontend::Module###AgentTicketWatchView

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AgentTicketWatchView'} = {
  'Description' => 'Watched Tickets.',
  'Loader' => {
    'CSS' => [
      'Core.AgentTicketQueue.css',
      'Core.AllocationList.css'
    ],
    'JavaScript' => [
      'Core.UI.AllocationList.js',
      'Core.Agent.TableFilters.js'
    ]
  },
  'NavBarName' => 'Ticket',
  'Title' => 'Watched Tickets'
};

```

### Frontend::Module###AgentCustomerSearch

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AgentCustomerSearch'} = {
  'Description' => 'AgentCustomerSearch.',
  'NavBarName' => 'Ticket',
  'Title' => 'AgentCustomerSearch'
};

```

### Frontend::Module###AgentUserSearch

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AgentUserSearch'} = {
  'Description' => 'AgentUserSearch.',
  'NavBarName' => 'Ticket',
  'Title' => 'AgentUserSearch'
};

```

### Frontend::Module###AgentTicketStatusView

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AgentTicketStatusView'} = {
  'Description' => 'Overview of all open tickets.',
  'Loader' => {
    'CSS' => [
      'Core.AllocationList.css'
    ],
    'JavaScript' => [

```

```

    'Core.UI.AllocationList.js',
    'Core.Agent.TableFilters.js'
  ]
},
'NavBar' => [
  {
    'AccessKey' => 'v',
    'Block' => '',
    'Description' => 'Overview of all open Tickets.',
    'Link' => 'Action=AgentTicketStatusView',
    'LinkOption' => '',
    'Name' => 'Status view',
    'NavBar' => 'Ticket',
    'Prio' => '110',
    'Type' => ''
  }
],
'NavBarName' => 'Ticket',
'Title' => 'Status view'
};

```

### Frontend::Module###AgentTicketEscalationView

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AgentTicketEscalationView'} = {
  'Description' => 'Overview of all escalated tickets.',
  'Loader' => {
    'CSS' => [
      'Core.AllocationList.css'
    ],
    'JavaScript' => [
      'Core.UI.AllocationList.js',
      'Core.Agent.TableFilters.js'
    ]
  },
  'NavBar' => [
    {
      'AccessKey' => 'e',
      'Block' => '',
      'Description' => 'Overview Escalated Tickets.',
      'Link' => 'Action=AgentTicketEscalationView',
      'LinkOption' => '',
      'Name' => 'Escalation view',
      'NavBar' => 'Ticket',
      'Prio' => '120',
      'Type' => ''
    }
  ],
  'NavBarName' => 'Ticket',
  'Title' => 'Escalation view'
};

```

### Frontend::Module###AgentZoom

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```

$self->{'Frontend::Module'}->{'AgentZoom'} = {
  'Description' => 'Compat module for AgentZoom to AgentTicketZoom.',
  'NavBarName' => 'Ticket',
  'Title' => ''
};

```

### Frontend::Module###AgentTicketZoom

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentTicketZoom'} = {
  'Description' => 'Ticket Zoom.',
  'Loader' => {
    'CSS' => [
      'Core.Agent.TicketProcess.css',
      'Core.Agent.TicketMenuModuleCluster.css',
      'Core.AllocationList.css'
    ],
    'JavaScript' => [
      'thirdparty/jquery-tablesorter-2.0.5/jquery.tablesorter.js',
      'Core.Agent.TicketZoom.js',
      'Core.UI.AllocationList.js',
      'Core.UI.Table.Sort.js',
      'Core.Agent.TableFilters.js',
      'Core.Agent.LinkObject.js'
    ]
  },
  'NavBarName' => 'Ticket',
  'Title' => 'Zoom'
};
```

### Frontend::Module###AgentTicketAttachment

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentTicketAttachment'} = {
  'Description' => 'To download attachments.',
  'NavBarName' => 'Ticket',
  'Title' => ''
};
```

### Frontend::Module###AgentTicketPlain

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentTicketPlain'} = {
  'Description' => 'Ticket plain view of an email.',
  'NavBarName' => 'Ticket',
  'Title' => 'Plain'
};
```

### Frontend::Module###AgentTicketNote

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentTicketNote'} = {
  'Description' => 'Ticket Note.',
  'Loader' => {
    'JavaScript' => [
      'Core.Agent.TicketAction.js'
    ]
  },
  'NavBarName' => 'Ticket',
  'Title' => 'Note'
};
```

### Frontend::Module###AgentTicketMerge

Frontend module registration for the agent interface.

Thamani chaguo-msingi:



```
$Self->{'Frontend::Module'}->{'AgentTicketMerge'} = {  
  'Description' => 'Ticket Merge.',  
  'Loader' => {  
    'JavaScript' => [  
      'Core.Agent.TicketMerge.js'  
    ]  
  },  
  'NavBarName' => 'Ticket',  
  'Title' => 'Merge'  
};
```

### Frontend::Module###AgentTicketPending

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentTicketPending'} = {  
  'Description' => 'Ticket Pending.',  
  'Loader' => {  
    'JavaScript' => [  
      'Core.Agent.TicketAction.js'  
    ]  
  },  
  'NavBarName' => 'Ticket',  
  'Title' => 'Pending'  
};
```

### Frontend::Module###AgentTicketWatcher

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentTicketWatcher'} = {  
  'Description' => 'A TicketWatcher Module.',  
  'NavBarName' => 'Ticket-Watcher',  
  'Title' => 'Ticket Watcher'  
};
```

### Frontend::Module###AgentTicketPriority

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentTicketPriority'} = {  
  'Description' => 'Ticket Priority.',  
  'Loader' => {  
    'JavaScript' => [  
      'Core.Agent.TicketAction.js'  
    ]  
  },  
  'NavBarName' => 'Ticket',  
  'Title' => 'Priority'  
};
```

### Frontend::Module###AgentTicketLock

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentTicketLock'} = {  
  'Description' => 'Ticket Lock.',  
  'NavBarName' => 'Ticket',  
  'Title' => 'Lock'  
};
```

### Frontend::Module###AgentTicketMove

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentTicketMove'} = {  
  'Description' => 'Ticket Move.',  
  'Loader' => {  
    'JavaScript' => [  
      'Core.Agent.TicketAction.js'  
    ]  
  },  
  'NavBarName' => 'Ticket',  
  'Title' => 'Move'  
};
```

### Frontend::Module###AgentTicketHistory

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentTicketHistory'} = {  
  'Description' => 'Ticket History.',  
  'NavBarName' => 'Ticket',  
  'Title' => 'History'  
};
```

### Frontend::Module###AgentTicketOwner

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentTicketOwner'} = {  
  'Description' => 'Ticket Owner.',  
  'Loader' => {  
    'JavaScript' => [  
      'Core.Agent.TicketAction.js'  
    ]  
  },  
  'NavBarName' => 'Ticket',  
  'Title' => 'Owner'  
};
```

### Frontend::Module###AgentTicketResponsible

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentTicketResponsible'} = {  
  'Description' => 'Ticket Responsible.',  
  'Loader' => {  
    'JavaScript' => [  
      'Core.Agent.TicketAction.js'  
    ]  
  },  
  'NavBarName' => 'Ticket',  
  'Title' => 'Responsible'  
};
```

### Frontend::Module###AgentTicketCompose

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentTicketCompose'} = {  
  'Description' => 'Ticket Compose email Answer.',  
  'Loader' => {  
    'JavaScript' => [  
      'Core.Agent.CustomerSearch.js',  
      'Core.Agent.TicketAction.js'  
    ]  
  },  
  'NavBarName' => 'Ticket',  
  'Title' => 'Compose'  
};
```

### Frontend::Module###AgentTicketBounce

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentTicketBounce'} = {  
  'Description' => 'Ticket Compose Bounce Email.',  
  'NavBarName' => 'Ticket',  
  'Title' => 'Bounce'  
};
```

### Frontend::Module###AgentTicketForward

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentTicketForward'} = {  
  'Description' => 'Ticket Forward Email.',  
  'Loader' => {  
    'JavaScript' => [  
      'Core.Agent.CustomerSearch.js',  
      'Core.Agent.TicketAction.js'  
    ]  
  },  
  'NavBarName' => 'Ticket',  
  'Title' => 'Forward'  
};
```

### Frontend::Module###AgentTicketEmailOutbound

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentTicketEmailOutbound'} = {  
  'Description' => 'Ticket Outbound Email.',  
  'Loader' => {  
    'JavaScript' => [  
      'Core.Agent.CustomerSearch.js',  
      'Core.Agent.TicketAction.js'  
    ]  
  },  
  'NavBarName' => 'Ticket',  
  'Title' => 'Email Outbound'  
};
```

### Frontend::Module###AgentTicketCustomer

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentTicketCustomer'} = {  
  'Description' => 'Ticket Customer.',  
  'Loader' => {
```

```
'JavaScript' => [
  'Core.Agent.CustomerSearch.js',
  'Core.Agent.TicketAction.js'
],
'NavBarName' => 'Ticket',
'Title' => 'Customer'
};
```

### Frontend::Module###AgentTicketClose

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentTicketClose'} = {
  'Description' => 'Ticket Close.',
  'Loader' => {
    'JavaScript' => [
      'Core.Agent.TicketAction.js'
    ]
  },
  'NavBarName' => 'Ticket',
  'Title' => 'Close'
};
```

### Frontend::Module###AgentTicketFreeText

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentTicketFreeText'} = {
  'Description' => 'Ticket FreeText.',
  'Loader' => {
    'JavaScript' => [
      'Core.Agent.TicketAction.js'
    ]
  },
  'NavBarName' => 'Ticket',
  'Title' => 'Free Fields'
};
```

### Frontend::Module###AgentTicketPrint

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentTicketPrint'} = {
  'Description' => 'Ticket Print.',
  'NavBarName' => 'Ticket',
  'Title' => 'Print'
};
```

### Frontend::Module###AgentTicketBulk

Frontend module registration for the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Module'}->{'AgentTicketBulk'} = {
  'Description' => 'Ticket bulk module.',
  'Loader' => {
    'JavaScript' => [
      'Core.Agent.TicketAction.js'
    ]
  },
  'NavBarName' => 'Ticket',
  'Title' => 'Bulk Action'
};
```

```
};
```

## Ticket → Frontend::Agent::Preferences

### PreferencesGroups###CustomQueue

Parameters for the CustomQueue object in the preference view of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'PreferencesGroups'}->{'CustomQueue'} = {
  'Active' => '1',
  'Column' => 'Notification Settings',
  'Desc' => 'Your queue selection of your preferred queues. You also get notified about
those queues via email if enabled.',
  'Key' => '',
  'Label' => 'My Queues',
  'Module' => 'Kernel::Output::HTML::Preferences::CustomQueue',
  'Permission' => 'ro',
  'Prio' => '1000'
};
```

### PreferencesGroups###CustomService

Parameters for the CustomService object in the preference view of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'PreferencesGroups'}->{'CustomService'} = {
  'Active' => '1',
  'Column' => 'Notification Settings',
  'Desc' => 'Your service selection of your preferred services. You also get notified
about those services via email if enabled.',
  'Key' => '',
  'Label' => 'My Services',
  'Module' => 'Kernel::Output::HTML::Preferences::CustomService',
  'Prio' => '1000'
};
```

### PreferencesGroups###RefreshTime

Parameters for the RefreshTime object in the preference view of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'PreferencesGroups'}->{'RefreshTime'} = {
  'Active' => '1',
  'Column' => 'Other Settings',
  'Data' => {
    '0' => 'off',
    '10' => '10 minutes',
    '15' => '15 minutes',
    '2' => ' 2 minutes',
    '5' => ' 5 minutes',
    '7' => ' 7 minutes'
  },
  'DataSelected' => '0',
  'Desc' => 'If enabled, the different overviews (Dashboard, LockedView, QueueView) will
automatically refresh after the specified time.',
  'Key' => 'After',
  'Label' => 'Overview Refresh Time',
  'Module' => 'Kernel::Output::HTML::Preferences::Generic',
  'PrefKey' => 'UserRefreshTime',
  'Prio' => '2000'
};
```

### PreferencesGroups###TicketOverviewSmallPageShown

Parameters for the pages (in which the tickets are shown) of the small ticket overview.

Thamani chaguo-msingi:

```
$Self->{'PreferencesGroups'}->{'TicketOverviewSmallPageShown'} = {
  'Active' => '0',
  'Column' => 'Other Settings',
  'Data' => {
    '10' => '10',
    '15' => '15',
    '20' => '20',
    '25' => '25',
    '30' => '30',
    '35' => '35'
  },
  'DataSelected' => '25',
  'Key' => 'Ticket limit per page for Ticket Overview "Small"',
  'Label' => 'Ticket Overview "Small" Limit',
  'Module' => 'Kernel::Output::HTML::Preferences::Generic',
  'PrefKey' => 'UserTicketOverviewSmallPageShown',
  'Prio' => '8000'
};
```

### PreferencesGroups###TicketOverviewFilterSettings

Parameters for the column filters of the small ticket overview.

Thamani chaguo-msingi:

```
$Self->{'PreferencesGroups'}->{'TicketOverviewFilterSettings'} = {
  'Active' => '0',
  'Column' => 'Other Settings',
  'Key' => 'Column ticket filters for Ticket Overviews type "Small".',
  'Label' => 'Enabled filters.',
  'Module' => 'Kernel::Output::HTML::Preferences::ColumnFilters',
  'PrefKey' => 'UserFilterColumnsEnabled',
  'Prio' => '8100'
};
```

### PreferencesGroups###TicketOverviewMediumPageShown

Parameters for the pages (in which the tickets are shown) of the medium ticket overview.

Thamani chaguo-msingi:

```
$Self->{'PreferencesGroups'}->{'TicketOverviewMediumPageShown'} = {
  'Active' => '0',
  'Column' => 'Other Settings',
  'Data' => {
    '10' => '10',
    '15' => '15',
    '20' => '20',
    '25' => '25',
    '30' => '30',
    '35' => '35'
  },
  'DataSelected' => '20',
  'Key' => 'Ticket limit per page for Ticket Overview "Medium"',
  'Label' => 'Ticket Overview "Medium" Limit',
  'Module' => 'Kernel::Output::HTML::Preferences::Generic',
  'PrefKey' => 'UserTicketOverviewMediumPageShown',
  'Prio' => '8100'
};
```

### PreferencesGroups###TicketOverviewPreviewPageShown

Parameters for the pages (in which the tickets are shown) of the ticket preview overview.

Thamani chaguo-msingi:

```
$Self->{'PreferencesGroups'}->{'TicketOverviewPreviewPageShown'} = {
  'Active' => '0',
  'Column' => 'Other Settings',
  'Data' => {
    '10' => '10',
    '15' => '15',
    '20' => '20',
    '25' => '25',
    '30' => '30',
    '35' => '35'
  },
  'DataSelected' => '15',
  'Key' => 'Ticket limit per page for Ticket Overview "Preview"',
  'Label' => 'Ticket Overview "Preview" Limit',
  'Module' => 'Kernel::Output::HTML::Preferences::Generic',
  'PrefKey' => 'UserTicketOverviewPreviewPageShown',
  'Prio' => '8200'
};
```

### PreferencesGroups###CreateNextMask

Parameters for the CreateNextMask object in the preference view of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'PreferencesGroups'}->{'CreateNextMask'} = {
  'Active' => '1',
  'Column' => 'Other Settings',
  'Data' => {
    '0' => 'Create Ticket',
    'AgentTicketZoom' => 'Ticket Zoom'
  },
  'DataSelected' => '',
  'Desc' => 'Configure which screen should be shown after a new ticket has been created.',
  'Key' => 'Screen',
  'Label' => 'Screen after new ticket',
  'Module' => 'Kernel::Output::HTML::Preferences::Generic',
  'PrefKey' => 'UserCreateNextMask',
  'Prio' => '3000'
};
```

### PreferencesGroups###NotificationEvent

Transport selection for ticket notifications.

Thamani chaguo-msingi:

```
$Self->{'PreferencesGroups'}->{'NotificationEvent'} = {
  'Active' => '1',
  'Column' => 'Notification Settings',
  'Desc' => 'Choose for which kind of ticket changes you want to receive notifications.',
  'Label' => 'Ticket notifications',
  'Module' => 'Kernel::Output::HTML::Preferences::NotificationEvent',
  'PrefKey' => 'AdminNotificationEventTransport',
  'Prio' => '8000'
};
```

## Ticket → Frontend::Agent::SearchRouter

### Frontend::Search###AgentCustomerInformationCenter

Search backend router.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Search'}->{'AgentCustomerInformationCenter'} = {
```

```
'^AgentCustomerInformationCenter' => 'Action=AgentCustomerInformationCenterSearch'
};
```

### Frontend::Search::JavaScript###AgentCustomerInformationCenter

JavaScript function for the search frontend.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Search::JavaScript'}->{'AgentCustomerInformationCenter'} = {
  '^AgentCustomerInformationCenter' =>
  'Core.Agent.CustomerInformationCenterSearch.OpenSearchDialog()'
};
```

### Frontend::Search###Ticket

Search backend router.

Thamani chaguo-msingi:

```
$Self->{'Frontend::Search'}->{'Ticket'} = {
  '^AgentTicket' => 'Action=AgentTicketSearch;Subaction=AJAX'
};
```

## Ticket → Frontend::Agent::Ticket::ArticleAttachmentModule

### Ticket::Frontend::ArticleAttachmentModule###1-Download

Shows a link to download article attachments in the zoom view of the article in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::ArticleAttachmentModule'}->{'1-Download'} = {
  'Module' => 'Kernel::Output::HTML::ArticleAttachment::Download'
};
```

### Ticket::Frontend::ArticleAttachmentModule###2-HTML-Viewer

Shows a link to access article attachments via a html online viewer in the zoom view of the article in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::ArticleAttachmentModule'}->{'2-HTML-Viewer'} = {
  'Module' => 'Kernel::Output::HTML::ArticleAttachment::HTMLViewer'
};
```

## Ticket → Frontend::Agent::Ticket::ArticleComposeModule

### Ticket::Frontend::ArticleComposeModule###1-SignEmail

Module to compose signed messages (PGP or S/MIME).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::ArticleComposeModule'}->{'1-SignEmail'} = {
  'Module' => 'Kernel::Output::HTML::ArticleCompose::Sign'
};
```



```
};
```

### **Ticket::Frontend::ArticleComposeModule###2-CryptEmail**

Module to crypt composed messages (PGP or S/MIME).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::ArticleComposeModule'}->{'2-CryptEmail'} = {
  'Module' => 'Kernel::Output::HTML::ArticleCompose::Crypt'
};
```

### **Ticket → Frontend::Agent::Ticket::ArticleViewModule**

#### **Ticket::Frontend::ArticleViewModule###1-PGP**

Agent interface article notification module to check PGP.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::ArticleViewModule'}->{'1-PGP'} = {
  'Module' => 'Kernel::Output::HTML::ArticleCheck::PGP'
};
```

#### **Ticket::Frontend::ArticleViewModule###1-SMIME**

Agent interface module to check incoming emails in the Ticket-Zoom-View if the S/MIME-key is available and true.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::ArticleViewModule'}->{'1-SMIME'} = {
  'Module' => 'Kernel::Output::HTML::ArticleCheck::SMIME'
};
```

### **Ticket → Frontend::Agent::Ticket::ArticleViewModulePre**

#### **Ticket::Frontend::ArticlePreViewModule###1-PGP**

Agent interface article notification module to check PGP.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::ArticlePreViewModule'}->{'1-PGP'} = {
  'Module' => 'Kernel::Output::HTML::ArticleCheck::PGP'
};
```

#### **Ticket::Frontend::ArticlePreViewModule###1-SMIME**

Agent interface article notification module to check S/MIME.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::ArticlePreViewModule'}->{'1-SMIME'} = {
```

```
'Module' => 'Kernel::Output::HTML::ArticleCheck::SMIME'
};
```

## Ticket → Frontend::Agent::Ticket::MenuModule

### Ticket::Frontend::MenuModule###000-Back

Shows a link in the menu to go back in the ticket zoom view of the agent interface. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2". To cluster menu items use for Key "ClusterName" and for the Content any name you want to see in the UI. Use "ClusterPriority" to configure the order of a certain cluster within the toolbar.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MenuModule'}->{'000-Back'} = {
  'Action' => '',
  'ClusterName' => '',
  'ClusterPriority' => '',
  'Description' => 'Go back',
  'Link' => "[% Env('LastScreenOverview') %];TicketID=[% Data.TicketID | html %]",
  'Module' => 'Kernel::Output::HTML::TicketMenu::Generic',
  'Name' => 'Back',
  'PopupType' => '',
  'Target' => ''
};
```

### Ticket::Frontend::MenuModule###100-Lock

Shows a link in the menu to lock/unlock tickets in the ticket zoom view of the agent interface. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2". To cluster menu items use for Key "ClusterName" and for the Content any name you want to see in the UI. Use "ClusterPriority" to configure the order of a certain cluster within the toolbar.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MenuModule'}->{'100-Lock'} = {
  'Action' => 'AgentTicketLock',
  'ClusterName' => 'Miscellaneous',
  'ClusterPriority' => '800',
  'Description' => 'Lock / unlock this ticket',
  'Module' => 'Kernel::Output::HTML::TicketMenu::Lock',
  'Name' => 'Lock',
  'Target' => ''
};
```

### Ticket::Frontend::MenuModule###200-History

Shows a link in the menu to access the history of a ticket in the ticket zoom view of the agent interface. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2". To cluster menu items use for Key "ClusterName" and for the Content any name you want to see in the UI. Use "ClusterPriority" to configure the order of a certain cluster within the toolbar.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MenuModule'}->{'200-History'} = {
  'Action' => 'AgentTicketHistory',
  'ClusterName' => 'Miscellaneous',
  'ClusterPriority' => '800',
  'Description' => 'Show the history for this ticket',
  'Link' => 'Action=AgentTicketHistory;TicketID=[% Data.TicketID | html %]',
  'Module' => 'Kernel::Output::HTML::TicketMenu::Generic',
  'Name' => 'History',
  'PopupType' => 'TicketHistory',
};
```

```
'Target' => ''
};
```

### **Ticket::Frontend::MenuModule###210-Print**

Shows a link in the menu to print a ticket or an article in the ticket zoom view of the agent interface. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2". To cluster menu items use for Key "ClusterName" and for the Content any name you want to see in the UI. Use "ClusterPriority" to configure the order of a certain cluster within the toolbar.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MenuModule'}->{'210-Print'} = {
  'Action' => 'AgentTicketPrint',
  'ClusterName' => '',
  'ClusterPriority' => '',
  'Description' => 'Print this ticket',
  'Link' => 'Action=AgentTicketPrint;TicketID=[% Data.TicketID | html %]',
  'LinkParam' => 'target="print"',
  'Module' => 'Kernel::Output::HTML::TicketMenu::Generic',
  'Name' => 'Print',
  'PopupType' => 'TicketAction',
  'Target' => ''
};
```

### **Ticket::Frontend::MenuModule###300-Priority**

Shows a link in the menu to see the priority of a ticket in the ticket zoom view of the agent interface. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2". To cluster menu items use for Key "ClusterName" and for the Content any name you want to see in the UI. Use "ClusterPriority" to configure the order of a certain cluster within the toolbar.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MenuModule'}->{'300-Priority'} = {
  'Action' => 'AgentTicketPriority',
  'ClusterName' => '',
  'ClusterPriority' => '',
  'Description' => 'Change the priority for this ticket',
  'Link' => 'Action=AgentTicketPriority;TicketID=[% Data.TicketID | html %]',
  'Module' => 'Kernel::Output::HTML::TicketMenu::Generic',
  'Name' => 'Priority',
  'PopupType' => 'TicketAction',
  'Target' => ''
};
```

### **Ticket::Frontend::MenuModule###310-FreeText**

Shows a link in the menu to add a free text field in the ticket zoom view of the agent interface. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2". To cluster menu items use for Key "ClusterName" and for the Content any name you want to see in the UI. Use "ClusterPriority" to configure the order of a certain cluster within the toolbar.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MenuModule'}->{'310-FreeText'} = {
  'Action' => 'AgentTicketFreeText',
  'ClusterName' => 'Miscellaneous',
  'ClusterPriority' => '800',
  'Description' => 'Change the free fields for this ticket',
  'Link' => 'Action=AgentTicketFreeText;TicketID=[% Data.TicketID | html %]',
  'Module' => 'Kernel::Output::HTML::TicketMenu::Generic',
  'Name' => 'Free Fields',
  'PopupType' => 'TicketAction',
};
```

```
'Target' => ''
};
```

### **Ticket::Frontend::MenuModule###320-Link**

Shows a link in the menu that allows linking a ticket with another object in the ticket zoom view of the agent interface. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2". To cluster menu items use for Key "ClusterName" and for the Content any name you want to see in the UI. Use "ClusterPriority" to configure the order of a certain cluster within the toolbar.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MenuModule'}->{'320-Link'} = {
  'Action' => 'AgentLinkObject',
  'ClusterName' => 'Miscellaneous',
  'ClusterPriority' => '800',
  'Description' => 'Link this ticket to other objects',
  'Link' => 'Action=AgentLinkObject;SourceObject=Ticket;SourceKey=[% Data.TicketID |
html %]',
  'Module' => 'Kernel::Output::HTML::TicketMenu::Generic',
  'Name' => 'Link',
  'PopupType' => 'TicketAction',
  'Target' => ''
};
```

### **Ticket::Frontend::MenuModule###400-Owner**

Shows a link in the menu to change the owner of a ticket in the ticket zoom view of the agent interface. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2". To cluster menu items use for Key "ClusterName" and for the Content any name you want to see in the UI. Use "ClusterPriority" to configure the order of a certain cluster within the toolbar.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MenuModule'}->{'400-Owner'} = {
  'Action' => 'AgentTicketOwner',
  'ClusterName' => 'People',
  'ClusterPriority' => '430',
  'Description' => 'Change the owner for this ticket',
  'Link' => 'Action=AgentTicketOwner;TicketID=[% Data.TicketID | html %]',
  'Module' => 'Kernel::Output::HTML::TicketMenu::Generic',
  'Name' => 'Owner',
  'PopupType' => 'TicketAction',
  'Target' => ''
};
```

### **Ticket::Frontend::MenuModule###410-Responsible**

Shows a link in the menu to change the responsible agent of a ticket in the ticket zoom view of the agent interface. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2". To cluster menu items use for Key "ClusterName" and for the Content any name you want to see in the UI. Use "ClusterPriority" to configure the order of a certain cluster within the toolbar.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MenuModule'}->{'410-Responsible'} = {
  'Action' => 'AgentTicketResponsible',
  'ClusterName' => 'People',
  'ClusterPriority' => '430',
  'Description' => 'Change the responsible for this ticket',
  'Link' => 'Action=AgentTicketResponsible;TicketID=[% Data.TicketID | html %]',
};
```

```
'Module' => 'Kernel::Output::HTML::TicketMenu::Responsible',
'Name' => 'Responsible',
'PopupType' => 'TicketAction',
'Target' => ''
};
```

### **Ticket::Frontend::MenuModule###420-Customer**

Shows a link in the menu to change the customer who requested the ticket in the ticket zoom view of the agent interface. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2". To cluster menu items use for Key "ClusterName" and for the Content any name you want to see in the UI. Use "ClusterPriority" to configure the order of a certain cluster within the toolbar.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MenuModule'}->{'420-Customer'} = {
'Action' => 'AgentTicketCustomer',
'ClusterName' => 'People',
'ClusterPriority' => '430',
'Description' => 'Change the customer for this ticket',
'Link' => 'Action=AgentTicketCustomer;TicketID=[% Data.TicketID | html %]',
'Module' => 'Kernel::Output::HTML::TicketMenu::Generic',
'Name' => 'Customer',
'PopupType' => 'TicketAction',
'Target' => ''
};
```

### **Ticket::Frontend::MenuModule###420-Note**

Shows a link in the menu to add a note in the ticket zoom view of the agent interface. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2". To cluster menu items use for Key "ClusterName" and for the Content any name you want to see in the UI. Use "ClusterPriority" to configure the order of a certain cluster within the toolbar.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MenuModule'}->{'420-Note'} = {
'Action' => 'AgentTicketNote',
'ClusterName' => 'Communication',
'ClusterPriority' => '435',
'Description' => 'Add a note to this ticket',
'Link' => 'Action=AgentTicketNote;TicketID=[% Data.TicketID | html %]',
'Module' => 'Kernel::Output::HTML::TicketMenu::Generic',
'Name' => 'Note',
'PopupType' => 'TicketAction',
'Target' => ''
};
```

### **Ticket::Frontend::MenuModule###425-Phone Call Outbound**

Shows a link in the menu to add a phone call outbound in the ticket zoom view of the agent interface. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2". To cluster menu items use for Key "ClusterName" and for the Content any name you want to see in the UI. Use "ClusterPriority" to configure the order of a certain cluster within the toolbar.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MenuModule'}->{'425-Phone Call Outbound'} = {
'Action' => 'AgentTicketPhoneOutbound',
'ClusterName' => 'Communication',
'ClusterPriority' => '435',
'Description' => 'Add an outbound phone call to this ticket',
'Link' => 'Action=AgentTicketPhoneOutbound;TicketID=[% Data.TicketID | html %]',
```

```
'Module' => 'Kernel::Output::HTML::TicketMenu::Generic',
'Name' => 'Phone Call Outbound',
'PopupType' => 'TicketAction',
'Target' => ''
};
```

### **Ticket::Frontend::MenuModule###426-Phone Call Inbound**

Shows a link in the menu to add a phone call inbound in the ticket zoom view of the agent interface. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2". To cluster menu items use for Key "ClusterName" and for the Content any name you want to see in the UI. Use "ClusterPriority" to configure the order of a certain cluster within the toolbar.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MenuModule'}->{'426-Phone Call Inbound'} = {
'Action' => 'AgentTicketPhoneInbound',
'ClusterName' => 'Communication',
'ClusterPriority' => '435',
'Description' => 'Add an inbound phone call to this ticket',
'Link' => 'Action=AgentTicketPhoneInbound;TicketID=[% Data.TicketID | html %]',
'Module' => 'Kernel::Output::HTML::TicketMenu::Generic',
'Name' => 'Phone Call Inbound',
'PopupType' => 'TicketAction',
'Target' => ''
};
```

### **Ticket::Frontend::MenuModule###427-Email Outbound**

Shows a link in the menu to send an outbound email in the ticket zoom view of the agent interface. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2". To cluster menu items use for Key "ClusterName" and for the Content any name you want to see in the UI. Use "ClusterPriority" to configure the order of a certain cluster within the toolbar.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MenuModule'}->{'427-Email Outbound'} = {
'Action' => 'AgentTicketEmailOutbound',
'ClusterName' => 'Communication',
'ClusterPriority' => '435',
'Description' => 'Send new outgoing mail from this ticket',
'Link' => 'Action=AgentTicketEmailOutbound;TicketID=[% Data.TicketID | html %]',
'Module' => 'Kernel::Output::HTML::TicketMenu::Generic',
'Name' => 'E-Mail Outbound',
'PopupType' => 'TicketAction',
'Target' => ''
};
```

### **Ticket::Frontend::MenuModule###430-Merge**

Shows a link in the menu that allows merging tickets in the ticket zoom view of the agent interface. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2". To cluster menu items use for Key "ClusterName" and for the Content any name you want to see in the UI. Use "ClusterPriority" to configure the order of a certain cluster within the toolbar.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MenuModule'}->{'430-Merge'} = {
'Action' => 'AgentTicketMerge',
'ClusterName' => 'Miscellaneous',
'ClusterPriority' => '800',
'Description' => 'Merge this ticket and all articles into another ticket',
'Link' => 'Action=AgentTicketMerge;TicketID=[% Data.TicketID | html %]',
'Module' => 'Kernel::Output::HTML::TicketMenu::Generic',
};
```

```
'Name' => 'Merge',
'PopupType' => 'TicketAction',
'Target' => ''
};
```

### **Ticket::Frontend::MenuModule###440-Pending**

Shows a link in the menu to set a ticket as pending in the ticket zoom view of the agent interface. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2". To cluster menu items use for Key "ClusterName" and for the Content any name you want to see in the UI. Use "ClusterPriority" to configure the order of a certain cluster within the toolbar.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MenuModule'}->{'440-Pending'} = {
  'Action' => 'AgentTicketPending',
  'ClusterName' => '',
  'ClusterPriority' => '',
  'Description' => 'Set this ticket to pending',
  'Link' => 'Action=AgentTicketPending;TicketID=[% Data.TicketID | html %]',
  'Module' => 'Kernel::Output::HTML::TicketMenu::Generic',
  'Name' => 'Pending',
  'PopupType' => 'TicketAction',
  'Target' => ''
};
```

### **Ticket::Frontend::MenuModule###448-Watch**

Shows a link in the menu for subscribing / unsubscribing from a ticket in the ticket zoom view of the agent interface. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2". To cluster menu items use for Key "ClusterName" and for the Content any name you want to see in the UI. Use "ClusterPriority" to configure the order of a certain cluster within the toolbar.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MenuModule'}->{'448-Watch'} = {
  'Action' => 'AgentTicketWatcher',
  'ClusterName' => '',
  'ClusterPriority' => '',
  'Description' => 'Watch this ticket',
  'Module' => 'Kernel::Output::HTML::TicketMenu::TicketWatcher',
  'Name' => 'Watch',
  'Target' => ''
};
```

### **Ticket::Frontend::MenuModule###450-Close**

Shows a link in the menu to close a ticket in the ticket zoom view of the agent interface. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2". To cluster menu items use for Key "ClusterName" and for the Content any name you want to see in the UI. Use "ClusterPriority" to configure the order of a certain cluster within the toolbar.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MenuModule'}->{'450-Close'} = {
  'Action' => 'AgentTicketClose',
  'ClusterName' => '',
  'ClusterPriority' => '',
  'Description' => 'Close this ticket',
  'Link' => 'Action=AgentTicketClose;TicketID=[% Data.TicketID | html %]',
  'Module' => 'Kernel::Output::HTML::TicketMenu::Generic',
  'Name' => 'Close',
  'PopupType' => 'TicketAction',
};
```

```
'Target' => ''
};
```

### **Ticket::Frontend::MenuModule###460-Delete**

Shows a link in the menu to delete a ticket in the ticket zoom view of the agent interface. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2". To cluster menu items use for Key "ClusterName" and for the Content any name you want to see in the UI. Use "ClusterPriority" to configure the order of a certain cluster within the toolbar.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MenuModule'}->{'460-Delete'} = {
  'Action' => 'AgentTicketMove',
  'ClusterName' => '',
  'ClusterPriority' => '',
  'Description' => 'Delete this ticket',
  'Link' => 'Action=AgentTicketMove;TicketID=[% Data.TicketID %];DestQueue=Delete',
  'Module' => 'Kernel::Output::HTML::TicketMenu::Generic',
  'Name' => 'Delete',
  'PopupType' => '',
  'Target' => ''
};
```

### **Ticket::Frontend::MenuModule###470-Junk**

Shows a link to set a ticket as junk in the ticket zoom view of the agent interface. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2". To cluster menu items use for Key "ClusterName" and for the Content any name you want to see in the UI. Use "ClusterPriority" to configure the order of a certain cluster within the toolbar.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MenuModule'}->{'470-Junk'} = {
  'Action' => 'AgentTicketMove',
  'ClusterName' => '',
  'ClusterPriority' => '',
  'Description' => 'Mark this ticket as junk!',
  'Link' => 'Action=AgentTicketMove;TicketID=[% Data.TicketID %];DestQueue=Junk',
  'Module' => 'Kernel::Output::HTML::TicketMenu::Generic',
  'Name' => 'Spam',
  'PopupType' => '',
  'Target' => ''
};
```

## **Ticket → Frontend::Agent::Ticket::MenuModulePre**

### **Ticket::Frontend::PreMenuModule###100-Lock**

Shows a link in the menu to lock / unlock a ticket in the ticket overviews of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::PreMenuModule'}->{'100-Lock'} = {
  'Action' => 'AgentTicketLock',
  'Module' => 'Kernel::Output::HTML::TicketMenu::Lock',
  'Name' => 'Lock',
  'PopupType' => '',
  'Target' => ''
};
```



```
};
```

### **Ticket::Frontend::PreMenuModule###200-Zoom**

Shows a link in the menu to zoom a ticket in the ticket overviews of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::PreMenuModule'}->{'200-Zoom'} = {
  'Action' => 'AgentTicketZoom',
  'Description' => 'Look into a ticket!',
  'Link' => 'Action=AgentTicketZoom;TicketID=[% Data.TicketID | html %]',
  'Module' => 'Kernel::Output::HTML::TicketMenu::Generic',
  'Name' => 'Zoom',
  'PopupType' => '',
  'Target' => ''
};
```

### **Ticket::Frontend::PreMenuModule###210-History**

Shows a link in the menu to see the history of a ticket in every ticket overview of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::PreMenuModule'}->{'210-History'} = {
  'Action' => 'AgentTicketHistory',
  'Description' => 'Show the ticket history',
  'Link' => 'Action=AgentTicketHistory;TicketID=[% Data.TicketID | html %]',
  'Module' => 'Kernel::Output::HTML::TicketMenu::Generic',
  'Name' => 'History',
  'PopupType' => 'TicketHistory',
  'Target' => ''
};
```

### **Ticket::Frontend::PreMenuModule###300-Priority**

Shows a link in the menu to set the priority of a ticket in every ticket overview of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::PreMenuModule'}->{'300-Priority'} = {
  'Action' => 'AgentTicketPriority',
  'Description' => 'Change the priority for this ticket',
  'Link' => 'Action=AgentTicketPriority;TicketID=[% Data.TicketID | html %]',
  'Module' => 'Kernel::Output::HTML::TicketMenu::Generic',
  'Name' => 'Priority',
  'PopupType' => 'TicketAction',
  'Target' => ''
};
```

### **Ticket::Frontend::PreMenuModule###420-Note**

Shows a link in the menu to add a note to a ticket in every ticket overview of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::PreMenuModule'}->{'420-Note'} = {
  'Action' => 'AgentTicketNote',
  'Description' => 'Add a note to this ticket',
  'Link' => 'Action=AgentTicketNote;TicketID=[% Data.TicketID | html %]',
  'Module' => 'Kernel::Output::HTML::TicketMenu::Generic',
  'Name' => 'Note',
  'PopupType' => 'TicketAction',
  'Target' => ''
};
```

### **Ticket::Frontend::PreMenuModule###440-Close**

Shows a link in the menu to close a ticket in every ticket overview of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::PreMenuModule'}->{'440-Close'} = {
  'Action' => 'AgentTicketClose',
  'Description' => 'Close this ticket',
  'Link' => 'Action=AgentTicketClose;TicketID=[% Data.TicketID | html %]',
  'Module' => 'Kernel::Output::HTML::TicketMenu::Generic',
  'Name' => 'Close',
  'PopupType' => 'TicketAction',
  'Target' => ''
};
```

### **Ticket::Frontend::PreMenuModule###445-Move**

Shows a link in the menu to move a ticket in every ticket overview of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::PreMenuModule'}->{'445-Move'} = {
  'Action' => 'AgentTicketMove',
  'Description' => 'Change queue!',
  'Module' => 'Kernel::Output::HTML::TicketMenu::Move',
  'Name' => 'Move'
};
```

### **Ticket::Frontend::PreMenuModule###450-Delete**

Shows a link in the menu to delete a ticket in every ticket overview of the agent interface. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::PreMenuModule'}->{'450-Delete'} = {
  'Action' => 'AgentTicketMove',
  'Description' => 'Delete this ticket',
  'Link' => 'Action=AgentTicketMove;TicketID=[% Data.TicketID %];DestQueue=Delete',
  'Module' => 'Kernel::Output::HTML::TicketMenu::Generic',
  'Name' => 'Delete',
  'PopupType' => '',
  'Target' => ''
};
```

### **Ticket::Frontend::PreMenuModule###460-Junk**

Shows a link in the menu to set a ticket as junk in every ticket overview of the agent interface. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::PreMenuModule'}->{'460-Junk'} = {
  'Action' => 'AgentTicketMove',
  'Description' => 'Mark as Spam!',
  'Link' => 'Action=AgentTicketMove;TicketID=[% Data.TicketID %];DestQueue=Junk',
  'Module' => 'Kernel::Output::HTML::TicketMenu::Generic',
  'Name' => 'Spam',
  'PopupType' => ''
};
```

```
'Target' => ''
};
```

## Ticket → Frontend::Agent::Ticket::OverviewMenuModule

### Ticket::Frontend::OverviewMenuModule###001-Sort

Shows a select of ticket attributes to order the queue view ticket list. The possible selections can be configured via 'TicketOverviewMenuSort###SortAttributes'.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::OverviewMenuModule'}->{'001-Sort'} = {
  'Module' => 'Kernel::Output::HTML::TicketOverviewMenu::Sort'
};
```

### TicketOverviewMenuSort###SortAttributes

Defines from which ticket attributes the agent can select the result order.

Thamani chaguo-msingi:

```
$Self->{'TicketOverviewMenuSort'}->{'SortAttributes'} = {
  'Age' => '1',
  'Title' => '1'
};
```

## Ticket → Frontend::Agent::Ticket::ViewBounce

### Ticket::Frontend::AgentTicketBounce###Permission

Required permissions to use the ticket bounce screen in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketBounce'}->{'Permission'} = 'bounce';
```

### Ticket::Frontend::AgentTicketBounce###RequiredLock

Defines if a ticket lock is required in the ticket bounce screen of the agent interface (if the ticket isn't locked yet, the ticket gets locked and the current agent will be set automatically as its owner).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketBounce'}->{'RequiredLock'} = '1';
```

### Ticket::Frontend::AgentTicketBounce###StateDefault

Defines the default next state of a ticket after being bounced, in the ticket bounce screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketBounce'}->{'StateDefault'} = 'closed
successful';
```

### Ticket::Frontend::AgentTicketBounce###StateType

Defines the next state of a ticket after being bounced, in the ticket bounce screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketBounce'}->{'StateType'} = [  
    'open',  
    'closed'  
];
```

### **Ticket::Frontend::BounceText**

Defines the default ticket bounced notification for customer/sender in the ticket bounce screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::BounceText'} = 'Your email with ticket number  
"<OTRS_TICKET>" is bounced to "<OTRS_BOUNCE_TO>". Contact this address for further  
information.';
```

### **Ticket → Frontend::Agent::Ticket::ViewBulk**

#### **Ticket::Frontend::AgentTicketBulk###RequiredLock**

Automatically lock and set owner to current Agent after selecting for an Bulk Action.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketBulk'}->{'RequiredLock'} = '1';
```

#### **Ticket::Frontend::AgentTicketBulk###TicketType**

Sets the ticket type in the ticket bulk screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketBulk'}->{'TicketType'} = '1';
```

#### **Ticket::Frontend::AgentTicketBulk###Owner**

Sets the ticket owner in the ticket bulk screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketBulk'}->{'Owner'} = '1';
```

#### **Ticket::Frontend::AgentTicketBulk###Responsible**

Sets the responsible agent of the ticket in the ticket bulk screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketBulk'}->{'Responsible'} = '1';
```

#### **Ticket::Frontend::AgentTicketBulk###State**

Sets the state of a ticket in the ticket bulk screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketBulk'}->{'State'} = '1';
```

#### **Ticket::Frontend::AgentTicketBulk###StateType**

Defines the next state of a ticket after adding a note, in the ticket bulk screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketBulk'}->{'StateType'} = [
  'open',
  'closed',
  'pending reminder',
  'pending auto'
];
```

### **Ticket::Frontend::AgentTicketBulk###StateDefault**

Defines the default next state of a ticket after adding a note, in the ticket bulk screen of the agent interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketBulk'}->{'StateDefault'} = 'open';
```

### **Ticket::Frontend::AgentTicketBulk###Priority**

Shows the ticket priority options in the ticket bulk screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketBulk'}->{'Priority'} = '1';
```

### **Ticket::Frontend::AgentTicketBulk###PriorityDefault**

Defines the default ticket priority in the ticket bulk screen of the agent interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketBulk'}->{'PriorityDefault'} = '3 normal';
```

### **Ticket::Frontend::AgentTicketBulk###ArticleTypeDefault**

Defines the default type of the note in the ticket bulk screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketBulk'}->{'ArticleTypeDefault'} = 'note-internal';
```

### **Ticket::Frontend::AgentTicketBulk###ArticleTypes**

Specifies the different note types that will be used in the system.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketBulk'}->{'ArticleTypes'} = {
  'note-external' => '1',
  'note-internal' => '1',
  'note-report' => '0'
};
```

### **Ticket → Frontend::Agent::Ticket::ViewClose**

#### **Ticket::Frontend::AgentTicketClose###Permission**

Required permissions to use the close ticket screen in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'Permission'} = 'close';
```

### **Ticket::Frontend::AgentTicketClose###RequiredLock**

Defines if a ticket lock is required in the close ticket screen of the agent interface (if the ticket isn't locked yet, the ticket gets locked and the current agent will be set automatically as its owner).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'RequiredLock'} = '1';
```

### **Ticket::Frontend::AgentTicketClose###TicketType**

Sets the ticket type in the close ticket screen of the agent interface (Ticket::Type needs to be activated).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'TicketType'} = '0';
```

### **Ticket::Frontend::AgentTicketClose###Service**

Sets the service in the close ticket screen of the agent interface (Ticket::Service needs to be activated).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'Service'} = '0';
```

### **Ticket::Frontend::AgentTicketClose###ServiceMandatory**

Sets if service must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'ServiceMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketClose###SLAMandatory**

Sets if SLA must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'SLAMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketClose###Queue**

Sets the queue in the ticket close screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'Queue'} = '0';
```

### **Ticket::Frontend::AgentTicketClose###Owner**

Sets the ticket owner in the close ticket screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'Owner'} = '0';
```

### **Ticket::Frontend::AgentTicketClose###OwnerMandatory**

Sets if ticket owner must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'OwnerMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketClose###Responsible**

Sets the responsible agent of the ticket in the close ticket screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'Responsible'} = '0';
```

### **Ticket::Frontend::AgentTicketClose###State**

Sets the state of a ticket in the close ticket screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'State'} = '1';
```

### **Ticket::Frontend::AgentTicketClose###StateType**

Defines the next state of a ticket after adding a note, in the close ticket screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'StateType'} = [  
  'closed'  
];
```

### **Ticket::Frontend::AgentTicketClose###StateDefault**

Defines the default next state of a ticket after adding a note, in the close ticket screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'StateDefault'} = 'closed successful';
```

### **Ticket::Frontend::AgentTicketClose###Note**

Allows adding notes in the close ticket screen of the agent interface. Can be overwritten by Ticket::Frontend::NeedAccountedTime.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'Note'} = '1';
```

### **Ticket::Frontend::AgentTicketClose###NoteMandatory**

Sets if note must be filled in by the agent. Can be overwritten by Ticket::Frontend::NeedAccountedTime.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'NoteMandatory'} = '1';
```

### **Ticket::Frontend::AgentTicketClose###Subject**

Sets the default subject for notes added in the close ticket screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'Subject'} = '';
```

### **Ticket::Frontend::AgentTicketClose###Body**

Sets the default body text for notes added in the close ticket screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'Body'} = '';
```

### **Ticket::Frontend::AgentTicketClose###InvolvedAgent**

Shows a list of all the involved agents on this ticket, in the close ticket screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'InvolvedAgent'} = '0';
```

### **Ticket::Frontend::AgentTicketClose###InformAgent**

Shows a list of all the possible agents (all agents with note permissions on the queue/ticket) to determine who should be informed about this note, in the close ticket screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'InformAgent'} = '0';
```

### **Ticket::Frontend::AgentTicketClose###ArticleTypeDefault**

Defines the default type of the note in the close ticket screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'ArticleTypeDefault'} = 'note-internal';
```

### **Ticket::Frontend::AgentTicketClose###ArticleTypes**

Specifies the available note types for this ticket mask. If the option is deselected, ArticleTypeDefault is used and the option is removed from the mask.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'ArticleTypes'} = {  
  'note-external' => '0',  
  'note-internal' => '1',  
  'note-report' => '0'  
};
```

### **Ticket::Frontend::AgentTicketClose###Priority**

Shows the ticket priority options in the close ticket screen of the agent interface.



This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'Priority'} = '0';
```

### **Ticket::Frontend::AgentTicketClose###PriorityDefault**

Defines the default ticket priority in the close ticket screen of the agent interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'PriorityDefault'} = '3 normal';
```

### **Ticket::Frontend::AgentTicketClose###Title**

Shows the title fields in the close ticket screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'Title'} = '0';
```

### **Ticket::Frontend::AgentTicketClose###HistoryType**

Defines the history type for the close ticket screen action, which gets used for ticket history in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'HistoryType'} = 'AddNote';
```

### **Ticket::Frontend::AgentTicketClose###HistoryComment**

Defines the history comment for the close ticket screen action, which gets used for ticket history in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'HistoryComment'} = '%Close';
```

### **Ticket::Frontend::AgentTicketClose###DynamicField**

Dynamic fields shown in the ticket close screen of the agent interface. Possible settings: 0 = Disabled, 1 = Enabled, 2 = Enabled and required.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'DynamicField'} = {};
```

### **Ticket::Frontend::AgentTicketClose###RichTextWidth**

Defines the width for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'RichTextWidth'} = '620';
```

### **Ticket::Frontend::AgentTicketClose###RichTextHeight**

Defines the height for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketClose'}->{'RichTextHeight'} = '100';
```

## **Ticket → Frontend::Agent::Ticket::ViewCompose**

### **Ticket::Frontend::AgentTicketCompose###Permission**

Required permissions to use the ticket compose screen in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketCompose'}->{'Permission'} = 'compose';
```

### **Ticket::Frontend::AgentTicketCompose###RequiredLock**

Defines if a ticket lock is required in the ticket compose screen of the agent interface (if the ticket isn't locked yet, the ticket gets locked and the current agent will be set automatically as its owner).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketCompose'}->{'RequiredLock'} = '1';
```

### **Ticket::Frontend::AgentTicketCompose###StateDefault**

Defines the default next state of a ticket if it is composed / answered in the ticket compose screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketCompose'}->{'StateDefault'} = 'open';
```

### **Ticket::Frontend::AgentTicketCompose###StateType**

Defines the next possible states after composing / answering a ticket in the ticket compose screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketCompose'}->{'StateType'} = [
  'open',
  'closed',
  'pending auto',
  'pending reminder'
];
```

### **Ticket::Frontend::AgentTicketCompose###ArticleTypes**

Specifies the different article types that will be used in the system.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketCompose'}->{'ArticleTypes'} = [
  'email-external',
  'email-internal'
];
```

### **Ticket::Frontend::AgentTicketCompose###DefaultArticleType**

Specifies the default article type for the ticket compose screen in the agent interface if the article type cannot be automatically detected.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketCompose'}->{'DefaultArticleType'} = 'email-external';
```

### **Ticket::Frontend::ResponseFormat**

Defines the format of responses in the ticket compose screen of the agent interface ([% Data.OrigFrom | html %] is From 1:1, [% Data.OrigFromName | html %] is only realname of From).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::ResponseFormat'} = '[% Data.Salutation | html %] [% Data.StdResponse | html %] [% Data.Signature | html %] [% Data.Created | Localize("TimeShort") %] - [% Data.OrigFromName | html %] [% Translate("wrote") | html %]: [% Data.Body | html %]';
```

### **Ticket::Frontend::Quote**

Defines the used character for plaintext email quotes in the ticket compose screen of the agent interface. If this is empty or inactive, original emails will not be quoted but appended to the response.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::Quote'} = '>';
```

### **Ticket::Frontend::ResponseQuoteMaxLines**

Defines the maximum number of quoted lines to be added to responses.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::ResponseQuoteMaxLines'} = '99';
```

### **Ticket::Frontend::ComposeAddCustomerAddress**

Adds customers email addresses to recipients in the ticket compose screen of the agent interface. The customers email address won't be added if the article type is email-internal.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::ComposeAddCustomerAddress'} = '1';
```

### **Ticket::Frontend::ComposeReplaceSenderAddress**

Replaces the original sender with current customer's email address on compose answer in the ticket compose screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::ComposeReplaceSenderAddress'} = '0';
```

### **Ticket::Frontend::ComposeExcludeCcRecipients**

Uses Cc recipients in reply Cc list on compose an email answer in the ticket compose screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::ComposeExcludeCcRecipients'} = '0';
```

### **Ticket::Frontend::AgentTicketCompose###DynamicField**

Dynamic fields shown in the ticket compose screen of the agent interface. Possible settings: 0 = Disabled, 1 = Enabled, 2 = Enabled and required.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketCompose'}->{'DynamicField'} = {};
```

## **Ticket → Frontend::Agent::Ticket::ViewCustomer**

### **Ticket::Frontend::AgentTicketCustomer###Permission**

Required permissions to change the customer of a ticket in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketCustomer'}->{'Permission'} = 'customer';
```

### **Ticket::Frontend::AgentTicketCustomer###RequiredLock**

Defines if a ticket lock is required to change the customer of a ticket in the agent interface (if the ticket isn't locked yet, the ticket gets locked and the current agent will be set automatically as its owner).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketCustomer'}->{'RequiredLock'} = '0';
```

### **Ticket::Frontend::AgentTicketCustomer::CustomerIDReadOnly**

Controls if CustomerID is read-only in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketCustomer::CustomerIDReadOnly'} = '1';
```

## **Ticket → Frontend::Agent::Ticket::ViewEmailNew**

### **Ticket::Frontend::AgentTicketEmail###Priority**

Sets the default priority for new email tickets in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEmail'}->{'Priority'} = '3 normal';
```

### **Ticket::Frontend::AgentTicketEmail###ArticleType**

Sets the default article type for new email tickets in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEmail'}->{'ArticleType'} = 'email-external';
```

### **Ticket::Frontend::AgentTicketEmail###SenderType**

Sets the default sender type for new email tickets in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEmail'}->{'SenderType'} = 'agent';
```

### **Ticket::Frontend::AgentTicketEmail::CustomerIDReadOnly**

Controls if CustomerID is read-only in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEmail::CustomerIDReadOnly'} = '1';
```

### **Ticket::Frontend::AgentTicketEmail###Subject**

Sets the default subject for new email tickets (e.g. 'email Outbound') in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEmail'}->{'Subject'} = '';
```

### **Ticket::Frontend::AgentTicketEmail###Body**

Sets the default text for new email tickets in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEmail'}->{'Body'} = '';
```

### **Ticket::Frontend::AgentTicketEmail###StateDefault**

Sets the default next ticket state, after the creation of an email ticket in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEmail'}->{'StateDefault'} = 'open';
```

### **Ticket::Frontend::AgentTicketEmail###StateType**

Determines the next possible ticket states, after the creation of a new email ticket in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEmail'}->{'StateType'} = [
  'open',
  'pending auto',
  'pending reminder',
  'closed'
];
```

### **Ticket::Frontend::AgentTicketEmail###HistoryType**

Defines the history type for the email ticket screen action, which gets used for ticket history in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEmail'}->{'HistoryType'} = 'EmailAgent';
```

### **Ticket::Frontend::AgentTicketEmail###HistoryComment**

Defines the history comment for the email ticket screen action, which gets used for ticket history in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEmail'}->{'HistoryComment'} = '';
```

### **Ticket::Frontend::AgentTicketEmail###ServiceMandatory**

Sets if service must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEmail'}->{'ServiceMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketEmail###SLAMandatory**

Sets if SLA must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEmail'}->{'SLAMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketEmail###DynamicField**

Dynamic fields shown in the ticket email screen of the agent interface. Possible settings: 0 = Disabled, 1 = Enabled, 2 = Enabled and required.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEmail'}->{'DynamicField'} = {};
```

### **Ticket::Frontend::AgentTicketEmail###RichTextWidth**

Defines the width for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEmail'}->{'RichTextWidth'} = '620';
```

### **Ticket::Frontend::AgentTicketEmail###RichTextHeight**

Defines the height for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEmail'}->{'RichTextHeight'} = '320';
```

## **Ticket → Frontend::Agent::Ticket::ViewEmailOutbound**

### **Ticket::Frontend::AgentTicketEmailOutbound###Permission**

Required permissions to use the email outbound screen in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEmailOutbound'}->{'Permission'} = 'compose';
```

### **Ticket::Frontend::AgentTicketEmailOutbound###RequiredLock**

Defines if a ticket lock is required in the email outbound screen of the agent interface (if the ticket isn't locked yet, the ticket gets locked and the current agent will be set automatically as its owner).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEmailOutbound'}->{'RequiredLock'} = '1';
```

### **Ticket::Frontend::AgentTicketEmailOutbound###StateDefault**

Defines the default next state of a ticket after the message has been sent, in the email outbound screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEmailOutbound'}->{'StateDefault'} = 'open';
```

### **Ticket::Frontend::AgentTicketEmailOutbound###StateType**

Defines the next possible states after sending a message in the email outbound screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEmailOutbound'}->{'StateType'} = [
  'open',
  'closed',
  'pending reminder',
  'pending auto'
];
```

### **Ticket::Frontend::AgentTicketEmailOutbound###ArticleTypeDefault**

Defines the default type of the message in the email outbound screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEmailOutbound'}->{'ArticleTypeDefault'} = 'email-internal';
```

### **Ticket::Frontend::AgentTicketEmailOutbound###ArticleTypes**

Specifies the different article types that will be used in the system.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEmailOutbound'}->{'ArticleTypes'} = [ 'email-external', 'email-internal' ];
```

### **Ticket::Frontend::AgentTicketEmailOutbound###DynamicField**

Dynamic fields shown in the email outbound screen of the agent interface. Possible settings: 0 = Disabled, 1 = Enabled, 2 = Enabled and required.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEmailOutbound'}->{'DynamicField'} = {};
```

### **Ticket::Frontend::AgentTicketEmailOutbound###RichTextWidth**

Defines the width for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEmailOutbound'}->{'RichTextWidth'} = '620';
```

### **Ticket::Frontend::AgentTicketEmailOutbound###RichTextHeight**

Defines the height for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEmailOutbound'}->{'RichTextHeight'} = '300';
```

## **Ticket → Frontend::Agent::Ticket::ViewEscalation**

### **Ticket::Frontend::AgentTicketEscalationView###TicketPermission**

Defines the required permission to show a ticket in the escalation view of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEscalationView'}->{'TicketPermission'} = 'rw';
```

### **Ticket::Frontend::AgentTicketEscalationView###ViewableTicketsPage**

Shows all open tickets (even if they are locked) in the escalation view of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEscalationView'}->{'ViewableTicketsPage'} = '50';
```



### **Ticket::Frontend::AgentTicketEscalationView###SortBy::Default**

Defines the default ticket attribute for ticket sorting in the escalation view of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEscalationView'}->{'SortBy::Default'} = 'EscalationTime';
```

### **Ticket::Frontend::AgentTicketEscalationView###Order::Default**

Defines the default ticket order (after priority sort) in the escalation view of the agent interface. Up: oldest on top. Down: latest on top.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEscalationView'}->{'Order::Default'} = 'Up';
```

### **Ticket::Frontend::AgentTicketEscalationView###DefaultColumns**

Columns that can be filtered in the escalation view of the agent interface. Possible settings: 0 = Disabled, 1 = Available, 2 = Enabled by default. Note: Only Ticket attributes, Dynamic Fields (DynamicField\_NameX) and Customer attributes (e.g. CustomerUserPhone, CustomerCompanyName, ...) are allowed.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketEscalationView'}->{'DefaultColumns'} = {
  'Age' => '2',
  'Changed' => '1',
  'Created' => '1',
  'CustomerCompanyName' => '1',
  'CustomerID' => '2',
  'CustomerName' => '1',
  'CustomerUserID' => '1',
  'EscalationResponseTime' => '1',
  'EscalationSolutionTime' => '1',
  'EscalationTime' => '2',
  'EscalationUpdateTime' => '1',
  'Lock' => '2',
  'Owner' => '2',
  'PendingTime' => '1',
  'Priority' => '1',
  'Queue' => '2',
  'Responsible' => '1',
  'SLA' => '1',
  'Service' => '1',
  'State' => '2',
  'TicketNumber' => '2',
  'Title' => '2',
  'Type' => '1'
};
```

## **Ticket → Frontend::Agent::Ticket::ViewForward**

### **Ticket::Frontend::AgentTicketForward###Permission**

Required permissions to use the ticket forward screen in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketForward'}->{'Permission'} = 'forward';
```

### **Ticket::Frontend::AgentTicketForward###RequiredLock**

Defines if a ticket lock is required in the ticket forward screen of the agent interface (if the ticket isn't locked yet, the ticket gets locked and the current agent will be set automatically as its owner).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketForward'}->{'RequiredLock'} = '1';
```

### **Ticket::Frontend::AgentTicketForward###StateDefault**

Defines the default next state of a ticket after being forwarded, in the ticket forward screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketForward'}->{'StateDefault'} = 'closed  
successful';
```

### **Ticket::Frontend::AgentTicketForward###StateType**

Defines the next possible states after forwarding a ticket in the ticket forward screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketForward'}->{'StateType'} = [
  'open',
  'closed',
  'pending reminder',
  'pending auto'
];
```

### **Ticket::Frontend::AgentTicketForward###ArticleTypeDefault**

Defines the default type of forwarded message in the ticket forward screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketForward'}->{'ArticleTypeDefault'} = 'email-  
external';
```

### **Ticket::Frontend::AgentTicketForward###ArticleTypes**

Specifies the different article types that will be used in the system.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketForward'}->{'ArticleTypes'} = [
  'email-external',
  'email-internal'
];
```

### **Ticket::Frontend::AgentTicketForward###DynamicField**

Dynamic fields shown in the ticket forward screen of the agent interface. Possible settings: 0 = Disabled, 1 = Enabled, 2 = Enabled and required.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketForward'}->{'DynamicField'} = {};
```

### **Ticket::Frontend::AgentTicketForward###RichTextWidth**

Defines the width for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketForward'}->{'RichTextWidth'} = '620';
```

### **Ticket::Frontend::AgentTicketForward###RichTextHeight**

Defines the height for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketForward'}->{'RichTextHeight'} = '100';
```

## **Ticket → Frontend::Agent::Ticket::ViewFreeText**

### **Ticket::Frontend::AgentTicketFreeText###Permission**

Required permissions to use the ticket free text screen in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'Permission'} = 'rw';
```

### **Ticket::Frontend::AgentTicketFreeText###RequiredLock**

Defines if a ticket lock is required in the ticket free text screen of the agent interface (if the ticket isn't locked yet, the ticket gets locked and the current agent will be set automatically as its owner).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'RequiredLock'} = '0';
```

### **Ticket::Frontend::AgentTicketFreeText###TicketType**

Sets the ticket type in the ticket free text screen of the agent interface (Ticket::Type needs to be activated).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'TicketType'} = '1';
```

### **Ticket::Frontend::AgentTicketFreeText###Service**

Sets the service in the ticket free text screen of the agent interface (Ticket::Service needs to be activated).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'Service'} = '1';
```

### **Ticket::Frontend::AgentTicketFreeText###ServiceMandatory**

Sets if service must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'ServiceMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketFreeText###SLAMandatory**

Sets if SLA must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'SLAMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketFreeText###Queue**

Sets the queue in the ticket free text screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'Queue'} = '0';
```

### **Ticket::Frontend::AgentTicketFreeText###Owner**

Sets the ticket owner in the ticket free text screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'Owner'} = '0';
```

### **Ticket::Frontend::AgentTicketFreeText###OwnerMandatory**

Sets if ticket owner must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'OwnerMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketFreeText###Responsible**

Sets the responsible agent of the ticket in the ticket free text screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'Responsible'} = '0';
```

### **Ticket::Frontend::AgentTicketFreeText###State**

Sets the state of a ticket in the ticket free text screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'State'} = '0';
```

### **Ticket::Frontend::AgentTicketFreeText###StateType**

Defines the next state of a ticket after adding a note, in the ticket free text screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'StateType'} = [
  'open',
  'closed',
  'pending reminder',
  'pending auto'
];
```

### **Ticket::Frontend::AgentTicketFreeText###StateDefault**

Defines the default next state of a ticket after adding a note, in the ticket free text screen of the agent interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'StateDefault'} = 'open';
```

### **Ticket::Frontend::AgentTicketFreeText###Note**

Allows adding notes in the ticket free text screen of the agent interface. Can be overwritten by Ticket::Frontend::NeedAccountedTime.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'Note'} = '0';
```

### **Ticket::Frontend::AgentTicketFreeText###NoteMandatory**

Sets if note must be filled in by the agent. Can be overwritten by Ticket::Frontend::NeedAccountedTime.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'NoteMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketFreeText###Subject**

Defines the default subject of a note in the ticket free text screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'Subject'} = '';
```

### **Ticket::Frontend::AgentTicketFreeText###Body**

Defines the default body of a note in the ticket free text screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'Body'} = '';
```

### **Ticket::Frontend::AgentTicketFreeText###InvolvedAgent**

Shows a list of all the involved agents on this ticket, in the ticket free text screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'InvolvedAgent'} = '0';
```

### **Ticket::Frontend::AgentTicketFreeText###InformAgent**

Shows a list of all the possible agents (all agents with note permissions on the queue/ticket) to determine who should be informed about this note, in the ticket free text screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'InformAgent'} = '0';
```

### **Ticket::Frontend::AgentTicketFreeText###ArticleTypeDefault**

Defines the default type of the note in the ticket free text screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'ArticleTypeDefault'} = 'note-internal';
```

### **Ticket::Frontend::AgentTicketFreeText###ArticleTypes**

Specifies the available note types for this ticket mask. If the option is deselected, ArticleTypeDefault is used and the option is removed from the mask.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'ArticleTypes'} = {
  'note-external' => '1',
  'note-internal' => '1',
  'note-report' => '0'
};
```

### **Ticket::Frontend::AgentTicketFreeText###Priority**

Shows the ticket priority options in the ticket free text screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'Priority'} = '0';
```

### **Ticket::Frontend::AgentTicketFreeText###PriorityDefault**

Defines the default ticket priority in the ticket free text screen of the agent interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'PriorityDefault'} = '3 normal';
```

### **Ticket::Frontend::AgentTicketFreeText###Title**

Shows the title field in the ticket free text screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'Title'} = '1';
```

### **Ticket::Frontend::AgentTicketFreeText###HistoryType**

Defines the history type for the ticket free text screen action, which gets used for ticket history.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'HistoryType'} = 'AddNote';
```

### **Ticket::Frontend::AgentTicketFreeText###HistoryComment**

Defines the history comment for the ticket free text screen action, which gets used for ticket history.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'HistoryComment'} = '%FreeText';
```

### **Ticket::Frontend::AgentTicketFreeText###DynamicField**

Dynamic fields shown in the ticket free text screen of the agent interface. Possible settings: 0 = Disabled, 1 = Enabled, 2 = Enabled and required.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'DynamicField'} = {};
```

### **Ticket::Frontend::AgentTicketFreeText###RichTextWidth**

Defines the width for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'RichTextWidth'} = '620';
```

### **Ticket::Frontend::AgentTicketFreeText###RichTextHeight**

Defines the height for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketFreeText'}->{'RichTextHeight'} = '100';
```

## **Ticket → Frontend::Agent::Ticket::ViewHistory**

### **Ticket::Frontend::HistoryOrder**

Shows the ticket history (reverse ordered) in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::HistoryOrder'} = 'normal';
```

### **Ticket::Frontend::HistoryTypes###000-Framework**

Controls how to display the ticket history entries as readable values.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::HistoryTypes'}->{'000-Framework'} = {
  'AddNote' => 'Added note (%s)',
  'ArchiveFlagUpdate' => 'Archive state changed: "%s"',
  'Bounce' => 'Bounced to "%s".',
  'CustomerUpdate' => 'Updated: %s',
  'EmailAgent' => 'Email sent to customer.',
  'EmailCustomer' => 'Added email. %s',
  'EscalationResponseTimeNotifyBefore' => 'Escalation response time forewarned',
  'EscalationResponseTimeStart' => 'Escalation response time in effect',
  'EscalationResponseTimeStop' => 'Escalation response time finished',
  'EscalationSolutionTimeNotifyBefore' => 'Escalation solution time forewarned',
  'EscalationSolutionTimeStart' => 'Escalation solution time in effect',
  'EscalationSolutionTimeStop' => 'Escalation solution time finished',
  'EscalationUpdateTimeNotifyBefore' => 'Escalation update time forewarned',
  'EscalationUpdateTimeStart' => 'Escalation update time in effect',
  'EscalationUpdateTimeStop' => 'Escalation update time finished',
}
```

```
'FollowUp' => 'FollowUp for [%s]. %s',
'Forward' => 'Forwarded to "%s".',
'Lock' => 'Locked ticket.',
'LoopProtection' => 'Loop-Protection! No auto-response sent to "%s".',
'Misc' => '%s',
'Move' => 'Ticket moved into Queue "%s" (%s) from Queue "%s" (%s).',
'NewTicket' => 'New Ticket [%s] created (Q=%s;P=%s;S=%s).',
'OwnerUpdate' => 'New owner is "%s" (ID=%s).',
'PhoneCallAgent' => 'Agent called customer.',
'PhoneCallCustomer' => 'Customer called us.',
'PriorityUpdate' => 'Changed priority from "%s" (%s) to "%s" (%s).',
'Remove' => '%s',
'ResponsibleUpdate' => 'New responsible is "%s" (ID=%s).',
'SLAUpdate' => 'Updated SLA to %s (ID=%s).',
'SendAgentNotification' => "%s" notification was sent to "%s" by "%s".',
'SendAnswer' => 'Email sent to "%s".',
'SendAutoFollowUp' => 'AutoFollowUp sent to "%s".',
'SendAutoReject' => 'AutoReject sent to "%s".',
'SendAutoReply' => 'AutoReply sent to "%s".',
'SendCustomerNotification' => 'Notification sent to "%s".',
'ServiceUpdate' => 'Updated Service to %s (ID=%s).',
'SetPendingTime' => 'Updated: %s',
'StateUpdate' => 'Old: "%s" New: "%s"',
'Subscribe' => 'Added subscription for user "%s".',
'SystemRequest' => 'System Request (%s).',
'TicketDynamicFieldUpdate' => 'Updated: %s=%s;%s=%s;%s=%s;',
'TicketLinkAdd' => 'Added link to ticket "%s".',
'TicketLinkDelete' => 'Deleted link to ticket "%s".',
'TimeAccounting' => '%s time unit(s) accounted. Now total %s time unit(s).',
'TitleUpdate' => 'Title updated: Old: "%s", New: "%s"',
'TypeUpdate' => 'Updated Type to %s (ID=%s).',
'Unlock' => 'Unlocked ticket.',
'Unsubscribe' => 'Removed subscription for user "%s".',
'WebRequestCustomer' => 'Customer request via web.'
};
```

## Ticket → Frontend::Agent::Ticket::ViewLocked

### Ticket::Frontend::AgentTicketLockedView###SortBy::Default

Defines the default ticket attribute for ticket sorting in the locked ticket view of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketLockedView'}->{'SortBy::Default'} = 'Age';
```

### Ticket::Frontend::AgentTicketLockedView###Order::Default

Defines the default ticket order in the ticket locked view of the agent interface. Up: oldest on top. Down: latest on top.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketLockedView'}->{'Order::Default'} = 'Up';
```

### Ticket::Frontend::AgentTicketLockedView###DefaultColumns

Columns that can be filtered in the locked view of the agent interface. Possible settings: 0 = Disabled, 1 = Available, 2 = Enabled by default. Note: Only Ticket attributes, Dynamic Fields (DynamicField\_NameX) and Customer attributes (e.g. CustomerUser-Phone, CustomerCompanyName, ...) are allowed.

Thamani chaguo-msingi:



```
$Self->{'Ticket::Frontend::AgentTicketLockedView'}->{'DefaultColumns'} = {
  'Age' => '2',
  'Changed' => '1',
  'Created' => '1',
  'CustomerCompanyName' => '1',
  'CustomerID' => '2',
  'CustomerName' => '1',
  'CustomerUserID' => '1',
  'EscalationResponseTime' => '1',
  'EscalationSolutionTime' => '1',
  'EscalationTime' => '1',
  'EscalationUpdateTime' => '1',
  'Lock' => '2',
  'Owner' => '2',
  'PendingTime' => '1',
  'Priority' => '1',
  'Queue' => '2',
  'Responsible' => '1',
  'SLA' => '1',
  'Service' => '1',
  'State' => '2',
  'TicketNumber' => '2',
  'Title' => '2',
  'Type' => '1'
};
```

## Ticket → Frontend::Agent::Ticket::ViewMerge

### Ticket::Frontend::AgentTicketMerge###Permission

Required permissions to use the ticket merge screen of a zoomed ticket in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketMerge'}->{'Permission'} = 'rw';
```

### Ticket::Frontend::AgentTicketMerge###RequiredLock

Defines if a ticket lock is required in the ticket merge screen of a zoomed ticket in the agent interface (if the ticket isn't locked yet, the ticket gets locked and the current agent will be set automatically as its owner).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketMerge'}->{'RequiredLock'} = '1';
```

### Ticket::Frontend::MergeText

When tickets are merged, the customer can be informed per email by setting the check box "Inform Sender". In this text area, you can define a pre-formatted text which can later be modified by the agents.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MergeText'} = 'Your email with ticket number "<OTRS_TICKET>" is merged to "<OTRS_MERGE_TO_TICKET>";
```

### Ticket::Frontend::AutomaticMergeSubject

When tickets are merged, a note will be added automatically to the ticket which is no longer active. Here you can define the subject of this note (this subject cannot be changed by the agent).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AutomaticMergeSubject'} = 'Ticket Merged';
```

### **Ticket::Frontend::AutomaticMergeText**

When tickets are merged, a note will be added automatically to the ticket which is no longer active. Here you can define the body of this note (this text cannot be changed by the agent).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AutomaticMergeText'} = 'Merged Ticket <OTRS_TICKET> to <OTRS_MERGE_TO_TICKET>.';
```

### **Ticket::Frontend::AgentTicketMerge###RichTextWidth**

Defines the width for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketMerge'}->{'RichTextWidth'} = '620';
```

### **Ticket::Frontend::AgentTicketMerge###RichTextHeight**

Defines the height for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketMerge'}->{'RichTextHeight'} = '100';
```

## **Ticket → Frontend::Agent::Ticket::ViewMove**

### **Ticket::Frontend::MoveType**

Determines if the list of possible queues to move to ticket into should be displayed in a dropdown list or in a new window in the agent interface. If "New Window" is set you can add a move note to the ticket.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MoveType'} = 'form';
```

### **Ticket::Frontend::AgentTicketMove###RequiredLock**

Automatically lock and set owner to current Agent after opening the move ticket screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketMove'}->{'RequiredLock'} = '1';
```

### **Ticket::Frontend::AgentTicketMove###State**

Allows to set a new ticket state in the move ticket screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketMove'}->{'State'} = '1';
```

### **Ticket::Frontend::AgentTicketMove###StateType**

Defines the next state of a ticket after being moved to another queue, in the move ticket screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketMove'}->{'StateType'} = [  
  'open',  
  'closed'  
];
```

### **Ticket::Frontend::AgentTicketMove###Priority**

Shows the ticket priority options in the move ticket screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketMove'}->{'Priority'} = '0';
```

### **Ticket::Frontend::AgentTicketMove###Note**

Allows adding notes in the ticket free text screen of the agent interface. Can be overwritten by Ticket::Frontend::NeedAccountedTime.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketMove'}->{'Note'} = '0';
```

### **Ticket::Frontend::AgentTicketMove###NoteMandatory**

Sets if note must be filled in by the agent. Can be overwritten by Ticket::Frontend::NeedAccountedTime.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketMove'}->{'NoteMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketMove###NextScreen**

Determines the next screen after the ticket is moved. LastScreenOverview will return the last overview screen (e.g. search results, queueview, dashboard). TicketZoom will return to the TicketZoom.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketMove'}->{'NextScreen'} = 'TicketZoom';
```

### **Ticket::Frontend::AgentTicketMove###Subject**

Sets the default subject for notes added in the ticket move screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketMove'}->{'Subject'} = '';
```

### **Ticket::Frontend::AgentTicketMove###Body**

Sets the default body text for notes added in the ticket move screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketMove'}->{'Body'} = '';
```

### **Ticket::Frontend::AgentTicketMove###RichTextWidth**

Defines the width for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketMove'}->{'RichTextWidth'} = '620';
```

### **Ticket::Frontend::AgentTicketMove###RichTextHeight**

Defines the height for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketMove'}->{'RichTextHeight'} = '100';
```

### **Ticket::Frontend::AgentTicketMove###DynamicField**

Dynamic fields shown in the ticket move screen of the agent interface. Possible settings: 0 = Disabled, 1 = Enabled, 2 = Enabled and required.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketMove'}->{'DynamicField'} = {};
```

## **Ticket → Frontend::Agent::Ticket::ViewNote**

### **Ticket::Frontend::AgentTicketNote###Permission**

Required permissions to use the ticket note screen in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'Permission'} = 'note';
```

### **Ticket::Frontend::AgentTicketNote###RequiredLock**

Defines if a ticket lock is required in the ticket note screen of the agent interface (if the ticket isn't locked yet, the ticket gets locked and the current agent will be set automatically as its owner).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'RequiredLock'} = '0';
```

### **Ticket::Frontend::AgentTicketNote###TicketType**

Sets the ticket type in the ticket note screen of the agent interface (Ticket::Type needs to be activated).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'TicketType'} = '0';
```

### **Ticket::Frontend::AgentTicketNote###Service**

Sets the service in the ticket note screen of the agent interface (Ticket::Service needs to be activated).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'Service'} = '0';
```

### **Ticket::Frontend::AgentTicketNote###ServiceMandatory**

Sets if service must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'ServiceMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketNote###SLAMandatory**

Sets if SLA must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'SLAMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketNote###Queue**

Sets the queue in the ticket note screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'Queue'} = '0';
```

### **Ticket::Frontend::AgentTicketNote###Owner**

Sets the ticket owner in the ticket note screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'Owner'} = '0';
```

### **Ticket::Frontend::AgentTicketNote###OwnerMandatory**

Sets if ticket owner must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'OwnerMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketNote###Responsible**

Sets the responsible agent of the ticket in the ticket note screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'Responsible'} = '0';
```

### **Ticket::Frontend::AgentTicketNote###State**

Sets the state of a ticket in the ticket note screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'State'} = '0';
```

### **Ticket::Frontend::AgentTicketNote###StateType**

Defines the next state of a ticket after adding a note, in the ticket note screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'StateType'} = [  
  'open',  
  'closed',  
  'pending reminder',  
  'pending auto'  
];
```

### **Ticket::Frontend::AgentTicketNote###StateDefault**

Defines the default next state of a ticket after adding a note, in the ticket note screen of the agent interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'StateDefault'} = 'open';
```

### **Ticket::Frontend::AgentTicketNote###Note**

Allows adding notes in the ticket note screen of the agent interface. Can be overwritten by Ticket::Frontend::NeedAccountedTime.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'Note'} = '1';
```

### **Ticket::Frontend::AgentTicketNote###NoteMandatory**

Sets if note must be filled in by the agent. Can be overwritten by Ticket::Frontend::NeedAccountedTime.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'NoteMandatory'} = '1';
```

### **Ticket::Frontend::AgentTicketNote###Subject**

Sets the default subject for notes added in the ticket note screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'Subject'} = '';
```

### **Ticket::Frontend::AgentTicketNote###Body**

Sets the default body text for notes added in the ticket note screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'Body'} = '';
```

### **Ticket::Frontend::AgentTicketNote###InvolvedAgent**

Shows a list of all the involved agents on this ticket, in the ticket note screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'InvolvedAgent'} = '0';
```

### **Ticket::Frontend::AgentTicketNote###InformAgent**

Shows a list of all the possible agents (all agents with note permissions on the queue/ticket) to determine who should be informed about this note, in the ticket note screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'InformAgent'} = '0';
```

### **Ticket::Frontend::AgentTicketNote###ArticleTypeDefault**

Defines the default type of the note in the ticket note screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'ArticleTypeDefault'} = 'note-internal';
```

### **Ticket::Frontend::AgentTicketNote###ArticleTypes**

Specifies the available note types for this ticket mask. If the option is deselected, ArticleTypeDefault is used and the option is removed from the mask.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'ArticleTypes'} = {
  'note-external' => '1',
  'note-internal' => '1',
  'note-report' => '0'
};
```

### **Ticket::Frontend::AgentTicketNote###Priority**

Shows the ticket priority options in the ticket note screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'Priority'} = '0';
```

### **Ticket::Frontend::AgentTicketNote###PriorityDefault**

Defines the default ticket priority in the ticket note screen of the agent interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'PriorityDefault'} = '3 normal';
```

### **Ticket::Frontend::AgentTicketNote###Title**

Shows the title fields in the ticket note screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'Title'} = '0';
```

### **Ticket::Frontend::AgentTicketNote###HistoryType**

Defines the history type for the ticket note screen action, which gets used for ticket history in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'HistoryType'} = 'AddNote';
```

### **Ticket::Frontend::AgentTicketNote###HistoryComment**

Defines the history comment for the ticket note screen action, which gets used for ticket history in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'HistoryComment'} = '%Note';
```

### **Ticket::Frontend::AgentTicketNote###DynamicField**

Dynamic fields shown in the ticket note screen of the agent interface. Possible settings: 0 = Disabled, 1 = Enabled, 2 = Enabled and required.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'DynamicField'} = {};
```

### **Ticket::Frontend::AgentTicketNote###RichTextWidth**

Defines the width for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'RichTextWidth'} = '620';
```

### **Ticket::Frontend::AgentTicketNote###RichTextHeight**

Defines the height for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketNote'}->{'RichTextHeight'} = '100';
```

## **Ticket → Frontend::Agent::Ticket::ViewOwner**

### **Ticket::Frontend::AgentTicketOwner###Permission**

Required permissions to use the ticket owner screen of a zoomed ticket in the agent interface.

This setting can not be deactivated.



Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'Permission'} = 'owner';
```

### **Ticket::Frontend::AgentTicketOwner###RequiredLock**

Defines if a ticket lock is required in the ticket owner screen of a zoomed ticket in the agent interface (if the ticket isn't locked yet, the ticket gets locked and the current agent will be set automatically as its owner).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'RequiredLock'} = '0';
```

### **Ticket::Frontend::AgentTicketOwner###TicketType**

Sets the ticket type in the ticket owner screen of a zoomed ticket in the agent interface (Ticket::Type needs to be activated).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'TicketType'} = '0';
```

### **Ticket::Frontend::AgentTicketOwner###Service**

Sets the service in the ticket owner screen of a zoomed ticket in the agent interface (Ticket::Service needs to be activated).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'Service'} = '0';
```

### **Ticket::Frontend::AgentTicketOwner###ServiceMandatory**

Sets if service must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'ServiceMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketOwner###SLAMandatory**

Sets if SLA must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'SLAMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketOwner###Queue**

Sets the queue in the ticket owner screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'Queue'} = '0';
```

### **Ticket::Frontend::AgentTicketOwner###Owner**

Sets the ticket owner in the ticket owner screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'Owner'} = '1';
```

### **Ticket::Frontend::AgentTicketOwner###OwnerMandatory**

Sets if ticket owner must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'OwnerMandatory'} = '1';
```

### **Ticket::Frontend::AgentTicketOwner###Responsible**

Sets the responsible agent of the ticket in the ticket owner screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'Responsible'} = '0';
```

### **Ticket::Frontend::AgentTicketOwner###State**

Sets the state of the ticket in the ticket owner screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'State'} = '0';
```

### **Ticket::Frontend::AgentTicketOwner###StateType**

Defines the next state of a ticket after adding a note, in the ticket owner screen of a zoomed ticket in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'StateType'} = [  
  'open',  
  'pending reminder',  
  'pending auto'  
];
```

### **Ticket::Frontend::AgentTicketOwner###StateDefault**

Defines the default next state of a ticket after adding a note, in the ticket owner screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'StateDefault'} = 'open';
```

### **Ticket::Frontend::AgentTicketOwner###Note**

Allows adding notes in the ticket owner screen of a zoomed ticket in the agent interface. Can be overwritten by Ticket::Frontend::NeedAccountedTime.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'Note'} = '1';
```

### **Ticket::Frontend::AgentTicketOwner###NoteMandatory**

Sets if note must be filled in by the agent. Can be overwritten by Ticket::Frontend::NeedAccountedTime.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'NoteMandatory'} = '1';
```

### **Ticket::Frontend::AgentTicketOwner###Subject**

Sets the default subject for notes added in the ticket owner screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'Subject'} = '';
```

### **Ticket::Frontend::AgentTicketOwner###Body**

Sets the default body text for notes added in the ticket owner screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'Body'} = '';
```

### **Ticket::Frontend::AgentTicketOwner###InvolvedAgent**

Shows a list of all the involved agents on this ticket, in the ticket owner screen of a zoomed ticket in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'InvolvedAgent'} = '0';
```

### **Ticket::Frontend::AgentTicketOwner###InformAgent**

Shows a list of all the possible agents (all agents with note permissions on the queue/ticket) to determine who should be informed about this note, in the ticket owner screen of a zoomed ticket in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'InformAgent'} = '0';
```

### **Ticket::Frontend::AgentTicketOwner###ArticleTypeDefault**

Defines the default type of the note in the ticket owner screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'ArticleTypeDefault'} = 'note-internal';
```

### **Ticket::Frontend::AgentTicketOwner###ArticleTypes**

Specifies the available note types for this ticket mask. If the option is deselected, ArticleTypeDefault is used and the option is removed from the mask.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'ArticleTypes'} = {
  'note-external' => '0',
  'note-internal' => '1',
  'note-report' => '0'
};
```

### **Ticket::Frontend::AgentTicketOwner###Priority**

Shows the ticket priority options in the ticket owner screen of a zoomed ticket in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'Priority'} = '0';
```

### **Ticket::Frontend::AgentTicketOwner###PriorityDefault**

Defines the default ticket priority in the ticket owner screen of a zoomed ticket in the agent interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'PriorityDefault'} = '3 normal';
```

### **Ticket::Frontend::AgentTicketOwner###Title**

Shows the title fields in the ticket owner screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'Title'} = '0';
```

### **Ticket::Frontend::AgentTicketOwner###HistoryType**

Defines the history type for the ticket owner screen action, which gets used for ticket history in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'HistoryType'} = 'AddNote';
```

### **Ticket::Frontend::AgentTicketOwner###HistoryComment**

Defines the history comment for the ticket owner screen action, which gets used for ticket history in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'HistoryComment'} = '%Owner';
```

### **Ticket::Frontend::AgentTicketOwner###DynamicField**

Dynamic fields shown in the ticket owner screen of the agent interface. Possible settings: 0 = Disabled, 1 = Enabled, 2 = Enabled and required.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'DynamicField'} = {};
```

### **Ticket::Frontend::AgentTicketOwner###RichTextWidth**

Defines the width for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'RichTextWidth'} = '620';
```

### **Ticket::Frontend::AgentTicketOwner###RichTextHeight**

Defines the height for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketOwner'}->{'RichTextHeight'} = '100';
```

### **Ticket → Frontend::Agent::Ticket::ViewPending**

#### **Ticket::Frontend::AgentTicketPending###Permission**

Required permissions to use the ticket pending screen of a zoomed ticket in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'Permission'} = 'pending';
```

#### **Ticket::Frontend::AgentTicketPending###RequiredLock**

Defines if a ticket lock is required in the ticket pending screen of a zoomed ticket in the agent interface (if the ticket isn't locked yet, the ticket gets locked and the current agent will be set automatically as its owner).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'RequiredLock'} = '1';
```

#### **Ticket::Frontend::AgentTicketPending###TicketType**

Sets the ticket type in the ticket pending screen of a zoomed ticket in the agent interface (Ticket::Type needs to be activated).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'TicketType'} = '0';
```

#### **Ticket::Frontend::AgentTicketPending###Service**

Sets the service in the ticket pending screen of a zoomed ticket in the agent interface (Ticket::Service needs to be activated).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'Service'} = '0';
```

#### **Ticket::Frontend::AgentTicketPending###ServiceMandatory**

Sets if service must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'ServiceMandatory'} = '0';
```

#### **Ticket::Frontend::AgentTicketPending###SLAMandatory**

Sets if SLA must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'SLAMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketPending###Queue**

Sets the queue in the ticket pending screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'Queue'} = '0';
```

### **Ticket::Frontend::AgentTicketPending###Owner**

Sets the ticket owner in the ticket pending screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'Owner'} = '0';
```

### **Ticket::Frontend::AgentTicketPending###OwnerMandatory**

Sets if ticket owner must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'OwnerMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketPending###Responsible**

Sets the responsible agent of the ticket in the ticket pending screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'Responsible'} = '0';
```

### **Ticket::Frontend::AgentTicketPending###State**

Sets the state of the ticket in the ticket pending screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'State'} = '1';
```

### **Ticket::Frontend::AgentTicketPending###StateType**

Defines the next state of a ticket after adding a note, in the ticket pending screen of a zoomed ticket in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'StateType'} = [  
  'pending reminder',  
  'pending auto'  
];
```

### **Ticket::Frontend::AgentTicketPending###StateDefault**

Defines the default next state of a ticket after adding a note, in the ticket pending screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'StateDefault'} = 'pending reminder';
```

### **Ticket::Frontend::AgentTicketPending###Note**

Allows adding notes in the ticket pending screen of a zoomed ticket in the agent interface. Can be overwritten by Ticket::Frontend::NeedAccountedTime.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'Note'} = '1';
```

### **Ticket::Frontend::AgentTicketPending###NoteMandatory**

Sets if note must be filled in by the agent. Can be overwritten by Ticket::Frontend::NeedAccountedTime.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'NoteMandatory'} = '1';
```

### **Ticket::Frontend::AgentTicketPending###Subject**

Sets the default subject for notes added in the ticket pending screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'Subject'} = '';
```

### **Ticket::Frontend::AgentTicketPending###Body**

Sets the default body text for notes added in the ticket pending screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'Body'} = '';
```

### **Ticket::Frontend::AgentTicketPending###InvolvedAgent**

Shows a list of all the involved agents on this ticket, in the ticket pending screen of a zoomed ticket in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'InvolvedAgent'} = '0';
```

### **Ticket::Frontend::AgentTicketPending###InformAgent**

Shows a list of all the possible agents (all agents with note permissions on the queue/ticket) to determine who should be informed about this note, in the ticket pending screen of a zoomed ticket in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'InformAgent'} = '0';
```

### **Ticket::Frontend::AgentTicketPending###ArticleTypeDefault**

Defines the default type of the note in the ticket pending screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'ArticleTypeDefault'} = 'note-internal';
```

### **Ticket::Frontend::AgentTicketPending###ArticleTypes**

Specifies the available note types for this ticket mask. If the option is deselected, ArticleTypeDefault is used and the option is removed from the mask.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'ArticleTypes'} = {
  'note-external' => '0',
  'note-internal' => '1',
  'note-report' => '0'
};
```

### **Ticket::Frontend::AgentTicketPending###Priority**

Shows the ticket priority options in the ticket pending screen of a zoomed ticket in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'Priority'} = '0';
```

### **Ticket::Frontend::AgentTicketPending###PriorityDefault**

Defines the default ticket priority in the ticket pending screen of a zoomed ticket in the agent interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'PriorityDefault'} = '3 normal';
```

### **Ticket::Frontend::AgentTicketPending###Title**

Shows the title fields in the ticket pending screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'Title'} = '0';
```

### **Ticket::Frontend::AgentTicketPending###HistoryType**

Defines the history type for the ticket pending screen action, which gets used for ticket history in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'HistoryType'} = 'AddNote';
```

### **Ticket::Frontend::AgentTicketPending###HistoryComment**

Defines the history comment for the ticket pending screen action, which gets used for ticket history in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'HistoryComment'} = '%Pending';
```



### **Ticket::Frontend::AgentTicketPending###DynamicField**

Dynamic fields shown in the ticket pending screen of the agent interface. Possible settings: 0 = Disabled, 1 = Enabled, 2 = Enabled and required.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'DynamicField'} = {};
```

### **Ticket::Frontend::AgentTicketPending###RichTextWidth**

Defines the width for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'RichTextWidth'} = '620';
```

### **Ticket::Frontend::AgentTicketPending###RichTextHeight**

Defines the height for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPending'}->{'RichTextHeight'} = '100';
```

## **Ticket → Frontend::Agent::Ticket::ViewPhoneInbound**

### **Ticket::Frontend::AgentTicketPhoneInbound###Permission**

Required permissions to use the ticket phone inbound screen in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneInbound'}->{'Permission'} = 'phone';
```

### **Ticket::Frontend::AgentTicketPhoneInbound###RequiredLock**

Defines if a ticket lock is required in the ticket phone inbound screen of the agent interface (if the ticket isn't locked yet, the ticket gets locked and the current agent will be set automatically as its owner).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneInbound'}->{'RequiredLock'} = '0';
```

### **Ticket::Frontend::AgentTicketPhoneInbound###ArticleType**

Defines the default type of the note in the ticket phone inbound screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneInbound'}->{'ArticleType'} = 'phone';
```

### **Ticket::Frontend::AgentTicketPhoneInbound###SenderType**

Defines the default sender type for phone tickets in the ticket phone inbound screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneInbound'}->{'SenderType'} = 'customer';
```

### **Ticket::Frontend::AgentTicketPhoneInbound###Subject**

Defines the default subject for phone tickets in the ticket phone inbound screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneInbound'}->{'Subject'} = '';
```

### **Ticket::Frontend::AgentTicketPhoneInbound###Body**

Defines the default note body text for phone tickets in the ticket phone inbound screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneInbound'}->{'Body'} = '';
```

### **Ticket::Frontend::AgentTicketPhoneInbound###State**

Defines the default ticket next state after adding a phone note in the ticket phone inbound screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneInbound'}->{'State'} = 'open';
```

### **Ticket::Frontend::AgentTicketPhoneInbound###StateType**

Next possible ticket states after adding a phone note in the ticket phone inbound screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneInbound'}->{'StateType'} = [
  'open',
  'pending auto',
  'pending reminder',
  'closed'
];
```

### **Ticket::Frontend::AgentTicketPhoneInbound###HistoryType**

Defines the history type for the ticket phone inbound screen action, which gets used for ticket history in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneInbound'}->{'HistoryType'} =
  'PhoneCallCustomer';
```

### **Ticket::Frontend::AgentTicketPhoneInbound###HistoryComment**

Defines the history comment for the ticket phone inbound screen action, which gets used for ticket history in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneInbound'}->{'HistoryComment'} = '';
```

### **Ticket::Frontend::AgentTicketPhoneInbound###DynamicField**

Dynamic fields shown in the ticket phone inbound screen of the agent interface. Possible settings: 0 = Disabled, 1 = Enabled, 2 = Enabled and required.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneInbound'}->{'DynamicField'} = {};
```

### **Ticket::Frontend::AgentTicketPhoneInbound###RichTextWidth**

Defines the width for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneInbound'}->{'RichTextWidth'} = '475';
```

### **Ticket::Frontend::AgentTicketPhoneInbound###RichTextHeight**

Defines the height for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneInbound'}->{'RichTextHeight'} = '200';
```

## **Ticket → Frontend::Agent::Ticket::ViewPhoneNew**

### **Ticket::Frontend::AgentTicketPhone###Priority**

Sets the default priority for new phone tickets in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhone'}->{'Priority'} = '3 normal';
```

### **Ticket::Frontend::AgentTicketPhone###ArticleType**

Sets the default article type for new phone tickets in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhone'}->{'ArticleType'} = 'phone';
```

### **Ticket::Frontend::AgentTicketPhone###SenderType**

Sets the default sender type for new phone ticket in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhone'}->{'SenderType'} = 'customer';
```

### **Ticket::Frontend::AgentTicketPhone::CustomerIDReadOnly**

Controls if CustomerID is read-only in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhone::CustomerIDReadOnly'} = '1';
```

### **Ticket::Frontend::AgentTicketPhone::AllowMultipleFrom**

Controls if more than one from entry can be set in the new phone ticket in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhone::AllowMultipleFrom'} = '1';
```

### **Ticket::Frontend::AgentTicketPhone###Subject**

Sets the default subject for new phone tickets (e.g. 'Phone call') in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhone'}->{'Subject'} = '';
```

### **Ticket::Frontend::AgentTicketPhone###Body**

Sets the default note text for new telephone tickets. E.g 'New ticket via call' in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhone'}->{'Body'} = '';
```

### **Ticket::Frontend::AgentTicketPhone###StateDefault**

Sets the default next state for new phone tickets in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhone'}->{'StateDefault'} = 'open';
```

### **Ticket::Frontend::AgentTicketPhone###StateType**

Determines the next possible ticket states, after the creation of a new phone ticket in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhone'}->{'StateType'} = [  
'open',
```

```
'pending auto',
'pending reminder',
'closed'
];
```

### **Ticket::Frontend::AgentTicketPhone###HistoryType**

Defines the history type for the phone ticket screen action, which gets used for ticket history in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhone'}->{'HistoryType'} = 'PhoneCallCustomer';
```

### **Ticket::Frontend::AgentTicketPhone###HistoryComment**

Defines the history comment for the phone ticket screen action, which gets used for ticket history in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhone'}->{'HistoryComment'} = '';
```

### **Ticket::Frontend::AgentTicketPhone###SplitLinkType**

Sets the default link type of splitted tickets in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhone'}->{'SplitLinkType'} = {
  'Direction' => 'Target',
  'LinkType' => 'ParentChild'
};
```

### **Ticket::Frontend::AgentTicketPhone###ServiceMandatory**

Sets if service must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhone'}->{'ServiceMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketPhone###SLAMandatory**

Sets if SLA must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhone'}->{'SLAMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketPhone###DynamicField**

Dynamic fields shown in the ticket phone screen of the agent interface. Possible settings: 0 = Disabled, 1 = Enabled, 2 = Enabled and required.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhone'}->{'DynamicField'} = {};
```

### **Ticket::Frontend::AgentTicketPhone###RichTextWidth**

Defines the width for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhone'}->{'RichTextWidth'} = '620';
```

### **Ticket::Frontend::AgentTicketPhone###RichTextHeight**

Defines the height for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhone'}->{'RichTextHeight'} = '320';
```

## **Ticket → Frontend::Agent::Ticket::ViewPhoneOutbound**

### **Ticket::Frontend::AgentTicketPhoneOutbound###Permission**

Required permissions to use the ticket phone outbound screen in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneOutbound'}->{'Permission'} = 'phone';
```

### **Ticket::Frontend::AgentTicketPhoneOutbound###RequiredLock**

Defines if a ticket lock is required in the ticket phone outbound screen of the agent interface (if the ticket isn't locked yet, the ticket gets locked and the current agent will be set automatically as its owner).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneOutbound'}->{'RequiredLock'} = '1';
```

### **Ticket::Frontend::AgentTicketPhoneOutbound###ArticleType**

Defines the default type of the note in the ticket phone outbound screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneOutbound'}->{'ArticleType'} = 'phone';
```

### **Ticket::Frontend::AgentTicketPhoneOutbound###SenderType**

Defines the default sender type for phone tickets in the ticket phone outbound screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneOutbound'}->{'SenderType'} = 'agent';
```

### **Ticket::Frontend::AgentTicketPhoneOutbound###Subject**

Defines the default subject for phone tickets in the ticket phone outbound screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneOutbound'}->{'Subject'} = '';
```

### **Ticket::Frontend::AgentTicketPhoneOutbound###Body**

Defines the default note body text for phone tickets in the ticket phone outbound screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneOutbound'}->{'Body'} = '';
```

### **Ticket::Frontend::AgentTicketPhoneOutbound###State**

Defines the default ticket next state after adding a phone note in the ticket phone outbound screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneOutbound'}->{'State'} = 'closed  
successful';
```

### **Ticket::Frontend::AgentTicketPhoneOutbound###StateType**

Next possible ticket states after adding a phone note in the ticket phone outbound screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneOutbound'}->{'StateType'} = [
  'open',
  'pending auto',
  'pending reminder',
  'closed'
];
```

### **Ticket::Frontend::AgentTicketPhoneOutbound###HistoryType**

Defines the history type for the ticket phone outbound screen action, which gets used for ticket history in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneOutbound'}->{'HistoryType'} =
  'PhoneCallAgent';
```

### **Ticket::Frontend::AgentTicketPhoneOutbound###HistoryComment**

Defines the history comment for the ticket phone outbound screen action, which gets used for ticket history in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneOutbound'}->{'HistoryComment'} = '';
```

### **Ticket::Frontend::AgentTicketPhoneOutbound###DynamicField**

Dynamic fields shown in the ticket phone outbound screen of the agent interface. Possible settings: 0 = Disabled, 1 = Enabled, 2 = Enabled and required.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneOutbound'}->{'DynamicField'} = {};
```

### **Ticket::Frontend::AgentTicketPhoneOutbound###RichTextWidth**

Defines the width for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneOutbound'}->{'RichTextWidth'} = '475';
```

### **Ticket::Frontend::AgentTicketPhoneOutbound###RichTextHeight**

Defines the height for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPhoneOutbound'}->{'RichTextHeight'} = '200';
```

## **Ticket → Frontend::Agent::Ticket::ViewPrint**

### **Ticket::Frontend::AgentTicketPrint###DynamicField**

Dynamic fields shown in the ticket print screen of the agent interface. Possible settings: 0 = Disabled, 1 = Enabled.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPrint'}->{'DynamicField'} = {};
```

## **Ticket → Frontend::Agent::Ticket::ViewPriority**

### **Ticket::Frontend::AgentTicketPriority###Permission**

Required permissions to use the ticket priority screen of a zoomed ticket in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'Permission'} = 'priority';
```

### **Ticket::Frontend::AgentTicketPriority###RequiredLock**

Defines if a ticket lock is required in the ticket priority screen of a zoomed ticket in the agent interface (if the ticket isn't locked yet, the ticket gets locked and the current agent will be set automatically as its owner).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'RequiredLock'} = '1';
```

### **Ticket::Frontend::AgentTicketPriority###TicketType**

Sets the ticket type in the ticket priority screen of a zoomed ticket in the agent interface (Ticket::Type needs to be activated).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'TicketType'} = '0';
```



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### **Ticket::Frontend::AgentTicketPriority###Service**

Sets the service in the ticket priority screen of a zoomed ticket in the agent interface (Ticket::Service needs to be activated).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'Service'} = '0';
```

### **Ticket::Frontend::AgentTicketPriority###ServiceMandatory**

Sets if service must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'ServiceMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketPriority###SLAMandatory**

Sets if SLA must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'SLAMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketPriority###Queue**

Sets the queue in the ticket priority screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'Queue'} = '0';
```

### **Ticket::Frontend::AgentTicketPriority###Owner**

Sets the ticket owner in the ticket priority screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'Owner'} = '0';
```

### **Ticket::Frontend::AgentTicketPriority###OwnerMandatory**

Sets if ticket owner must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'OwnerMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketPriority###Responsible**

Sets the responsible agent of the ticket in the ticket priority screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'Responsible'} = '0';
```

### **Ticket::Frontend::AgentTicketPriority###State**

Sets the state of the ticket in the ticket priority screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'State'} = '0';
```

### **Ticket::Frontend::AgentTicketPriority###StateType**

Defines the next state of a ticket after adding a note, in the ticket priority screen of a zoomed ticket in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'StateType'} = [
  'open',
  'pending reminder',
  'pending auto'
];
```

### **Ticket::Frontend::AgentTicketPriority###StateDefault**

Defines the default next state of a ticket after adding a note, in the ticket priority screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'StateDefault'} = 'open';
```

### **Ticket::Frontend::AgentTicketPriority###Note**

Allows adding notes in the ticket priority screen of a zoomed ticket in the agent interface. Can be overwritten by Ticket::Frontend::NeedAccountedTime.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'Note'} = '1';
```

### **Ticket::Frontend::AgentTicketPriority###NoteMandatory**

Sets if note must be filled in by the agent. Can be overwritten by Ticket::Frontend::NeedAccountedTime.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'NoteMandatory'} = '1';
```

### **Ticket::Frontend::AgentTicketPriority###Subject**

Sets the default subject for notes added in the ticket priority screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'Subject'} = '';
```

### **Ticket::Frontend::AgentTicketPriority###Body**

Sets the default body text for notes added in the ticket priority screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'Body'} = '';
```

### **Ticket::Frontend::AgentTicketPriority###InvolvedAgent**

Shows a list of all the involved agents on this ticket, in the ticket priority screen of a zoomed ticket in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'InvolvedAgent'} = '0';
```

### **Ticket::Frontend::AgentTicketPriority###InformAgent**

Shows a list of all the possible agents (all agents with note permissions on the queue/ticket) to determine who should be informed about this note, in the ticket priority screen of a zoomed ticket in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'InformAgent'} = '0';
```

### **Ticket::Frontend::AgentTicketPriority###ArticleTypeDefault**

Defines the default type of the note in the ticket priority screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'ArticleTypeDefault'} = 'note-internal';
```

### **Ticket::Frontend::AgentTicketPriority###ArticleTypes**

Specifies the available note types for this ticket mask. If the option is deselected, ArticleTypeDefault is used and the option is removed from the mask.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'ArticleTypes'} = {
  'note-external' => '0',
  'note-internal' => '1',
  'note-report' => '0'
};
```

### **Ticket::Frontend::AgentTicketPriority###Priority**

Shows the ticket priority options in the ticket priority screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'Priority'} = '1';
```

### **Ticket::Frontend::AgentTicketPriority###PriorityDefault**

Defines the default ticket priority in the ticket priority screen of a zoomed ticket in the agent interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'PriorityDefault'} = '3 normal';
```

### **Ticket::Frontend::AgentTicketPriority###Title**

Shows the title fields in the ticket priority screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'Title'} = '0';
```

### **Ticket::Frontend::AgentTicketPriority###HistoryType**

Defines the history type for the ticket priority screen action, which gets used for ticket history in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'HistoryType'} = 'AddNote';
```

### **Ticket::Frontend::AgentTicketPriority###HistoryComment**

Defines the history comment for the ticket priority screen action, which gets used for ticket history in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'HistoryComment'} = '%Priority';
```

### **Ticket::Frontend::AgentTicketPriority###DynamicField**

Dynamic fields shown in the ticket priority screen of the agent interface. Possible settings: 0 = Disabled, 1 = Enabled, 2 = Enabled and required.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'DynamicField'} = {};
```

### **Ticket::Frontend::AgentTicketPriority###RichTextWidth**

Defines the width for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'RichTextWidth'} = '620';
```

### **Ticket::Frontend::AgentTicketPriority###RichTextHeight**

Defines the height for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketPriority'}->{'RichTextHeight'} = '100';
```

## **Ticket → Frontend::Agent::Ticket::ViewQueue**

### **Ticket::Frontend::AgentTicketQueue###StripEmptyLines**

Strips empty lines on the ticket preview in the queue view.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketQueue'}->{'StripEmptyLines'} = '0';
```

### **Ticket::Frontend::AgentTicketQueue###ViewAllPossibleTickets**

Shows all both ro and rw queues in the queue view.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketQueue'}->{'ViewAllPossibleTickets'} = '0';
```

### **Ticket::Frontend::AgentTicketQueue###HideEmptyQueues**

Show queues even when only locked tickets are in.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketQueue'}->{'HideEmptyQueues'} = '0';
```

### **Ticket::Frontend::AgentTicketQueue###HighlightAge1**

Sets the age in minutes (first level) for highlighting queues that contain untouched tickets.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketQueue'}->{'HighlightAge1'} = '1440';
```

### **Ticket::Frontend::AgentTicketQueue###HighlightAge2**

Sets the age in minutes (second level) for highlighting queues that contain untouched tickets.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketQueue'}->{'HighlightAge2'} = '2880';
```

### **Ticket::Frontend::AgentTicketQueue###Blink**

Activates a blinking mechanism of the queue that contains the oldest ticket.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketQueue'}->{'Blink'} = '1';
```

### **Ticket::Frontend::AgentTicketQueue###UseSubQueues**

Include tickets of subqueues per default when selecting a queue.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketQueue'}->{'UseSubQueues'} = '0';
```

### **Ticket::Frontend::AgentTicketQueue###QueueSort**

Sorts the tickets (ascendingly or descendingly) when a single queue is selected in the queue view and after the tickets are sorted by priority. Values: 0 = ascending (oldest on top, default), 1 = descending (youngest on top). Use the QueueID for the key and 0 or 1 for value.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketQueue'}->{'QueueSort'} = {
```

```
'3' => '0',
'7' => '1'
};
```

### **Ticket::Frontend::AgentTicketQueue###SortBy::Default**

Defines the default sort criteria for all queues displayed in the queue view.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketQueue'}->{'SortBy::Default'} = 'Age';
```

### **Ticket::Frontend::AgentTicketQueue###PreSort::ByPriority**

Defines if a pre-sorting by priority should be done in the queue view.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketQueue'}->{'PreSort::ByPriority'} = '1';
```

### **Ticket::Frontend::AgentTicketQueue###Order::Default**

Defines the default sort order for all queues in the queue view, after priority sort.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketQueue'}->{'Order::Default'} = 'Up';
```

### **Ticket::Frontend::AgentTicketQueue###DefaultColumns**

Columns that can be filtered in the queue view of the agent interface. Possible settings: 0 = Disabled, 1 = Available, 2 = Enabled by default. Note: Only Ticket attributes, Dynamic Fields (DynamicField\_NameX) and Customer attributes (e.g. CustomerUser-Phone, CustomerCompanyName, ...) are allowed.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketQueue'}->{'DefaultColumns'} = {
  'Age' => '2',
  'Changed' => '1',
  'Created' => '1',
  'CustomerCompanyName' => '1',
  'CustomerID' => '2',
  'CustomerName' => '1',
  'CustomerUserID' => '1',
  'EscalationResponseTime' => '1',
  'EscalationSolutionTime' => '1',
  'EscalationTime' => '1',
  'EscalationUpdateTime' => '1',
  'Lock' => '2',
  'Owner' => '2',
  'PendingTime' => '1',
  'Priority' => '1',
  'Queue' => '2',
  'Responsible' => '1',
  'SLA' => '1',
  'Service' => '1',
  'State' => '2',
  'TicketNumber' => '2',
  'Title' => '2',
  'Type' => '1'
};
```

## Ticket → Frontend::Agent::Ticket::ViewResponsible

### Ticket::Frontend::AgentTicketResponsibleView###SortBy::Default

Defines the default ticket attribute for ticket sorting in the responsible view of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsibleView'}->{'SortBy::Default'} = 'Age';
```

### Ticket::Frontend::AgentTicketResponsibleView###Order::Default

Defines the default ticket order in the responsible view of the agent interface. Up: oldest on top. Down: latest on top.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsibleView'}->{'Order::Default'} = 'Up';
```

### Ticket::Frontend::AgentTicketResponsible###Permission

Required permissions to use the ticket responsible screen in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'Permission'} = 'responsible';
```

### Ticket::Frontend::AgentTicketResponsible###RequiredLock

Defines if a ticket lock is required in the ticket responsible screen of the agent interface (if the ticket isn't locked yet, the ticket gets locked and the current agent will be set automatically as its owner).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'RequiredLock'} = '0';
```

### Ticket::Frontend::AgentTicketResponsible###TicketType

Sets the ticket type in the ticket responsible screen of the agent interface (Ticket::Type needs to be activated).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'TicketType'} = '0';
```

### Ticket::Frontend::AgentTicketResponsible###Service

Sets the service in the ticket responsible screen of the agent interface (Ticket::Service needs to be activated).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'Service'} = '0';
```

### Ticket::Frontend::AgentTicketResponsible###ServiceMandatory

Sets if service must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'ServiceMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketResponsible###SLAMandatory**

Sets if SLA must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'SLAMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketResponsible###Queue**

Sets the queue in the ticket responsible screen of a zoomed ticket in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'Queue'} = '0';
```

### **Ticket::Frontend::AgentTicketResponsible###Owner**

Sets the ticket owner in the ticket responsible screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'Owner'} = '0';
```

### **Ticket::Frontend::AgentTicketResponsible###OwnerMandatory**

Sets if ticket owner must be selected by the agent.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'OwnerMandatory'} = '0';
```

### **Ticket::Frontend::AgentTicketResponsible###Responsible**

Sets the responsible agent of the ticket in the ticket responsible screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'Responsible'} = '1';
```

### **Ticket::Frontend::AgentTicketResponsible###State**

Sets the state of a ticket in the ticket responsible screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'State'} = '0';
```

### **Ticket::Frontend::AgentTicketResponsible###StateType**

Defines the next state of a ticket after adding a note, in the ticket responsible screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'StateType'} = [  
'open',
```



```
'pending reminder',
'pending auto'
];
```

### **Ticket::Frontend::AgentTicketResponsible###StateDefault**

Defines the default next state of a ticket after adding a note, in the ticket responsible screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'StateDefault'} = 'open';
```

### **Ticket::Frontend::AgentTicketResponsible###Note**

Allows adding notes in the ticket responsible screen of the agent interface. Can be overwritten by Ticket::Frontend::NeedAccountedTime.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'Note'} = '1';
```

### **Ticket::Frontend::AgentTicketResponsible###NoteMandatory**

Sets if note must be filled in by the agent. Can be overwritten by Ticket::Frontend::NeedAccountedTime.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'NoteMandatory'} = '1';
```

### **Ticket::Frontend::AgentTicketResponsible###Subject**

Sets the default subject for notes added in the ticket responsible screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'Subject'} = '';
```

### **Ticket::Frontend::AgentTicketResponsible###Body**

Sets the default body text for notes added in the ticket responsible screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'Body'} = '';
```

### **Ticket::Frontend::AgentTicketResponsible###InvolvedAgent**

Shows a list of all the involved agents on this ticket, in the ticket responsible screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'InvolvedAgent'} = '0';
```

### **Ticket::Frontend::AgentTicketResponsible###InformAgent**

Shows a list of all the possible agents (all agents with note permissions on the queue/ticket) to determine who should be informed about this note, in the ticket responsible screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'InformAgent'} = '0';
```

### **Ticket::Frontend::AgentTicketResponsible###ArticleTypeDefault**

Defines the default type of the note in the ticket responsible screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'ArticleTypeDefault'} = 'note-internal';
```

### **Ticket::Frontend::AgentTicketResponsible###ArticleTypes**

Specifies the available note types for this ticket mask. If the option is deselected, ArticleTypeDefault is used and the option is removed from the mask.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'ArticleTypes'} = {  
  'note-external' => '0',  
  'note-internal' => '1',  
  'note-report' => '0'  
};
```

### **Ticket::Frontend::AgentTicketResponsible###Priority**

Shows the ticket priority options in the ticket responsible screen of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'Priority'} = '0';
```

### **Ticket::Frontend::AgentTicketResponsible###PriorityDefault**

Defines the default ticket priority in the ticket responsible screen of the agent interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'PriorityDefault'} = '3 normal';
```

### **Ticket::Frontend::AgentTicketResponsible###Title**

Shows the title fields in the ticket responsible screen of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'Title'} = '1';
```

### **Ticket::Frontend::AgentTicketResponsible###HistoryType**

Defines the history type for the ticket responsible screen action, which gets used for ticket history in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'HistoryType'} = 'AddNote';
```

### **Ticket::Frontend::AgentTicketResponsible###HistoryComment**

Defines the history comment for the ticket responsible screen action, which gets used for ticket history in the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'HistoryComment'} = '%Responsible';
```

### **Ticket::Frontend::AgentTicketResponsible###DynamicField**

Dynamic fields shown in the ticket responsible screen of the agent interface. Possible settings: 0 = Disabled, 1 = Enabled, 2 = Enabled and required.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'DynamicField'} = {};
```

### **Ticket::Frontend::AgentTicketResponsible###RichTextWidth**

Defines the width for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'RichTextWidth'} = '620';
```

### **Ticket::Frontend::AgentTicketResponsible###RichTextHeight**

Defines the height for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsible'}->{'RichTextHeight'} = '100';
```

### **Ticket::Frontend::AgentTicketResponsibleView###DefaultColumns**

Columns that can be filtered in the responsible view of the agent interface. Possible settings: 0 = Disabled, 1 = Available, 2 = Enabled by default. Note: Only Ticket attributes, Dynamic Fields (DynamicField\_NameX) and Customer attributes (e.g. CustomerUserPhone, CustomerCompanyName, ...) are allowed.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketResponsibleView'}->{'DefaultColumns'} = {
  'Age' => '2',
  'Changed' => '1',
  'Created' => '1',
  'CustomerCompanyName' => '1',
  'CustomerID' => '2',
  'CustomerName' => '1',
  'CustomerUserID' => '1',
  'EscalationResponseTime' => '1',
  'EscalationSolutionTime' => '1',
  'EscalationTime' => '1',
  'EscalationUpdateTime' => '1',
  'Lock' => '2',
  'Owner' => '2',
  'PendingTime' => '1',
  'Priority' => '1',
  'Queue' => '2',
  'Responsible' => '1',
  'SLA' => '1',
  'Service' => '1',
  'State' => '2',
  'TicketNumber' => '2',
```

```
'Title' => '2',
'Type' => '1'
};
```

## Ticket → Frontend::Agent::Ticket::ViewSearch

### Ticket::Frontend::AgentTicketSearch###ExtendedSearchCondition

Allows extended search conditions in ticket search of the agent interface. With this feature you can search e. g. ticket title with this kind of conditions like "(\*key1\*&&\*key2\*)" or "(\*key1\*||\*key2\*)".

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'ExtendedSearchCondition'} = '1';
```

### Ticket::Frontend::AgentTicketSearch###SearchLimit

Maximum number of tickets to be displayed in the result of a search in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'SearchLimit'} = '2000';
```

### Ticket::Frontend::AgentTicketSearch###SearchPageShown

Number of tickets to be displayed in each page of a search result in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'SearchPageShown'} = '40';
```

### Ticket::Frontend::AgentTicketSearch###SearchViewableTicketLines

Number of lines (per ticket) that are shown by the search utility in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'SearchViewableTicketLines'} = '10';
```

### Ticket::Frontend::AgentTicketSearch###SortBy::Default

Defines the default ticket attribute for ticket sorting of the ticket search result of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'SortBy::Default'} = 'Age';
```

### Ticket::Frontend::AgentTicketSearch###Order::Default

Defines the default ticket order in the ticket search result of the agent interface. Up: oldest on top. Down: latest on top.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Order::Default'} = 'Down';
```

### **Ticket::Frontend::AgentTicketSearch###SearchArticleCSVTree**

Exports the whole article tree in search result (it can affect the system performance).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'SearchArticleCSVTree'} = '0';
```

### **Ticket::Frontend::AgentTicketSearch###SearchCSVData**

Data used to export the search result in CSV format.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'SearchCSVData'} = [
  'TicketNumber',
  'Age',
  'Created',
  'Closed',
  'FirstLock',
  'FirstResponse',
  'State',
  'Priority',
  'Queue',
  'Lock',
  'Owner',
  'UserFirstname',
  'UserLastname',
  'CustomerID',
  'CustomerName',
  'From',
  'Subject',
  'AccountedTime',
  'ArticleTree',
  'SolutionInMin',
  'SolutionDiffInMin',
  'FirstResponseInMin',
  'FirstResponseDiffInMin'
];
```

### **Ticket::Frontend::AgentTicketSearch###ArticleCreateTime**

Includes article create times in the ticket search of the agent interface.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'ArticleCreateTime'} = '0';
```

### **Ticket::Frontend::AgentTicketSearch###Defaults###Fulltext**

Defines the default shown ticket search attribute for ticket search screen.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Defaults'}->{'Fulltext'} = '';
```

### **Ticket::Frontend::AgentTicketSearch###Defaults###TicketNumber**

Defines the default shown ticket search attribute for ticket search screen.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Defaults'}->{'TicketNumber'} = '';
```

### **Ticket::Frontend::AgentTicketSearch###Defaults###Title**

Defines the default shown ticket search attribute for ticket search screen.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Defaults'}->{'Title'} = '';
```

### **Ticket::Frontend::AgentTicketSearch###Defaults###From**

Defines the default shown ticket search attribute for ticket search screen.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Defaults'}->{'From'} = '';
```

### **Ticket::Frontend::AgentTicketSearch###Defaults###To**

Defines the default shown ticket search attribute for ticket search screen.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Defaults'}->{'To'} = '';
```

### **Ticket::Frontend::AgentTicketSearch###Defaults###Cc**

Defines the default shown ticket search attribute for ticket search screen.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Defaults'}->{'Cc'} = '';
```

### **Ticket::Frontend::AgentTicketSearch###Defaults###Subject**

Defines the default shown ticket search attribute for ticket search screen.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Defaults'}->{'Subject'} = '';
```

### **Ticket::Frontend::AgentTicketSearch###Defaults###Body**

Defines the default shown ticket search attribute for ticket search screen.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Defaults'}->{'Body'} = '';
```

### **Ticket::Frontend::AgentTicketSearch###Defaults###CustomerID**

Defines the default shown ticket search attribute for ticket search screen.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Defaults'}->{'CustomerID'} = '';
```

### **Ticket::Frontend::AgentTicketSearch###Defaults###CustomerUserLogin**

Defines the default shown ticket search attribute for ticket search screen.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Defaults'}->{'CustomerUserLogin'} = '';
```

### **Ticket::Frontend::AgentTicketSearch###Defaults###StateIDs**

Defines the default shown ticket search attribute for ticket search screen.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Defaults'}->{'StateIDs'} = [];
```

### **Ticket::Frontend::AgentTicketSearch###Defaults###QueueIDs**

Defines the default shown ticket search attribute for ticket search screen.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Defaults'}->{'QueueIDs'} = [];
```

### **Ticket::Frontend::AgentTicketSearch###Defaults###TicketCreateTimePoint**

Default data to use on attribute for ticket search screen. Example: "TicketCreateTimePointFormat=year;TicketCreateTimePointStart=Last;TicketCreateTimePoint=2;"

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Defaults'}->{'TicketCreateTimePoint'} = '';
```

### **Ticket::Frontend::AgentTicketSearch###Defaults###TicketCreateTimeSlot**

Default data to use on attribute for ticket search screen. Example: "TicketCreateTimeStartYear=2010;TicketCreateTimeStartMonth=10;TicketCreateTimeStartDay=4;TicketCreateTimeStopYear=2010;TicketCreateTimeStopMonth=11;TicketCreateTimeStopDay=3;"

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Defaults'}->{'TicketCreateTimeSlot'} = '';
```

### **Ticket::Frontend::AgentTicketSearch###Defaults###TicketChangeTimePoint**

Defines the default shown ticket search attribute for ticket search screen.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Defaults'}->{'TicketChangeTimePoint'} = '';
```

### **Ticket::Frontend::AgentTicketSearch###Defaults###TicketChangeTimeSlot**

Defines the default shown ticket search attribute for ticket search screen.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Defaults'}->{'TicketChangeTimeSlot'} = '';
```

### **Ticket::Frontend::AgentTicketSearch###Defaults###TicketCloseTimePoint**

Defines the default shown ticket search attribute for ticket search screen.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Defaults'}->{'TicketCloseTimePoint'} = '';
```

### **Ticket::Frontend::AgentTicketSearch###Defaults###TicketCloseTimeSlot**

Defines the default shown ticket search attribute for ticket search screen.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Defaults'}->{'TicketCloseTimeSlot'} = '';
```

### **Ticket::Frontend::AgentTicketSearch###Defaults###TicketEscalationTime-Point**

Defines the default shown ticket search attribute for ticket search screen.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Defaults'}->{'TicketEscalationTimePoint'} = '';
```

### **Ticket::Frontend::AgentTicketSearch###Defaults###TicketEscalation-TimeSlot**

Defines the default shown ticket search attribute for ticket search screen.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Defaults'}->{'TicketEscalationTimeSlot'} = '';
```

### **Ticket::Frontend::AgentTicketSearch###Defaults###ArticleCreateTimePoint**

Defines the default shown ticket search attribute for ticket search screen.



This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Defaults'}->{'ArticleCreateTimePoint'} = '';
```

### **Ticket::Frontend::AgentTicketSearch###Defaults###ArticleCreateTimeSlot**

Defines the default shown ticket search attribute for ticket search screen.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Defaults'}->{'ArticleCreateTimeSlot'} = '';
```

### **Ticket::Frontend::AgentTicketSearch###Defaults###SearchInArchive**

Defines the default shown ticket search attribute for ticket search screen (AllTickets/ArchivedTickets/NotArchivedTickets).

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Defaults'}->{'SearchInArchive'} = '';
```

### **Ticket::Frontend::AgentTicketSearch###DynamicField**

Dynamic fields shown in the ticket search screen of the agent interface. Possible settings: 0 = Disabled, 1 = Enabled, 2 = Enabled and shown by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'DynamicField'} = {};
```

### **Ticket::Frontend::AgentTicketSearch###Defaults###DynamicField**

Defines the default shown ticket search attribute for ticket search screen. Example: "Key" must have the name of the Dynamic Field in this case 'X', "Content" must have the value of the Dynamic Field depending on the Dynamic Field type, Text: 'a text', Dropdown: '1', Date/Time: 'Search\_DynamicField\_XTimeSlotStartYear=1974; Search\_DynamicField\_XTimeSlotStartMonth=01; Search\_DynamicField\_XTimeSlotStartDay=26; Search\_DynamicField\_XTimeSlotStartHour=00; Search\_DynamicField\_XTimeSlotStartMinute=00; Search\_DynamicField\_XTimeSlotStartSecond=00; Search\_DynamicField\_XTimeSlotStopYear=2013; Search\_DynamicField\_XTimeSlotStopMonth=01; Search\_DynamicField\_XTimeSlotStopDay=26; Search\_DynamicField\_XTimeSlotStopHour=23; Search\_DynamicField\_XTimeSlotStopMinute=59; Search\_DynamicField\_XTimeSlotStopSecond=59;' and or 'Search\_DynamicField\_XTimePointFormat=week; Search\_DynamicField\_XTimePointStart=Before; Search\_DynamicField\_XTimePointValue=7';.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'Defaults'}->{'DynamicField'} = {};
```

### **Ticket::Frontend::AgentTicketSearch###SearchCSVDynamicField**

Dynamic Fields used to export the search result in CSV format.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'SearchCSVDynamicField'} = {};
```

### **Ticket::Frontend::AgentTicketSearch###DefaultColumns**

Columns that can be filtered in the ticket search result view of the agent interface. Possible settings: 0 = Disabled, 1 = Available, 2 = Enabled by default. Note: Only Ticket attributes, Dynamic Fields (DynamicField\_NameX) and Customer attributes (e.g. CustomerUserPhone, CustomerCompanyName, ...) are allowed.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketSearch'}->{'DefaultColumns'} = {
  'Age' => '2',
  'Changed' => '1',
  'Created' => '1',
  'CustomerCompanyName' => '1',
  'CustomerID' => '2',
  'CustomerName' => '1',
  'CustomerUserID' => '1',
  'EscalationResponseTime' => '1',
  'EscalationSolutionTime' => '1',
  'EscalationTime' => '1',
  'EscalationUpdateTime' => '1',
  'Lock' => '2',
  'Owner' => '2',
  'PendingTime' => '1',
  'Priority' => '1',
  'Queue' => '2',
  'Responsible' => '1',
  'SLA' => '1',
  'Service' => '1',
  'State' => '2',
  'TicketNumber' => '2',
  'Title' => '2',
  'Type' => '1'
};
```

### **Ticket → Frontend::Agent::Ticket::ViewService**

#### **Ticket::Frontend::AgentTicketService###StripEmptyLines**

Strips empty lines on the ticket preview in the service view.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketService'}->{'StripEmptyLines'} = '0';
```

#### **Ticket::Frontend::AgentTicketService###ViewAllPossibleTickets**

Shows all both ro and rw tickets in the service view.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketService'}->{'ViewAllPossibleTickets'} = '0';
```

#### **Ticket::Frontend::AgentTicketService###ServiceSort**

Sorts the tickets (ascendingly or descendingly) when a single queue is selected in the service view and after the tickets are sorted by priority. Values: 0 = ascending (oldest on top, default), 1 = descending (youngest on top). Use the ServiceID for the key and 0 or 1 for value.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketService'}->{'ServiceSort'} = {
  '3' => '0',
  '7' => '1'
};
```

### **Ticket::Frontend::AgentTicketService###SortBy::Default**

Defines the default sort criteria for all services displayed in the service view.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketService'}->{'SortBy::Default'} = 'Age';
```

### **Ticket::Frontend::AgentTicketService###PreSort::ByPriority**

Defines if a pre-sorting by priority should be done in the service view.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketService'}->{'PreSort::ByPriority'} = '1';
```

### **Ticket::Frontend::AgentTicketService###Order::Default**

Defines the default sort order for all services in the service view, after priority sort.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketService'}->{'Order::Default'} = 'Up';
```

### **Ticket::Frontend::AgentTicketService###DefaultColumns**

Columns that can be filtered in the service view of the agent interface. Possible settings: 0 = Disabled, 1 = Available, 2 = Enabled by default. Note: Only Ticket attributes, Dynamic Fields (DynamicField\_NameX) and Customer attributes (e.g. CustomerUser-Phone, CustomerCompanyName, ...) are allowed.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketService'}->{'DefaultColumns'} = {
  'Age' => '2',
  'Changed' => '1',
  'Created' => '1',
  'CustomerCompanyName' => '1',
  'CustomerID' => '2',
  'CustomerName' => '1',
  'CustomerUserID' => '1',
  'EscalationResponseTime' => '1',
  'EscalationSolutionTime' => '1',
  'EscalationTime' => '1',
  'EscalationUpdateTime' => '1',
  'Lock' => '2',
  'Owner' => '2',
  'PendingTime' => '1',
  'Priority' => '1',
  'Queue' => '2',
  'Responsible' => '1',
  'SLA' => '1',
  'Service' => '2',
  'State' => '2',
};
```

```
'TicketNumber' => '2',
'Title' => '2',
'Type' => '1'
};
```

## Ticket → Frontend::Agent::Ticket::ViewStatus

### Ticket::Frontend::AgentTicketStatusView###ViewableTicketsPage

Shows all open tickets (even if they are locked) in the status view of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketStatusView'}->{'ViewableTicketsPage'} = '50';
```

### Ticket::Frontend::AgentTicketStatusView###SortBy::Default

Defines the default ticket attribute for ticket sorting in the status view of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketStatusView'}->{'SortBy::Default'} = 'Age';
```

### Ticket::Frontend::AgentTicketStatusView###Order::Default

Defines the default ticket order (after priority sort) in the status view of the agent interface. Up: oldest on top. Down: latest on top.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketStatusView'}->{'Order::Default'} = 'Down';
```

### Ticket::Frontend::AgentTicketStatusView###DefaultColumns

Columns that can be filtered in the status view of the agent interface. Possible settings: 0 = Disabled, 1 = Available, 2 = Enabled by default. Note: Only Ticket attributes, Dynamic Fields (DynamicField\_NameX) and Customer attributes (e.g. CustomerUserName, CustomerCompanyname, ...) are allowed.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketStatusView'}->{'DefaultColumns'} = {
  'Age' => '2',
  'Changed' => '1',
  'Created' => '1',
  'CustomerCompanyName' => '1',
  'CustomerID' => '2',
  'CustomerName' => '1',
  'CustomerUserID' => '1',
  'EscalationResponseTime' => '1',
  'EscalationSolutionTime' => '1',
  'EscalationTime' => '1',
  'EscalationUpdateTime' => '1',
  'Lock' => '2',
  'Owner' => '2',
  'PendingTime' => '1',
  'Priority' => '1',
  'Queue' => '2',
```

```
'Responsible' => '1',
'SLA' => '1',
'Service' => '1',
'State' => '2',
'TicketNumber' => '2',
'Title' => '2',
'Type' => '1'
};
```

## Ticket → Frontend::Agent::Ticket::ViewWatch

### Ticket::Frontend::AgentTicketWatchView###SortBy::Default

Defines the default ticket attribute for ticket sorting in the watch view of the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketWatchView'}->{'SortBy::Default'} = 'Age';
```

### Ticket::Frontend::AgentTicketWatchView###Order::Default

Defines the default ticket order in the watch view of the agent interface. Up: oldest on top. Down: latest on top.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketWatchView'}->{'Order::Default'} = 'Up';
```

### Ticket::Frontend::AgentTicketWatchView###DefaultColumns

Columns that can be filtered in the watch view of the agent interface. Possible settings: 0 = Disabled, 1 = Available, 2 = Enabled by default. Note: Only Ticket attributes, Dynamic Fields (DynamicField\_NameX) and Customer attributes (e.g. CustomerUser-Phone, CustomerCompanyName, ...) are allowed.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketWatchView'}->{'DefaultColumns'} = {
  'Age' => '2',
  'Changed' => '1',
  'Created' => '1',
  'CustomerCompanyName' => '1',
  'CustomerID' => '2',
  'CustomerName' => '1',
  'CustomerUserID' => '1',
  'EscalationResponseTime' => '1',
  'EscalationSolutionTime' => '1',
  'EscalationTime' => '1',
  'EscalationUpdateTime' => '1',
  'Lock' => '2',
  'Owner' => '2',
  'PendingTime' => '1',
  'Priority' => '1',
  'Queue' => '2',
  'Responsible' => '1',
  'SLA' => '1',
  'Service' => '1',
  'State' => '2',
  'TicketNumber' => '2',
  'Title' => '2',
  'Type' => '1'
};
```

---

## **Ticket → Frontend::Agent::Ticket::ViewZoom**

### **Ticket::Frontend::PlainView**

Shows a link to see a zoomed email ticket in plain text.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::PlainView'} = '0';
```

### **Ticket::Frontend::ZoomExpand**

Shows all the articles of the ticket (expanded) in the zoom view.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::ZoomExpand'} = '0';
```

### **Ticket::Frontend::ZoomExpandSort**

Shows the articles sorted normally or in reverse, under ticket zoom in the agent interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::ZoomExpandSort'} = 'reverse';
```

### **Ticket::ZoomAttachmentDisplayCount**

Shows a count of icons in the ticket zoom, if the article has attachments.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::ZoomAttachmentDisplayCount'} = '20';
```

### **Ticket::ZoomTimeDisplay**

Displays the accounted time for an article in the ticket zoom view.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::ZoomTimeDisplay'} = '0';
```

### **Ticket::UseArticleColors**

Shows colors for different article types in the article table.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::UseArticleColors'} = '1';
```

### **Ticket::Frontend::TicketArticleFilter**

Activates the article filter in the zoom view to specify which articles should be shown.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::TicketArticleFilter'} = '0';
```

### **Ticket::Frontend::HTMLArticleHeightDefault**

Set the default height (in pixels) of inline HTML articles in AgentTicketZoom.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::HTMLArticleHeightDefault'} = '100';
```

### **Ticket::Frontend::HTMLArticleHeightMax**

Set the maximum height (in pixels) of inline HTML articles in AgentTicketZoom.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::HTMLArticleHeightMax'} = '2500';
```

### **Ticket::Frontend::MaxArticlesZoomExpand**

The maximal number of articles expanded on a single page in AgentTicketZoom.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MaxArticlesZoomExpand'} = '400';
```

### **Ticket::Frontend::MaxArticlesPerPage**

The maximal number of articles shown on a single page in AgentTicketZoom.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::MaxArticlesPerPage'} = '1000';
```

### **Ticket::Frontend::ZoomRichTextForce**

Show article as rich text even if rich text writing is disabled.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::ZoomRichTextForce'} = '1';
```

### **Ticket::Frontend::AgentTicketZoom###DynamicField**

Dynamic fields shown in the sidebar of the ticket zoom screen of the agent interface.  
Possible settings: 0 = Disabled, 1 = Enabled.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::AgentTicketZoom'}->{'DynamicField'} = {};
```

## Ticket::Frontend::ZoomCollectMeta

Whether or not to collect meta information from articles using filters configured in Ticket::Frontend::ZoomCollectMetaFilters.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::ZoomCollectMeta'} = '0';
```

## Ticket::Frontend::ZoomCollectMetaFilters###CVE-Mitre

Defines a filter to collect CVE numbers from article texts in AgentTicketZoom. The results will be displayed in a meta box next to the article. Fill in URLPreview if you would like to see a preview when moving your mouse cursor above the link element. This could be the same URL as in URL, but also an alternate one. Please note that some websites deny being displayed within an iframe (e.g. Google) and thus won't work with the preview mode.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::ZoomCollectMetaFilters'}->{'CVE-Mitre'} = {
  'Meta' => {
    'Name' => 'CVE Mitre',
    'Target' => '_blank',
    'URL' => 'http://cve.mitre.org/cgi-bin/cvename.cgi?name=<MATCH1>-<MATCH2>-<MATCH3>',
    'URLPreview' => 'http://cve.mitre.org/cgi-bin/cvename.cgi?name=<MATCH1>-<MATCH2>-<MATCH3>'
  },
  'RegExp' => [
    '(CVE|CAN)\-\(\d{3,4})\-\(\d{2,})'
  ]
};
```

## Ticket::Frontend::ZoomCollectMetaFilters###CVE-Google

Defines a filter to collect CVE numbers from article texts in AgentTicketZoom. The results will be displayed in a meta box next to the article. Fill in URLPreview if you would like to see a preview when moving your mouse cursor above the link element. This could be the same URL as in URL, but also an alternate one. Please note that some websites deny being displayed within an iframe (e.g. Google) and thus won't work with the preview mode.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::ZoomCollectMetaFilters'}->{'CVE-Google'} = {
  'Meta' => {
    'Name' => 'CVE Google Search',
    'Target' => '_blank',
    'URL' => 'http://google.com/search?q=<MATCH1>-<MATCH2>-<MATCH3>',
    'URLPreview' => ''
  },
  'RegExp' => [
    '(CVE|CAN)\-\(\d{3,4})\-\(\d{2,})'
  ]
};
```

## Ticket → Frontend::Agent::TicketOverview

### Ticket::Frontend::Overview###Small

Allows having a small format ticket overview (CustomerInfo => 1 - shows also the customer information).



Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::Overview'}->{'Small'} = {
  'CustomerInfo' => '1',
  'Module' => 'Kernel::Output::HTML::TicketOverview::Small',
  'ModulePriority' => '100',
  'Name' => 'Small',
  'NameShort' => 'S'
};
```

### **Ticket::Frontend::OverviewSmall###ColumnHeader**

Shows either the last customer article's subject or the ticket title in the small format overview.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::OverviewSmall'}->{'ColumnHeader'} = 'LastCustomerSubject';
```

### **Ticket::Frontend::Overview###Medium**

Allows having a medium format ticket overview (CustomerInfo => 1 - shows also the customer information).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::Overview'}->{'Medium'} = {
  'CustomerInfo' => '0',
  'Module' => 'Kernel::Output::HTML::TicketOverview::Medium',
  'ModulePriority' => '200',
  'Name' => 'Medium',
  'NameShort' => 'M',
  'OverviewMenuModules' => '1',
  'TicketActionsPerTicket' => '1'
};
```

### **Ticket::Frontend::Overview###Preview**

Shows a preview of the ticket overview (CustomerInfo => 1 - shows also Customer-Info, CustomerInfoMaxSize max. size in characters of Customer-Info).

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::Overview'}->{'Preview'} = {
  'CustomerInfo' => '0',
  'CustomerInfoMaxSize' => '18',
  'DefaultPreViewLines' => '25',
  'DefaultViewNewLine' => '90',
  'Module' => 'Kernel::Output::HTML::TicketOverview::Preview',
  'ModulePriority' => '300',
  'Name' => 'Large',
  'NameShort' => 'L',
  'OverviewMenuModules' => '1',
  'StripEmptyLines' => '0',
  'TicketActionsPerTicket' => '1'
};
```

### **Ticket::Frontend::Overview::PreviewArticleSenderTypes**

Defines which article sender types should be shown in the preview of a ticket.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::Overview::PreviewArticleSenderTypes'} = {
  'agent' => '1',
  'customer' => '1',
  'system' => '1'
};
```

```
};
```

### **Ticket::Frontend::Overview::PreviewArticleLimit**

Sets the count of articles visible in preview mode of ticket overviews.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::Overview::PreviewArticleLimit'} = '5';
```

### **Ticket::Frontend::Overview::PreviewArticleTypeExpanded**

Defines which article type should be expanded when entering the overview. If nothing defined, latest article will be expanded.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::Overview::PreviewArticleTypeExpanded'} = '';
```

### **Ticket::Frontend::OverviewSmall###DynamicField**

Dynamic fields shown in the ticket small format overview screen of the agent interface. Possible settings: 0 = Disabled, 1 = Available, 2 = Enabled by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::OverviewSmall'}->{'DynamicField'} = {};
```

### **Ticket::Frontend::OverviewMedium###DynamicField**

Dynamic fields shown in the ticket medium format overview screen of the agent interface. Possible settings: 0 = Disabled, 1 = Enabled.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::OverviewMedium'}->{'DynamicField'} = {};
```

### **Ticket::Frontend::OverviewPreview###DynamicField**

Dynamic fields shown in the ticket preview format overview screen of the agent interface. Possible settings: 0 = Disabled, 1 = Enabled.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::OverviewPreview'}->{'DynamicField'} = {};
```

## **Ticket → Frontend::Agent::ToolBarModule**

### **Frontend::ToolBarModule###1-Ticket::AgentTicketQueue**

Toolbar Item for a shortcut. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Frontend::ToolBarModule'}->{'1-Ticket::AgentTicketQueue'} = {
  'AccessKey' => 'q',
  'Action' => 'AgentTicketQueue',
  'CssClass' => 'QueueView',
  'Icon' => 'fa fa-folder',
  'Link' => 'Action=AgentTicketQueue',
```

```
'Module' => 'Kernel::Output::HTML::ToolBar::Link',
'Name' => 'Queue view',
'Priority' => '1010010'
};
```

### Frontend::ToolBarModule###2-Ticket::AgentTicketStatus

Toolbar Item for a shortcut. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Frontend::ToolBarModule'}->{'2-Ticket::AgentTicketStatus'} = {
'AccessKey' => 'S',
'Action' => 'AgentTicketStatusView',
'CssClass' => 'StatusView',
'Icon' => 'fa fa-list-ol',
'Link' => 'Action=AgentTicketStatusView',
'Module' => 'Kernel::Output::HTML::ToolBar::Link',
'Name' => 'Status view',
'Priority' => '1010020'
};
```

### Frontend::ToolBarModule###3-Ticket::AgentTicketEscalation

Toolbar Item for a shortcut. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Frontend::ToolBarModule'}->{'3-Ticket::AgentTicketEscalation'} = {
'AccessKey' => 'w',
'Action' => 'AgentTicketEscalationView',
'CssClass' => 'EscalationView',
'Icon' => 'fa fa-exclamation',
'Link' => 'Action=AgentTicketEscalationView',
'Module' => 'Kernel::Output::HTML::ToolBar::Link',
'Name' => 'Escalation view',
'Priority' => '1010030'
};
```

### Frontend::ToolBarModule###4-Ticket::AgentTicketPhone

Toolbar Item for a shortcut. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Frontend::ToolBarModule'}->{'4-Ticket::AgentTicketPhone'} = {
'AccessKey' => '',
'Action' => 'AgentTicketPhone',
'CssClass' => 'PhoneTicket',
'Icon' => 'fa fa-phone',
'Link' => 'Action=AgentTicketPhone',
'Module' => 'Kernel::Output::HTML::ToolBar::Link',
'Name' => 'New phone ticket',
'Priority' => '1020010'
};
```

### Frontend::ToolBarModule###5-Ticket::AgentTicketEmail

Toolbar Item for a shortcut. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Frontend::ToolBarModule'}->{'5-Ticket::AgentTicketEmail'} = {
  'AccessKey' => '',
  'Action' => 'AgentTicketEmail',
  'CssClass' => 'EmailTicket',
  'Icon' => 'fa fa-envelope',
  'Link' => 'Action=AgentTicketEmail',
  'Module' => 'Kernel::Output::HTML::ToolBar::Link',
  'Name' => 'New email ticket',
  'Priority' => '1020020'
};
```

### Frontend::ToolBarModule###6-Ticket::AgentTicketProcess

Toolbar Item for a shortcut. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Frontend::ToolBarModule'}->{'6-Ticket::AgentTicketProcess'} = {
  'AccessKey' => '',
  'Action' => 'AgentTicketProcess',
  'CssClass' => 'ProcessTicket',
  'Icon' => 'fa fa-th-large',
  'Link' => 'Action=AgentTicketProcess',
  'Module' => 'Kernel::Output::HTML::ToolBar::Link',
  'Name' => 'New process ticket',
  'Priority' => '1020030'
};
```

### Frontend::ToolBarModule###7-Ticket::TicketResponsible

Agent interface notification module to see the number of tickets an agent is responsible for. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2".

Thamani chaguo-msingi:

```
$Self->{'Frontend::ToolBarModule'}->{'7-Ticket::TicketResponsible'} = {
  'AccessKey' => 'r',
  'AccessKeyNew' => '',
  'AccessKeyReached' => '',
  'CssClass' => 'Responsible',
  'CssClassNew' => 'Responsible New',
  'CssClassReached' => 'Responsible Reached',
  'Icon' => 'fa fa-user',
  'IconNew' => 'fa fa-user',
  'IconReached' => 'fa fa-user',
  'Module' => 'Kernel::Output::HTML::ToolBar::TicketResponsible',
  'Priority' => '1030010'
};
```

### Frontend::ToolBarModule###8-Ticket::TicketWatcher

Agent interface notification module to see the number of watched tickets. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2".

Thamani chaguo-msingi:

```
$Self->{'Frontend::ToolBarModule'}->{'8-Ticket::TicketWatcher'} = {
  'AccessKey' => '',
  'AccessKeyNew' => '',
```

```
'AccessKeyReached' => '',
'CssClass' => 'Watcher',
'CssClassNew' => 'Watcher New',
'CssClassReached' => 'Watcher Reached',
'Icon' => 'fa fa-eye',
'IconNew' => 'fa fa-eye',
'IconReached' => 'fa fa-eye',
'Module' => 'Kernel::Output::HTML::ToolBar::TicketWatcher',
'Priority' => '1030020'
};
```

### Frontend::ToolBarModule###9-Ticket::TicketLocked

Agent interface notification module to see the number of locked tickets. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2".

Thamani chaguo-msingi:

```
$Self->{'Frontend::ToolBarModule'}->{'9-Ticket::TicketLocked'} = {
'AccessKey' => 'k',
'AccessKeyNew' => '',
'AccessKeyReached' => '',
'CssClass' => 'Locked',
'CssClassNew' => 'Locked New',
'CssClassReached' => 'Locked Reached',
'Icon' => 'fa fa-lock',
'IconNew' => 'fa fa-lock',
'IconReached' => 'fa fa-lock',
'Module' => 'Kernel::Output::HTML::ToolBar::TicketLocked',
'Priority' => '1030030'
};
```

### Frontend::ToolBarModule###10-Ticket::AgentTicketService

Agent interface notification module to see the number of tickets in My Services. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Frontend::ToolBarModule'}->{'10-Ticket::AgentTicketService'} = {
'CssClass' => 'ServiceView',
'Icon' => 'fa fa-wrench',
'Module' => 'Kernel::Output::HTML::ToolBar::TicketService',
'Priority' => '1030035'
};
```

### Frontend::ToolBarModule###11-Ticket::TicketSearchProfile

Agent interface module to access search profiles via nav bar. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Frontend::ToolBarModule'}->{'11-Ticket::TicketSearchProfile'} = {
'Block' => 'ToolBarSearchProfile',
'Description' => 'Search template',
'MaxWidth' => '40',
'Module' => 'Kernel::Output::HTML::ToolBar::TicketSearchProfile',
'Name' => 'Search template',
'Priority' => '1990010'
};
```

### Frontend::ToolBarModule###12-Ticket::TicketSearchFulltext

Agent interface module to access fulltext search via nav bar. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Frontend::ToolBarModule'}->{'12-Ticket::TicketSearchFulltext'} = {
  'Block' => 'ToolBarSearchFulltext',
  'CSS' => 'Core.Agent.Toolbar.FulltextSearch.css',
  'Description' => 'Fulltext search',
  'Module' => 'Kernel::Output::HTML::ToolBar::Generic',
  'Name' => 'Fulltext search',
  'Priority' => '1990020',
  'Size' => '10'
};
```

### Frontend::ToolBarModule###13-CICSearchCustomerID

Agent interface module to access CIC search via nav bar. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Frontend::ToolBarModule'}->{'13-CICSearchCustomerID'} = {
  'Block' => 'ToolBarCICSearchCustomerID',
  'CSS' => 'Core.Agent.Toolbar.CICSearch.css',
  'Description' => 'CustomerID search',
  'Module' => 'Kernel::Output::HTML::ToolBar::Generic',
  'Name' => 'CustomerID search',
  'Priority' => '1990030',
  'Size' => '10'
};
```

### Frontend::ToolBarModule###14-CICSearchCustomerUser

Agent interface module to access CIC search via nav bar. Additional access control to show or not show this link can be done by using Key "Group" and Content like "rw:group1;move\_into:group2".

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Frontend::ToolBarModule'}->{'14-CICSearchCustomerUser'} = {
  'Block' => 'ToolBarCICSearchCustomerUser',
  'CSS' => 'Core.Agent.Toolbar.CICSearch.css',
  'Description' => 'Customer user search',
  'Module' => 'Kernel::Output::HTML::ToolBar::Generic',
  'Name' => 'Customer user search',
  'Priority' => '1990040',
  'Size' => '10'
};
```

## Ticket → Frontend::Customer

### Ticket::Frontend::CustomerDisableCompanyTicketAccess

This option will deny the access to customer company tickets, which are not created by the customer user.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerDisableCompanyTicketAccess'} = '0';
```

### **Ticket::Frontend::CustomerTicketOverviewCustomEmptyText**

Custom text for the page shown to customers that have no tickets yet (if you need those text translated add them to a custom translation module).

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketOverviewCustomEmptyText'} = {
  'Button' => 'Create your first ticket',
  'Text' => 'Please click the button below to create your first ticket.',
  'Title' => 'Welcome!'
};
```

### **Frontend::CustomerUser::Item###15-OpenTickets**

Customer item (icon) which shows the open tickets of this customer as info block. Setting CustomerUserLogin to 1 searches for tickets based on login name rather than CustomerID.

Thamani chaguo-msingi:

```
$Self->{'Frontend::CustomerUser::Item'}->{'15-OpenTickets'} = {
  'Action' => 'AgentTicketSearch',
  'Attributes' => 'StateType=Open;',
  'CSS' => 'Core.Agent.CustomerUser.OpenTicket.css',
  'CSSClassNoOpenTicket' => 'NoOpenTicket',
  'CSSClassOpenTicket' => 'OpenTicket',
  'CustomerUserLogin' => '0',
  'IconNameNoOpenTicket' => 'fa-check-circle',
  'IconNameOpenTicket' => 'fa-exclamation-circle',
  'Module' => 'Kernel::Output::HTML::CustomerUser::GenericTicket',
  'Subaction' => 'Search',
  'Target' => '_blank',
  'Text' => 'Open tickets (customer)'
};
```

### **Frontend::CustomerUser::Item###16-OpenTicketsForCustomerUserLogin**

Customer item (icon) which shows the open tickets of this customer as info block. Setting CustomerUserLogin to 1 searches for tickets based on login name rather than CustomerID.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Frontend::CustomerUser::Item'}->{'16-OpenTicketsForCustomerUserLogin'} = {
  'Action' => 'AgentTicketSearch',
  'Attributes' => 'StateType=Open;',
  'CSS' => 'Core.Agent.CustomerUser.OpenTicket.css',
  'CSSClassNoOpenTicket' => 'NoOpenTicket',
  'CSSClassOpenTicket' => 'OpenTicket',
  'CustomerUserLogin' => '1',
  'IconNameNoOpenTicket' => 'fa-check-circle',
  'IconNameOpenTicket' => 'fa-exclamation-circle',
  'Module' => 'Kernel::Output::HTML::CustomerUser::GenericTicket',
  'Subaction' => 'Search',
  'Target' => '_blank',
  'Text' => 'Open tickets (customer user)'
};
```

### Frontend::CustomerUser::Item###17-ClosedTickets

Customer item (icon) which shows the closed tickets of this customer as info block. Setting CustomerUserLogin to 1 searches for tickets based on login name rather than CustomerID.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Frontend::CustomerUser::Item'}->{'17-ClosedTickets'} = {
  'Action' => 'AgentTicketSearch',
  'Attributes' => 'StateType=Closed;',
  'CSS' => 'Core.Agent.CustomerUser.OpenTicket.css',
  'CSSClassNoOpenTicket' => 'NoOpenTicket',
  'CSSClassOpenTicket' => 'OpenTicket',
  'CustomerUserLogin' => '0',
  'IconNameNoOpenTicket' => 'fa-power-off',
  'IconNameOpenTicket' => 'fa-power-off',
  'Module' => 'Kernel::Output::HTML::CustomerUser::GenericTicket',
  'Subaction' => 'Search',
  'Target' => '_blank',
  'Text' => 'Closed tickets (customer)'
};
```

### Frontend::CustomerUser::Item###18-ClosedTicketsForCustomerUserLogin

Customer item (icon) which shows the closed tickets of this customer as info block. Setting CustomerUserLogin to 1 searches for tickets based on login name rather than CustomerID.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Frontend::CustomerUser::Item'}->{'18-ClosedTicketsForCustomerUserLogin'} = {
  'Action' => 'AgentTicketSearch',
  'Attributes' => 'StateType=Closed;',
  'CSS' => 'Core.Agent.CustomerUser.OpenTicket.css',
  'CSSClassNoOpenTicket' => 'NoOpenTicket',
  'CSSClassOpenTicket' => 'OpenTicket',
  'CustomerUserLogin' => '1',
  'IconNameNoOpenTicket' => 'fa-power-off',
  'IconNameOpenTicket' => 'fa-power-off',
  'Module' => 'Kernel::Output::HTML::CustomerUser::GenericTicket',
  'Subaction' => 'Search',
  'Target' => '_blank',
  'Text' => 'Closed tickets (customer user)'
};
```

### CustomerFrontend::CommonParam###Action

Defines the default used Frontend-Module if no Action parameter given in the url on the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerFrontend::CommonParam'}->{'Action'} = 'CustomerTicketOverview';
```

### CustomerFrontend::CommonParam###TicketID

Default ticket ID used by the system in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:



```
$Self->{'CustomerFrontend::CommonParam'}->{'TicketID'} = '';
```

## Ticket → Frontend::Customer::ModuleMetaHead

### CustomerFrontend::HeaderMetaModule###2-TicketSearch

Module to generate html OpenSearch profile for short ticket search in the customer interface.

Thamani chaguo-msingi:

```
$Self->{'CustomerFrontend::HeaderMetaModule'}->{'2-TicketSearch'} = {
  'Action' => 'CustomerTicketSearch',
  'Module' => 'Kernel::Output::HTML::HeaderMeta::CustomerTicketSearch'
};
```

## Ticket → Frontend::Customer::ModuleRegistration

### CustomerFrontend::Module###CustomerTicketOverview

Frontend module registration for the customer interface.

Thamani chaguo-msingi:

```
$Self->{'CustomerFrontend::Module'}->{'CustomerTicketOverview'} = {
  'Description' => 'Overview of customer tickets.',
  'NavBar' => [
    {
      'AccessKey' => 'm',
      'Block' => '',
      'Description' => 'Tickets.',
      'Link' => 'Action=CustomerTicketOverview;Subaction=MyTickets',
      'LinkOption' => '',
      'Name' => 'Tickets',
      'NavBar' => 'Ticket',
      'Prio' => '100',
      'Type' => 'Menu'
    },
    {
      'AccessKey' => '',
      'Block' => '',
      'Description' => 'My Tickets.',
      'Link' => 'Action=CustomerTicketOverview;Subaction=MyTickets',
      'LinkOption' => '',
      'Name' => 'My Tickets',
      'NavBar' => 'Ticket',
      'Prio' => '110',
      'Type' => 'Submenu'
    },
    {
      'AccessKey' => 'M',
      'Block' => '',
      'Description' => 'Company Tickets.',
      'Link' => 'Action=CustomerTicketOverview;Subaction=CompanyTickets',
      'LinkOption' => '',
      'Name' => 'Company Tickets',
      'NavBar' => 'Ticket',
      'Prio' => '120',
      'Type' => 'Submenu'
    }
  ],
  'NavBarName' => 'Ticket',
  'Title' => 'Overview'
};
```

### CustomerFrontend::Module###CustomerTicketMessage

Frontend module registration for the customer interface.

Thamani chaguo-msingi:

```
$Self->{'CustomerFrontend::Module'}->{'CustomerTicketMessage'} = {
  'Description' => 'Create tickets.',
  'NavBar' => [
    {
      'AccessKey' => 'n',
      'Block' => '',
      'Description' => 'Create new Ticket.',
      'Link' => 'Action=CustomerTicketMessage',
      'LinkOption' => '',
      'Name' => 'New Ticket',
      'NavBar' => 'Ticket',
      'Prio' => '100',
      'Type' => 'Submenu'
    }
  ],
  'NavBarName' => 'Ticket',
  'Title' => 'New Ticket'
};
```

### CustomerFrontend::Module###CustomerTicketZoom

Frontend module registration for the customer interface.

Thamani chaguo-msingi:

```
$Self->{'CustomerFrontend::Module'}->{'CustomerTicketZoom'} = {
  'Description' => 'Ticket zoom view.',
  'Loader' => {
    'JavaScript' => [
      'Core.Customer.TicketZoom.js',
      'Core.UI.Popup.js'
    ]
  },
  'NavBarName' => 'Ticket',
  'Title' => 'Zoom'
};
```

### CustomerFrontend::Module###CustomerTicketPrint

Frontend module registration for the customer interface.

Thamani chaguo-msingi:

```
$Self->{'CustomerFrontend::Module'}->{'CustomerTicketPrint'} = {
  'Description' => 'Customer Ticket Print Module.',
  'NavBarName' => '',
  'Title' => 'Print'
};
```

### CustomerFrontend::Module###CustomerTicketAttachment

Frontend module registration for the customer interface.

Thamani chaguo-msingi:

```
$Self->{'CustomerFrontend::Module'}->{'CustomerTicketAttachment'} = {
  'Description' => 'To download attachments.',
  'NavBarName' => '',
  'Title' => ''
};
```

### CustomerFrontend::Module###CustomerTicketSearch

Frontend module registration for the customer interface.

Thamani chaguo-msingi:

```
$Self->{'CustomerFrontend::Module'}->{'CustomerTicketSearch'} = {
```

```
'Description' => 'Customer ticket search.',
'NavBar' => [
  {
    'AccessKey' => 's',
    'Block' => '',
    'Description' => 'Search.',
    'Link' => 'Action=CustomerTicketSearch',
    'LinkOption' => '',
    'Name' => 'Search',
    'NavBar' => 'Ticket',
    'Prio' => '300',
    'Type' => 'Submenu'
  }
],
'NavBarName' => 'Ticket',
'Title' => 'Search'
};
```

## Ticket → Frontend::Customer::Preferences

### CustomerPreferencesGroups###ShownTickets

Defines all the parameters for the ShownTickets object in the customer preferences of the customer interface.

Thamani chaguo-msingi:

```
$Self->{'CustomerPreferencesGroups'}->{'ShownTickets'} = {
  'Active' => '1',
  'Column' => 'User Profile',
  'Data' => {
    '15' => '15',
    '20' => '20',
    '25' => '25',
    '30' => '30'
  },
  'DataSelected' => '25',
  'Desc' => 'Select how many tickets should be shown in overviews by default.',
  'Key' => 'Tickets per page',
  'Label' => 'Number of displayed tickets',
  'Module' => 'Kernel::Output::HTML::Preferences::Generic',
  'PrefKey' => 'UserShowTickets',
  'Prio' => '4000'
};
```

### CustomerPreferencesGroups###RefreshTime

Defines all the parameters for the RefreshTime object in the customer preferences of the customer interface.

Thamani chaguo-msingi:

```
$Self->{'CustomerPreferencesGroups'}->{'RefreshTime'} = {
  'Active' => '1',
  'Column' => 'User Profile',
  'Data' => {
    '0' => 'off',
    '10' => '10 minutes',
    '15' => '15 minutes',
    '2' => ' 2 minutes',
    '5' => ' 5 minutes',
    '7' => ' 7 minutes'
  },
  'DataSelected' => '0',
  'Desc' => 'Select after which period ticket overviews should refresh automatically.',
  'Key' => 'Refresh interval',
  'Label' => 'Ticket overview',
  'Module' => 'Kernel::Output::HTML::Preferences::Generic',
  'PrefKey' => 'UserRefreshTime',
  'Prio' => '4000'
};
```

```
};
```

## **Ticket → Frontend::Customer::Ticket::ViewNew**

### **Ticket::Frontend::CustomerTicketMessage###NextScreenAfterNewTicket**

Determines the next screen after new customer ticket in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketMessage'}->{'NextScreenAfterNewTicket'} =  
'CustomerTicketOverview';
```

### **Ticket::Frontend::CustomerTicketMessage###Priority**

Allows customers to set the ticket priority in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketMessage'}->{'Priority'} = '1';
```

### **Ticket::Frontend::CustomerTicketMessage###PriorityDefault**

Defines the default priority of new customer tickets in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketMessage'}->{'PriorityDefault'} = '3 normal';
```

### **Ticket::Frontend::CustomerTicketMessage###Queue**

Allows customers to set the ticket queue in the customer interface. If this is set to 'No', QueueDefault should be configured.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketMessage'}->{'Queue'} = '1';
```

### **Ticket::Frontend::CustomerTicketMessage###QueueDefault**

Defines the default queue for new customer tickets in the customer interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketMessage'}->{'QueueDefault'} = 'Postmaster';
```

### **Ticket::Frontend::CustomerTicketMessage###TicketType**

Allows customers to set the ticket type in the customer interface. If this is set to 'No', TicketTypeDefault should be configured.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketMessage'}->{'TicketType'} = '1';
```

### **Ticket::Frontend::CustomerTicketMessage###TicketTypeDefault**

Defines the default ticket type for new customer tickets in the customer interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketMessage'}->{'TicketTypeDefault'} = 'Unclassified';
```

### **Ticket::Frontend::CustomerTicketMessage###Service**

Allows customers to set the ticket service in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketMessage'}->{'Service'} = '1';
```

### **Ticket::Frontend::CustomerTicketMessage###SLA**

Allows customers to set the ticket SLA in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketMessage'}->{'SLA'} = '1';
```

### **Ticket::Frontend::CustomerTicketMessage###ServiceMandatory**

Sets if service must be selected by the customer.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketMessage'}->{'ServiceMandatory'} = '0';
```

### **Ticket::Frontend::CustomerTicketMessage###SLAMandatory**

Sets if SLA must be selected by the customer.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketMessage'}->{'SLAMandatory'} = '0';
```

### **Ticket::Frontend::CustomerTicketMessage###StateDefault**

Defines the default state of new customer tickets in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketMessage'}->{'StateDefault'} = 'new';
```

### **Ticket::Frontend::CustomerTicketMessage###ArticleType**

Defines the default type for article in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketMessage'}->{'ArticleType'} = 'webrequest';
```

### **Ticket::Frontend::CustomerTicketMessage###SenderType**

Sender type for new tickets from the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketMessage'}->{'SenderType'} = 'customer';
```

### **Ticket::Frontend::CustomerTicketMessage###HistoryType**

Defines the default history type in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketMessage'}->{'HistoryType'} = 'WebRequestCustomer';
```

### **Ticket::Frontend::CustomerTicketMessage###HistoryComment**

Comment for new history entries in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketMessage'}->{'HistoryComment'} = '';
```

### **CustomerPanelSelectionType**

Defines the recipient target of the tickets ("Queue" shows all queues, "SystemAddress" shows only the queues which are assigned to system addresses) in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerPanelSelectionType'} = 'Queue';
```

### **CustomerPanelSelectionString**

Determines the strings that will be shown as recipient (To:) of the ticket in the customer interface. For Queue as CustomerPanelSelectionType, "<Queue>" shows the names of the queues, and for SystemAddress, "<Realname> <<Email>>" shows the name and email of the recipient.

Thamani chaguo-msingi:

```
$Self->{'CustomerPanelSelectionString'} = '<Queue>';
```

### **CustomerPanelOwnSelection**

Determines which queues will be valid for ticket's recipients in the customer interface.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'CustomerPanelOwnSelection'} = { 'Junk' => 'First Queue',
```

```
'Misc' => 'Second Queue'
};
```

### **CustomerPanel::NewTicketQueueSelectionModule**

Module for To-selection in new ticket screen in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'CustomerPanel::NewTicketQueueSelectionModule'} =
'Kernel::Output::HTML::CustomerNewTicket::QueueSelectionGeneric';
```

### **Ticket::Frontend::CustomerTicketMessage###DynamicField**

Dynamic fields options shown in the ticket message screen of the customer interface. Possible settings: 0 = Disabled, 1 = Enabled, 2 = Enabled and required. NOTE. If you want to display these fields also in the ticket zoom of the customer interface, you have to enable them in CustomerTicketZoom###DynamicField.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketMessage'}->{'DynamicField'} = {};
```

### **Ticket → Frontend::Customer::Ticket::ViewPrint**

#### **Ticket::Frontend::CustomerTicketPrint###DynamicField**

Dynamic fields shown in the ticket print screen of the customer interface. Possible settings: 0 = Disabled, 1 = Enabled.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketPrint'}->{'DynamicField'} = {};
```

### **Ticket → Frontend::Customer::Ticket::ViewSearch**

#### **Ticket::CustomerTicketSearch::SearchLimit**

Maximum number of tickets to be displayed in the result of a search in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::CustomerTicketSearch::SearchLimit'} = '5000';
```

#### **Ticket::CustomerTicketSearch::SearchPageShown**

Number of tickets to be displayed in each page of a search result in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::CustomerTicketSearch::SearchPageShown'} = '40';
```

#### **Ticket::CustomerTicketSearch::SortBy::Default**

Defines the default ticket attribute for ticket sorting in a ticket search of the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::CustomerTicketSearch::SortBy::Default'} = 'Age';
```

### **Ticket::CustomerTicketSearch::Order::Default**

Defines the default ticket order of a search result in the customer interface. Up: oldest on top. Down: latest on top.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::CustomerTicketSearch::Order::Default'} = 'Down';
```

### **Ticket::Frontend::CustomerTicketSearch###ExtendedSearchCondition**

Allows extended search conditions in ticket search of the customer interface. With this feature you can search e. g. ticket title with this kind of conditions like "(\*key1\*&&\*key2\*)" or "(\*key1\*||\*key2\*)".

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketSearch'}->{'ExtendedSearchCondition'} = '1';
```

### **Customer::TicketSearch::AllServices**

If enabled, the customer can search for tickets in all services (regardless what services are assigned to the customer).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Customer::TicketSearch::AllServices'} = '0';
```

### **Ticket::Frontend::CustomerTicketSearch###SearchArticleCSVTree**

Exports the whole article tree in search result (it can affect the system performance).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketSearch'}->{'SearchArticleCSVTree'} = '0';
```

### **Ticket::Frontend::CustomerTicketSearch###SearchCSVData**

Data used to export the search result in CSV format.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketSearch'}->{'SearchCSVData'} = [
  'TicketNumber',
  'Age',
  'Created',
  'Closed',
  'State',
  'Priority',
```



```
'Lock',
'CustomerID',
'CustomerName',
'From',
'Subject'
];
```

### **Ticket::Frontend::CustomerTicketSearch###DynamicField**

Dynamic fields shown in the ticket search screen of the customer interface. Possible settings: 0 = Disabled, 1 = Enabled.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketSearch'}->{'DynamicField'} = {};
```

### **Ticket::Frontend::CustomerTicketSearch###SearchOverviewDynamicField**

Dynamic fields shown in the ticket search overview results screen of the customer interface. Possible settings: 0 = Disabled, 1 = Enabled.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketSearch'}->{'SearchOverviewDynamicField'} = {};
```

### **Ticket::Frontend::CustomerTicketSearch###SearchCSVDynamicField**

Dynamic Fields used to export the search result in CSV format.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketSearch'}->{'SearchCSVDynamicField'} = {};
```

## **Ticket → Frontend::Customer::Ticket::ViewZoom**

### **Ticket::Frontend::CustomerTicketZoom###NextScreenAfterFollowUp**

Determines the next screen after the follow-up screen of a zoomed ticket in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketZoom'}->{'NextScreenAfterFollowUp'} = 'CustomerTicketOverview';
```

### **Ticket::Frontend::CustomerTicketZoom###ArticleType**

Defines the default type of the note in the ticket zoom screen of the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketZoom'}->{'ArticleType'} = 'webrequest';
```

### **Ticket::Frontend::CustomerTicketZoom###SenderType**

Defines the default sender type for tickets in the ticket zoom screen of the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketZoom'}->{'SenderType'} = 'customer';
```

### **Ticket::Frontend::CustomerTicketZoom###HistoryType**

Defines the history type for the ticket zoom action, which gets used for ticket history in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketZoom'}->{'HistoryType'} = 'FollowUp';
```

### **Ticket::Frontend::CustomerTicketZoom###HistoryComment**

Defines the history comment for the ticket zoom action, which gets used for ticket history in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketZoom'}->{'HistoryComment'} = '';
```

### **Ticket::Frontend::CustomerTicketZoom###Priority**

Allows customers to change the ticket priority in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketZoom'}->{'Priority'} = '1';
```

### **Ticket::Frontend::CustomerTicketZoom###PriorityDefault**

Defines the default priority of follow-up customer tickets in the ticket zoom screen in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketZoom'}->{'PriorityDefault'} = '3 normal';
```

### **Ticket::Frontend::CustomerTicketZoom###State**

Allows choosing the next compose state for customer tickets in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketZoom'}->{'State'} = '1';
```

### **Ticket::Frontend::CustomerTicketZoom###StateDefault**

Defines the default next state for a ticket after customer follow-up in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketZoom'}->{'StateDefault'} = 'open';
```

### **Ticket::Frontend::CustomerTicketZoom###StateType**

Defines the next possible states for customer tickets in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketZoom'}->{'StateType'} = [
  'open',
  'closed'
];
```

### **Ticket::Frontend::CustomerTicketZoom###AttributesView**

Shows the activated ticket attributes in the customer interface (0 = Disabled and 1 = Enabled).

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketZoom'}->{'AttributesView'} = {
  'Owner' => '0',
  'Priority' => '1',
  'Queue' => '1',
  'Responsible' => '0',
  'SLA' => '0',
  'Service' => '0',
  'State' => '1',
  'Type' => '0'
};
```

### **Ticket::Frontend::CustomerTicketZoom###DisplayNoteFrom**

Defines the displayed style of the From field in notes that are visible for customers. A default agent name can be defined in Ticket::Frontend::CustomerTicketZoom###DefaultAgentName setting.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketZoom'}->{'DisplayNoteFrom'} = 'FromField';
```

### **Ticket::Frontend::CustomerTicketZoom###DefaultAgentName**

Defines the default agent name in the ticket zoom view of the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketZoom'}->{'DefaultAgentName'} = 'Support Agent';
```

### **Ticket::Frontend::CustomerTicketZoom###DynamicField**

Dynamic fields shown in the ticket zoom screen of the customer interface. Possible settings: 0 = Disabled, 1 = Enabled.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketZoom'}->{'DynamicField'} = {};
```

### **Ticket::Frontend::CustomerTicketZoom###FollowUpDynamicField**

Dynamic fields options shown in the ticket reply section in the ticket zoom screen of the customer interface. Possible settings: 0 = Disabled, 1 = Enabled, 2 = Enabled and required.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketZoom'}->{'FollowUpDynamicField'} = {};
```

### **Ticket → Frontend::Customer::TicketOverview**

#### **Ticket::Frontend::CustomerTicketOverviewSortable**

Controls if customers have the ability to sort their tickets.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketOverviewSortable'} = '';
```

#### **Ticket::Frontend::CustomerTicketOverview###ColumnHeader**

Shows either the last customer article's subject or the ticket title in the small format overview.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketOverview'}->{'ColumnHeader'} = 'TicketTitle';
```

#### **Ticket::Frontend::CustomerTicketOverview###Owner**

Show the current owner in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketOverview'}->{'Owner'} = '0';
```

#### **Ticket::Frontend::CustomerTicketOverview###Queue**

Show the current queue in the customer interface.

This setting can not be deactivated.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketOverview'}->{'Queue'} = '0';
```

#### **Ticket::Frontend::CustomerTicketOverview###DynamicField**

Dynamic fields shown in the ticket overview screen of the customer interface. Possible settings: 0 = Disabled, 1 = Enabled, 2 = Enabled and required.

Thamani chaguo-msingi:

```
$Self->{'Ticket::Frontend::CustomerTicketOverview'}->{'DynamicField'} = {};
```

### **Ticket → Frontend::Queue::Preferences**

#### **QueuePreferences###Comment2**

Parameters of the example queue attribute Comment2.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'QueuePreferences'}->{'Comment2'} = {  
  'Block' => 'TextArea',  
  'Cols' => '50',  
  'Desc' => 'Define the queue comment 2.',  
  'Label' => 'Comment2',  
  'Module' => 'Kernel::Output::HTML::QueuePreferences::Generic',  
  'PrefKey' => 'Comment2',  
  'Rows' => '5'  
};
```

## Ticket → Frontend::SLA::Preferences

### SLAPreferences###Comment2

Parameters of the example SLA attribute Comment2.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'SLAPreferences'}->{'Comment2'} = {  
  'Block' => 'TextArea',  
  'Cols' => '50',  
  'Desc' => 'Define the sla comment 2.',  
  'Label' => 'Comment2',  
  'Module' => 'Kernel::Output::HTML::SLAPreferences::Generic',  
  'PrefKey' => 'Comment2',  
  'Rows' => '5'  
};
```

## Ticket → Frontend::Service::Preferences

### ServicePreferences###Comment2

Parameters of the example service attribute Comment2.

This setting is not active by default.

Thamani chaguo-msingi:

```
$Self->{'ServicePreferences'}->{'Comment2'} = {  
  'Block' => 'TextArea',  
  'Cols' => '50',  
  'Desc' => 'Define the service comment 2.',  
  'Label' => 'Comment2',  
  'Module' => 'Kernel::Output::HTML::ServicePreferences::Generic',  
  'PrefKey' => 'Comment2',  
  'Rows' => '5'  
};
```

# Appendix C. Leseni ya Nyaraka Huru ya GNU

Toleo 1.1, Machi 2000

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## 0. UTANGULIZI

Lengo la hii Leseni ni kutengeneza mwongozo, daftari, au nyaraka nyingine iliyoandikwa "huru" katika hali ya uhuru: kumhakikishia kila mtu uhuru wa kunakili na kuisambaza upya, bila au kwa kuibadilisha, kwa biashara au sio kwa biashara. Kwa hali ya juu zaidi, hii Leseni inahifadhi kwa ajili ya mwandishi na mchapishaji jinsi ya kupata sifa kwa kazi zao, na sio kuonekana wahusika wa kubadili kaziza wengine.

Hii Leseni ni aina ya "nakilikushoto", ambayo inamaanisha kwamba kazi zitokanazo na nyaraka lazima nazo ziwe huru katika hali hiyo hiyo. Inaongezea kwenye GNU General Public Licence, ambayo ni leseni ya nakalakushoto iliyoundwa kwa ajili ya programu za bure.

Tumeunda hii leseni ili kuweza kuitumia kwa ajili ya miongozo ya programu za bure, kwa sababau programu za bure zinahitaji nyaraka za bure: programu ya bure lazima ije na miongozo inayotoa uhuru sawa na ule unaotolewa na programu. Lakini hii leseni haina kikomo kwa miongozo ya programu; inaweza kutumika kwa ajili ya kazi zozote za nakala, bila kujali mada au kwamba inachapishwa kama kitabu. Tunashauri hii leseni kwa kazi ambazo lengo lake ni maelekezo au marejeo.

## 1. UTUMIKAJI NA FASILI

Leseni inafanya kazi kwa mwongozo wowote au kazi nyingine ambayo ina notisi iliyowekwa na mmiliki wa hakimiliki inayosema inaweza kusambazwa chini ya makubaiano ya Leseni hii. "Waraka", hapa chini, unaashiria mwongozo wowote au kazi. Mwanachama yoyote wa umma ni mmiliki wa leseni, na anaitwa "wewe".

"Toleo Lililobadilishwa" la Nyaraka inamaanisha kazi yoyote yenye Nyaraka au sehemu yake, aidha nakala isiyobadilishwa, au yenye mabadiliko na/au iliyotafsiriwa kwenda lugha nyingine.

"Kifungu cha Sekondari" ni kiambatanisho kilichopewa jina au kifungu cha mambo ya mbele ya nyaraka, inayohusika kipekee na uhusiano wa mchapishaji au mwandishi wa nyaraka na kichwa cha habari cha ujumla cha nyaraka (au kwa mambo yanayohusiana), na haina kitu ambacho kinaweza kuingia moja kwa moja ndani ya kichwa cha habari cha ujumla. (Kwa Mfano, kama Nyaraka ni sehemu ya kitabu cha hisabati, Kifungu cha Sekondari hakiwezi kuelezea hesabu yoyote.) Uhusiano huo unaweza kuwa wa muunganiko wa kihistoria au mambo yanayohusika, au sheria, biashara, falsafa, maadili au nafasi ya siasa inayohusiana nazo.

"Vifungu Visivyoathirika" ni Vifungu fulani vya Sekondari ambavyo vichwa vyao vimeteuliwa, kama vile vya Vifungu Visivyoathirika, katika notisi isemayo nyaraka imetolewa chini ya Leseni hii.

"Nakala za Jalada" ni vifungu vifupi vya maneno ambavyo vimeorodheshwa, kama Nakala za Mbele za Jalada au Nakala za Nyuma za Jalada, katika notisi inayosema Nyaraka imetolewa chini ya Leseni hii.

Naka "Angavu" ya Nyaraka inamaanisha nakala inayoweza kusomwa na mashine, inayowakilishwa katika umbo ambalo ubainishwaji wake unapatikana kwa umma kwa ujumla, ambao maudhui yake yanaweweza kuonekana na kuhaririwa moja kwa moja na kwa urahisi kwa kutumia vihariri vya nakala za ujumla au (kwa ajili ya taswira zilizojengwa na pikseli) programu za uchoraji za ujumla au (kwa ajili ya michoro) baadhi ya vihariri vya michoro vinavyopatikana kirahisi, na ambavyo vinafaa kwa ajili ya ingizo la nakala kwenye vinavyoandaa umbizo au kwa ajili ya tafsiri otomatiki kwa maumbo mbali mbali, vinavyofaa kwa ajili ya ingizo la viandaa umbizo la nakala. Nakala iliyotengenezwa katika faili lenye umbizo Angavu, ambalo dhulisho mabadiliko yake imeundwa kuzuia au kukatisha tamaa maboresho ya wasomaji sio Angavu. Nakala ambayo siyo "Angavu" inaitwa "Isiyo angavu".

Mifano ya maumbo yanayofaa kwa ajili ya nakala Angavu inajumuisha: ASCII wazi bila dhulisho mabadiliko, umbizo la maingizo la Texinfo, umbizo la maingizo la LaTeX, SGML au XML kwa kutumia DTD inayopatikana kwa umma, na HTML ya kawaida iliyoundwa kwa ajili ya mabadiliko ya mwanadamu. Maumbo yasiyo angavu yanajumuisha: PostScript, PDF, maumbo binafsi ambayo yanaweza kusomwa na kuhaririwa na vichakatishi vya maneno binafsi tu, SGML au XML ambazo DTD na/au vifaa vya uchakatishaji havipatikani kwa ujumla, na HTML zinazozalishwa na mashine zinazotengenezwa na baadhi ya vichakatishi maneno kwa ajili ya matokeo tu.

"Ukurasa wa mbele" inamaanisha, kwa kitabu kilichochapishwa, ukurasa wa mbele wenyewe, kujumuisha na kurasa zinazofwata kama zinavyohitajika kushikilia, kusomwa, vitu ambavyo hii Leseni inahitaji vionekane kwenye ukurasa wa mbele. Kwa kazi zenye maumbo ambayo hayana ukurasa wa mbele wowote kama huu, "Ukurasa wa Mbele" inamaanisha nakala karibu ya muonekano muhimu wa kichwa cha habari cha kazi, kabla ya mwanzo wa kiini cha nakala.

## 2. KUNAKILI BILA KUBADILISHA KITU

Unaweza kunakili na kusambaza waraka kwa njia yoyote, aidha kwa biashara au sio kwa biashara, ukizingatia kwamba hii Leseni, notisi za hakimiliki, na notisi za leseni zinasema hii Leseni inafanya kazi kwa waraka huu inakuwepo kwa kila nakala, na huongezi masharti mengine yoyote kwa yale yaliyopo kwenye hii leseni. Hutakiwi kutumia vipimo vya kiu-fundi kuzuia au kudhibiti usomaji au utengenezaji wa nakala zingine zaidi ya zile ulizotengeneza au kusambaza. Hata hivyo unaweza kupokea fidia kwa ajili ya nakala. Kama ukisambaza idadi ya kutosha ya nakala pia ni lazima ufuate masharti katika kifungu cha 3.

Unaweza pia kuazima nakala, chini ya masharti sawa na yaliyosemwa juu, na unaweza kuonyesha kwa umma.

## 3. KUNAKILI KATIKA IDADI

Kama ukichapisha nakala za Nyaraka zenye idadi zaidi ya 100, na notisi ya leseni ya nyaraka inahitaji Nakala za Jalada, unatakiwa kujumuisha nakala zinazobeba, zinazosomeka na kuonekana kwa urahisi, Nakala za jalada zote hizi: Nakala za Jalada la Mbele katika jalada la mbele, na Nakala za Jalada la nyuma kwenye jalada la nyuma. Majalada yote lazima yaonyeshe kiurahisi na kwa kusomeka kwamba wewe ndiyo mchapishaji wa hizi nakala. Jalada la mbele lazima lionyeshe kichwa cha habari kizima chenye maneno yote yenye usawa na kuonekana. Unaweza kuongeza vitu vingine kwenye jalada kwa nyongeza. Kunakili na mabadiliko yenye kikomo kwa jalada, ikiwa tu zinahifadhi kichwa cha habari cha nyaraka na kuridhisha masharti haya, inaweza kuchukuliwa kama kunakili bila mabadiliko kwa upande mwingine.

Kama nakala zinazotakiwa kwa ajili ya majalada yote ni nyingi sana ili kutosha vizuri, unatakiwa kuweka za kwanza zikiwa zimeorodheshwa (nyingi kadri zitakavyotosha) katika jalada halisi, na kuendelea na zinazofwata katika kurasa za karibu.

Kama ukichapisha au kusambaza nakala Zisizo Angavu za Nyaraka idadi zaidi ya 100, lazima aidha ujumuishe nakala Angavu isomwayo na mashine pamoja na nakala Isiyo Angavu, au tamka kwenye au kwa kila nakala Isiyo Angavu eneo linalofikika na umma la mtandao wa kompyuta, lenye nakala kamili Angavu ya Nyaraka, isiyokuwa na nyongeza yoyote, ambayo mtandao wa ujumla wa umma una uwezo wa kupakua bila kujulikana, bila gharama yoyote, kwa kutumia kanuni za kawaida za mtandao wa umma. Kama ukitumia chaguo la mwisho, lazima uchukue hatua kwa uangalifu, ukianza usambazaji wa nakala Zisizo Angavu kwa idadi, kuhakikisha hii nakala Angavu itabakia ikipatikana katika eneo tajwa, mpaka angalau mwaka mmoja tangu mara ya mwisho umegawa nakala Isiyo Angavu (mwenyewe au kupitia mawakala wako au wauzaji wa rejareja) wa toleo hilo kwa umma.

Inaombwa na sio lazima, kwamba uwasiliane na waandishi wa nyaraka kabla ya kusambaza upya idadi kubwa ya nakala, kuwapa nafsi ya kukupa toleo lililosasishwa la nyaraka.

## 4. MABADILIKO

Unaweza kunakili na kusambaza Toleo Lililobadilishwa la Nyaraka chini ya masharti ya kifungu 2 na 3 juu, ikiwa kwamba unatoa Toleo Lililobadilishwa chini ya Leseni hii, na Toleo Lililobadilishwa likichukua jukumu la Nyaraka, hivyo usambazaji wa leseni na ubadilishaji wa Toleo Lililobadilishwa kwa yoyote anaemiliki nakala yake. Kwa zaidi, unatakiwa kufanya haya mambo kwenye Toleo Lililobadilishwa.

- A. Tumia katika Ukurasa wa Mada (na kwenye majalada kama yapo) mada tofauti kutoika ile ya Nyaraka, na zile za matoleo ya nyuma (ambazo zinatakiwa, kama zilikuwepo kuorodheshwa katika kifungu cha Historia cha Nyaraka). Unaweza kutumia mada sawa na ya toleo la nyuma kama mchapishaji halisi wa toleo hilo akitoa ruhusa.
- B. Orodha kwenye Ukurasa wa Mbele, kama waandishi, mtu mmoja au zaidi au vyombo vilivyohusika na uandishi wa mabadiliko katika Matoleo Mapya, pamoja na japo waandishi wakuu watano wa Nyaraka (waandishi wakuu wote, kama ina chini ya watano).
- C. Tamka katika ukurasa wa mbele jina la mchapishaji wa Toleo Lililobadilishwa, kama mchapishaji.
- D. Hifadhi notisi za hakimiliki zote za Nyaraka.
- E. Ongeza notisi sahihi ya hakimiliki kwa mabadiliko yake karibu na na notisi nyingine za hakimiliki.
- F. Jumuishwa, baada tu ya notisi za hakimiliki, notisi ya leseni kuupa umma ruhusa ya kutumia Toleo Lililobadilishwa chini ya sheria za Leseni, katika mfumo ulioonyeshwa katika kiambatanisho chini.
- G. Hifadhi katika notisi hiyo ya leseni orodha kamili ya Vifungu Visivyoathirika na Nakala za Jalada zinazotakiwa zilizotolewa katika notisi ya leseni ya Nyaraka.
- H. Ongeza nakala isiyobadilishwa ya Leseni hii.
- I. Hifadhi kifungu kiitwacho "Historia", na mada yake, na iongezee kifaa kinachosema japo mada, mwaka, waandishi wapya, na mchapishaji wa Toleo Lililobadilishwa kama ilivyo kwenye Ukurasa wa Mada. Kama hakuna kifungu kiitwacho "Historia" katika Nyaraka, tengeneza moja inayosema mada, mwaka, waandishi, na mchapishaji wa Nyaraka kama ilivyo kwenye Ukurasa wa Mada, kisha ongeza kifaa kinacholeleza Toleo Lililobadilishwa, kama ilivyoelezwa kwenye sentensi iliyopita.
- J. Hifadhi eneo la mtandao, kama lipo, ikiwa katika Nyaraka kwa ajili ya ufikivu wa umma kwenye nakala Wazi ya Nyaraka, na hivyo hivyo maeneo ya mtandao yaliyo kwenye Nyaraka kwa ajili ya matoleo yaliyopita iliyokuwa ikijikita. Hizi zinaweza kuwek-



wa kwenye kifungu "Historia". Unaweza kuondoa eneo la mtandao kwa kazi ambayo ilichapishwa japo miaka miine kabla ya Nyaraka yenyewe, au mchapishaji halisi wa toleo husika akiruhusu.

K. Katika kifungu chochote kilichoandikwa "Shukrani" au "Kujitolea", hifadhi mada za vifungu, na hifadhi kwenye vifungu vitu vyote na muonekano wa kila Shukrani ya mchangiaji na/au kujitolea yaliyotolewa.

L. Hifadhi Vifungu vyote Visivyoathirika vya Nyaraka, bila kubadilishwa nakala na katika sheria zake. Nambari za Vifungu au kinachofanania hazichukuliwi kama sehemu ya kichwa cha kifungu.

M. Futa kifungu chochote kiitwacho "Idhini". Kifungu kama hicho hakitakiwi kuwepo katika Toleo Lililobadilishwa.

N. Hutakiwi kukipa upya jina "Idhini" kipengele chochote kilichopo au kuingiliana majina na Kipengele Kisichobadilika chochote.

Kama Toleo Lililobadilishwa linajumuisha vifungu vya mambo ya mbele vipya au viambat-anisho ambavyo vina sifa kama Vifungu vya Sekondari na havina kitu chochote kilichonakiliwa kutoka kwenye Nyaraka, unaweza kwa uamuzi wako mwenyewe kuteua baadhi au vifungu vyote hivi kuwa Visivyobadilika. Kufanya hivi, ongeza vichwa vyao vya habari kwenye orodha ya Vifungu Visivyobadilika katika Matoleo Yaliyobadilishwa ya notisi ya leseni. Hivi vichwa vya habari lazima viwe tofauti na vile vya vifungu vingine.

Unaweza kuongeza kipengele kiitwacho "Idhini", ikiwa kwamba haina kitu kingine lakini idhini au uthibitisho wa Toleo Lako jipya kutoka kwa makundi mbali mbali--kwa mfano, kauli ya mapitio ya watu au kwamba nakala imeidhinishwa na shirika au mamlaka ya ufafanuzi wa viwango.

Unaweza kuongeza kifungu cha mpaka maneno matano kama Nakala ya Jalada la Mbele, na kiungu cha mpaka maneno 25 kama Nakala ya Jalada la Nyuma, kwenye mwisho wa orodha ya Nakala za Majalada katika Toleo Lililobadilishwa. Kifungu kimoja tu cha Nakala ya Jalada la Mbele na Nakala ya Jalada la Nyuma kinaweza kuongezwa na (au kupitia mipango iliyofanywa na) chombo chochote kimoja. Kama nyaraka tayari inajumuisha nakala ya jalada kutoka kwenye jalada hilo hilo, iliyoongezwa kabla na wewe au kwa mpango uliofanywa na chombo kile kile ambacho unakitumikia, huwezi kuongeza nyingine; lakini unaweza kuwa mbadala wa lililokuwepo, kwa ruhusa ya wazi kutoka kwa mchapishaji aliyeongeza ya zamani.

Mwandishi (waandishi) na mchapishaji (wachapishaji) wa nyaraka hawatoi ruhus akwa leseni hii kutumia majina yao kwa utangazaji au kwa madai au kama idhini ya Toleo lolote jipya.

## 5. KUJUMUISHA NYARAKA

Unaweza kuunganisha Nyaraka hiyo na Nyaraka nyingine zilizotolewa chini ya Leseni hii, chini ya masharti yaliyofafanuliwa katika kifungu 4 juu kwa matoleo yaliyobadilishwa, ikiwa kwamba unajumuisha katika muunganiko Vifungu vyote Visivyoathirika vya nyaraka zote halisi, ambazo hazijabadilishwa, na kuziorodhesha zote kama Vifungu Visivyoathirika vya kazi yako katika notisi yake ya leseni.

Kazi iliyounganishwa inahitaji kuwa na nakala moja ya hii Leseni, na Vifungu Visivyoathirika vingi vinavyofanana vinaweza kubadilishwa na nakala moja. Kama kuna Vifungu Visivyoathirika vingi vyenye jina moja lakini maudhui tofauti, fanya kichwa cha kila kifungu kuwa cha kipekee kwa kuongeza mwishoni mwake, katika mabano, jina la mwandishi halisi au mchapishaji wa kifungu hicho kama anajulikana, au namba ya kipekee. Fanya mabadiliko hayo hayo kwenye vichwa vya vifungu katika orodha ya Vifungu Visivyoathirika kwenye notisi ya leseni ya kazi iliyojumuishwa.

Katika majumuisho, lazima ujumuishie kifungu chochote kilichoandikwa "Historia" katika nyaraka halisi zozote, kutengeneza kifungu kimoja kiitwacho "Historia"; hivyo hivyo juumuisha vifungu vyovyote viitwavyo "Shukrani", na vifungu vyovyote viitwavyo "Kujitolea." Lazima ufute vifungu vyote viitwavyo "Endorsements."

## 6. MKUSANYIKO WA NYARAKA

Unaweza kutengeneza mkusanyiko unaojumuisha Nyaraka hiyo na nyaraka nyingine zilizotolewa chini ya Leseni hii, na kubadilisha nakala binafsi za leseni hii katika nyaraka tofauti kwa kutumia nakala moja ambayo imejumuishwa na mkusanyiko huu, ikiwa kwamba unafuata sheria za Leseni hii, kwa kunakili bila mabadiliko katika kila nyaraka kwa mambo mengine yote.

Unaweza kutoa dondoo ya nyaraka moja kutoka kwenye mkusanyiko, na kuisambaza kibinafsi chini ya hii Leseni, ikiwa umeingiza nakala ya leseni hii kwenye nyaraka hiyo, na kufuata hii Leseni katika mambo mengine yote kuhusu kunakili bila mabadiliko ya nyaraka hiyo.

## 7. KUJUMUISHA NA KAZI BINAFSI

Mkusanyiko wa Nyaraka au sehemu zake na nyaraka nyingine tofauti na huru au kazi, juu ya au ndani ya hifadhi ya wingi au chombo cha usambazaji, haihesabiki kwa ujumla kama Toleo lililobadilishwa la Nyaraka, ikiwa hakuna hakimiliki ya ukusanyaji iliyoombwa. Mkusanyiko wa aina hii unaitwa "aggregate", na hii Leseni haifanyi kazi kwenye kazi nyingine za binafsi ambazo zimejumuishwa na Nyaraka, kwa kuwa zimejumuishwa, kama zenyewe siyo sehemu za kazi ya Nyaraka.

Kama mahitaji ya Nakala ya Jalada ya kifungu 3 yanaweza kutumika kwenye hizi nakala za Nyaraka, basi kama nyaraka ni ndogo zaidi ya robo ya mkusanyiko mzima, Nakala za Jalada la Nyaraka zinaweza kuwekwa kwenye majalada ambayo yanazunguka Nyaraka tu ndani ya mkusanyiko. La sivyo lazima zitokee kwenye majalada kwenye mkusanyiko wote.

## 8. TAFSIRI

Tafsiri inachukuliwa kama aina ya ubadilishaji, kwa hiyo unaweza kusambaza tafsiri ya Nyaraka chini ya masharti ya kifungu 4. Kubadilisha Vifungu Visivyobadilika kwa tafsiri inahitaji rufusa maalumu kutoka kwa wanaoshikilia hakimiliki, lakini unaweza kujumuisha tafsiri ya baadhi au Vifungu Visivyobadilika vyote, kama nyongeza kwa matoleo halisi ya hivi Vifungu Visivyobadilika. Unaweza kujumuisha tafsiri ya hii Leseni ikiwa kwamba umejumuisha pia toleo halisi la Kiingereza la hii Leseni. Ikitokea kutokuwapo na makubaliano kati ya tafsiri na toleo halisi la Kiingereza la hii Leseni, toleo halisi la Kiingereza litatumika.

## 9. USITISHAJI

Huwezi kunakili, kubadilisha, kupata leseni ndogo, au kusambaza Nyaraka hiyo ila tu ikiwa imeonyeshwa chini ya Leseni hii. Jaribio lingine lolote la kunakili, kubadilisha, kupata leseni ndogo, au kusambaza Nyaraka ni batili, na itasitisha kiotomatiki haki zako chini ya Leseni hii. Hata hivyo, washirika waliopokea nakala, au haki, kutoka kwako chini ya Leseni hii hawatasisitishiwa leseni zao ikiwa tu wataendeleza ushirikiano kamili.

## 10. MAREKEBISHO YA BAADAYE YA HII LESENI

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