OTRS Administration Manual

Release 7.0

OTRS AG

Dec 18, 2018

Contents

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Introduction

OTRS (Open Technology – Real Service) is an open source ticket request system with many features to manage customer telephone calls and emails. It is distributed under the GNU General Public License (GPL) and tested on various Linux platforms. Do you receive many e-mails and want to answer them with a team of agents? You're going to love OTRS!

1.1 About This Manual

This manual is intended for use by OTRS administrators. The chapters describe the administration of the OTRS software. The administrator interface is available in the *Admin* menu item of the main menu, if you logged in as an administrator. Administrators are users, who are member of the *admin* group.

The administrator interface contains several modules collected into groups. Use the filter box in the left sidebar to find a particular module by just typing the name to filter.

This manual shows you the configuration possibilities needed to solve common problems. The chapters:

1. Identify a typical use-case for the administrator, to aid in orientation, and explain **what** OTRS does to provide a solution (WARRANTY).

2. Direct you **how** to configure OTRS to fit your use-case (UTILITY).

The chapters are the same as the modules in the administrator interface. The order of the chapters are also the same as they are displayed alphabetically in the (English) administrator interface. However, the steps to do to configure a fresh new OTRS installation is different from this order. We recommend to configure OTRS to do the steps as explained below.

1.2 Getting Started
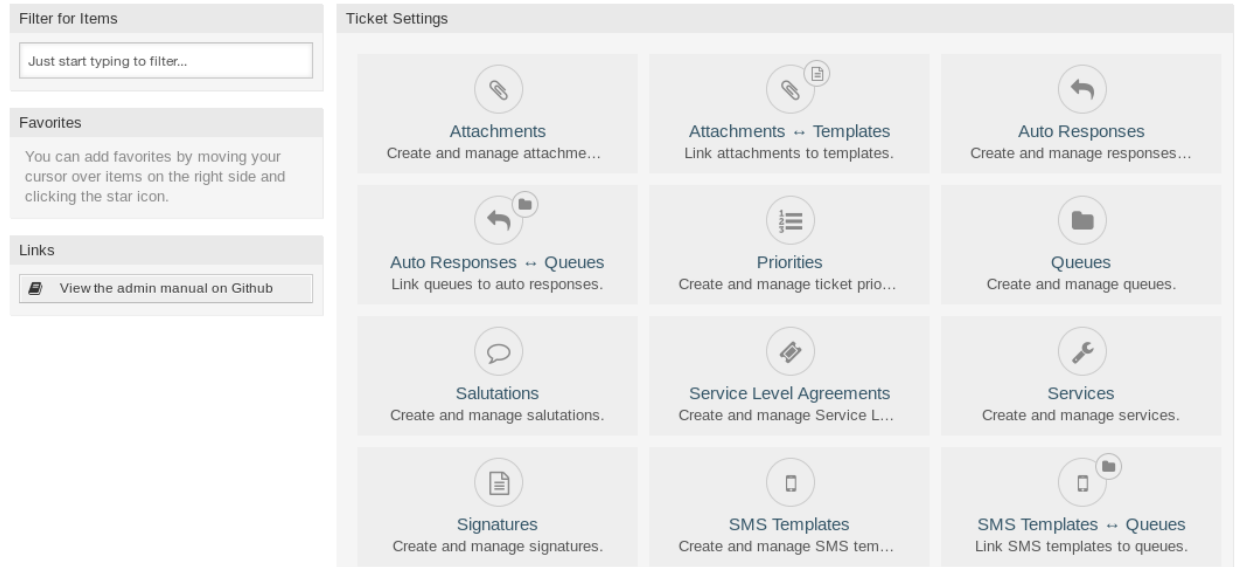
Fig. 1: Administrator Interface

Note: The installation of OTRS is displayed in a separate Installation Guide. To install OTRS or upgrade OTRS from a previous version, follow the steps describe there.

After the installation of OTRS is finished, you can login to the system with user `root@localhost` and using the generated password.

A fresh new OTRS installation contains only the default settings. You need to customize your system to work properly and meet your needs.

First, you need to check some *System Configuration* and modify the values, if needed. FQDN, SystemID and Core::SendmailModule are the most important. Defining working hours and public holidays are also needed to calculate the escalation times correctly in OTRS.

Then, open the *PostMaster Mail Accounts* module to add email addresses used by the system. For sending email, you can add more *Email Addresses*.

To improve the security, *PGP Keys* or *S/MIME Certificates* encryption can be enabled.

Let's continue with users, but you might need to add some *Groups* and/or *Roles* to the system first. It is recommended to create new groups for each main queues. There are some groups in your OTRS, but no roles are defined by default. You can add roles, if needed, and you can set the *Roles ↔ Groups* relations.

The next step is to add *Agents* to the system and set the *Agents ↔ Groups* and/or *Agents ↔ Roles* relations.

Now you can add *Customers* and *Customer User*. Customers are companies and customer users are the employees of the company.

Note: Both agents and customer users can log in using Active Directory or LDAP for authentication. In these cases doesn't need to add users manually.

Like for agents, customers users can also assign to groups using the *Customer Users ↔ Groups* management screen. Similarly, *Customer Users ↔ Customers* relations can also be set.

Your OTRS installation already contains a standard salutation and a standard signature, but you might need to edit them or create new *Salutations* and *Signatures*. Queues can not be created without salutations and signatures, and only one salutation and signature can be assigned to a queue.

After system addresses, salutations, signatures, groups are set, you can continue the setup with *Queues*. Each queue has to assign to a group, and only the group members can see the tickets in the assigned queue.

Now you can add *Auto Responses* and assign them to queues using the *Queues   Auto Responses* management screen. Your OTRS installation already contains some automatic responses, you can use or edit them instead of create new ones.

To reduce the time needed for answering the tickets, *Templates* or *SMS Templates* can be created.

Normal templates can contain *Attachments*, and you can assign the uploaded attachments to templates using the *Templates   Attachments* management screen.

If templates are created and attachments are assigned to them, you can set the templates to use in queues in the *Templates   Queues* or *SMS Templates   Queues* management screens.

You need to review the default *Priorities*, *States* and *Types*, and add new elements, if needed.

The customer requests can be categorize into services. If you would like to use this possibility, then create some *Services* and assign *Service Level Agreements* to the services. Furthermore, you can set the *Customer Users   Services* relations.

Now you can add some notifications to be received by agents, if particular events occur. You can do this in the *Ticket Notifications* screen.

To help agents to organize appointments, you can setup the *Calendars* and the *Appointment Notifications*.

Tickets, articles and other objects in OTRS can be extended with *Dynamic Fields* or can be reduced with *Access Control Lists (ACL)*.

Without doing everything manually, the number of failure can be reduced. Automatize some process in OTRS using *Generic Agent* jobs or creating processes with *Process Management*. The incoming emails can be pre-processed and dispatched automatically by defining some *PostMaster Filters*.

If external systems need to integrate with OTRS, *Web Services* will be very useful for this.

However OTRS has many features by default, you can extend the functionality by installing packages with the *Package Manager*.

If your system is ready for productive work, don' t forget to register it by using the *System Registration* procedure.

Finally, you can set the *Home Page*, the *Custom Pages* and the *Layout* of the external interface, as well as you can define a *Customer Service Catalogue* displayed in the external interface.

1.3 Become OTRS Expert

The next chapters of this manual describe the features and configuration settings of OTRS more detailed. There is a separated manual for Configuration Options References, that gives you a good overview of *System Configuration*, that can be modify the behavior of OTRS.

Ticket Settings

This is the chapter *Ticket Settings*.

Find here an example of a *ticket*.

Fig. 1: Ticket screen

The following chapter will help you add all of the necessary attributes to work with tickets.

2.1 Attachments

For any size of organization it is often required to send a service agreement, the terms of service or a privacy statement out when a customer signs a contract.

OTRS can handle an infinite number of attachments (PDF, image, etc.) and can bundle them into templates. Your agents don't need to maintain the attachments on their own, nor don't they need to upload them again and again - they can just use the predefined templates.

Use this screen to add attachments for use in templates. A fresh OTRS installation doesn't contain any attachments by default. The attachment management screen is available in the *Attachments* module of the *Ticket Settings* group.
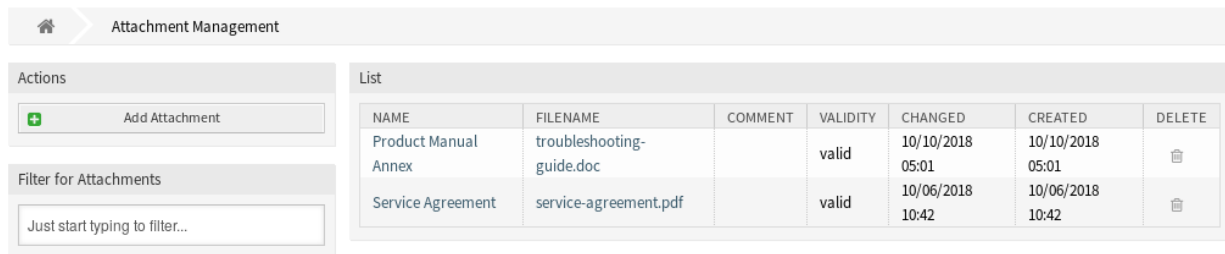
Fig. 2: Attachment Management Screen

2.1.1 Manage Attachments

To add an attachment:

1. Click on the *Add Attachments* button in the left sidebar.
2. Fill in the required fields.
3. Click on the *Save* button.

Fig. 3: Add Attachment Screen

To edit an attachment:

1. Click on an attachment in the list of attachments.
2. Modify the fields.

3. Click on the *Save* or *Save and finish* button.

Fig. 4: Edit Attachment Screen

To delete an attachment:

1. Click on the trash icon in the last column of the overview table.

2. Click on the *Confirm* button.

Fig. 5: Delete Attachment Screen

Note: If several attachments are added to the system, use the filter box to find a particular attachment by just typing the name to filter.

2.1.2 Attachment Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

Name * The name of this resource. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

Attachment * Open the file dialog to add a file from the file system. This field is mandatory in the attachment add screen, but optional in the attachment edit screen. Adding a new file in the edit screen will overwrite the existing attachment.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

Comment Add additional information to this resource. It is recommended to always fill this field as a description of the resource with a full sentence for better clarity, because the comment will be also displayed in the overview table.

2.2 Auto Responses

Quick and transparent service is vital to maintaining a good working relationship with your customer. Email, fax, social media and other non-real-time communication are patient, but you want to engage your customer immediately upon receipt of a request.

OTRS allows you to respond to a customer immediately upon receipt of a request giving the custmoers instantaneous feedback assuring them that their request is in processing, establishing expectation.

Automatic responses can be sent 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.

Use this screen to add automatic responses for use in queues. A fresh OTRS installation contains some automatic responses by default. The automatic response management screen is available in the *Auto Responses* module of the *Ticket Settings* group.

Fig. 6: Auto Response Management Screen

2.2.1 Manage Auto Responses

Note: Adding automatic responses requires a valid system address. Create system addresses in the *Email Addresses* screen.

To add an automatic response:

1. Click on the *Add Auto Response* button in the left sidebar.

2. Fill in the required fields.

3. Click on the *Save* button.

Warning: Auto responses can not be deleted from the system. They can only be deactivated by setting the *Validity* option to *invalid* or *invalid-temporarily*.

Fig. 7: Add Auto Response Screen

To edit an automatic response:

1. Click on an automatic response in the list of automatic responses.

2. Modify the fields.

3. Click on the *Save* or *Save and finish* button.

Fig. 8: Edit Auto Response Screen

Note: If several automatic responses are added to the system, use the filter box to find a particular automatic response by just typing the name to filter.

2.2.2 Auto Response Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

Name * The name of this resource. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

Subject * The subject of the email sent to the users.

Response The body of the email sent to the users.

Type * The event type that triggers the sending of this automatic response. Only one automatic response can be sent automatically. The following event types are available:

auto follow up Confirms receipt of the follow-up.

auto reject The message rejects a customer follow-up.

auto remove Deletion of a ticket, done by the system.

auto reply A newly raised ticket will trigger this auto response.

auto reply/new ticket This message informs the customer of the new ticket number.

Auto response from * The sender email address, from which the automatic response will be sent.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

Comment Add additional information to this resource. It is recommended to always fill this field as a description of the resource with a full sentence for better clarity, because the comment will be also displayed in the overview table.

2.2.3 Auto Response Variables

Using variables in automatic responses is possible. Variables, known as OTRS tags, are replaced by OTRS when generating the mail. Find a list of available tags stems for automatic responses at the bottom of both add and edit screens.

For example, the variable `<OTRS_TICKET_TicketNumber>` expands to the ticket number allowing a template to include something like the following.

```
Ticket#<OTRS_TICKET_TicketNumber>
```

This tag expands, for example to:

```
Ticket#2018101042000012
```

2.3 Priorities

Sometimes tickets are not equally created. One ticket may need more focus than another. A customer may be given a higher priority by the service desk to help raise customer satisfaction in a pinch or to ensure that a long-running request receives special attention. Keeping track of these higher priority requests is important, as well as handling them quickly.

OTRS provides a traffic light system based per default five levels of priorities to handle this task.

Blue Very low

Fig. 9: Auto Response Variables

Green Low

Grey Normal

Orange High

Red Very high

The colors are based on the ID (very low being ID 1) in the database. Changing the names should be done with this in mind. New priorities have the color gray.

Use this screen to add priorities to the system. A fresh OTRS installation contains five default priority levels. The priority management screen is available in the *Priorities* module of the *Ticket Settings* group.

Fig. 10: Priority Management Screen

2.3.1 Manage Priorities

Note: When creating a customized list of priorities, please keep in mind that they are sorted alphabetically in the priority selection box in the user interface.

To add a priority:

1. Click on the *Add Priority* button in the left sidebar.
2. Fill in the required fields.
3. Click on the *Save* button.
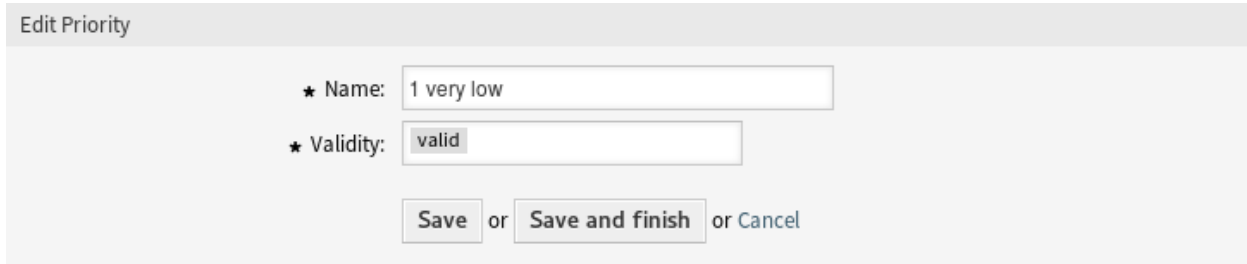
Fig. 11: Add Priority Screen

Warning: Priorities can not be deleted from the system. They can only be deactivated by setting the *Validity* option to *invalid* or *invalid-temporarily*.

Note: It's recommended to limit your system to 5 priorities or less and reuse the current 5 to keep the use of the traffic light system.

To edit a priority:

1. Click on a priority in the list of priorities.

2. Modify the fields.

3. Click on the *Save* or *Save and finish* button.

Edit Priority

★ Name:	1 very low
★ Validity:	valid

Save or Save and finish or Cancel

Fig. 12: Edit Priority Screen

Note: If several priorities are added to the system, use the filter box to find a particular priority by just typing the name to filter.

If you change the name of a priority which is used in the system configuration, a validation check will warn you and give you the option to apply your changes now by clicking on *Save and update automatically*, manually make the changes your self by choosing another default later by clicking on *Don't save, update manually* or canceling the action by clicking on *Cancel*.

Warning: Changing the name of this object should be done with care, the check only provides verification for certain settings and ignores things where the name can't be verified. Some examples are dashboard filters, action control lists (ACLs), and processes (sequence flow actions) to name a few. Documentation of your setup is key to surviving a name change.

2.3.2 Priority Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

Name * The name of this resource. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

2.4 Queues

Teams need a workspace and the ability to dispatch work based on skill level, security level, department or responsibility just to name a few. Other teams may also need to view or react in these requests as well.

OTRS uses Queues to provide your teams with structure. Queues provide a powerful way to divide and disperse the work to the responsible group of people.

Use this screen to add queues to the system. In a fresh 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. The queue management screen is available in the *Queues* module of the *Ticket Settings* group.
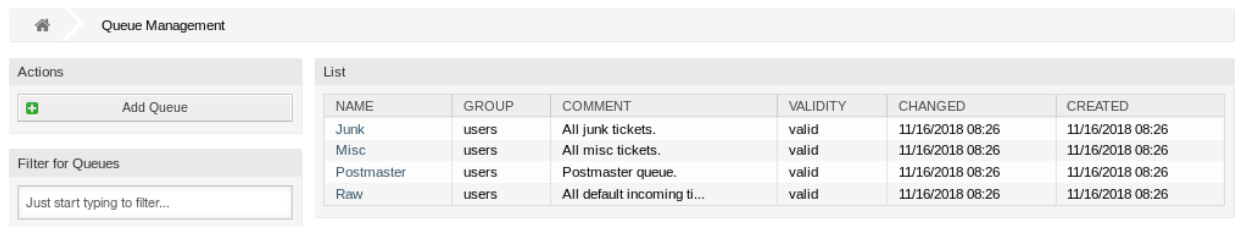
Fig. 14: Queue Management Screen

2.4.1 Manage Queues

To add a queue:

1. Click on the *Add Queue* button in the left sidebar.
2. Fill in the required fields.
3. Click on the *Save* button.

> **Warning:** Queues can not be deleted from the system. They can only be deactivated by setting the *Validity* option to *invalid* or *invalid-temporarily*.

To edit a queue:

1. Click on a queue in the list of queues.
2. Modify the fields.
3. Click on the *Save* or *Save and finish* button.

Note: If several priorities are added to the system, use the filter box to find a particular priority by just typing the name to filter.

If you change the name of a queue which is used in the system configuration, a validation check will warn you and give you the option to apply your changes now by clicking on *Save and update automatically*, manually make the changes your self by choosing another default later by clicking on *Don't save, update manually* or canceling the action by clicking on *Cancel*.

Add Queue

* Name: [   ]

Sub-queue of: [   ]

* Group: [admin]

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 [   ] (Notify by [   ])

(minutes): 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: [possible]

Specifies if follow up to closed tickets would re-open the ticket, be rejected or lead to a new ticket.

* Ticket lock after a follow up: [No]

If a ticket is closed and the customer sends a follow up the ticket will be locked to the old owner.

* System address: [   ]

Will be the sender address of this queue for email answers.

Default sign key (): [   ]

* Salutation: [system standard salutation (en)]

The salutation for email answers.

* Signature: [system standard signature (en)]

The signature for email answers.

Calendar: [   ]

* Validity: [valid]

Comment: [   ]

Chat Channel: : [   ]

Chat channel that will be used for communication related to the tickets in this queue.

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[Save] or *Cancel*

Edit Queue

* Name: DevOPS

Sub-queue of:

* Group: users

Unlock timeout minutes: 0

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 0 (Notify by)

(minutes): 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): 0 (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): 0 (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: possible

Specifies if follow up to closed tickets would re-open the ticket, be rejected or lead to a new ticket.

* Ticket lock after a follow up: No

If a ticket is closed and the customer sends a follow up the ticket will be locked to the old owner.

* System address: vo5162@virtual.otrs.com x

Will be the sender address of this queue for email answers.

Default sign key

(vo5162@virtual.otrs.com):

* Salutation: system standard salutation (en)

The salutation for email answers.

* Signature: system standard signature (en)

The signature for email answers.

Calendar:

* Validity: valid

Comment: Internal operations queue.

Chat Channel: :

Chat channel that will be used for communication related to the tickets in this queue.

Save or Save and finish or Cancel

Notice

This queue is used in the following config settings:

- ExternalFrontend::TicketCreate###QueueDefault
- Ticket::Frontend::UserDefaultQueue

You can either have the affected settings updated automatically to reflect the changes you just made or do it on your own by pressing 'update manually'.

| Save and update automatically | Don't save, update manually | Cancel |

Fig. 17: System Queue Validation Check Screen

> **Warning:** Changing the name of this object should be done with care, the check only provides verification for certain settings and ignores things where the name can't be verified. Some examples are dashboard filters, action control lists (ACLs), and processes (sequence flow actions) to name a few. Documentation of your setup is key to surviving a name change.

2.4.2 Queue Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

Name * The name of this resource. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

Sub-queue of It is possible to add the new queue under an existing one as sub-queue. This will be displayed as *Parent Queue::Child Queue*.

Group * It is possible to limit access to the selected group. The group creates a permission link between the queue and an agent or a customer user.

Unlock timeout minutes Any ticket on open, which is locked, in this queue will automatically unlock after the set amount of minutes. The value *0* (default) means tickets in this queue remain locked.

Escalation - first response time (minutes) The maximum amount of working time allowed before agent contact with the customer.

> **Note:** First response time will not trigger for an email ticket or telephone ticket created by an agent.

Escalation - update time (minutes) The maximum amount of working time allowed between agent contact with the customer.

Escalation - solution time (minutes) The maximum amount of working time allowed until the ticket is marked as solved.

Note: Solution time will not reset if the ticket is reopened.

Follow up Option * Specify the handling of a follow up on closed tickets. Possible values:

new ticket The follow up will create a new ticket.

possible The follow up will re-open the already closed ticket.

reject The follow up will be rejected. See *Auto Responses* chapter for more information.

Ticket lock after a follow up * Only applicable if the *Follow up Option* is set to *possible*. Locks the previously closed ticket, upon re-opening, to the last owner. This ensures that a follow up for a ticket is processed by the agent that has previously handled that ticket.

> **Warning:** This does not take out-of-office into account. Use this setting with care to ensure or in combination with *Unlock timeout minutes*.

System address * Select one of the *Email Addresses* as the sender identity for this queue.

Note: This is an ID in the database. Making changes to the *Email Addresses* can have adverse effects here.

Default sign key This is only active if *PGP Keys* or *S/MIME Certificates* is enabled in the *System Configuration*. Choose the key to sign emails per default.

Salutation * Select one of the defined *Salutations*.

Signature * Select one of the defined *Signatures*.

Calendar Select the calendar which defines working hours for this queue. Calendars are defined in the *System Configuration*.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

Comment Add additional information to this resource. It is recommended to always fill this field as a description of the resource with a full sentence for better clarity, because the comment will be also displayed in the overview table.

Chat Channel Chat channel that will be used for communication related to the tickets in this queue.

2.5 Queues ⟷ Auto Responses

Communicating a change in, for example, service times, service levels or other information which would be good for a customer to know when opening a ticket can be a tedious and error-ridden task. Attempting to make sure all departments have the correct information and transmitting this to their customers poses a challenge.

OTRS gives you the power to quickly assign the appropriate automatic responses to any queue, containing pertinent service information, ensuring this information reaches your customers before expectations aren' t reached.

Use this screen to add one or more automatic responses to one or more queues. The management screen is available in the *Queues ⟷ Auto Responses* module of the *Ticket Settings* group.
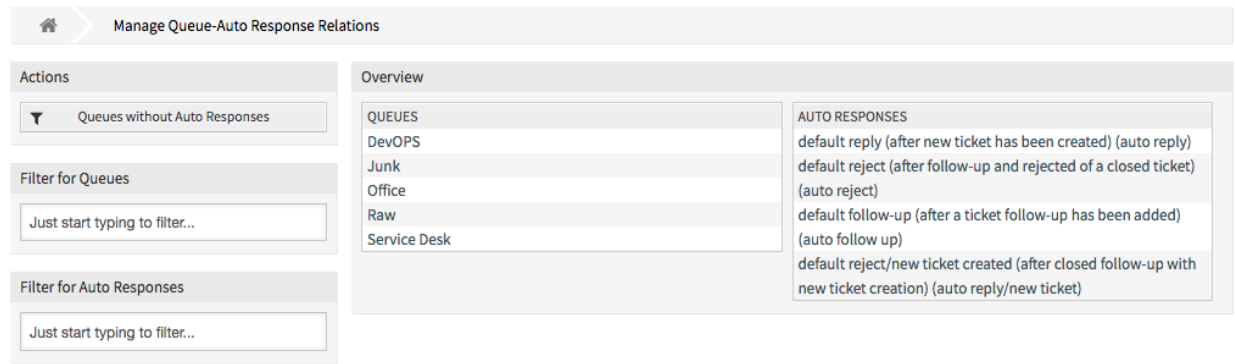
Fig. 18: Manage Queue-Auto Response Relations

2.5.1 Manage Queues Auto Responses Relations

To assign an automatic response to a queue:

1. Click on a queue in the *Queues* column.
2. Select the automatic responses you would like to add the queue to.
3. Click on the *Save* or *Save and finish* button.
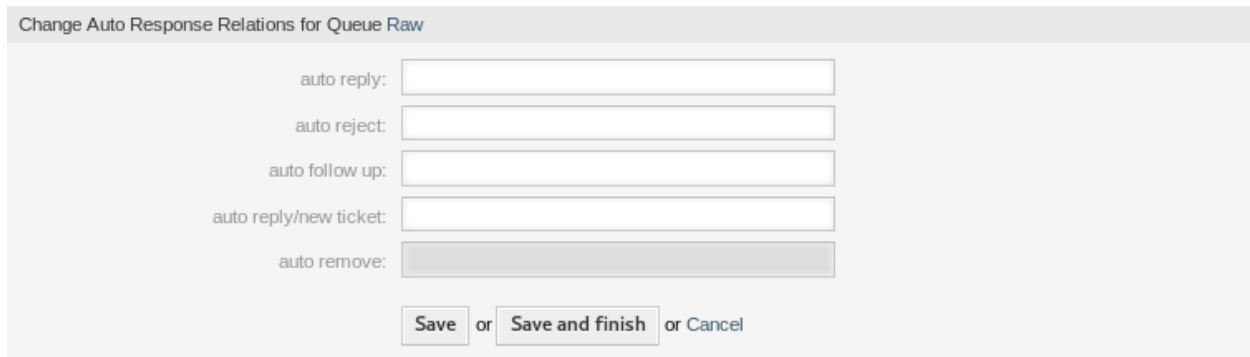
Fig. 19: Change Auto Response Relations for Queue

Note: It is not possible to assign multiple queues to an automatic response by clicking on the automatic response name. A click on the automatic response will open to the *Auto Responses* screen.

Note: If several automatic responses or queues are added to the system, use the filter box to find a particular automatic response or queue by just typing the name to filter.

2.5.2 Queues Auto Responses Settings

The following settings are available when assigning some automatic responses to a queue.

auto reply This automatic response will be sent to users, if they send a message to the queue.

auto reject This automatic response will be sent to users, if they send a message to the queue,m but the queue doesn't accept any message.

auto follow up This automatic response will be sent to users, if follow up option is enabled.

auto reply/new ticket This automatic response will be sent to users, if they send the first message of a new ticket to the queue.

auto remove This automatic response will be sent to users, if the remove option is enabled.

Note: *Auto reply*, *auto reject* and *auto reply/new ticket* mutually cancel each other based on the queue settings. Only one will take effect per queue.

2.6 Salutations

Addressing customers must be done in a standardized way. Your customers may not always be external customers requiring a less formal greeting.

OTRS provides you with the tools needed to create a standardized communication form for any one of your queues. As defined in the *Queue Settings*: *Salutations*, *Templates*, and *Signatures* are combined to ensure a well formed standardized email communication.

Salutations can be linked to one or more *Queues*. A salutation is used only in email answers to tickets.

Use this screen to add salutations to the system. A fresh OTRS installation already contains a standard salutation. The salutation management screen is available in the *Salutations* module of the *Ticket Settings* group.

Fig. 20: Salutation Management Screen

2.6.1 Manage Salutations

To add a salutation:

1. Click on the *Add Salutation* button in the left sidebar.

2. Fill in the required fields.

3. Click on the *Save* button.

Warning: Salutations can not be deleted from the system. They can only be deactivated by setting the *Validity* option to *invalid* or *invalid-temporarily*.

Fig. 21: Add Salutation Screen

To edit a salutation:

1. Click on a salutation in the list of salutations.

2. Modify the fields.

3. Click on the *Save* or *Save and finish* button.

Fig. 22: Edit Salutation Screen

Note: If several salutations are added to the system, use the filter box to find a particular salutation by just typing the name to filter.

Warning: Before invalidating this object, please go to the *Queues* module of the *Ticket Settings* group and make sure all queues using this setting are using a valid object.

2.6.2 Salutation Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

Name * The name of this resource. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

Salutation The text that will be placed to the beginning of new emails.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

Comment Add additional information to this resource. It is recommended to always fill this field as a description of the resource with a full sentence for better clarity, because the comment will be also displayed in the overview table.

2.6.3 Salutation Variables

Using variables in salutations is possible. Variables, known as OTRS tags, are replaced by OTRS when generating the mail. Find a list of available tags stems for salutations at the bottom of both add and edit screens.

Fig. 23: Salutation Variables

For example, the variable `<OTRS_CUSTOMER_DATA_UserLastname>` expands to the customer's last name to be included in something like the following.

```
Dear <OTRS_CUSTOMER_DATA_UserFirstname> <OTRS_CUSTOMER_DATA_UserLastname>,
```

This tag expands, for example to:

```
Dear Lisa Wagner,
```

2.7 Service Level Agreements

Your organization must meet the time demands of your customers. Timely service matters. Response to questions, updates on issues, and solutions must be provided it an agreed amount of time. The agent must receive notification of possible breaches, to prevent ticket escalation.

OTRS scales well with your needs and offers management of Service Level Agreements (SLAs). OTRS provides you with the possibility to create numerous service level agreements covering all of your service and customer need. Each *SLA* can cover multiple services and define the availability of service and escalation periods.

Use this screen to add service level agreements to the system. A fresh OTRS installation doesn't contain any service level agreements by default. The service level agreement management screen is available in the *Service Level Agreements* module of the *Ticket Settings* group.

Fig. 24: Service Level Agreement Management Screen

Warning: Services must first be activated via *System Configuration* under the *Administration* group to be selectable in the ticket screens. You may click on the link in the warning message to directly jump to the configuration setting.

Fig. 25: Service Activation Warning

2.7.1 Manage Service Level Agreements

Note: Adding service level agreements requires, that at least one service is added to the system. Create services in the *Services* screen.

To add a service level agreement:

1. Click on the *Add SLA* button in the left sidebar.
2. Fill in the required fields.

3. Click on the *Save* button.

Fig. 26: Add Service Level Agreement Screen

> **Warning:** Service level agreements can not be deleted from the system. They can only be deactivated by setting the *Validity* option to *invalid* or *invalid-temporarily*.

To edit a service level agreement:

1. Click on a service level agreement in the list of service level agreements.

2. Modify the fields.

3. Click on the *Save* or *Save and finish* button.

> **Note:** If several service level agreements are added to the system, use the filter box to find a particular service level agreement by just typing the name to filter.

Fig. 27: Edit Service Level Agreement Screen

2.7.2 Service Level Agreement Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

SLA * The name of this resource. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

Service Select one or more of the *Services* to be assigned to this SLA.

Calendar Select the calendar which defines working hours for this queue. Calendars are defined in the *System Configuration*.

Escalation - first response time (minutes) The maximum amount of working time allowed before agent contact with the customer.

Note: First response time will not trigger for an email ticket or telephone ticket created by an agent.

Escalation - update time (minutes) The maximum amount of working time allowed between agent contact with the customer.

Escalation - solution time (minutes) The maximum amount of working time allowed until the ticket is marked as solved.

Note: Solution time will not reset if the ticket is reopened.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

Comment Add additional information to this resource. It is recommended to always fill this field as a description of the resource with a full sentence for better clarity, because the comment will be also displayed in the overview table.

Dialog message Is being displayed if a customer chooses this SLA on ticket creation (only in the external interface).

2.8 Services

Requests to your service desk should be categorized based on affected *service* to correctly reach a team of experts to deal with the issue. Because not all your agents can deal with specific problems. Lack of experience or access to resources to fix an issue requires defining the service affected in a ticket helps to categorize the issue and target the correct teams.

OTRS allows adding all services offered by to your customers. These services may be later bound to *Service Level Agreements* to ensure a timely solution based on customer-specific agreements.

Use this screen to add services to the system. A fresh OTRS installation doesn't contain any services by default. The service management screen is available in the *Services* module of the *Ticket Settings* group.
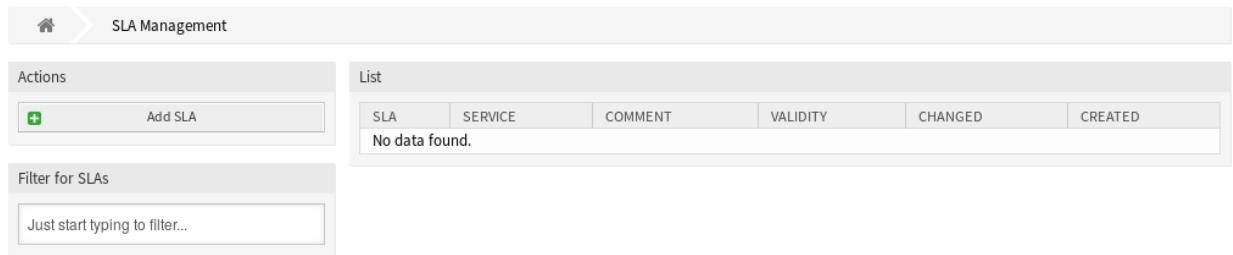

Warning: Services must first be activated via *System Configuration* under the *Administration* group to be selectable in the ticket screens. You may click on the link in the warning message to directly jump to the configuration setting.
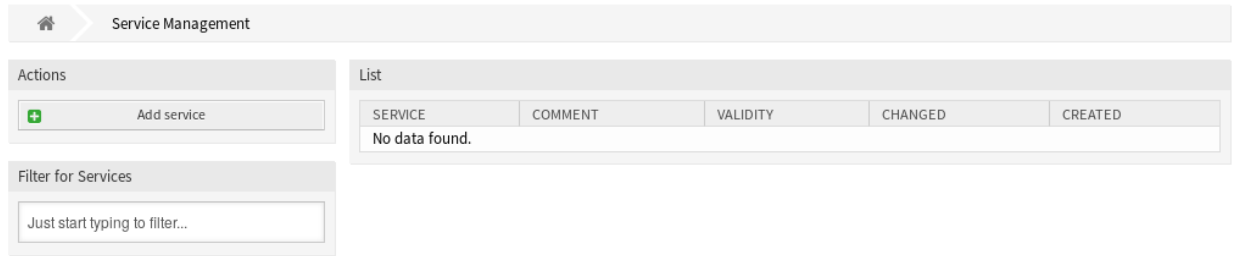
Fig. 28: Service Management Screen

Fig. 29: Service Activation Warning

2.8.1 Manage Services

To add a service:

1. Click on the *Add Service* button in the left sidebar.
2. Fill in the required fields.
3. Click on the *Save* button.

Fig. 30: Add Service Screen

> **Warning:** Services can not be deleted from the system. They can only be deactivated by setting the *Validity* option to *invalid* or *invalid-temporarily*.

To edit a service:

1. Click on a service in the list of services.
2. Modify the fields.
3. Click on the *Save* or *Save and finish* button.

Fig. 31: Edit Service Screen

Note: If several services are added to the system, use the filter box to find a particular service by just typing the name to filter.

Warning: Changing the name of this object should be done with care, the check only provides verification for certain settings and ignores things where the name can't be verified. Some examples are dashboard filters, action control lists (ACLs), and processes (sequence flow actions) to name a few. Documentation of your setup is key to surviving a name change.

2.8.2 Service Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

Service * The name of this resource. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

Sub-service of It is possible to add the new service under an existing one as sub-service. This will be displayed as *Parent Service::Child Service*.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

Comment Add additional information to this resource. It is recommended to always fill this field as a description of the resource with a full sentence for better clarity, because the comment will be also displayed in the overview table.

2.9 Signatures

Corporate identity and team information are essential in each communication. The name of the employee writing and other vital details like disclaimers are some examples of necessary information to include in the communication with the customer.

OTRS provides you with the same tools here, as with *Salutations*, to create a standardized communication form for any one of your queues. As defined in the *Queue Settings*: *Salutations*, *Templates*, and *Signatures*

are combined to ensure a well formed standardized email communication.

Signatures can be linked to one or more *Queues*. A signature is used only in email answers to tickets.

Use this screen to add signatures to the system. A fresh OTRS installation already contains a standard signature. The signature management screen is available in the *Signatures* module of the *Ticket Settings* group.

Fig. 32: Signature Management Screen

2.9.1 Manage Signatures

To add a signature:

1. Click on the *Add Signature* button in the left sidebar.

2. Fill in the required fields.

3. Click on the *Save* button.

> **Warning:** Signatures can not be deleted from the system. They can only be deactivated by setting the *Validity* option to *invalid* or *invalid-temporarily*.

To edit a signature:

1. Click on a signature in the list of signatures.

2. Modify the fields.

3. Click on the *Save* or *Save and finish* button.

> **Note:** If several signatures are added to the system, use the filter box to find a particular signature by just typing the name to filter.

> **Warning:** Before invalidating this object, please go to the *Queues* module of the *Ticket Settings* group and make sure all queues using this setting are using a valid object.

2.9.2 Signature Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

Fig. 33: Add Signature Screen

Fig. 34: Edit Signature Screen

Name * The name of this resource. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

Signature The text that will be placed to the end of new emails.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

Comment Add additional information to this resource. It is recommended to always fill this field as a description of the resource with a full sentence for better clarity, because the comment will be also displayed in the overview table.

2.9.3 Signature Variables

Using variables in signatures is possible. Variables, known as OTRS tags, are replaced by OTRS when generating the mail. Find a list of available tags stems for signatures at the bottom of both add and edit screens.

Fig. 35: Signature Variables

For example, the variable `<OTRS_CURRENT_UserFirstname>` `<OTRS_CURRENT_UserLastname>` expands to the agent's first and last name allowing a template to include something like the following.

```
Best regards,

<OTRS_CURRENT_UserFirstname> <OTRS_CURRENT_UserLastname>
```

This tag expands, for example to:

```
Best regards,

Steven Weber
```
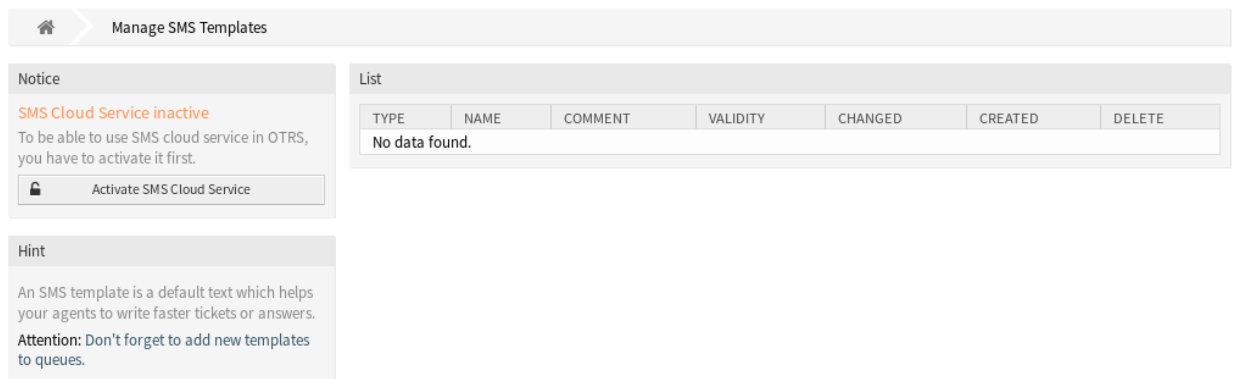
2.10 SMS Templates

An On-Call duty should be alarmed about incidents on an email servers, therefore cannot get an email from OTRS. Additionally, in the case where customers have no internet access, it's imperative to ensure good contact.

OTRS provides *SMS* as a cloud service and allows, as with email, management of this communication via templates.

A SMS template is a default text which helps your agents to write faster tickets or answers.

Use this screen to add SMS templates for use in communications. A fresh OTRS installation doesn't contain any SMS templates by default. The *SMS* template management screen is available in the *SMS Templates* module of the *Ticket Settings* group.

Fig. 36: SMS Template Management Screen

2.10.1 Manage SMS Templates

Note: To be able to use SMS cloud service in OTRS, you have to activate it first in *Cloud Services* module.

To add an SMS template:

1. Click on the *Add SMS Template* button in the left sidebar.
2. Fill in the required fields.
3. Click on the *Save* button.

To edit an SMS template:

1. Click on an SMS template in the list of SMS templates.
2. Modify the fields.

Fig. 37: Activate SMS Cloud Service

Fig. 38: Add SMS Template Screen

3. Click on the *Save* or *Save and finish* button.

Fig. 39: Edit SMS Template Screen

To delete an SMS template:

1. Click on the trash icon in the list of SMS templates.

2. Click on the *Confirm* button.

Fig. 40: Delete SMS Template Screen

Note: If several SMS templates are added to the system, a filter box is useful to find a particular SMS template by just typing to filter.

2.10.2 SMS Template Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

Type * There are different kind of SMS templates that are used for different purposes. A template can be:

Answer To be used as a ticket response with *Reply via SMS* in the article menu of the ticket screen.

Create To be used for a new SMS ticket.

SMSOutbound To be used for sending a new SMS to a customer user from within the ticket menu of the ticket screen.

Name * The name of this resource. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

Template The body of the email sent to the users.

> **Warning:** The maximum length of text message that you can send is 918 characters. However, if you send more than 160 characters then your message will be broken down in to chunks of 153 characters before being sent to the recipient's handset. We recommend keeping the messages to less than 160 characters.

Flash message Show message directly without user interaction and do not store it automatically (support may vary by device and provider).

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

Comment Add additional information to this resource. It is recommended to always fill this field as a description of the resource with a full sentence for better clarity, because the comment will be also displayed in the overview table.

2.10.3 SMS Template Variables

Using variables in SMS templates is possible. Variables, known as OTRS tags, are replaced by OTRS when generating the mail. Find a list of available tags stems for signatures at the bottom of both add and edit screens.

For example, the variable `<OTRS_TICKET_TicketNumber>` expands to the ticket number allowing an SMS template to include something like the following.

```
Ticket#<OTRS_TICKET_TicketNumber> has been raised in <OTRS_Ticket_Queue>.
```

This tag expands, for example to:

```
Ticket#2018101042000012 has been raised in Postmaster.
```

2.11 SMS Templates ⟷ Queues

Communicating a change to a template, or distribution of a new communication requirement, can be tedious and error-ridden because it requires that all teams pull the information and publish it appropriately.

OTRS gives you the power to quickly assign the appropriate SMS templates to any queue, containing pertinent ticket information, ensuring this information reaches your customers and agents.

Use this screen to add one or more SMS templates to one or more queues. The management screen is available in the *SMS Templates ⟷ Queues* module of the *Ticket Settings* group.

2.11.1 Manage SMS Templates ⟷ Queues Relations

To assign an SMS template to one or more queues:

Reference

You can use the following tags:

<OTRS_OWNER_*>
 Ticket owner options (e. g. <OTRS_OWNER_UserFirstname>).

<OTRS_RESPONSIBLE_*>
 Ticket responsible options (e. g. <OTRS_RESPONSIBLE_UserFirstname>).

<OTRS_CURRENT_*>
 Options of the current user who requested this action (e. g. <OTRS_CURRENT_UserFirstname>).

<OTRS_TICKET_*>
 Options of the ticket data (e. g. <OTRS_TICKET_TicketNumber>, <OTRS_TICKET_TicketID>, <OTRS_TICKET_Queue>, <OTRS_TICKET_State>).

<OTRS_TICKET_DynamicField_*>
 Options of ticket dynamic fields internal key values (e. g. <OTRS_TICKET_DynamicField_TestField>, <OTRS_TICKET_DynamicField_TicketFreeText1>).

<OTRS_TICKET_DynamicField_*_Value>
 Options of ticket dynamic fields display values, useful for Dropdown and Multiselect fields (e. g. <OTRS_TICKET_DynamicField_TestField_Value>, <OTRS_TICKET_DynamicField_TicketFreeText1_Value>).

<OTRS_CUSTOMER_DATA_*>
 Options of the current customer user data (e. g. <OTRS_CUSTOMER_DATA_UserFirstname>).

<OTRS_CONFIG_*>
 Config options (e. g. <OTRS_CONFIG_HttpType>).

Note: Create type templates only supports this smart tags: **<OTRS_CURRENT_*>** and **<OTRS_CONFIG_*>**

Example template:

```
The current ticket state is: "<OTRS_TICKET_State>"

Your mobile phone is: "<OTRS_CUSTOMER_UserMobile>"
```

Fig. 41: SMS Template Variables

Fig. 42: Manage SMS Template-Queue Relations

1. Click on an SMS template in the *SMS Templates* column.

2. Select the queues you would like to add the SMS template to.

3. Click on the *Save* or *Save and finish* button.

Fig. 43: Change Queue Relations for SMS Template

To assign a queue to one or more SMS templates:

1. Click on a queue in the *Queues* column.

2. Select the SMS templates you would like to add the queue to.

3. Click on the *Save* or *Save and finish* button.

Fig. 44: Change SMS Template Relations for Queue

Note: If several SMS templates or queues are added to the system, use the filter box to find a particular SMS template or queue by just typing the name to filter.

Multiple SMS templates or queues can be assigned in both screens at the same time. Additionally clicking on an SMS template or clicking on a queue in the *Relations screens* will open the edit SMS template screen or the edit queue screen accordingly.

Warning: Accessing a queue or template provides no backlink to the *Relations screen*.

2.12 States

Active tracking of tickets leads to a better sense of workload and provides metrics as a key performance indicator. Sorting tasks and setting appointments can help to level-off the workload and keep your service desk running.

OTRS uses ticket states to ensure that your agents always know which tickets are being attended to and which not. Additionally, detailed reports on the states of your tickets can be provided by ticket search or reports and personalized sorting is possible using dashboards and queue and service overviews.

Nine states are pre-defined. More states can be added, but the default states are enough to get you going and mostly enough for any situation.

closed successful A ticket is complete. The customer received a solution which worked.

closed unsuccessful A ticket is complete. The customer received no solution or the solution was not appropriate.

merged The ticket content is found in a different ticket.

new The ticket is created by the customer without contact with an agent.

open The ticket is currently in progress. Customer and agent are in contact with one another.

pending auto close+ The ticket will be marked *closed successful* upon reaching the set pending time.

pending auto close- The ticket will *closed unsuccessful* upon reaching the pending time.

pending reminder The ticket should be worked on again upon reaching the pending time.

removed The ticket has been removed from the system.

Note: Pending jobs are checked per default every two hours and forty-five minutes. This time is a static time, which means the times are 02:45, 4:45, 6:45 and so on. The job can be run more often or seldom and are configured in the *System Configuration* module of the *Administration* group.

Use this screen to add states to the system. A fresh OTRS installation contains several states by default. The state management screen is available in the *States* module of the *Ticket Settings* group.

Fig. 45: State Management Screen

2.12.1 Manage States

To add a state:

1. Click on the *Add State* button in the left sidebar.

2. Fill in the required fields.

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3. Click on the *Save* button.

Fig. 46: Add State Screen

> **Warning:** States can not be deleted from the system. They can only be deactivated by setting the *Validity* option to *invalid* or *invalid-temporarily*.

To edit a state:

1. Click on a state in the list of state.

2. Modify the fields.

3. Click on the *Save* or *Save and finish* button.

Fig. 47: Edit State Screen

> **Note:** If several states are added to the system, use the filter box to find a particular state by just typing the name to filter.

If you change the name of a queue which is used in the system configuration, a validation check will warn you and give you the option to apply your changes now by clicking on *Save and update automatically*, manually make the changes your self by choosing another default later by clicking on *Don't save, update manually* or canceling the action by clicking on *Cancel*.

> **Warning:** Changing the name of this object should be done with care, the check only provides verification for certain settings and ignores things where the name can't be verified. Some examples are dashboard filters, action control lists (ACLs), and processes (sequence flow actions) to name a few. Documentation of your setup is key to surviving a name change.

2.12. States   **45**

Notice

This state is used in the following config settings:

- ExternalFrontend::TicketDetailView###StateDefault

- PostmasterFollowUpState

- PostmasterFollowUpStateClosed

- Ticket::Frontend::AgentTicketBulk###StateDefault

- Ticket::Frontend::AgentTicketCompose###StateDefault

- Ticket::Frontend::AgentTicketEmail###StateDefault

- Ticket::Frontend::AgentTicketEmailOutbound###StateDefault

- Ticket::Frontend::AgentTicketFreeText###StateDefault

- Ticket::Frontend::AgentTicketNote###StateDefault

- Ticket::Frontend::AgentTicketOwner###StateDefault

- Ticket::Frontend::AgentTicketPhone###StateDefault

- Ticket::Frontend::AgentTicketPhoneInbound###State

- Ticket::Frontend::AgentTicketPriority###StateDefault

- Ticket::Frontend::AgentTicketResponsible###StateDefault

- Ticket::Frontend::AgentTicketSMS###StateDefault

- Ticket::Frontend::AgentTicketSMSOutbound###StateDefault

You can either have the affected settings updated automatically to reflect the changes you just made or do it on your own by pressing 'update manually'.

| Save and update automatically | Don't save, update manually | Cancel |
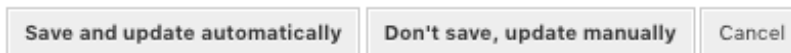
Fig. 48: System State Validation Check Screen

2.12.2 State Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

Name * The name of this resource. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

State type * Every state is linked to a type, which needs to be specified if a new state is created or an existing one is edited. The following types are available:

   • closed

   • merged

   • new

   • open

   • pending auto

   • pending reminder

   • removed

Note: State types are predefined and cannot be changed in the software due to their special mechanics. When adding new states for *pending auto* and *pending reminder* state types you must make further configurations in the *System Configuration* module of the *Administration* group.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

Comment Add additional information to this resource. It is recommended to always fill this field as a description of the resource with a full sentence for better clarity, because the comment will be also displayed in the overview table.

2.12.3 State Configuration Options

The following options are relevant and noteworthy. Please review these when managing states:

   • Daemon::SchedulerCronTaskManager::Task###TicketPendingCheck

   • Ticket::StateAfterPending

2.13 Templates

Providing the correct and consistent answer all the time regardless of employee or knowledge-level is important to maintain a professional appearance to your customers. Additionally, speed in sending standard answers is key to wading through the masses of requests in growing service desks.

OTRS templates offer you a variety of ways to deal with standardizing communications and helps to predefine texts so that the customer always receives the same level and quality of service from all agents.

Use this screen to add templates for use in communications. A fresh OTRS installation already contains a template by default. The template management screen is available in the *Templates* module of the *Ticket Settings* group.

Fig. 49: Template Management Screen

2.13.1 Manage Templates

Note: To add attachments to a template, it needs to create the attachment first in the *Attachments* screen.

To add a template:

1. Click on the *Add Template* button in the left sidebar.

2. Fill in the required fields.

3. Click on the *Save* button.

To edit a template:

1. Click on a template in the list of templates.

2. Modify the fields.

3. Click on the *Save* or *Save and finish* button.

To delete a template:

1. Click on the trash icon in the list of templates.

2. Click on the *Confirm* button.

Note: If several templates are added to the system, a filter box is useful to find a particular template by just typing to filter.

2.13.2 Template Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

Type * There are different kind of templates that are used for different purposes. A template can be:

    Answer To be used as a ticket response or reply.
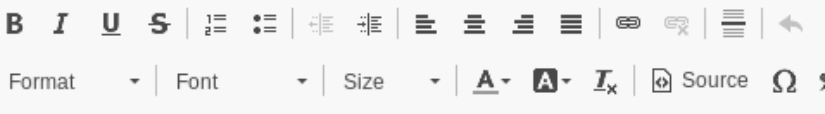
Fig. 50: Add Template Screen

Fig. 51: Edit Template Screen

Fig. 52: Delete Template Screen

Create To be used for new phone or email ticket.

Email To be used for writing an email to a customer user.

Forward To be used to forward an article to someone else.

Note To be used to create internal notes.

Phone call To be used for inbound and outbound phone calls.

Process dialog To be used in process management.

Name * The name of this resource. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

Subject The subject of the email sent to the users.

Subject method Specify how the current article subject should be dealt with. The following methods are available:

Combine The template subject will be added after the current article subject.

Keep The current article subject will be kept.

Overwrite The current article subject will be replaced with the template subject.

Template The body of the email sent to the users.

Attachments It is possible to add one ore more attachments to this template. Attachments can be added in the *Attachments* screen.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

Comment Add additional information to this resource. It is recommended to always fill this field as a description of the resource with a full sentence for better clarity, because the comment will be also displayed in the overview table.

2.13.3 Template Variables

Using variables in templates is possible. Variables, known as OTRS tags, are replaced by OTRS when generating the mail. Find a list of available tags stems for signatures at the bottom of both add and edit screens.

For example, the variable `<OTRS_TICKET_TicketNumber>` expands to the ticket number allowing a template to include something like the following.

```
Ticket#<OTRS_TICKET_TicketNumber>
```

This tag expands, for example to:

```
Ticket#2018101042000012
```

2.14 Templates ↔ Attachments

Making changes to standard attachments is sometimes overwhelming. The question is, "Where were the attachments used?" or "How to quickly update them across the board?" It's also important to know which are using which attachments, before updating them. A new attachment can have multiple uses within your organization.

Reference

You can use the following tags:

<OTRS_OWNER_*>
  Ticket owner options (e. g. <OTRS_OWNER_UserFirstname>).

<OTRS_RESPONSIBLE_*>
  Ticket responsible options (e. g. <OTRS_RESPONSIBLE_UserFirstname>).

<OTRS_CURRENT_*>
  Options of the current user who requested this action (e. g. <OTRS_CURRENT_UserFirstname>).

<OTRS_TICKET_*>
  Options of the ticket data (e. g. <OTRS_TICKET_TicketNumber>, <OTRS_TICKET_TicketID>, <OTRS_TICKET_Queue>, <OTRS_TICKET_State>).

<OTRS_TICKET_DynamicField_*>
  Options of ticket dynamic fields internal key values (e. g. <OTRS_TICKET_DynamicField_TestField>, <OTRS_TICKET_DynamicField_TicketFreeText1>).

<OTRS_TICKET_DynamicField_*_Value>
  Options of ticket dynamic fields display values, useful for Dropdown and Multiselect fields (e. g. <OTRS_TICKET_DynamicField_TestField_Value>, <OTRS_TICKET_DynamicField_TicketFreeText1_Value>).

<OTRS_CUSTOMER_DATA_*>
  Options of the current customer user data (e. g. <OTRS_CUSTOMER_DATA_UserFirstname>).

<OTRS_CONFIG_*>
  Config options (e. g. <OTRS_CONFIG_HttpType>).

Note: Create type templates only supports this smart tags: **<OTRS_CURRENT_*>** and **<OTRS_CONFIG_*>**

Example template:

```
The current ticket state is: "<OTRS_TICKET_State>"

Your email address is: "<OTRS_CUSTOMER_UserEmail>"
```

Fig. 53: Template Variables

OTRS empowers you to manage this providing you an overview to manage the 1:n relationships and quickly identify the templates using your attachments.

Use this screen to add one or more attachments to one or more templates. To use this function, at least one attachment and one template need to have been added to the system. The management screen is available in the *Templates Attachments* module of the *Ticket Settings* group.

Fig. 54: Manage Templates-Attachments Relations

2.14.1 Manage Templates Attachments Relations

To add some attachments to a template:

1. Click on a template in the *Templates* column.

2. Select the attachments you would like to add to the template.

3. Click on the *Save* or *Save and finish* button.
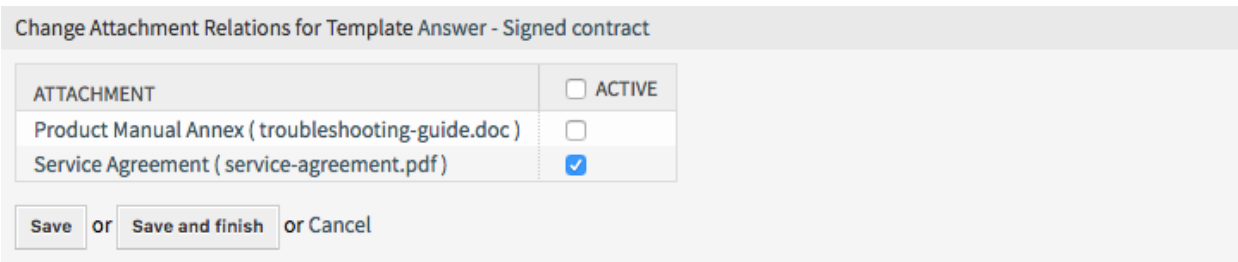
Fig. 55: Change Attachment Relations for Template

To assign an attachment to some templates:

1. Click on an attachment in the *Attachments* column.

2. Select the templates you would like to assign the attachment to.

3. Click on the *Save* or *Save and finish* button.

Note: If several attachments or templates are added to the system, use the filter box to find a particular attachment or template by just typing the name to filter.

Multiple attachments or templates can be assigned in both screens at the same time. Additionally clicking on an attachment or clicking on a template will open the edit attachment screen or the edit template screen for the selected resource.

Fig. 56: Change Template Relations for Attachment

2.15 Templates Queues

Sharing, distributing and making changes to standard text modules and information for sharing with customers or communication between teams can be an impossible mission.

OTRS can quickly aid you in ensuring that all of your teams have the correct templates available for use by assignment based on the queue.

Use this screen to add one or more templates to one or more queues. To use this function, at least one template and one queue need to have been added to the system. The management screen is available in the *Templates Queues* module of the *Ticket Settings* group.

Fig. 57: Template Queue Management Screen

2.15.1 Manage Templates Queues Relations

To assign a template to a queue:

1. Click on a template in the *Templates* column.

2. Select the queues you would like to add the template to.

3. Click on the *Save* or *Save and finish* button.

To assign a queue to a template:

1. Click on a queue in the *Queues* column.

2. Select the templates you would like to assign the queue to.

3. Click on the *Save* or *Save and finish* button.

Fig. 58: Change Queue Relations for Template

Fig. 59: Change Template Relations for Queue

Note: If several templates or queues are added to the system, use the filter box to find a particular template or queue by just typing the name to filter.

Multiple templates or queues can be assigned in both screens at the same time. Additionally clicking on a template or clicking on a queue in the *Relations screens* will open the edit template screen or the edit queue screen accordingly.

Warning: Accessing a queue or template provides no backlink to the *Relations screen*.

2.16 Types

Good KPIs requires knowing the type of work you're organization performs. Not all tasks take the same amount of effort even when performed by the same team. Creating a queue structure for this purpose can be overpowered due to the amount of configuration required to create and manage a queue.

OTRS provisions for KPIs with minimal overhead using ticket types. Typical types used in IT service desks are Unclassified, Incident and Problem. You can quickly define new types with ease. Use this screen to add types to the system. A fresh OTRS installation contains an *unclassified* type by default. The type management screen is available in the *Types* module of the *Ticket Settings* group.
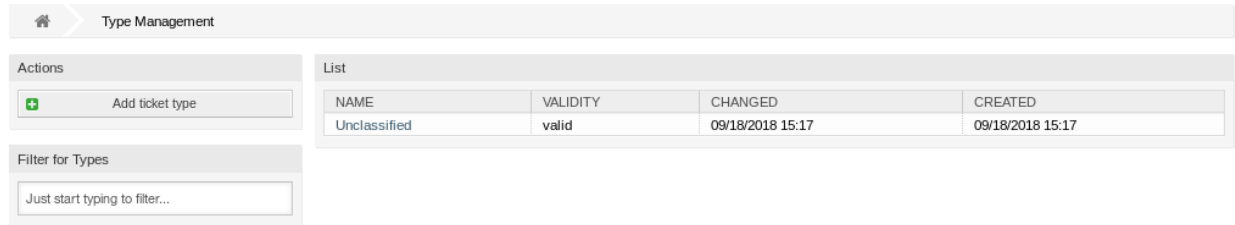
Fig. 60: Type Management Screen

Warning: Services must first be activated via *System Configuration* under the *Administration* group to be selectable in the ticket screens. You may click on the link in the warning message to directly jump to the configuration setting.

Fig. 61: Type Activation Warning

2.16.1 Manage Types

To add a type:
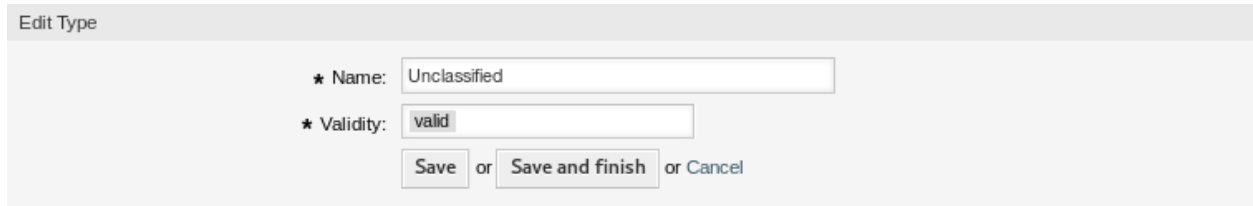
1. Click on the *Add Ticket Type* button in the left sidebar.
2. Fill in the required fields.
3. Click on the *Save* button.

Fig. 62: Add Type Screen

Warning: Types can not be deleted from the system. They can only be deactivated by setting the *Validity* option to *invalid* or *invalid-temporarily*.

To edit a type:

1. Click on a type in the list of types.
2. Modify the fields.
3. Click on the *Save* or *Save and finish* button.

Fig. 63: Edit Type Screen

Note: If several types are added to the system, use the filter box to find a particular type by just typing the name to filter.

2.16.2 Type Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

Name * The name of this resource. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

Communication & Notifications

This is the chapter *Communication & Notifications*.

3.1 Admin Notification

Corporations may need to make general announcements to everyone or publish news to several groups of, or individual, agents. Also, OTRS administrator may need to contact with specific agents regarding an event.

OTRS gives the administration the tool *Admin Notification* making sending announcements and news to the masses of users accurate and timely, to target group of people, simple. Administrators can send notifications based on a specific list of recipients, or a group of users inside OTRS, with powerful text editor enhanced content.

Use this screen to send administrative messages to specific agents, group or role members. The message compose screen is available in the *Admin Notification* module of the *Communication & Notifications* group.

3.1.1 Administrative Message Settings

The following settings are available when composing an administrative message. The fields marked with an asterisk are mandatory.

From * This email address will be added into the *From* field of the message.

Send message to users One or more *Agents* can be selected in this field, to whom the message will be sent.

Send message to group members One or more *Groups* can be selected in this field, to whose members the message will be sent.

Group members need to have permission With these radio buttons can be selected, if a group member need a read-only or read-write permission to receive the message.

Subject * The subject of the messages.

Fig. 1: Create Administrative Message Screen

Body * The body text of the message.

3.2 Appointment Notifications

Missing appointments can damage your image with a customer. Once there is an appointment assigned in the calendar, it's normal to receive notification:

- Upon a new or changed event
- Upon cancellation of an event
- Before the event, as a reminder

Notification relieves the agent the stress of mentally tracking appointments.

OTRS Appointment Notifications satisfies this need. Here a person can easily set notifications with general rules, including trigger events and filters. Afterward, appointments fitting the bill notify the correct users at the correct time.

Use this screen to add appointment notifications to the system. In a fresh OTRS installation an appointment reminder notification is already added by default. The appointment notification management screen is available in the *Appointment Notifications* module of the *Communication & Notifications* group.

Fig. 2: Appointment Notification Management Screen

3.2.1 Manage Appointment Notifications

To add an appointment notification:

1. Click on the *Add Notification* button in the left sidebar.
2. Fill in the required fields as explained in *Appointment Notification Settings*.
3. Click on the *Save* button.

To edit an appointment notification:

1. Click on an appointment notification in the list of appointment notifications.

2. Modify the fields as explained in *Appointment Notification Settings*.

3. Click on the *Save* or *Save and finish* button.

To delete an appointment notification:

1. Click on the trash icon in the list of appointment notifications.

2. Click on the *Confirm* button.

Fig. 3: Delete Appointment Notification Screen

To export all appointment notifications:

1. Click on the *Export Notifications* button in the left sidebar.

2. Choose a location in your computer to save the `Export_Notification.yml` file.

To import appointment notifications:

1. Click on the *Browse⋯* button in the left sidebar.

2. Select a previously exported `.yml` file.

3. Click on the *Overwrite existing notifications?* checkbox, if you would like to overwrite the existing notifications.

4. Click on the *Import Notification configuration* button.

3.2.2 Appointment Notification Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

See also:

For an example, see the default appointment reminder notification which is included in a fresh OTRS installation.

Basic Appointment Notification Settings

Name * The name of this resource. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

Comment Add additional information to this resource. It is recommended to always fill this field as a description of the resource with a full sentence for better clarity, because the comment will be also displayed in the overview table.

Show in agent preferences Define how the notification should be displayed in agent preferences. The following options are available:

Fig. 4: Appointment Notification Settings - Basic

No The notification won᾽t be displayed in agent preferences. The notification is sent to all appropriate agents by the defined method.

Yes The notification will be displayed in agent preferences for selection. The agents may opt-in or opt-out.

Yes, but require at least one active notification method. The notification will be displayed in agent preferences, but require at least one active notification method. This is annotated by an asterisk next to the name.

Fig. 5: Personal Appointment Notification Settings

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

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

Appointment Events

Fig. 6: Appointment Notification Settings - Events

Event Here you can choose which events will trigger this notification. An additional appointment filter can be applied below to only send for appointments with certain criteria.

Possible events are:

`AppointmentCreate` Executed after an appointment has been created.

AppointmentUpdate Executed after an appointment has been updated.
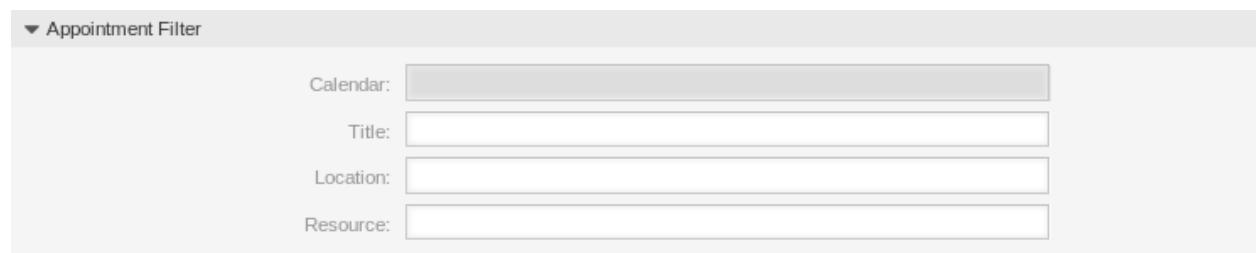
AppointmentDelete Executed after an appointment has been deleted.

AppointmentNotification This is a special appointment event that will be executed by the OTRS daemon in time. If an appointment contains a date/time value for notifications, as already described in this documentation, and such a notification date is reached, the OTRS daemon will execute this kind of event for every related appointment separately.

CalendarCreate Executed after a calendar has been created.

CalendarUpdate Executed after a calendar has been updated.

Appointment Filter

Fig. 7: Appointment Notification Settings - Appointment Filter

This widget can optionally be used to narrow the list of appointments by matching configured values:
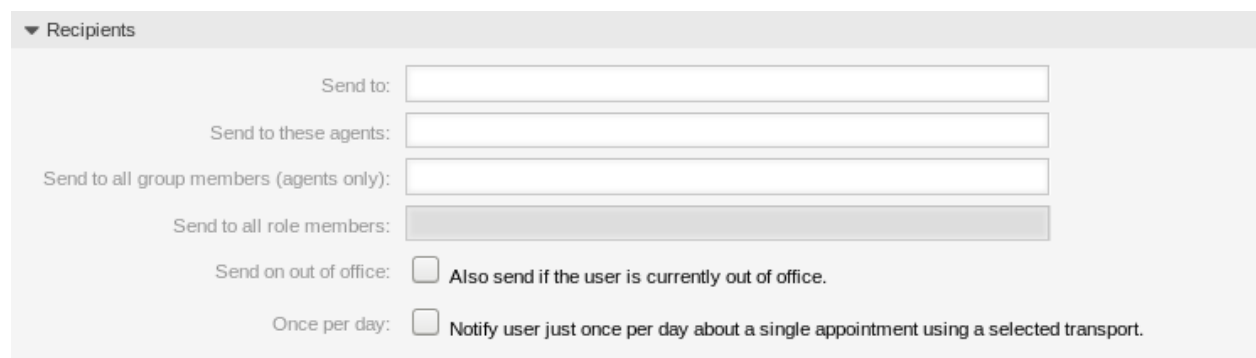
Calendar Select which calendar the related appointment needs to be part of.

Title Filter for a part or complete title of the appointment.

Location Filter for a part or complete location of the appointment.

Resource Choose from a list of teams or resources assigned to the appointments.

Appointment Notification Recipients

Fig. 8: Appointment Notification Settings - Recipients

Send to Select which agents should receive the notifications. Possible values are:

- Agent (resources), who are selected within the appointment
- All agents with (at least) read permission for the appointment (calendar)

- All agents with write permission for the appointment (calendar)

Send to these agents One or more agents can be selected who should receive the notifications.

Send to all group members (agents only) One or more groups can be selected whom agents should receive the notifications.

Send to all role members One or more roles can be selected whom agents should receive the notifications.

Send on out of office If this option is checked, the notification will be sent even if the agent is currently out of office.

Once per day Notify users just once per day about a single appointment using a selected transport.

Appointment Notification Methods

Fig. 9: Appointment Notification Settings - Notification Methods

Enable this notification method Enable or disable this notification method. A notification method can be email, web view or SMS.

> **Note:** To use the SMS notification method, *Cloud Services* need to be enabled.

Additional recipient email addresses Additional recipients can be added here.

Article visible for customer An article will be created if the notification is sent to the customer or an additional email address.

Email template Select which email template should be used for the notification.

> **Note:** Only for OnPremise users: Additional email templates can be added by placing a `.tt` file into the folder `<OTRS_Home>/Kernel/Output/HTML/Templates/Standard/NotificationEvent/ Email/`. See the existing email templates for an example. If your system is hosted by OTRS Group, please contact your Sales associate for an offer "Sales <sales@otrs.com>"

Enable email security Checking this option will encrypt the notification email.

> **Note:** To use this feature, *PGP Keys* or *S/MIME Certificates* need to be enabled.

Email security level If *Enable email security* is checked, then this setting is activated. The following options are available:

PGP sign only Sign only the notification email with PGP key. If no PGP keys have been added to the system, this option is not visible.

PGP encrypt only Encrypt only the notification email with PGP key. If no PGP keys have been added to the system, this option is not visible.

PGP sign and encrypt Sign and encrypt the notification email with PGP key. If no PGP keys have been added to the system, this option is not visible.

SMIME sign only Sign only the notification email with S/MIME certificate. If no S/MIME certificates have been added to the system, this option is not visible.

SMIME encrypt only Encrypt only the notification email with S/MIME certificate. If no S/MIME certificates have been added to the system, this option is not visible.

SMIME sign and encrypt Sign and encrypt the notification email with S/MIME certificate. If no S/MIME certificates have been added to the system, this option is not visible.

> **Note:** To use this feature, *PGP Keys* or *S/MIME Certificates* need to be enabled.

If signing key/certificate is missing Select the method, that should be used if signing key or certificate is missing.

If encryption key/certificate is missing: Select the method, that should be used if encryption key or certificate is missing.

Appointment Notification Text

The main content of a notification can be added for each languages with localized subject and body text. It is also possible to define static text content mixed with OTRS smart tags.

Fig. 10: Appointment Notification Settings - Notification Text

Subject * The localized subject for a specific language.

Text * The localized body text for a specific language.

Add new notification language Select which languages should be added to create localized notifications. The language of the customer or agent will be used as found in the customer and agent preferences. Secondarily, the system default language will be chosen. The fall back will always be english.

> **Warning:** Deleting a language in DefaultUsedLanguages setting that already has a notification text here will make the notification text unusable. If a language is not present or enabled on the system, the corresponding notification text could be deleted if it is not needed anymore.

3.2.3 Appointment Notification Variables

Using variables in appointment notifications is possible. Variables, known as OTRS tags, are replaced by OTRS when generating the mail. Find a list of available tags stems for signatures at the bottom of both add and edit screens.

Fig. 11: Appointment Notification Variables

For example, the variable `<OTRS_APPOINTMENT_TITLE[20]>` expands to the first 20 characters of the title allowing a template to include something like the following.

```
Title: <OTRS_APPOINTMENT_TITLE[20]>
```

This tag expands, for example to:

```
Title: Daily meeting in the···
```

3.3 Communication Log

Managers, leaders, team leads, and system administrators may need to track past communication to follow up specific messages. In some cases, issues arise, and a target recipient did not receive a message. Without access to the mail server logs, tracking the communication is difficult.

OTRS introduces the Communication Log module. It's designed to track the communication: building and spooling the mail and the connection between client and server.

Use this screen to inspect the internal logs about communication handling. The communication log overview screen is available in the *Communication Log* module of the *Communication & Notifications* group.

Fig. 12: Communication Log Overview Screen

3.3.1 Communication Log Overview

The communication log overview page is a dashboard-like screen with several metrics indicating the overall health of the system, depending on filtered communications.

Account status This widget will signal if you have any issues with configured accounts used for fetching or sending messages.

Communication status This widget will notify you if there are any errors with either account connections or message processing.

▼ Account status for: Last 24 hours			
▲ STATUS	ACCOUNT	AVERAGE PROCESSING TIME	EDIT
No accounts found.			

▼ Communication Log Details (0)				
STATUS	TRANSPORT	DIRECTION	START TIME	END TIME
No communication log entries found.				

Fig. 13: Account Status Screen

Communication state This widget will display if there are any active communications currently in the system.

Average processing time This is a cumulative time statistic that is needed to complete a communication.

You can select the time range in the left sidebar in order to filter communications depending on their creation time. In addition to this, you can also dynamically filter for any keywords, state of the communication, and you can sort the overview table by all columns.

If you click on a communication row in any table, you will be presented with a detailed view screen.

▼ Communication Log Overview (2)				
STATUS	▲ TYPE	⇄	ACCOUNT	START TIME
✔	Connection	⊕	imap.example.com / test3065508080300003 (IMAP)	08/01/2017 09:46:43
✘	Message	⊕	imap.example.com / test3065508080300003 (IMAP)	08/01/2017 09:46:43

▼ Communication Log Details (8)			
▲ #	PRIORITY	MODULE	INFORMATION
1	☃	Kernel::System::MailAccount::IMAP	Open connection to 'imap.example.com' (test3065508080300003).
2	❶	Kernel::System::MailAccount::IMAP	1 messages available for fetching (test3065508080300003/imap.example.com).
3	☃	Kernel::System::MailAccount::IMAP	Prepare fetching of message '1/1' (Size: 12.3 KB) from server.
4	☃	Kernel::System::MailAccount::IMAP	Message '1' successfully received from server.
5	☃	Kernel::System::MailAccount::IMAP	Message '1' marked for deletion.
6	i	Kernel::System::MailAccount::IMAP	Fetched 0 message(s) from server (test3065508080300003/imap.example.com).
7	☃	Kernel::System::MailAccount::IMAP	Executed deletion of marked messages from server (test3065508080300003/imap.example.com).
8	☃	Kernel::System::MailAccount::IMAP	Connection to 'imap.example.com' closed.

Fig. 14: Communication Log Detailed View Screen

Every communication can contain one or more logs, which can be of *Connection* or *Message* type.

Connection This type of logs will contain any log messages coming from the modules responsible for connecting to your accounts and fetching/receiving messages.

Message This type of logs will contain any log messages related to specific message processing. Any module working on message themselves can log their actions in this log, giving you a clear overview of what's going on.

You can filter log entries based on their priority, by choosing desired priority in the left sidebar. Log level rules apply: by selecting a specific priority, you will get log entries that have that priority set and higher, with *Error* being the highest.

3.4 Email Addresses

The main channel of communication with the customers is often Email. An organization consists of multiple department or teams. Email addresses differ for each group which is servicing your customer. You may have the following.

```
support@example.org
hr@exapmle.org
sales@example.org
```

These addresses are just some examples, and you may have many more. You use these channels to receive and send messages, and in mail clients, one can often send with the wrong address.

OTRS manages as many email addresses for your teams as needed. All your email addresses, whether for sending or receiving, are kept and configured nicely in one place. In the *Queue Settings*, the correct address is always chosen preventing that someone working in multiple roles sends an email out with the wrong account.

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 installations 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 this screen to add system email addresses to the system. An email address is already added to the system at installation time of OTRS. The email address management screen is available in the *Email Addresses* module of the *Communication & Notifications* group.

Fig. 15: Email Address Management Screen

3.4.1 Manage Email Addresses

To add an email addresses:

1. Click on the *Add System Address* button in the left sidebar.

2. Fill in the required fields.

3. Click on the *Save* button.

Fig. 16: Email Address Add Screen

Warning: Email addresses can not be deleted from the system. They can only be deactivated by setting the *Validity* option to *invalid* or *invalid-temporarily*.

Note: Once an email address is added and set to valid, OTRS cannot send an email to this address. This prevents loopbacks which could crash your system. If you need to transfer information between departments please use the ticket split option in the article menu. This will allow you to create a new ticket to another team for assigning a task, for example.

Fig. 17: Article Menu

To edit an email address:

1. Click on an email address in the list of email addresses.

2. Modify the fields.

3. Click on the *Save* or *Save and finish* button.

Note: If several email addresses are added to the system, use the filter box to find a particular email address by just typing the name to filter.

3.4.2 Email Address Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

Email address * The email address to be added.

Display name * The name of this resource. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the sender information of the article.

Fig. 18: Email Address Edit Screen

Fig. 19: Sender Information

Queue * The queue, to which the email address will be added as default email address.

Note: This setting will apply if the email is distributed via the recipient address. This setting can be overridden by *PostMaster Filters* or in the *Mail Account Settings* when *Dispatching by selected Queue* is chosen.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

Note: An email address can only be set to *invalid* or *invalid-temporarily*, if it is not assigned to any queue.

Comment Add additional information to this resource. It is recommended to always fill this field as a description of the resource with a full sentence for better clarity, because the comment will be also displayed in the overview table.

3.5 PGP Keys

Secure communications protect your customers and you. In the GDPR encryption is explicitly mentioned as one of the security and personal data protection measures in a few Articles. Although under the GDPR encryption is not mandatory, it is indeed essential in some areas.

OTRS empowers you to encrypt communications where needed by means of *S/MIME Certificates* or *PGP Keys*

Note: Setup of services and software required for encryption are not covered here because of independence to this software.

Use this screen to add PGP keys to the system. The PGP management screen is available in the *PGP Keys* module of the *Communication & Notifications* group.
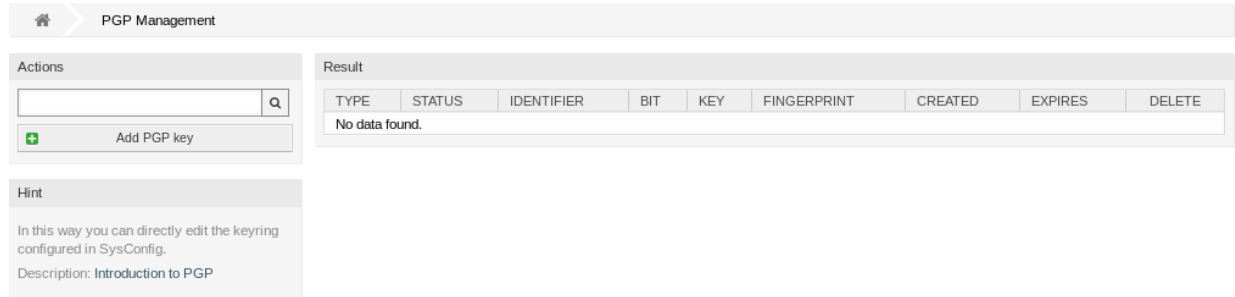
Fig. 20: PGP Management Screen

3.5.1 Manage PGP Keys

Note: To be able to use PGP keys in OTRS, you have to activate its setting first.
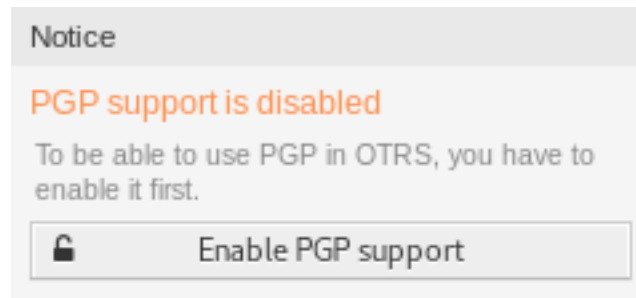
Fig. 21: Enable PGP Support

To add a PGP key:

1. Click on the *Add PGP Key* button in the left sidebar.
2. Click on *Browse⋯* button to open the file dialog.
3. Select a PGP key from the file system.
4. Click on the *Add* button.

To delete a PGP key:

1. Click on the trash icon in the list of PGP keys.
2. Click on the *Confirm* button.

Fig. 22: Add PGP Key Screen

Fig. 23: Delete PGP Key Screen

Note: If several PGP keys are added to the system, a search box is useful to find a particular PGP key.

3.5.2 PGP Configuration Options

Core → Crypt → PGP

3.6 PostMaster Filters

Pre-sorting standard mail done in a mail room takes care that not every piece of mail sent to the office goes to the same group of people. After a second look at the envelope, rerouting occurs where needed.

OTRS uses so-called *PostMaster Filters* to read the email's envelope and take further action. Depending upon, for example, a subject or sender, an email bound for the service desk could land in a sub-queue or be redirected to a completely different team to create transparency and give your customer the fastest service possible.

Use this screen to add PostMaster filters to the system. The PostMaster filter management screen is available in the *PostMaster Filters* module of the *Communication & Notifications* group.

Fig. 24: PostMaster Filter Management Screen

3.6.1 Manage PostMaster Filters

Note: When adding or editing a PostMaster filter, please keep in mind that they are evaluated in alphabetical order by name.

To add a PostMaster filter:

1. Click on the *Add PostMaster Filter* button in the left sidebar.

2. Fill in the required fields.

3. Click on the *Save* button.

To edit a PostMaster filter:

1. Click on a PostMaster filter in the list of PostMaster filters.

2. Modify the fields.

3. Click on the *Save* or *Save and finish* button.

To delete a PostMaster filter:

1. Click on the trash icon in the list of PostMaster filters.

2. Click on the *Confirm* button.

Fig. 25: Delete PostMaster Filter Screen

Note: If several PostMaster filters are added to the system, a filter box is useful to find a particular Post-Master filter by just typing to filter.

3.6.2 PostMaster Filter Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.
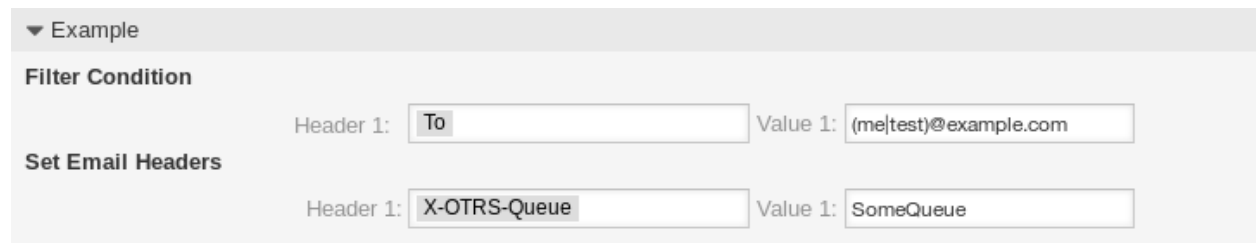
Fig. 26: PostMaster Filter Settings Example

Fig. 27: PostMaster Filter Settings - Basic

Basic PostMaster Filter Settings

Name * The name of this resource. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

Note: When adding or editing one of the PostMaster filters, remember multiple filters may apply to a single mail. The last rule wins. Rules execute and sort by the ASCII value of the names. Based on the sorted order in the overview, they are applied top to bottom. Look to the ASCI chart to see how to sort your names based on the "ASCII-bet".

Stop after match * PostMaster filters are evaluated in alphabetical order. This setting defines the evaluation of the subsequent PostMaster filters.

No All PostMaster filters are executed.

Yes The current PostMaster filter is still evaluated, but evaluation of the remaining filters is canceled.

Filter Condition

Fig. 28: PostMaster Filter Settings - Filter Condition

A PostMaster filter consists of one or more conditions that must be met in order for the defined actions to be executed on the email. Filter conditions can be defined for specific mail header entries or for strings in the mail body.

Search header field A list of mail header entries can be found in RFC5322. It is also possible to define `X-OTRS` headers as filter condition. The different `X-OTRS` headers and their meaning are the following:

Warning: These headers must be manually injected into the mail by means not provided for by OTRS. OTRS only accepts `X-OTRS` headers from trusted sources.

See also:

The *Mail Account Settings* defines the trust level.

X-OTRS-AttachmentCount This contains as value the number of attachments which are contained in the email (e.g. *0* for mails without attachments).

X-OTRS-AttachmentExists Depending on whether attachments are included in the email this X-OTRS header is set to *yes*, or it has a *no* value if no attachments are included.

X-OTRS-BodyDecrypted If the incoming mail was encrypted, it is possible to add a search term to look for the body of the incoming encrypted mail.

X-OTRS-CustomerNo Set the customer ID for the ticket.

X-OTRS-CustomerUser Set the customer user for the ticket.

X-OTRS-DynamicField-⟨DynamicFieldName⟩ Saves an additional information value for the ticket on ⟨DynamicFieldName⟩ dynamic field. The possible values depend on dynamic field configuration (e.g. text: Notebook, date: 2010-11-20 00:00:00, integer: 1).

X-OTRS-FollowUp-* These headers are the same as the ones without the `FollowUp` prefix, but these headers are applied only for follow-up mails.

X-OTRS-FollowUp-State-Keep If set to *1*, the incoming follow-up message will not change the ticket state. For this purpose the header can be customized in the system configuration using option `KeepStateHeader`.

X-OTRS-Ignore If set to *Yes* or *True*, the incoming message will completely be ignored and never delivered to the system.

X-OTRS-IsVisibleForCustomer Controls if the article is shown in the customer interface. Possible values are *0* or *1*.

X-OTRS-Lock Set the lock state of a ticket. Possible values are *locked* or *unlocked*.

X-OTRS-Loop If set to *True*, no auto answer is delivered to the sender of the message (mail loop protection).

X-OTRS-Owner Set the agent as owner for the ticket.

X-OTRS-OwnerID Set the agent ID as owner for the ticket.

X-OTRS-Priority Set the priority for the ticket.

X-OTRS-Queue Set the queue where the ticket shall be sorted. If this is set, all other filter rules that try to sort a ticket into a specific queue are ignored. If you use a sub-queue, specify it as *Parent::Sub*.

X-OTRS-Responsible Set the agent ID as responsible for the ticket.

X-OTRS-ResponsibleID Set the agent ID as responsible for the ticket.

X-OTRS-SenderType Set the sender type for the ticket. Possible values are *agent*, *system* or *customer*.

X-OTRS-Service Set the service for the ticket. If you use a sub-service, specify it as *Parent::Sub*.

X-OTRS-SLA Set the service level agreement for the ticket.

X-OTRS-State Set the state for the ticket.

X-OTRS-State-PendingTime Set the pending time for the ticket (you also should sent a pending state via X-OTRS-State). You can specify absolute dates like *2010-11-20 00:00:00* or relative dates, based on the arrival time of the email. Use the form + `$Number $Unit`, where `$Unit` can be *s* (seconds), *m* (minutes), *h* (hours) or *d* (days). Only one unit can be specified. Examples of valid settings: *+50s* (pending in 50 seconds), *+30m* (30 minutes), *+12d* (12 days).

Note: Settings like *+1d 12h* are not possible. You can specify *+36h* instead.

X-OTRS-Title Set the title for the ticket.

X-OTRS-Type Set the type for the ticket.

for value Enter a search term to this field. Even regular expressions can be used for extended pattern matching.

Negate If checked, the condition will use the negate search term.

Set Email Headers

Fig. 29: PostMaster Filter Settings - Set Email Headers

In this section you can choose the actions that are triggered if the filter rules match.

Set email header Select an `X-OTRS` header. The `X-OTRS` headers are already described above.

with value Add a value to this field that should be set as value of the selected `X-OTRS` header.

3.7 PostMaster Mail Accounts

Just as a company doesn't just have one department which receives traditional mail, your service desk will also serve multiple teams. Each team can have its physical email mailbox.

OTRS eases setup for email mailboxes. OTRS manages polling one or multiple email mailboxes of any internet standard type.

Use this screen to add mail accounts to the system. The mail account management screen is available in the *PostMaster Mail Accounts* module of the *Communication & Notifications* group.

Warning: When fetching mail, OTRS deletes the mail from the POP or IMAP server. There is no option to also keep a copy on the server. If you want to retain a copy on the server, you should create forwarding rules on your mail server. Please consult your mail server documentation for details.

Note: If you choose IMAP, you can specify a folder for collection. Selective dispatching of mails is then possible.

Fig. 30: Mail Account Management Screen

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 default installation, the mail is fetched every 10 minutes when the OTRS Daemon is running.

3.7.1 Manage Mail Accounts

To add a mail account:

1. Click on the *Add Mail Account* button in the left sidebar.
2. Fill in the required fields.
3. Click on the *Save* button.

To edit a mail account:

1. Click on a mail account in the list of mail accounts.
2. Modify the fields.
3. Click on the *Save* or *Save and finish* button.

To delete a mail account:

1. Click on the trash icon in the list of mail accounts.
2. Click on the *Confirm* button.

Note: If several mail accounts are added to the system, a filter box is useful to find a particular mail account by just typing to filter.

Fig. 31: Add Mail Account Screen

Fig. 32: Edit Mail Account Screen

List							
HOST/USERNAME	TYPE	COMMENT	VALIDITY	CHANGED	CREATED	DELETE	RUN NOW!
mail.example.com / test	IMAP	This is a mail ac...	valid	10/18/2018 10:54	10/18/2018 10:54	🗑	Fetch mail

Fig. 33: Delete Mail Account Screen

3.7.2 Mail Account Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

Type * There are different kind of protocols that are used for fetching mail. The following protocols are supported:

> - IMAP
>
> - IMAPS
>
> - IMAPTLS
>
> - POP3
>
> - POP3S
>
> - POP3TLS

Username * The username of the mail account.

Password * The password of the mail account.

Host * The host name of the mail account. Specify how the current article subject should be dealt with. The following methods are available:

IMAP Folder The folder in the mail account to be fetched. Other folders remain untouched.

Trusted If *Yes* is selected, any `X-OTRS` headers attached to an incoming message are evaluated and executed. Because the `X-OTRS` header can execute some actions in the ticket system, you should set this option to *Yes* only for known senders.

> **See also:**
>
> The `X-OTRS` headers are explained in the filter conditions of *PostMaster Filters*.

Dispatching The distribution of incoming messages can be controlled if they need to be sorted by queue or by the content of the *To:* field.

> **Dispatching by email To: field** The system checks if a queue is linked with the address in the *To:* field of the incoming mail. You can link an address to a queue in the *Email Addresses* screen. If the address in the *To:* field is linked with a queue, the new message will be sorted into the linked queue. If no link is found between the address in the *To:* field and any queue, then the message flows into the *Raw* queue in the system, which is the `PostmasterDefaultQueue` after a default installation.
>
> **Dispatching by selected Queue** All incoming messages will be sorted into the specified queue. The address where the mail was sent to is disregarded in this case.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

Comment Add additional information to this resource. It is recommended to always fill this field as a description of the resource with a full sentence for better clarity, because the comment will be also displayed in the overview table.

3.8 S/MIME Certificates

Faculty and staff have key roles safeguarding critical information by implementing information security policies, standards, and controls. Safe email communication is a vital part of protecting this communication.

OTRS empowers you to encrypt communications where needed by means of *S/MIME Certificates* or *PGP Keys*

Note: Setup of services and software required for encryption are not covered here because of independence to this software.

Use this screen to add S/MIME certificates to the system. The S/MIME management screen is available in the *S/MIME Certificates* module of the *Communication & Notifications* group.
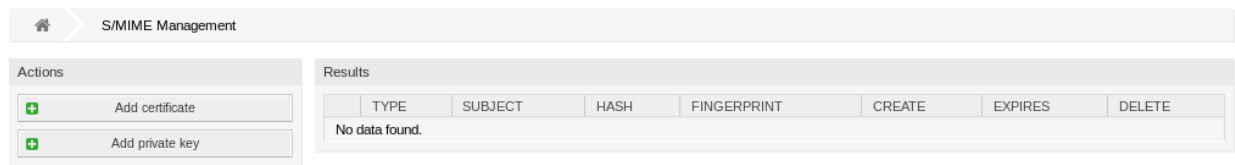
Fig. 34: S/MIME Management Screen

3.8.1 Manage S/MIME Certificates

Note: To be able to use S/MIME certificates in OTRS, you have to activate its setting first.
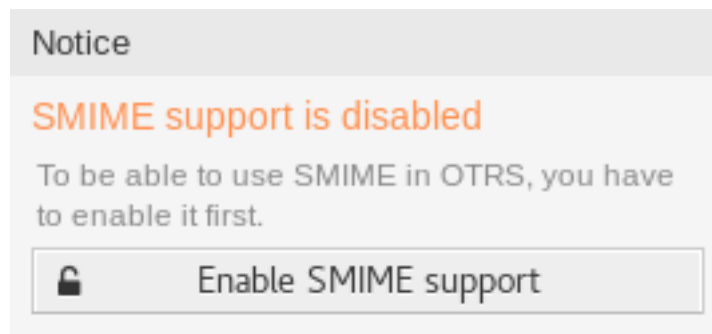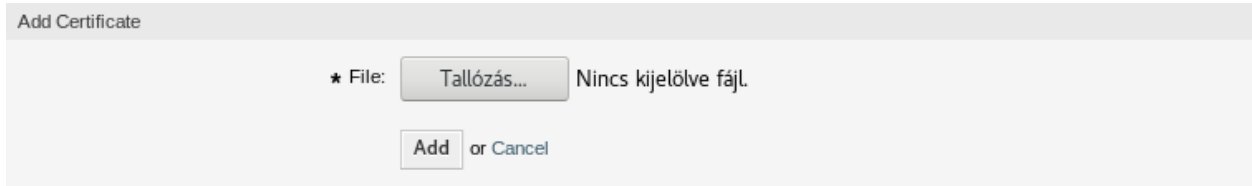
Fig. 35: Enable S/MIME Support

To add an S/MIME certificate:

1. Click on the *Add Certificate* button in the left sidebar.
2. Click on *Browse*··· button to open the file dialog.

3. Select an S/MIME certificate from the file system.

4. Click on the *Add* button.

Add Certificate

* File: Tallózás...   Nincs kijelölve fájl.
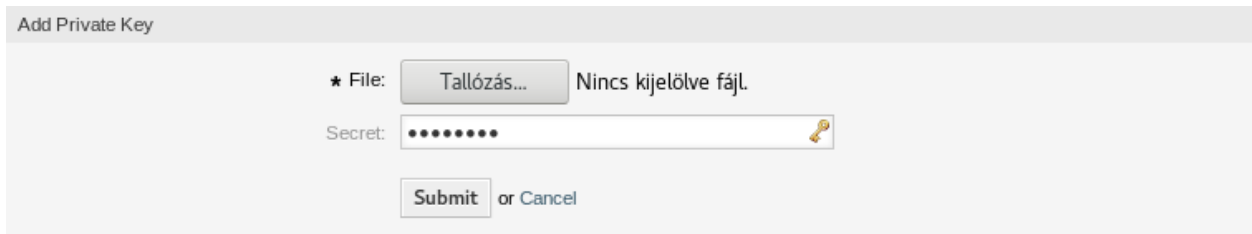
Add or Cancel

Fig. 36: Add S/MIME Certificate Screen

Note: Only non binary keys contain ASCII (Base64) armored data prefixed with a "–– BEGIN ⋯" line can be uploaded which are most commonly `key.pem` or `root.crt`. Conversion of other formats like `cert.p7b` must be done using openssl.

To add a private key:

1. Click on the *Add Private Key* button in the left sidebar.

2. Click on *Browse*⋯ button to open the file dialog.

3. Select a private key from the file system.

4. Click on the *Submit* button.

Add Private Key

* File: Tallózás...   Nincs kijelölve fájl.

Secret: ••••••••

Submit or Cancel

Fig. 37: Add S/MIME Private Key Screen

To delete an S/MIME certificate:

1. Click on the trash icon in the list of S/MIME certificates.

2. Click on the *Confirm* button.

Results

	TYPE	SUBJECT	HASH	FINGERPRINT	CREATE	EXPIRES	DELETE
No data found.							

Fig. 38: Delete S/MIME Certificate Screen

Note: If several S/MIME certificates are added to the system, use the filter box to find a particular S/MIME certificate by just typing the name to filter.

3.8.2 S/MIME Configuration Options

Core → Crypt → SMIME

3.9 Ticket Notifications

Streamlining communication can save hours of labor and prevent mistakes. Sending certain messages at pre-defined stages of communication not only keeps the customer and agents informed about specific events, but it can also aid your agents by programmatically doing automated updates to the customer.

The flexibility OTRS is an industry leader in email communication and offers you complete control of notifications based on any event in your system.

Use this screen to add ticket notifications to the system. In a fresh OTRS installation several ticket notifications are already added by default. The ticket notification management screen is available in the *Ticket Notifications* module of the *Communication & Notifications* group.

Fig. 39: Ticket Notification Management Screen

3.9.1 Manage Ticket Notifications

To add a ticket notification:

1. Click on the *Add Notification* button in the left sidebar.

2. Fill in the required fields as explained in *Ticket Notification Settings*.

3. Click on the *Save* button.

To edit a ticket notification:

1. Click on a ticket notification in the list of ticket notifications.

2. Modify the fields as explained in *Ticket Notification Settings*.

3. Click on the *Save* or *Save and finish* button.

To delete a ticket notification:

1. Click on the trash icon in the list of ticket notifications.

2. Click on the *Confirm* button.

List							
NAME	COMMENT	VALIDITY	CHANGED	CREATED	EXPORT	COPY	DELETE
Ticket create notification		valid	09/18/2018 15:17	09/18/2018 15:17	⬇	🗐	🗑
Ticket email delivery failure notification		valid	09/18/2018 15:17	09/18/2018 15:17	⬇	🗐	🗑

Fig. 40: Delete Ticket Notification Screen

To export all ticket notifications:

1. Click on the *Export Notifications* button in the left sidebar.

2. Choose a location in your computer to save the `Export_Notification.yml` file.

Warning: Certain settings are exported as numeric ids and will break when importing to a system where these settings do not appear or reference other named items.

To import ticket notifications:

1. Click on the *Browse⋯* button in the left sidebar.

2. Select a previously exported `.yml` file.

3. Click on the *Overwrite existing notifications?* checkbox, if you would like to overwrite the existing notifications.

4. Click on the *Import Notification configuration* button.

3.9.2 Ticket Notification Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

See also:

For an example, see a default ticket notification which is included in a fresh OTRS installation.

Basic Ticket Notification Settings

Fig. 41: Ticket Notification Settings - Basic

Name * The name of this resource. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

Comment Add additional information to this resource. It is recommended to always fill this field as a description of the resource with a full sentence for better clarity, because the comment will be also displayed in the overview table.

Show in agent preferences Define how the notification should be displayed in agent preferences. The following options are available:

   No The notification won't be displayed in agent preferences. The notification is sent to all appropriate agents by the defined method.

   Yes The notification will be displayed in agent preferences for selection. The agents may opt-in or opt-out.

   Yes, but require at least one active notification method. The notification will be displayed in agent preferences, but require at least one active notification method. This is annotated by an asterisk next to the name.

Fig. 42: Personal Ticket Notification Settings

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

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

Events

Fig. 43: Ticket Notification Settings - Events

Event Here you can choose which events will trigger this notification. An additional ticket filter can be applied below to only send for tickets with certain criteria.

Ticket Filter[1]

This widget can optionally be used to narrow the list of tickets by matching configured values:

Note: The values in this list can grow as your system grows. The more *Dynamic Fields* are and features you have in your system, the longer the list will be.

State Filter for a state of the ticket.

Priority Filter for a priority of the ticket.

Queue Filter for a queue in which the ticket is located.

Lock Filter for a lock state of the ticket.

Customer ID Filter for a customer ID of the ticket.

Customer User ID Filter for a customer user ID of the ticket.

Dynamic Fields Filter for some dynamic fields added to the system. For the complete list of dynamic fields see the the *Dynamic Fields* chapter.

Article Filter[1]

Note: This widget works only if `ArticleCreate` or `ArticleSend` is selected in the *Events* widget.

Article sender type Filter for the sender type of the ticket. Possible values are *agent*, *system* or *customer*.

Customer visibility Filter for the customer visibility. Possible values are *Invisible to customer* or *Visible to customer*.

Communication channel Filter for the communication channel. Possible values are *Chat*, *Email*, *OTRS*, *Phone* or *SMS*.

Include attachments to notification If *Yes* is selected, attachments will be included to notification. Selecting *No* will not use this feature.

Attachment Name Filter for attachment name.

---

[1] Use of regular expressions as a filter do not work here.

Fig. 44: Ticket Notification Settings - Ticket Filter

Fig. 45: Ticket Notification Settings - Article Filter

Bcc Filter for blind carbon copy field.

Body Filter for body text.

Cc Filter for carbon copy field.

From Filter for the sender field.

Subject Filter for the subject field.

To Filter for the main recipients field.

SMS phone number Filter for an SMS phone number.

SMS text Filter for the SMS text.

SMS transaction number Filter for an SMS transaction number.

Ticket Notification Recipients

Fig. 46: Ticket Notification Settings - Recipients

Send to Select which agents should receive the notifications. Possible values are:

- Agent who created the ticket
- Agent who is responsible for the ticket
- Agent who owns the ticket
- All agents subscribed to both the ticket's queue and service
- All agents subscribed to the ticket's queue
- All agents subscribed to the ticket's service
- All agents watching the ticket
- All agents with write permission for the ticket
- All recipients of the first article
- All recipients of the last article
- Customer user of the ticket

Send to these agents One or more agents can be selected who should receive the notifications.

Send to all group members (agents only) One or more groups can be selected whom agents should receive the notifications.

Send to all role members One or more roles can be selected whom agents should receive the notifications.

Send on out of office If this option is checked, the notification will be sent even if the agent is currently out of office.

Once per day Notify users just once per day about a single ticket using a selected transport.

Ticket Notification Methods

Enable this notification method Enable or disable this notification method. A notification method can be email, web view or SMS.

Note: To use the SMS notification method, *Cloud Services* need to be enabled.

Additional recipient email addresses Additional recipients can be added here.

Article visible for customer An article will be created if the notification is sent to the customer or an additional email address.

Email template Select which email template should be used for the notification.

Note: Additional email templates can be added by placing a `.tt` file into the folder `<OTRS_Home>/Kernel/Output/HTML/Templates/Standard/NotificationEvent/Email/`. See the existing email templates for an example.

Enable email security Checking this option will encrypt the notification email.

Note: To use this feature, *PGP Keys* or *S/MIME Certificates* need to be enabled.

Email security level If *Enable email security* is checked, then this setting is activated. The following options are available:

PGP sign only Sign only the notification email with PGP key. If no PGP keys have been added to the system, this option is not visible.

PGP encrypt only Encrypt only the notification email with PGP key. If no PGP keys have been added to the system, this option is not visible.

PGP sign and encrypt Sign and encrypt the notification email with PGP key. If no PGP keys have been added to the system, this option is not visible.

SMIME sign only Sign only the notification email with S/MIME certificate. If no S/MIME certificates have been added to the system, this option is not visible.

SMIME encrypt only Encrypt only the notification email with S/MIME certificate. If no S/MIME certificates have been added to the system, this option is not visible.

SMIME sign and encrypt Sign and encrypt the notification email with S/MIME certificate. If no S/MIME certificates have been added to the system, this option is not visible.

Note: To use this feature, *PGP Keys* or *S/MIME Certificates* need to be enabled.

If signing key/certificate is missing Select the method, that should be used if signing key or certificate is missing.

If encryption key/certificate is missing: Select the method, that should be used if encryption key or certificate is missing.

Notification Text

Fig. 48: Ticket Notification Settings - Notification Text

The main content of a notification can be added for each languages with localized subject and body text. It is also possible to define static text content mixed with OTRS smart tags.

Subject * The localized subject for a specific language.

Text * The localized body text for a specific language.

Add new notification language   Select which languages should be added to create localized notifications.

> **Warning:**   Deleting a language in DefaultUsedLanguages setting that already has a notification text here will make the notification text unusable. If a language is not present or enabled on the system, the corresponding notification text could be deleted if it is not needed anymore.

3.9.3 Ticket Notification Variables

Using variables in ticket notifications is possible. Variables, known as OTRS tags, are replaced by OTRS when generating the mail. Find a list of available tags stems for signatures at the bottom of both add and edit screens.

For example, the variable `<OTRS_TICKET_TicketNumber>` expands to the ticket number allowing a template to include something like the following.

```
Ticket#<OTRS_TICKET_TicketNumber>
```

This tag expands, for example to:

```
Ticket#2018101042000012
```

▼ Tag Reference

Notifications are sent to an agent or a customer.
You can use the following tags:

<OTRS_AGENT_SUBJECT[20]>
   To get the first 20 character of the subject (of the latest agent article).

<OTRS_AGENT_BODY[5]>
   To get the first 5 lines of the body (of the latest agent article).

<OTRS_AGENT_*>
   To get the article attribute (e. g. <OTRS_AGENT_From>, <OTRS_AGENT_To>, <OTRS_AGENT_Cc>).

<OTRS_CUSTOMER_SUBJECT[20]>
   To get the first 20 character of the subject (of the latest customer article).

<OTRS_CUSTOMER_BODY[5]>
   To get the first 5 lines of the body (of the latest customer article).

<OTRS_CUSTOMER_REALNAME>
   To get the name of the ticket's customer user (if given).

<OTRS_CUSTOMER_*>
   To get the article attribute (e. g. <OTRS_CUSTOMER_From>, <OTRS_CUSTOMER_To>, <OTRS_CUSTOMER_Cc>).

<OTRS_CUSTOMER_DATA_*>
   Attributes of the current customer user data (e. g. <OTRS_CUSTOMER_DATA_UserFirstname>).

<OTRS_OWNER_*> or <OTRS_TICKET_OWNER_*>
   Attributes of the current ticket owner user data (e. g. <OTRS_OWNER_UserFirstname> or
   <OTRS_TICKET_OWNER_UserFirstname>).

<OTRS_RESPONSIBLE_*> or <OTRS_TICKET_RESPONSIBLE_*>
   Attributes of the current ticket responsible user data (e. g. <OTRS_RESPONSIBLE_UserFirstname> or
   <OTRS_TICKET_RESPONSIBLE_UserFirstname>).

<OTRS_CURRENT_*>
   Attributes of the current agent user who requested this action (e. g. <OTRS_CURRENT_UserFirstname>).

<OTRS_*> or <OTRS_NOTIFICATION_RECIPIENT_*>
   Attributes of the recipient user for the notification (e. g. <OTRS_UserFullname> or
   <OTRS_NOTIFICATION_RECIPIENT_UserFullname>).

<OTRS_TICKET_*>
   Attributes of the ticket data (e. g. <OTRS_TICKET_TicketNumber>, <OTRS_TICKET_TicketID>,
   <OTRS_TICKET_Queue>, <OTRS_TICKET_State>).

<OTRS_TICKET_DynamicField_*>
   Ticket dynamic fields internal key values (e. g. <OTRS_TICKET_DynamicField_TestField>,
   <OTRS_TICKET_DynamicField_TicketFreeText1>).

<OTRS_TICKET_DynamicField_*_Value>
   Ticket dynamic fields display values, useful for Dropdown and Multiselect fields (e. g.
   <OTRS_TICKET_DynamicField_TestField_Value>,
   <OTRS_TICKET_DynamicField_TicketFreeText1_Value>).

<OTRS_CONFIG_*>
   Config options (e. g. <OTRS_CONFIG_HttpType>).

Example notification:

Subject: Ticket Created: <OTRS_TICKET_Title>

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]>

<OTRS_CONFIG_HttpType>://<OTRS_CONFIG_FQDN>
/<OTRS_CONFIG_ScriptAlias>index.pl?Action=AgentTicketZoom;TicketID=
<OTRS_TICKET_TicketID>
```

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Fig. 49: Ticket Notification Variables
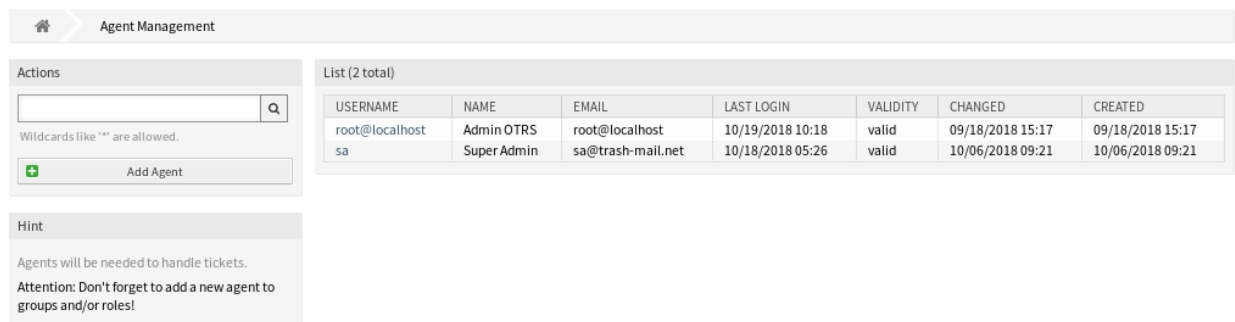
Users, Groups & Roles

This is the chapter *Users, Groups & Roles*.

4.1 Agents

Agent and access management for your service desk should be easy. Flexibility in adding, editing, invalidating access and a quick overview of which permissions a user has will help you maintain a clean permissions system and record of your setup in OTRS.

OTRS aids you giving you the power to manage agents within OTRS across multiple backends. OTRS can use up-to ten backend sources, even marking some as read-only. Managing user settings centrally, an administrator can quickly invalidate a compromised account or set an account to out-of-office in case of an unexpected illness.

Use this screen to add agents to the system. A fresh OTRS installation contains an agent with administrator privileges by default. The agent management screen is available in the *Agents* module of the *Users, Groups & Roles* group.

Fig. 1: Agent Management Screen

> **Warning:** The superuser account username is *root@localhost*. Don't use the superuser account to work with OTRS! Create new agents and work with these accounts instead. One of the adverse affects here is that *Access Control Lists (ACL)* will not have an effect on this user.

4.1.1 Manage Agents

> **Note:** Adding or editing an agent is possible only by using database backend. Using explicitly external directory services like LDAP and, based on configuration, some databases are read-only. Personal preferences like out-of-office can still be set.

To add an agent:

1. Click on the *Add Agent* button in the left sidebar.

2. Fill in the required fields.

3. Click on the *Save* button.

Fig. 2: Add Agent Screen

> **Warning:** Agents can not be deleted from the system. They can only be deactivated by setting the *Validity* option to *invalid* or *invalid-temporarily*.

To edit an agent:

1. Click on an agent in the list of agents.

2. Modify the fields.

3. Click on the *Save* or *Save and finish* button.

It is also possible to edit the agent personal preferences. To do this, click on the *Edit personal preferences for this agent* button in the left sidebar of the *Edit Agent* screen.

To find an agent:

Fig. 3: Edit Agent Screen

1. Enter a search term to the search box in the left sidebar.

2. Click on the magnifying glass icon in the right part of the field or hit an `Enter`.

Note: If several agents are added to the system, use the search box to find a particular agent. Only the first 1000 agents are listed by default.

The agent permissions can be controlled by adding an agent to *Groups* or *Roles*. This can result a complex matrix of permissions. The effective permissions for an agent can be checked in the bottom of the *Edit Agent* screen. If roles (recommended) are used, this screen will reflect the combined permissions as dictated by the roles.

Fig. 4: Effective Permissions for Agent Widget

4.1.2 Agent Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory. These are the default field available for the internal database table.

Note: The fields seen below can be modified by contacting the "Customer Solution Team <support@otrs.com>".

Title or salutation Some name prefix can be added here like *Mr.*, *Dr.*, *Jr.*, etc.

Firstname * The first name of the agent.

Lastname * The last name of the agent.

> **See also:**
>
> The agent display name can be set via the system configuration setting `FirstnameLastnameOrder`.

Username * The username of the agent to login to the system.

Password The password of the agent. This will be auto-generated if left empty.

Email * The email address of the agent.

Note: The email syntax and validity of an available MX record could prevent you from submitting this form. For some systems it may be acceptable to turn off these checks. See the *Agent Configuration Options*

Mobile The mobile phone number of the agent.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

4.1.3 Agent Back End Sources

Note: Agents can be read and synchronized from an Active Directory® or LDAP server. The following configurations are taken care of by the "Customer Solution Team <support@otrs.com>". In case you use OnPremise or the ((OTRS)) Community Edition, then you may also use this section to configure your system.

Agent Authentication Back End

The users table houses your agent data per default. You may attach a directory server (LDAP/Active Directory) to your installation for authentication. To achieve this copy the following block from the `Defaults.pm` and paste it into the `Config.pm`.

```
# This is an example configuration for an LDAP auth. backend.
# (take care that 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)
```

(continues on next page)

```
#     $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)'
# or if you want to filter with a locigal OR-Expression, like AlwaysFilter =>
↪'(|(mail=*abc.com)(mail=*xyz.com))'
#     $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.
#     $Self->{'AuthModule::LDAP::UserSuffix'} = '@domain.com';


# In case you want to convert all given usernames to lower letters you
# should activate this option. It might be helpful if databases are
# in use that do not distinguish selects for upper and lower case letters
# (Oracle, postgresql). User might be synched twice, if this option
# is not in use.
#     $Self->{'AuthModule::LDAP::UserLowerCase'} = 0;


# In case you need to use OTRS in iso-charset, you can define this
# by using this option (converts utf-8 data from LDAP to iso).
#     $Self->{'AuthModule::LDAP::Charset'} = 'iso-8859-1';


# 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,
#     };


# Die if backend can't work, e. g. can't connect to server.
#     $Self->{'AuthModule::LDAP::Die'} = 1;


You should uncomment the following settings as a minimum.
```

The minimum required to connect to an directory server is:

```
$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';
```

Host The DNS name or IP of your directory server.

BaseDN The starting point in your directory tree.

UID The attribute used for login and identification.

> **Note:** This is `sAMAccountName` for an Active Directory.

To use multiple backends, add an additional section of the example code to the `Config.pm`. Please make sure to add a numeric value [1-9] to all settings to indicate which settings belong to which back end.

```
### Backend One
$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';

### Backend Two
$Self->{AuthModule1} = 'Kernel::System::Auth::LDAP';
$Self->{'AuthModule::LDAP::Host1'} = 'ldap.example.com';
$Self->{'AuthModule::LDAP::BaseDN1'} = 'dc=example,dc=com';
$Self->{'AuthModule::LDAP::UID1'} = 'uid';
```

> **Warning:** All backends will are used in succession. The UID must be unique to all back ends otherwise, some side effects may occur.

To synchronize with a specific directory server (see *Agent User Data* below), you must add the appropriate setting to your *Agent Authentication Back End*. To achieve this copy the following block from the `Defaults.pm` and paste it into the `Config.pm`.

```
$Self->{'AuthModule::UseSyncBackend'} = 'AuthSyncBackend';
```

To use multiple backends, add an additional section of the example code to the `Config.pm`. Please make sure to add a numeric value [1-9] to all settings to indicate which settings belong to which back end.

```
$Self->{'AuthModule::UseSyncBackend1'} = 'AuthSyncBackend1';
```

Reuse of an *Agent Synchronization Back End* is also possible.

```
$Self->{'AuthModule::UseSyncBackend1'} = 'AuthSyncBackend';
```

Agent Synchronization Back End

It is advisable to synchronize the agent data so that agents need not be manually added to the users table prior to authorization. Additionally, groups and roles can be added automatically using security objects of the directory server.

Agent User Data

Syncing user data upon login. To achieve this copy the following block from the `Defaults.pm` and paste it into the `Config.pm`.

```
# This is an example configuration for an LDAP auth sync. backend.
# (take care that Net::LDAP is installed!)
#     $Self->{AuthSyncModule} = 'Kernel::System::Auth::Sync::LDAP';
#     $Self->{'AuthSyncModule::LDAP::Host'} = 'ldap.example.com';
#     $Self->{'AuthSyncModule::LDAP::BaseDN'} = 'dc=example,dc=com';
#     $Self->{'AuthSyncModule::LDAP::UID'} = 'uid';

# The following is valid but would only be necessary if the
# anonymous user do NOT have permission to read from the LDAP tree
#     $Self->{'AuthSyncModule::LDAP::SearchUserDN'} = '';
#     $Self->{'AuthSyncModule::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)'
# or if you want to filter with a logical OR-Expression, like AlwaysFilter =>
↪'(|(mail=*abc.com)(mail=*xyz.com))'
#     $Self->{'AuthSyncModule::LDAP::AlwaysFilter'} = '';

# AuthSyncModule::LDAP::UserSyncMap
# (map if agent should create/synced from LDAP to DB after successful login)
# you may specify LDAP-Fields as either
#  * list, which will check each field. first existing will be picked ( [
↪"givenName","cn","_empty"] )
#  * name of an LDAP-Field (may return empty strings) ("givenName")
#  * fixed strings, prefixed with an underscore: "_test", which will always
↪return this fixed string
#     $Self->{'AuthSyncModule::LDAP::UserSyncMap'} = {
#         # DB -> LDAP
#         UserFirstname => 'givenName',
#         UserLastname  => 'sn',
#         UserEmail     => 'mail',
#     };
```

The minimum required to connect to an directory server is:

```
$Self->{AuthSyncModule} = 'Kernel::System::Auth::Sync::LDAP';
$Self->{'AuthSyncModule::LDAP::Host'} = 'ldap.example.com';
$Self->{'AuthSyncModule::LDAP::BaseDN'} = 'dc=example,dc=com';
$Self->{'AuthSyncModule::LDAP::UID'} = 'uid';
```

Host The DNS name or IP of your directory server.

BaseDN The starting point in your directory tree.

UID The attribute used for login and identification.

> **Note:** This is `sAMAccountName` for an Active Directory

Note: Multiple *Agent Synchronization Back End* blocks can be used. Please make sure to add a numeric value [1-9] to all settings to indicate which settings belong to which back end. Each `AuthSyncModule` must be explicitly used in an *Agent Authentication Back End*.

Agent Group Data

It is possible to use security objects to synchronize users to OTRS groups. To achieve this copy the following block from the `Defaults.pm` and paste it into the `Config.pm`.

Note: Groups must be available in OTRS to use this feature.

Agent Role Data

It is possible to use security objects to synchronize users to OTRS roles. To achieve this copy the following block from the `Defaults.pm` and paste it into the `Config.pm`.

Note: Roles must be available in OTRS to use this feature.

4.1.4 Agent Configuration Options

4.2 Agents   Groups

Efficient and straightforward management of permissions is essential in a growing business. Easy assignment of a particular user to a group for quick access, or to remove access, to resources is a must in every case.

The OTRS interface provides you with both the possibility to manage an agent's access to one or more particular groups. As well, you can change multiple users access to any one group, efficiently and elegantly.

Use this screen to add one or more agents to one or more groups. To use this function, at least one agent and one group need to have been added to the system. The management screen is available in the *Agents Groups* module of the *Users, Groups & Roles* group.
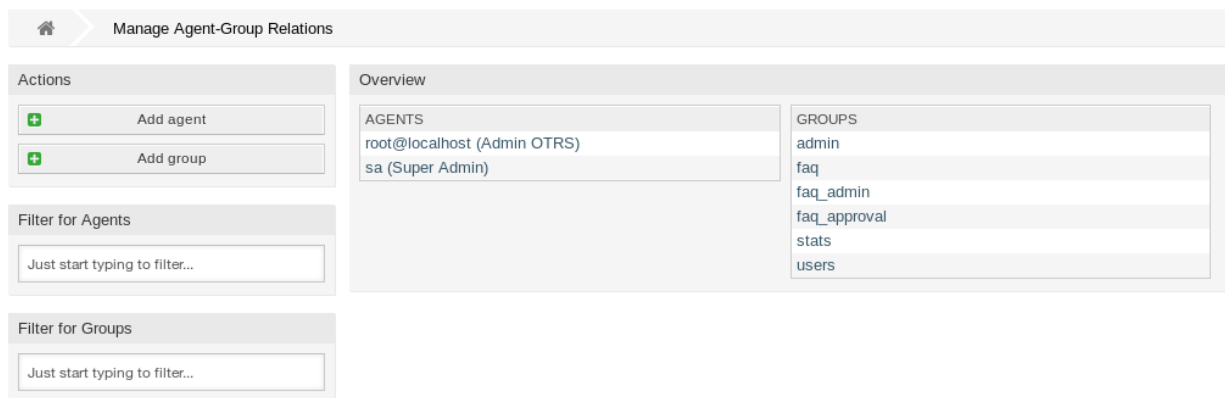

Fig. 5: Manage Agent-Group Relations

4.2.1 Manage Agents Groups Relations

To assign some groups to an agent:

1. Click on an agent in the *Agents* column.

2. Select the permissions you would like to connect the agent to groups with.

3. Click on the *Save* or *Save and finish* button.

Fig. 6: Change Group Relations for Agent

To assign some agents to a group:

1. Click on a group in the *Groups* column.

2. Select the permissions you would like to connect the group to agents with.

3. Click on the *Save* or *Save and finish* button.

Fig. 7: Change Agent Relations for Group

Note: If several agents or groups are added to the system, use the filter box to find a particular agent or group by just typing the name to filter.

Multiple agents or groups can be assigned in both screens at the same time. Additionally clicking on an agent or clicking on a group will open the edit agent screen or the edit group screen for the selected resource.

4.2.2 Agents Groups Relations Reference

When assigning an agent to a group or vice versa, several permissions can be set as connection between an agent and a group. The following permissions are available by default:

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.

chat_owner Agents have full rights for a chat and can accept chat requests.

chat_participant Agents may normally participate in a chat.

chat_observer Agents may take part silently in a chat.

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

See also:

Not all available permissions are shown by default. See System::Permission setting for permissions that can be added. These additional permissions can be added:

stats Gives access to the stats page.

bounce Permissions to bounce an email message (with bounce button in *Ticket Zoom* screen).

compose Permissions to compose an answer for a ticket.

customer Permissions to change the customer of a ticket.

forward Permissions to forward a messages (with the forward button).

pending Permissions to set a ticket to pending.

phone Permissions to add a phone call to a ticket.

responsible Permissions to change the responsible agent for a ticket.

Note: By setting a checkbox in the header of a column will set all the checkboxes in the selected column. By setting the checkbox in the last *rw* column will set all the checkboxes in the selected row.

4.3 Agents Roles

As an organization grows, groups cannot be the denominator used for processing access rights. Roles become more and more a need because a role has a special set of permissions assigned. One mustn't give individual permissions, but the role carries the permissions built-in.

OTRS allows easy access to a predefined set of permissions via one or more roles defined. These roles are assigned easily to one or more agents, or one or more agent to a role.

Use this screen to add one or more agents to one or more roles. To use this function, at least one agent and one role need to have been added to the system. The management screen is available in the *Agents Roles* module of the *Users, Groups & Roles* group.

Fig. 8: Manage Agent-Role Relations

4.3.1 Manage Agents   Roles Relations

To assign some roles to an agent:

1. Click on an agent in the *Agents* column.

2. Select the roles you would like to the agent belongs to.

3. Click on the *Save* or *Save and finish* button.

Fig. 9: Change Role Relations for Agent

To assign some agents to a role:

1. Click on a role in the *Roles* column.

2. Select the agents you would like to add to the role.

3. Click on the *Save* or *Save and finish* button.

Fig. 10: Change Agent Relations for Role

Note: If several agents or roles are added to the system, use the filter box to find a particular agent or role by just typing the name to filter.

Multiple agents or roles can be assigned in both screens at the same time. Additionally clicking on an agent or clicking on a role will open the edit agent screen or the edit role screen for the selected resource.

Note: By setting the checkbox in the header of the column *Active* will set all the checkboxes in the column.

4.4 Customers

Use this screen to add customer companies to the system. A fresh OTRS installation contains no customers by default. The customer management screen is available in the *Customers* module of the *Users, Groups & Roles* group.

Fig. 11: Customer Management Screen

4.4.1 Manage Customers

Note: Adding or editing a customer is possible only by using database backend. Using external directory services like LDAP will disable the customer management functionality.

To add a customer:

1. Click on the *Add Customer* button in the left sidebar.
2. Fill in the required fields.
3. Click on the *Save* button.

Warning: Customers can not be deleted from the system. They can only be deactivated by setting the *Validity* option to *invalid* or *invalid-temporarily*.

To edit a customer:

1. Click on a customer in the list of customers.
2. Modify the fields.

Fig. 12: Add Customer Screen

3. Click on the *Save* or *Save and finish* button.

To find a customer:

1. Enter a search term to the search box in the left sidebar.

2. Click on the magnifying glass icon in the right part of the field or hit an `Enter`.

Note: If several customers are added to the system, use the search box to find a particular agent. Only the first 1000 customers are listed by default.

4.4.2 Customer Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

Customer ID * The internal name of the customer. Should contain only letters, numbers and some special characters.

Customer * The name of this resource. Any type of characters can be entered to this field including upper-case letters and spaces. The name will be displayed in the overview table.

Street The street name of the customer.

Zip The zip code of the customer.

City The headquarter city of the customer.

Country The country of the customer. Choose a country from the list.

URL The web page or other URL of the customer.

Edit Customer

* CustomerID: acme.co

* Customer: Acme Inc.

Street: 123 Anywhere St.

Zip: 12346

City: Somewhereviell

Country: United States of America X

URL: https://acme.exapmle.com

Comment: A great company.

* Valid: valid

Save   or   Save and finish   or Cancel

Fig. 13: Edit Customer Screen

Comment Add additional information to this resource. It is recommended to always fill this field as a description of the resource with a full sentence for better clarity, because the comment will be also displayed in the overview table.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

4.5 Customers   Groups

Your organization grows, and it's not practical at some point to assign permissions to individual users, you need to assign the permissions to all customer users of a customer.

OTRS allows you to assign *group* permissions to a *customer*. Access works just the same as for agents, preventing a customer from modifying and viewing a request. Thus allowing the customer to focus on the results of the original communication and funneling the discussion through one ticket.

See also:

Assign a single customer user to a group using *Customer Users   Groups*.

Use this screen to add one or more customers to one or more groups. To use this function, at least one customer and one group need to have been added to the system. The management screen is available in the *Customers   Groups* module of the *Users, Groups & Roles* group.

Customer group support needs enabling in at least one customer user *back end* to use this function. For the default OTRS *back end*, this can be enabled in the system configuration by clicking on .

Note:

Customer group support is enabled per customer user *back end* of OTRS. to enable this in systems using a directory server or multiple non.-default back ends, please contact the "Customer

Fig. 14: Manage Customer-Groups Relations

Fig. 15: Activate Customer Group Feature

Solution Team <support@otrs.com>" . Once activated, all customer users from this *back end* will require group assignment.

> **Warning:** After making changes to the *back end* the server cache will be deleted, which may cause a temporary drop in performance.

4.5.1 Manage Customers Groups Relations

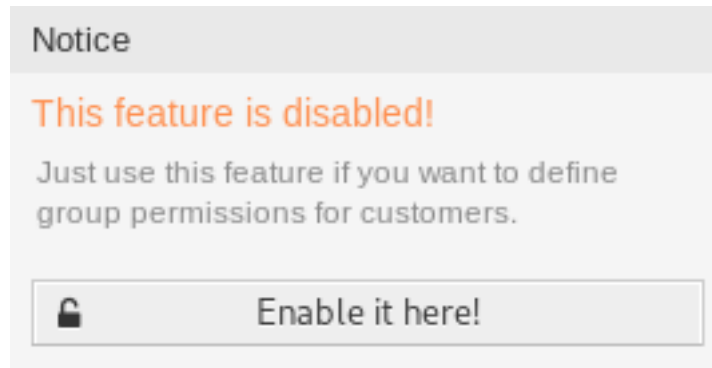**Note:** To be able to use this feature, you have to activate its setting first.

Fig. 16: Enable Customer-Group Support

To assign some groups to a customer:

1. Click on a customer in the *Customers* column.
2. Select the permissions you would like to connect the customer to groups with.
3. Click on the *Save* or *Save and finish* button.

Fig. 17: Change Group Relations for Customer

To assign some customers to a group:

1. Click on a group in the *Groups* column.

2. Select the permissions you would like to connect the group to customers with.

3. Click on the *Save* or *Save and finish* button.

Fig. 18: Change Customer Relations for Group

To change customer default groups:

1. Click on the *Edit Customer Default Groups* button in the left sidebar.

2. Add or modify groups in setting CustomerGroupCompanyAlwaysGroups.

3. Deploy the modified system configurations.

Fig. 19: `CustomerGroupCompanyAlwaysGroups` System Configuration Screen

These groups are automatically assigned to all customers.

Note: If several customers or groups are added to the system, use the serach box to find a particular customer or use the filter box to find a particular group by just typing the name to filter.

Multiple customers or groups can be assigned in both screens at the same time. Additionally clicking on a customer or clicking on a group will open the edit customer screen or the edit group screen for the selected resource.

4.5.2 Customers Groups Relations Reference

When assigning a customer to a group or vice versa, some permissions can be set as connection between a customer and a group. The following permissions are available by default:

Same Customer Gives customer users group based access to tickets from customer users of the same customer (ticket `CustomerID` is a `CustomerID` of the customer user).

ro Read only access to the *resource*.

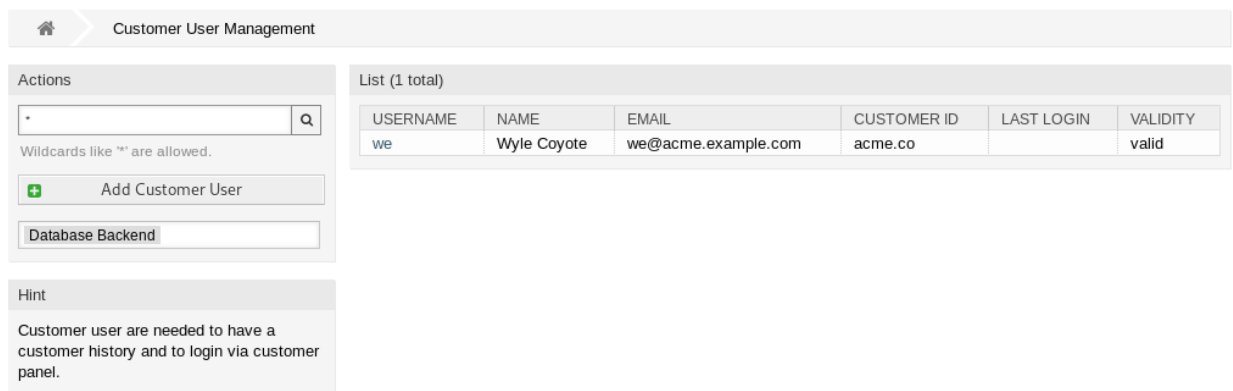**rw** Full read and write access to the *resource*.

Note: By setting a checkbox in the header of a column will set all the checkboxes in the selected column.

4.6 Customer User

A record of who your company deals with requires more information about that individual: Physical location, for shipping and billing purposes, as well as contact information for email and phone contact.

OTRS offers a great way to save individual information about contacts within organizations which your company serves. You can add as many personal connections into OTRS as needed.

Use this screen to add a *customer user* to the system. A fresh OTRS installation contains no customer users by default. The customer user management screen is available in the *Customer User* module of the *Users, Groups & Roles* group.

Fig. 20: Customer User Management Screen

4.6.1 Manage Customer Users

Warning: A customer user can only be added to the system when at least one *customer* exists. Create one or more *Customers* first.

Note: Adding or editing a customer user is possible only by using database backend. Using external directory services like LDAP will disable the customer user management functionality.

To add a customer user:

1. Click on the *Add Customer User* button in the left sidebar.

2. Fill in the required fields.

3. Click on the *Save* button.

Fig. 21: Add Customer User Screen

> **Warning:** Customer users can not be deleted from the system. They can only be deactivated by setting the *Validity* option to *invalid* or *invalid-temporarily*.

To edit a customer user:

1. Click on a customer user in the list of customer users.

2. Modify the fields.

3. Click on the *Save* or *Save and finish* button.

Fig. 22: Edit Customer User Screen

To find a customer user:

1. Enter a search term to the search box in the left sidebar.

2. Click on the magnifying glass icon in the right part of the field or hit an `Enter`.

Note: If several customer users are added to the system, use the search box to find a particular customer user. Only the first 1000 customer users are listed by default.

The customer user permissions can be controlled by adding a customer or a customer user to *Groups*. This can result a complex matrix of permissions. The effective permissions for a customer user can be checked in the bottom of the *Edit Customer User* screen.

Fig. 23: Effective Permissions for Customer User Widget

4.6.2 Customer User Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory. These are the default field available for the internal database table.

Title or salutation Some name prefix can be added here like *Mr.*, *Dr.*, *Jr.*, etc.

Firstname * The first name of the customer user.

Lastname * The last name of the customer user.

Username * The username of the customer user to login to the system.

Password The password of the customer user. This will be auto-generated if left empty.

Email * The email address of the customer user.

Customer * The customer company the customer user belongs to. Select a customer from the list of *Customers*.

Phone The phone number of the customer user.

Fax The fax number of the customer user.

Mobile The cellphone number of the customer user.

Street The street name of the customer.

Zip The zip code of the customer.

City The headquarter city of the customer.

Country The country of the customer user.

Comment Add additional information to this resource. It is recommended to always fill this field as a description of the resource with a full sentence for better clarity, because the comment will be also displayed in the overview table.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

4.7 Customer Users   Customers

In an organization, for example, which views its customers as it's departments and teams, a customer user may have to have access to multiple customers tickets for controlling purposes. Maybe you have partners who represent several different companies, or a corporation wants to have a look at all the requests of their subsidiaries.

For all situations, OTRS provides the means. Aside from a primary customer, your customer users can gain access to multiple customer tickets as defined by you.

Use this screen to add one or more customer users to one or more customers. To use this function, at least one customer user and one customer need to have been added to the system. The management screen is available in the *Customer Users   Customers* module of the *Users, Groups & Roles* group.

Fig. 24: Manage Customer User-Customer Relations

4.7.1 Manage Customer Users   Customers Relations

Note: This module is for assigning a *customer user* ta additional *customer* records. The primary customer is assigned via the *Customer User Settings*

To assign some customers to a customer user:

1. Click on a customer user in the *Customer Users* column.
2. Select the customers you would like to assign to the customer user.
3. Click on the *Save* or *Save and finish* button.

To assign some customer users to a customer:

1. Click on a customer in the *Customers* column.
2. Select the customer users you would like to assign to the customer.
3. Click on the *Save* or *Save and finish* button.

Change Customer Relations for Customer User Wyle Coyote (we)

CUSTOMER (0)   ☐ ACTIVE
No data found.

Save or Save and finish or Cancel

Fig. 25: Change Customer Relations for Customer User

Change Customer User Relations for Customer Acme Inc.

CUSTOMER USER (0)   ☐ ACTIVE
No data found.

Save or Save and finish or Cancel

Fig. 26: Change Customer User Relations for Customer

Note: If several customer users or customers are added to the system, use the search box to find a particular customer user or customer. Only the first 1000 customer users and customers are listed by default.

Multiple customer users or customers can be assigned in both screens at the same time. Additionally clicking on a customer user or clicking on a customer will open the edit customer user screen or the edit customer screen for the selected resource.

Note: By setting a checkbox in the header of a column will set all the checkboxes in the selected column.

4.8 Customer Users ⸱ Groups

Customer users shouldn᾿t need to be bothered with the internal workings of your service desk. A single point of contact request can trigger several processes within your organization, all of which having the customer user information attached and are visible to the customer.

OTRS allows you to assign *group* permissions to customer users. Access works just the same as for agents, preventing a customer from modifying and viewing a request. Thus allowing the customer to focus on the results of the original communication and funneling the discussion through one ticket.

See also:

Assign a group to an entire customer using *Customers ⸱ Groups*.

Use this screen to add one or more customer users to one or more groups. To use this function, at least one customer user and one group need to have been added to the system. The management screen is available in the *Customers Users ⸱ Groups* module of the *Users, Groups & Roles* group.

Customer group support needs enabling in at least one customer user *back end* to use this function. For the default OTRS *back end*, this can be enabled in the system configuration by clicking on .
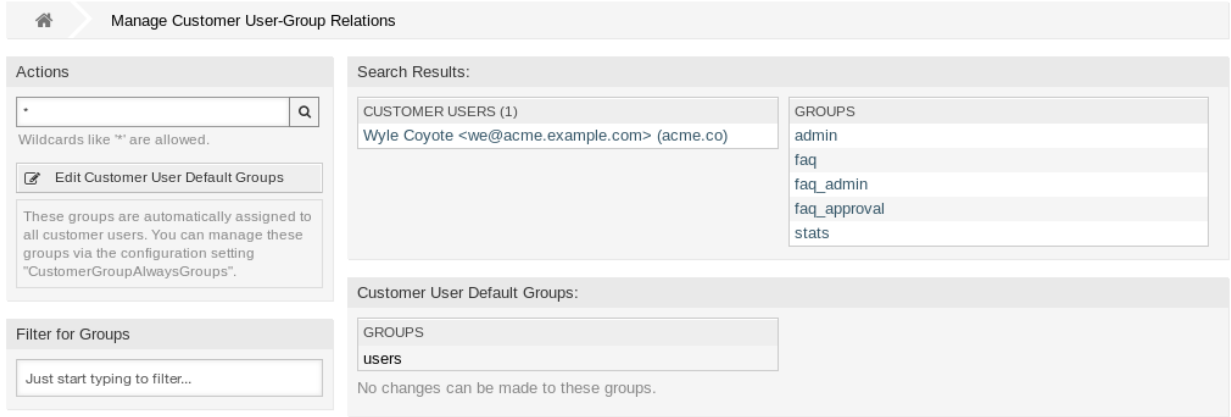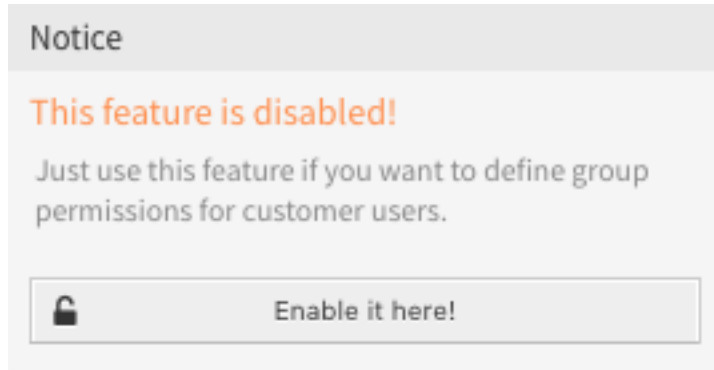

Fig. 27: Manage Customer User-Groups Relations

Fig. 28: Activate Customer Group Feature

Note:

Customer group support is enabled per customer user *back end* of OTRS. to enable this in systems using a directory server or multiple non.-default back ends, please contact the "Customer Solution Team <support@otrs.com>". Once activated, all customer users from this *back end* will require group assignment.

Warning: After making changes to the *back end* the server cache will be deleted, which may cause a temporary drop in performance.

4.8.1 Manage Customers Users Groups Relations

To assign some groups to a customer user:

1. Click on a customer user in the *Customer Users* column.

2. Select the permissions you would like to connect the customer user to groups with.

3. Click on the *Save* or *Save and finish* button.

Change Group Relations for Customer User Wyle Coyote (we)

GROUP	☐ RO	☐ RW
admin	☐	☐
faq	☐	☐
faq_admin	☐	☐
faq_approval	☐	☐
stats	☐	☐

Save or Save and finish or Cancel

Fig. 29: Change Group Relations for Customer User

To assign some customer users to a group:

1. Click on a group in the *Groups* column.

2. Select the permissions you would like to connect the group to customer users with.

3. Click on the *Save* or *Save and finish* button.

To change customer user default groups:

1. Click on the *Edit Customer User Default Groups* button in the left sidebar.

2. Add or modify groups in setting CustomerGroupAlwaysGroups.

3. Deploy the modified system configurations.

These groups are automatically assigned to all customer users.

Change Customer User Relations for Group admin

CUSTOMER USER (1) ☐ RO ☐ RW

Wyle Coyote <we@acme.example.com> (acme.co) ☐ ☐

Save or Save and finish or Cancel

Fig. 30: Change Customer User Relations for Group

CustomerGroupAlwaysGroups ≡

users

Defines the groups every
customer user will be in (if
CustomerGroupSupport is
enabled and you don't want to
manage every customer user for
these groups).

Fig. 31: `CustomerGroupAlwaysGroups` System Configuration Screen

Note: If several customer users or groups are added to the system, use the search box to find a particular customer user or use the filter box to find a particular group by just typing the name to filter.

Multiple customer users or groups can be assigned in both screens at the same time. Additionally clicking on a customer user or clicking on a group will open the edit customer user screen or the edit group screen for the selected resource.

4.8.2 Customer Users ↔ Groups Relations Reference

When assigning a customer user to a group or vice versa, some permissions can be set as connection between a customer user and a group. The following permissions are available by default:

ro Read only access to the *resource*.

rw Full read and write access to the *resource*.

Note: By setting a checkbox in the header of a column will set all the checkboxes in the selected column.

4.9 Customer Users ↔ Services

Use this screen to add one or more customer users to one or more services. To use this function, at least one customer user and one service need to have been added to the system. The management screen is available in the *Customers Users ↔ Services* module of the *Users, Groups & Roles* group.

Fig. 32: Manage Customer User-Service Relations

4.9.1 Manage Customers Users   Services Relations

To allocate some services to a customer user:

1. Click on a customer user in the *Customer Users* column.

2. Select the services you would like to allocate to the customer user.

3. Click on the *Save* or *Save and finish* button.

Fig. 33: Change Service Relations for Customer User

To allocate some customer users to a service:

1. Click on a service in the *Services* column.

2. Select the customer users you would like to allocate to the service.

3. Click on the *Save* or *Save and finish* button.

Fig. 34: Change Customer User Relations for Service

Note: If several customer users or services are added to the system, use the search box to find a particular customer user or use the filter box to find a particular service by just typing the name to filter.

Multiple customer users or services can be assigned in both screens at the same time. Additionally clicking on a customer user or clicking on a service will open the edit customer user screen or the edit service screen for the selected resource.

Note: By setting a checkbox in the header of a column will set all the checkboxes in the selected column.

4.10 Groups

Use this screen to add groups to the system. A fresh OTRS installation contains some default groups. The group management screen is available in the *Groups* module of the *Users, Groups & Roles* group.

Fig. 35: Group Management Screen

4.10.1 Manage Groups

To add a group:

1. Click on the *Add Group* button in the left sidebar.

2. Fill in the required fields.

3. Click on the *Save* button.

Fig. 36: Add Group Screen

> **Warning:** Groups can not be deleted from the system. They can only be deactivated by setting the *Validity* option to *invalid* or *invalid-temporarily*.

To edit a group:

1. Click on a group in the list of groups.

2. Modify the fields.

3. Click on the *Save* or *Save and finish* button.

Edit Group

✱ Name:	users
✱ Validity:	valid
Comment:	Group for default access.

Save or **Save and finish** or Cancel

Fig. 37: Edit Group Screen

> **Note:** If several groups are added to the system, use the filter box to find a particular group by just typing the name to filter.

4.10.2 Group Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

Name * The name of this resource. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

> **Note:** Renaming a group does not affect permissions previously given. When *group1* is now called *group2*, then all the permissions are the same for the users which used to be assigned to *group1*. This result is because OTRS uses IDs for the relationship, and not the name.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

> **Note:** Invalidating a group does not remove the permissions from the user, but only makes them invalid. If you reactivate this group, even with a new name, the permissions take effect.

Comment Add additional information to this resource. It is recommended to always fill this field as a description of the resource with a full sentence for better clarity, because the comment will be also displayed in the overview table.

4.10.3 Default Groups

Every agent's account should belong to at least one group or role. In a fresh installation, there are some pre-defined groups available:

admin Allowed to perform administrative tasks in the system.

stats Qualified to access the stats module of OTRS and generate statistics.

users Agents should belong to this group, with read and write permissions. They can then access all functions of the ticket system.

4.11 Roles

Use this screen to add roles to the system. A fresh OTRS installation contains no roles by default. The role management screen is available in the *Roles* module of the *Users, Groups & Roles* group.

Fig. 38: Role Management Screen

4.11.1 Manage Roles

To add a role:

1. Click on the *Add Role* button in the left sidebar.

2. Fill in the required fields.

3. Click on the *Save* button.

> **Warning:** Roles can not be deleted from the system. They can only be deactivated by setting the *Validity* option to *invalid* or *invalid-temporarily*.

To edit a role:

1. Click on a role in the list of roles.

2. Modify the fields.

3. Click on the *Save* or *Save and finish* button.

Fig. 39: Add Role Screen

Fig. 40: Edit Role Screen

Note: If several roles are added to the system, use the filter box to find a particular role by just typing the name to filter.

4.11.2 Role Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

Name * The name of this resource. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

Comment Add additional information to this resource. It is recommended to always fill this field as a description of the resource with a full sentence for better clarity, because the comment will be also displayed in the overview table.

4.12 Roles   Groups

Use this screen to add one or more roles to one or more groups. To use this function, at least one role and one group need to have been added to the system. The management screen is available in the *Roles Groups* module of the *Users, Groups & Roles* group.
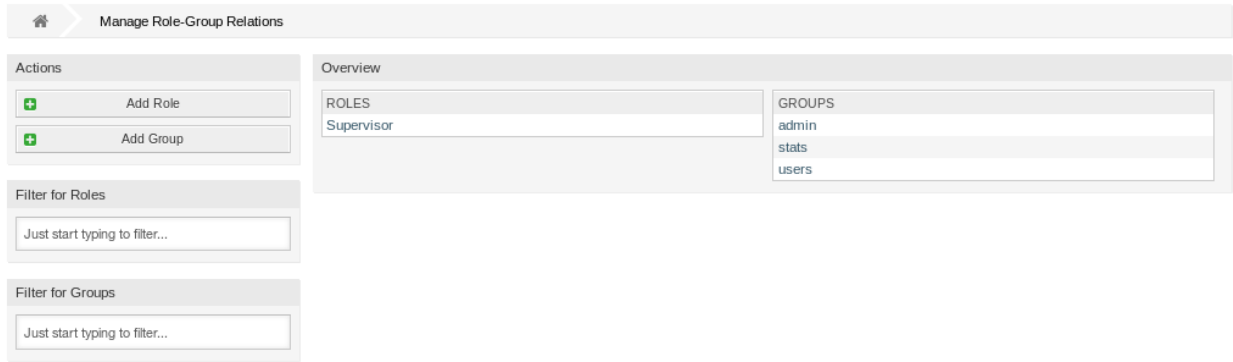
Fig. 41: Manage Roles-Groups Relations

4.12.1 Manage Roles Groups Relations

To assign some groups to a role:

1. Click on a role in the *Roles* column.

2. Select the permissions you would like to connect the role to groups with.

3. Click on the *Save* or *Save and finish* button.
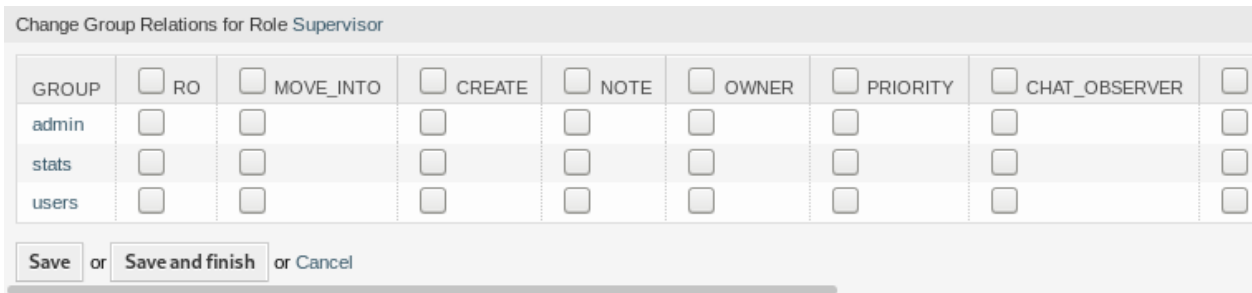

Fig. 42: Change Group Relations for Role

To assign some roles to a group:

1. Click on a group in the *Groups* column.

2. Select the permissions you would like to connect the group to roles with.

3. Click on the *Save* or *Save and finish* button.

Fig. 43: Change Role Relations for Group

Note: If several roles or groups are added to the system, use the filter box to find a particular role or group by just typing the name to filter.

Multiple roles or groups can be assigned in both screens at the same time. Additionally clicking on a role or clicking on a group will open the edit role screen or the edit group screen for the selected resource.

4.12.2 Roles Groups Relations Reference

When assigning a role to a group or vice versa, several permissions can be set as connection between a role and a group. The following permissions are available by default:

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.

chat_observer Users with this permission type will only be able to observe chats in a channel after they have been invited.

chat_participant Users with this permission type will be able to take part in a chat, but only after they get invited to it.

chat_owner Users with this permission type will be able to accept chat customer/public requests and do all kinds of observer and participant actions on a chat.

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

See also:

Not all available permissions are shown by default. See System::Permission setting for permissions that can be added. These additional permissions can be added:

stats Gives access to the stats page.

bounce Permissions to bounce an email message (with bounce button in *Ticket Zoom* screen).

compose Permissions to compose an answer for a ticket.

customer Permissions to change the customer of a ticket.

forward Permissions to forward a messages (with the forward button).

pending Permissions to set a ticket to pending.

phone Permissions to add a phone call to a ticket.

responsible Permissions to change the responsible agent for a ticket.

Note: By setting a checkbox in the header of a column will set all the checkboxes in the selected column. By setting the checkbox in the last *rw* column will set all the checkboxes in the selected row.

CHAPTER 5

Processes & Automation

Working effectively with tickets requires more than just the possibility to manually change their state, add information, communicate with other persons and finally close the tickets.

Automation frees agents from reoccurring and time-consuming tasks and allows them to focus on activities, where their interaction is required. Process Management guides customer users and agents through ticket creation to closure ensuring that tickets take defined workflows at any time.

OTRS offers many options to automate tasks based on events, time, external systems and defined processes. OTRS also includes the possibility to add individual information types to tickets and help agents to lower their error rate when working with tickets by allowing only defined activities for tickets in specific states.

5.1 Access Control Lists (ACL)

Working with tickets can become a bewildering task. Many options are given to process, or close tickets, even if they are not needed in the current state of a ticket or due to the role of the current agent. Hiding unneeded entries cleans up the menu bar and gets it easier to work with, hiding values from dynamic fields or next queues lowers chance of human error.

OTRS uses Access Control Lists (ACL) to restrict agents and customer users on ticket options, allowing only correct and meaningful activities with a ticket. OTRS administrators can easily in the graphical interface generate ACLs to prevent ticket closure until meeting specific requirements, prevent tickets from being moved to queues before adding the defined information and much more.

Use this screen to manage access control lists in the system. A fresh OTRS installation contains no access control lists by default. The access control lists management screen is available in the *Access Control Lists (ACL)* module of the *Processes & Automation* group.
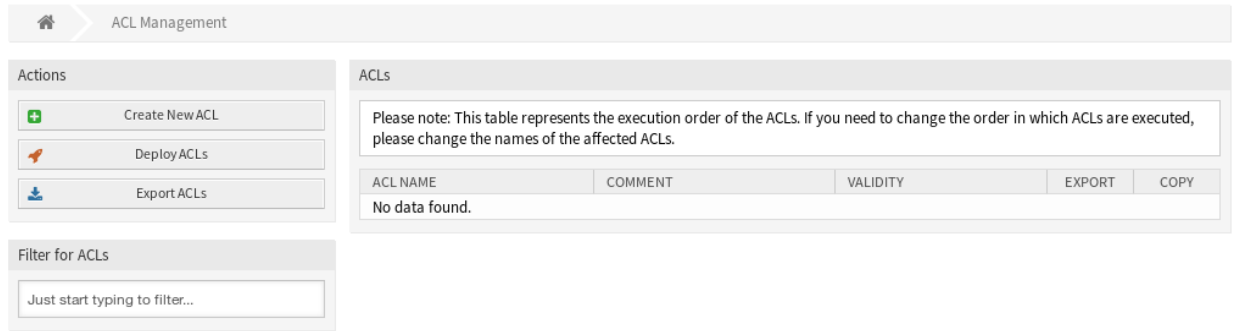
5.1.1 Manage Access Control Lists

Fig. 1: ACL Management Screen

Note: When creating some access control lists, please keep in mind that they are executed alphabetically as displayed in the access control lists overview.

Warning: ACL restrictions will be ignored for the superuser account (UserID 1).

To create a new ACL:

1. Click on the *Create New ACL* button in the left sidebar.
2. Fill in the required fields.
3. Click on the *Save* button.
4. You will be redirected to *Edit ACL* screen to edit the ACL structure.
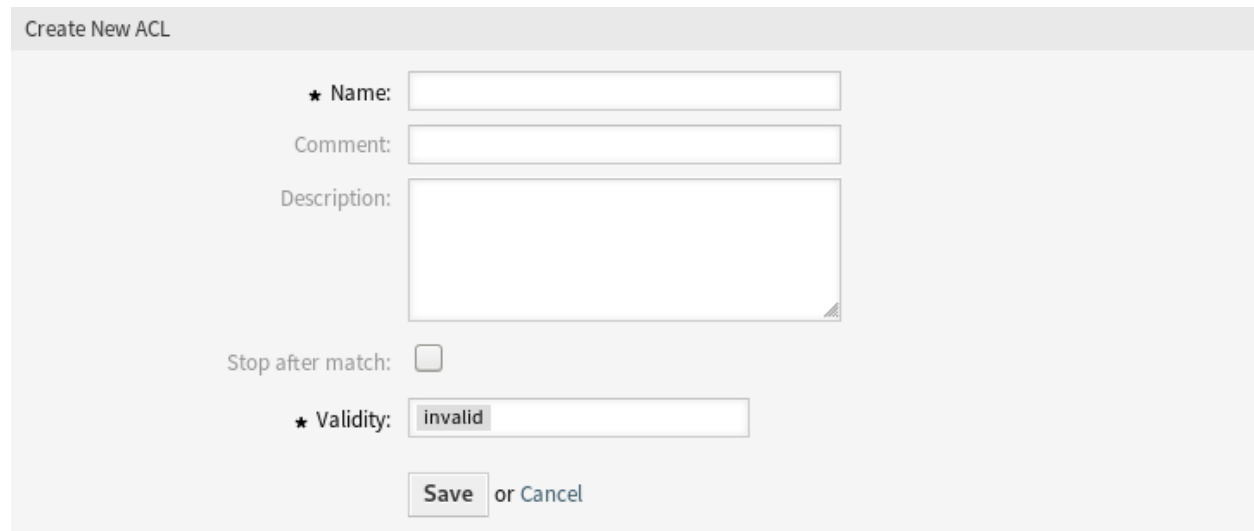

Fig. 2: Create New ACL Screen

To edit an ACL:

1. Click on an ACL in the list of ACLs or you are already redirected here from *Create New ACL* screen.

---

2. Modify the fields and the ACL structure.

3. Click on the *Save* or *Save and finish* button.

4. Deploy all ACLs.

To delete an ACL:

1. Click on an ACL in the list of ACLs.

2. Set the *Validity* option to *invalid* or *invalid-temporarily*.

3. Click on the *Save* button. A new *Delete Invalid ACL* button will appear in the left sidebar.

4. Click on the *Delete Invalid ACL* button.

5. Click on the *Delete* button in the confirmation screen.

6. Deploy all ACLs.

Warning: ACLs are written into `ZZZACL.pm` file in Perl format. Without deploying, all ACLs are still in this cache file even if they are deleted or the *Validity* option is set to *invalid* or *invalid-temporarily*. Don᾿t forget to deploy all ACLs after modifications!

To deploy all ACLs:

1. Click on the *Deploy ACLs* button in the left sidebar.

Note: New or modified ACLs have to deploy in order to make affect the behavior of the system. Setting the *Validity* option to *valid* just indicates, which ACLs should be deployed.

To export all ACLs:

1. Click on the *Export ACLs* button in the left sidebar.

2. Choose a location in your computer to save the `Export_ACL.yml` file.

To import ACLs:

1. Click on the *Browse*⋯ button in the left sidebar.

2. Select a previously exported `.yml` file.

3. Click on the *Overwrite existing ACLs?* checkbox, if you would like to overwrite the existing ACLs.

4. Click on the *Import ACL configuration(s)* button.

5. Deploy the imported ACLs with *Deploy ACLs* button.

Note: If several ACLs are added to the system, use the filter box to find a particular ACL by just typing the name to filter.

Warning: Changing the name of this object should be done with care, the check only provides verification for certain settings and ignores things where the name can᾿t be verified. Some examples are dashboard filters, action control lists (ACLs), and processes (sequence flow actions) to name a few. Documentation of your setup is key to surviving a name change.

Fig. 3: Edit ACL Structure Screen

5.1.2 ACL Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

Name * The name of this resource. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

Comment Add additional information to this resource. It is recommended to always fill this field as a description of the resource with a full sentence for better clarity, because the comment will be also displayed in the overview table.

Description Like comment, but longer text can be added here.

Stop after match ACLs are evaluated in alphabetical order. This setting disables the evaluation of the subsequent ACLs.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

5.1.3 Edit ACL Structure

The ACL definition can be split into two big parts, *Match settings* and *Change settings*. 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.

Match settings

Properties 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 settings

Possible Possible section resets the data to be reduce 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.

Modifiers

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:

[Not] This modifier is used to negate a value, for example `[Not]2 low`. Talking about priorities will be the same as to have: *1 very low*, *3 normal*, *4 high*, *5 very high*.

[RegExp] It is used to define a regular expression for matching several values, for example `[RegExp]low`. In this case talking about priorities is the same as *1 very low*, *2 low*.

[regexp] 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*.

[Notregexp] It is very similar to `[NotRegExp]` but it is case insensitive.

5.1.4 ACL Examples

Move Ticket to Queue Based on Priority

This example shows you how to allow movement into a queue of only those tickets with ticket priority *5 very high*.

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. The comment and the description fields are optional.

Fig. 4: 100-Example-ACL - Basic Settings

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).

Lastly, a section *Possible* defines modifications to the screens. In this case, from the available queues, only the queue *Alert* can be selected in a ticket screen.

Note: Don't forget to set *Validity* to *valid* and deploy the newly created ACL.

Fig. 5: 100-Example-ACL - Match Settings

Move Ticket to Queue Based on Priority Stored in Database

This example is very similar to the first one, but in this case only tickets in the queue *Raw* and with a priority *5 very high*, both stored in the database will match. This kind of ACLs does not consider changes in the form before the ticket is really updated in the database.

Disable Ticket Close in Queue and Hide Close Button

This example shows how to disable the closing of tickets in the queue *Raw*, and hide the close button. It is possible to filter a ticket field (state) with more than one possible values to select from. It is also possible to limit the actions that can be executed for a certain ticket. In this case, the ticket cannot be closed.

Remove State

This example shows how it is possible to define negative filters (the state *closed successful* will be removed). You can also see that not defining match properties for a ticket will match any ticket, i. e. the ACL will always be applied. This may be useful if you want to hide certain values by default, and only enable them in special circumstances (e. g. if the agent is in a specific group).

Using Regular Expressions

This example shows you how you can use regular expressions for matching tickets and for filtering the available options. This ACL only shows *Hardware* services for tickets that are created in queues that start with *HW*.

Fig. 6: 100-Example-ACL - Change Settings

Fig. 7: 101-Example-ACL

Fig. 8: 102-Example-ACL

Fig. 9: 103-Example-ACL

Fig. 10: 104-Example-ACL

Disallow Process For Customer

This ACL restricts the process *P14* in the external interface using the customer ID *TheCustomerID*.

Fig. 11: 105-Example-ACL

5.2 Dynamic Fields

Beside general information that required for all tickets, organizations have individual needs to add specific details to tickets. This needed information takes various formats like texts, integers, date-time and more.

OTRS supports adding a so-called *dynamic field* to handle texts, integers, dropdown lists, multi-select fields, date-time, checkboxes and more. OTRS administrators can define where those fields should be visible or editable, and of course, the dynamic fields are also available in statistics and reports.

Use this screen to manage dynamic fields in the system. A fresh OTRS installation contains three dynamic fields by default. The dynamic field management screen is available in the *Dynamic Fields* module of the *Processes & Automation* group.

5.2.1 Manage Dynamic Fields

To create a new dynamic fields:

1. Choose an object in the left sidebar and select a dynamic field type from its dropdown.
2. Fill in the required fields.

Fig. 12: Dynamic Field Management Screen

3. Click on the *Save* button.

Fig. 13: Create New Dynamic Field Screen

To edit a dynamic field:

1. Click on a dynamic field in the list of dynamic fields.

2. Modify the fields.

3. Click on the *Save* or *Save and finish* button.

To delete a dynamic field:

1. Click on the trash icon in the last column of the overview table.

2. Click on the *Confirm* button.

Note: If several dynamic fields are added to the system, use the filter box to find a particular dynamic field by just typing the name to filter.

Fig. 14: Edit Dynamic Field Screen

Fig. 15: Delete Dynamic Field Screen

5.2.2 Dynamic Field Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

General Dynamic Field Settings

These settings are the same for all types of dynamic fields.

Fig. 16: Dynamic Field General Screen

Name * The name of this resource. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

Label * This is the name to be shown on the screens where the field is active.

> **See also:**
>
> It is possible to add translations for a dynamic field label. Label translations have to be added manually to language translation files.

Field order * This is the order in which this field will be shown on the screens where is active.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

Field type This type have been selected in the previous page and can not be changed here anymore. This is a read-only field.

Object type This type have been selected in the previous page and can not be changed here anymore. This is a read-only field.

> **Note:** The object type determines where the dynamic field can be used. For example dynamic field with object type *Ticket* can be used only in tickets, and can not be used in articles.

The following settings are relevant only for the particular type of dynamic fields.

Checkbox Dynamic Field Settings

Checkbox dynamic field is used to store true or false value.

Fig. 17: Checkbox Dynamic Field Settings

Default value * The default value for the checkbox.

> **Checked** The checkbox is checked by default.

> **Unchecked** The checkbox is unchecked by default.

Contact With Data Dynamic Field Settings

This dynamic field allows to add contacts with data to tickets.

Fig. 18: Contact With Data Dynamic Field Settings

Possible values * These are the possible data attributes for contacts. Clicking on the   button will add two new fields, where a key (internal value) and a value (displayed value) can be set. With the button you can add multiple key-value pairs.

Note: The attributes `Name` and `ValidID` are always mandatory and they are not automatically added, so for each new data source these attributes must be added manually.

Within the data source definition (or dynamic field configuration) they must be represented by the keys `Name` and `ValidID` respectively while the values could be *Name* and *Validity* for example.

Mandatory fields Comma separated list of mandatory keys.

Note: Keys *Name* and *ValidID* are always mandatory and doesn't have to be listed here.

Sorted fields Comma separated list of keys in sort order. Keys listed here come first, all remaining fields afterwards and sorted alphabetically.

Searchable fields Comma separated list of searchable keys.

Note: Key *Name* is always searchable and doesn't have to be listed here.

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.

Contact with data management There is a link *Add/Edit*, that points to *Ticket → Edit contact with data* to add some data.

The usage of this type of dynamic field is more complex then the others. An exemplary usage of contacts with data is as follows:

1. Create a new dynamic field of type contact with data.

2. Set the possible contact attributes (possible values). `Name` and `ValidID` are required for any contact with data dynamic field.

    - Add `Name` attribute (key: `Name`, value: *Name*).

    - Add `ValidID` attribute (key: `ValidID`, value: *Validity*).

    - Add any other attribute such as `Telephone` attribute (key: `Telephone`, value: *Phone*).

3. Add the list of mandatory attribute keys comma separated (`Name` and `ValidID` are not needed).

4. Set the attribute key order list comma separated as: `Name, Telephone, ValidID`.

5. Add the list of searchable attribute keys comma separated (`Name` is not needed).

6. Populate the data source by adding at least one contact in the newly created data source by using *Tickets → Edit contacts with data* screen from the main navigation bar.

7. Add the new dynamic field to the screen's configuration where it should be shown. For example in *New Phone Ticket* screen by updating the system configuration setting `Ticket::Frontend::AgentTicketPhone###DynamicField` and do the same for `Ticket::Frontend::AgentTicketZoom###DynamicField`.

8. Go to *New Phone Ticket* screen, and notice that the new field is there. Add all ticket needed information.

9. Select an existing contact using autocomplete and choosing a contact.

10. The assigned contact and its attributes will be shown in the *Ticket Zoom* screen.

11. It is possible to update the attributes of the contact by clicking the *Edit contact data button* that appears in the right side of the title of the contact data box (if the cur-

---

rent user is a member of the groups defined in system configuration setting `Frontend::Module###AdminDynamicFieldContactWithData`).

12. If is necessary to change the contact for this ticket, it can be done via any other ticket action where the dynamic field is configured for display.

Date Dynamic Field Settings

Date dynamic field is used to store a date value.

Fig. 19: Date Dynamic 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. If set to *Yes* the following options will be available:

  Years in the past Define the number of years in the past from the current day to display in the year selection for this dynamic field in edit screens.

  Years in the future Define the number of years in the future from the current day to display in the year selection for this dynamic field in edit screens.

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 %]
```

Link for preview If filled in, this URL will be used for a preview which is shown when this link is hovered in ticket zoom. Please note that for this to work, the regular URL field above needs to be filled in, too.

Restrict entering of dates Here you can restrict the entering of dates of tickets.

Prevent entry of dates in the future Selecting this option will prevent entering a date that is after the current date.

Prevent entry of dates in the past Selecting this option will prevent entering a date that is before the current date.

Date / Time Dynamic Field Settings

Date / time dynamic field is used to store a date time value.

Fig. 20: Date / Time Dynamic Field Settings

The settings for this type of dynamic field is the same as for date dynamic field.

Dropdown Dynamic Field Settings

Dropdown dynamic field is used to store a single value, from a closed list.

Possible values These are the possible data attributes for contacts. Clicking on the   button will add two new fields, where a key (internal value) and a value (displayed value) can be set. With the button you can add multiple key-value pairs.

Default value This is the default value for this field and this will be shown on the edit screens.

Add empty value If this option is activated an extra value is defined to show as a - in the list of possible values. This special value is empty internally.

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.

Fig. 21: Dropdown Dynamic Field Settings

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:

```
http://some.example.com/handle?query=[% Data.Field1 | uri %]
```

Link for preview If filled in, this URL will be used for a preview which is shown when this link is hovered in ticket zoom. Please note that for this to work, the regular URL field above needs to be filled in, too.

Multiselect Dynamic Field Settings

Fig. 22: Multiselect Dynamic Field Settings

Possible values These are the possible data attributes for contacts. Clicking on the button will add two new fields, where a key (internal value) and a value (displayed value) can be set. With the button you can add multiple key-value pairs.

Default value This is the default value for this field and this will be shown on the edit screens.

Add empty value If this option is activated an extra value is defined to show as a - in the list of possible values. This special value is empty internally.

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.

Text Dynamic Field Settings

Text dynamic field is used to store a single line string.

Fig. 23: Contact With Data Dynamic Field Settings

Default value This is the default value for this field and this will be shown on the edit screens.

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 %]
```

Link for preview If filled in, this URL will be used for a preview which is shown when this link is hovered in ticket zoom. Please note that for this to work, the regular URL field above needs to be filled in, too.

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 Clicking on the   button will add two new fields, where a regular expression and an error message can be added.

Textarea Dynamic Field Settings

Textarea dynamic field is used to store a multiple line string.

Number of rows The height (in lines) for this field in the edit mode.

Number of cols The width (in characters) for this field in the edit mode.

Default value This is the default value for this field and this will be shown on the edit screens.

Fig. 24: Textarea Dynamic Field Settings

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 Clicking on the   button will add two new fields, where a regular expression and an error mes-
sage can be added.

Database Dynamic Field

Note: To use this type of dynamic field, an **OTRS** service package is needed. Please contact at
sales@otrs.com for an upgrade.

Web Service Dynamic Field

Note: To use this type of dynamic field, an **OTRS** service package is needed. Please contact at
sales@otrs.com for an upgrade.

5.2.3 Display Dynamic Fields on Screens

To display a dynamic field on a screen:

1. Make sure that the dynamic field *Validity* is set to *valid*.

2. Open the *System Configuration* module in the admin interface.

3. Navigate to *Fromtend → Agent → View* and select a view to add the dynamic field to.

4. Find the setting ends with `###DynamicField` and click on the *Edit this setting* button.

5. Click on the + button to add the dynamic field.

6. Enter the name of the dynamic field to the textbox and click on the tick button.

7. Select *1 - Enabled* or *2 - Enabled and required*.

8. Click on the tick button on the right to save the setting.

9. Deploy the modified system configuration.

Fig. 25: Display Dynamic Fields on Screen

Note: It is possible to add multiple dynamic fields at the same time. To do this, repeat steps 5-7.

5.2.4 Set Default Value via Ticket Event Module

A ticket event (e.g. `TicketCreate`) can trigger a value set for a certain field, if the field does not have a value yet.

1. Open the *System Configuration* module in the admin interface.

2. Navigate to *Core → Event → Ticket* and search for the setting `Ticket::EventModulePost###9600-TicketDynamicFieldDefault`.

3. Click on the *Edit this setting* button to activate the setting.

4. Click on the tick button on the right to save the setting.

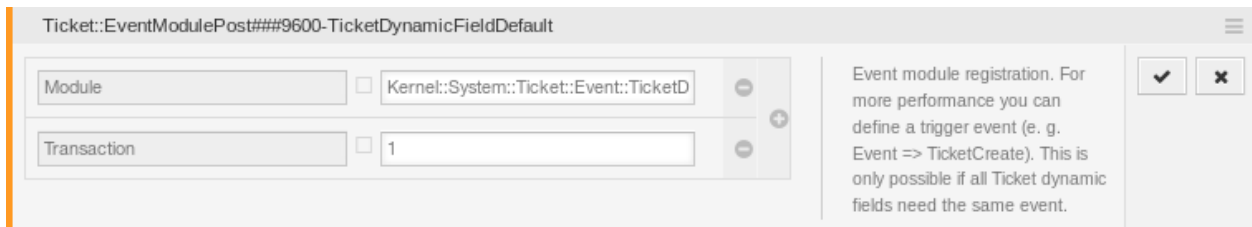5. Deploy the modified system configuration.

Fig. 26: Activate Ticket Event Module

Example: activate *Field1* in `TicketCreate` event:

1. Open the *System Configuration* module in the admin interface.

2. Navigate to *Core* → *Ticket* → *DynamicFieldDefault* and search for the setting `Ticket::TicketDynamicFieldDefault###Element1`.

3. Click on the *Edit this setting* button to activate the setting.

4. Click on the tick button on the right to save the setting.

5. Deploy the modified system configuration.

Fig. 27: Activate Dynamic Field in Ticket Create Event

Note: This configuration can be set in any of the 16 `Ticket::TicketDynamicFieldDefault###Element` settings.

See also:

If more that 16 fields needs to be set up a custom XML file must be places in `$OTRS_HOME/Kernel/Config/XML/Files` directory to extend this feature.

5.2.5 Set Default Value via User Preferences

The dynamic field default value can be overwritten with a user defined value stored in the personal preferences.

1. Open the *System Configuration* module in the admin interface.

2. Navigate to *Frontend* → *Agent* → *View* → *Preferences* and search for the setting `PreferencesGroups###DynamicField`.

3. Click on the *Edit this setting* button to activate the setting.

4. Click on the tick button on the right to save the setting.

5. Deploy the modified system configuration.

Click on your avatar on the top left corner, and select *Personal Preferences* → *Miscellaneous* to add a default value for the dynamic field.

This setting is an example of how to create an entry in the user preferences screen to set an exclusive dynamic field `Name_X` default value for the selected user. The limitation of this setting is that it only permits the use of one dynamic field. If two or more fields will use this feature, it is necessary to create a custom XML configuration file to add more settings similar to this one.

Fig. 28: Activate Dynamic Field in Personal Preferences

Fig. 29: Dynamic Field in Personal Preferences

Note: 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`

5.3 Generic Agent

Processing tickets require often a workflow. Let's say "if-then" activities:

If specific conditions match like: A ticket

is from one particular customer
is assigned to an appropriate queue
has a defined priority
contains defined keywords

Outlined activities must be performed like changing the ticket priority, moving the ticket to another group, assigning a service to a ticket, and many more.

Also time-based activities can be required like cleaning up the spam-queue once a week.

OTRS supports this with the Generic Agent. Here, simple or compound time and event-based tasks are configuarble in the OTRS front end without the requirement to learn a scripting language. Depending on search criteria, and time or event criteria, tickets will automatically be acted upon.

Use this screen to manage generic agent jobs in the system. A fresh OTRS installation contains no generic agent jobs by default. The generic agent job management screen is available in the *Generic Agent* module of the *Processes & Automation* group.
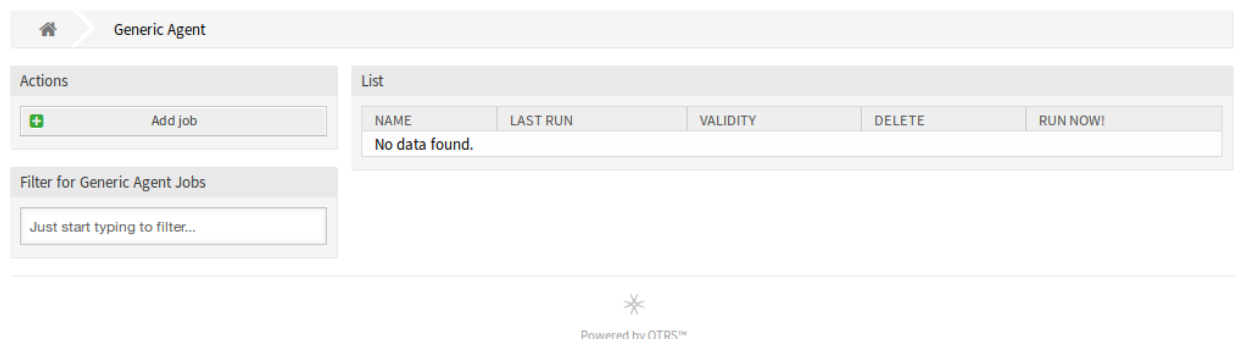
Fig. 30: Generic Agent Management Screen

5.3.1 Manage Generic Agent Jobs

To create a new generic agent job:

1. Click on the *Add Job* button in the left sidebar.

2. Fill in the required fields.

3. Click on the *Save* button.

Fig. 31: Create New Generic Agent Job Screen

To edit a generic agent job:

1. Click on a generic agent job in the list of generic agent jobs.

2. Modify the fields.

3. Click on the *Save* or *Save and finish* button.

To delete a generic agent job:

1. Click on the trash icon in the fourth column of the overview table.

2. Click on the *Confirm* button.

Note: If several generic agent jobs are added to the system, use the filter box to find a particular generic agent job by just typing the name to filter.

Fig. 32: Edit Generic Agent Job Screen

Fig. 33: Delete Generic Agent Job Screen

5.3.2 Generic Agent Job Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

General Job Settings
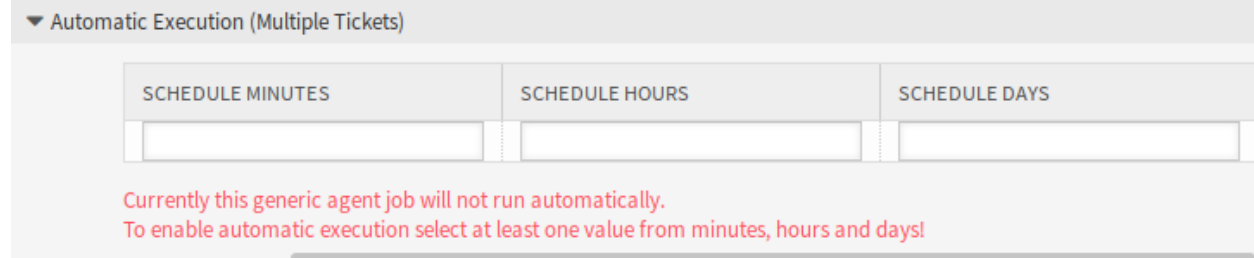
Fig. 34: Job Settings - General

Job Name * The name of this resource. Any type of characters can be entered to this field including upper-case letters and spaces. The name will be displayed in the overview table.

Validity Set the validity of this resource. This resource can be used in OTRS only, if this field is set to *Yes*. Setting this field to *No* will disable the use of the resource.

Automatic Execution

Fill in this section to set the times for automatic execution of the job.

Fig. 35: Job Settings - Automatic Execution

Schedule minutes Select the minutes in which the job has to be executed. For example if *10* is selected, the job will be executed in every hour in 00:10, 01:10, 02:10, etc.

Schedule hours Select the hours in which the job has to be executed. For example if *10* is selected for minutes and *02* is selected for hours, the job will be executed in every day in 02:10.

Schedule days Select the days in which the job has to be executed. For example if *10* is selected for minutes, *02* is selected for hours and *Fri* is selected for days, the job will be executed in every week in Friday 02:10.

Event Based Execution

Fill in this section to set events that trigger the execution of the job.

Event Triggers This is a list of already added events. If no events are added yet, the list contains no elements. Elements can be deleted by clicking on the trash icon in the last column.

Fig. 36: Job Settings - Event Based Execution

Add Event Trigger Select an object and a related event that will trigger the job.

Select Tickets

This section contains all the attributes, that you can use to select the affected tickets.

Fields are self-explained, so there is no additional explanation here.

Update/Add Ticket Attributes

Fill in this section to update and/or add ticket attributes.

Fields are self-explained, so there is no additional explanation here.

Add Note

Fill in this section to add a note to tickets that are affected by job execution.

Execute Ticket Commands

Fill in this section, if you would like to make execute a custom command with the job.

Send agent/customer notifications on changes If *Yes* is selected, a notification will be sent to agents and customers about ticket changes.

CMD Enter a command here, that will be executed. ARG[0] will be the ticket number. ARG[1] the ticket ID.

> **Note:** Use `::` as directory separator, if the value contains a path.

Delete tickets If *Yes* is selected, the generic agent job will delete the matched tickets.

> **Warning:** All affected tickets will be removed from the database and cannot be restored!

Fig. 37: Job Settings - Add Note

Fig. 38: Job Settings - Execute Ticket Commands

Execute Custom Module

Fill in this section, if you would like to make execute a custom module with the job.

Fig. 39: Job Settings - Execute Custom Module

Module This is the path for the module to be executed.

Note: Use `::` as directory separator, if the value contains a path.

Param key Enter the key of the parameter, that should be passed to the module.

Param value Enter the value of the parameter, that should be passed to the module.

5.4 Process Management

Maximizing performance while minimizing human error is a requirement of organizations of all sizes. This need is covered by defined processes and workflows, for recurring tasks. Ensuring all required information is available in the right place, and contacts are informed about their responsibilities like adding information, approving requests, etc.

OTRS supports this requirement by Process Management. Process tickets help by using the required mandatory and optional fields (see Dynamic Fields) that information is not forgotten upon ticket creation or during later steps of the process. Process tickets are simple to handle for customer users and agents, so no intensive training is required.

Processes are designed completely and efficiently within the OTRS font end to fit the requirements of your organization.

Use this screen to manage processes in the system. The process management screen is available in the *Process Management* module of the *Processes & Automation* group.

5.4.1 Manage Processes

To create a new process:

1. Click on the *Create New Process* button in the left sidebar.

2. Fill in the required fields.

3. Click on the *Save* button.

4. Add activities, user task activity dialogs, sequence flows and sequence flow actions.

5. Set *State* to *Active*.

6. Deploy all processes.
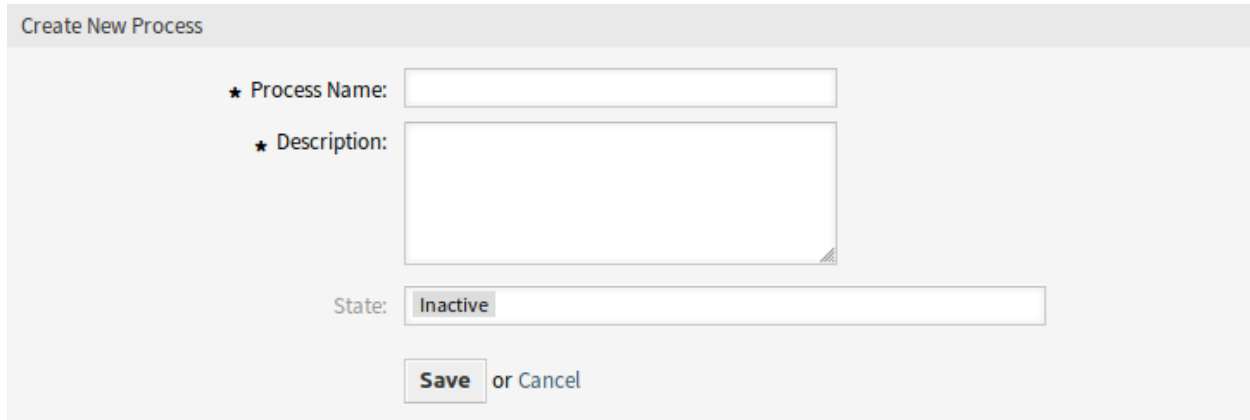
Fig. 40: Create New Process Screen

To edit a process:

1. Click on a process in the list of processes.

2. Modify the fields and the process path.

3. Click on the *Save* or *Save and finish* button.

4. Deploy all processes.

To copy a process:

1. Click on the copy icon in the fifth column of list of processes.

2. Click on the newly created process to edit it.

To delete a process:

1. Click on a process in the list of processes.

2. Set the *State* option to *Inactive*.

3. Click on the *Save* button. A new *Delete Inactive Process* button will appear in the left sidebar.

4. Click on the *Delete Inactive Process* button.

5. Click on the *Delete* button in the confirmation screen.

6. Deploy all processes.

> **Warning:** Processes are written into file in Perl format. Without deploying, all processes are still in this cache file even if they are deleted or the *State* option is set to *Inactive* or *FadeAway*. Don't forget to deploy all processes after modifications!

To deploy all processes:

1. Click on the *Deploy All Processes* button in the left sidebar.

Note: New or modified processes have to deploy in order to make affect the behavior of the system. Setting the *State* option to *Active* just indicates, which processes should be deployed.

To export a process:

1. Click on the export icon in the fourth column of list of processes.

2. Choose a location in your computer to save the `Export_ProcessEntityID_xxx.yml` file.

Note: The exported file contains only the process itself, and doesn't contain the *Queues*, *Agents* and *Dynamic Fields*, etc. needed for the process.

To import a process:

1. Click on the *Browse⋯* button of the *Configuration Import* widget in the left sidebar.

2. Select a previously exported `.yml` file.

3. Click on the *Import process configuration* button.

4. Deploy all processes.

Note: Before import a process, it is still necessary to create all *Queues*, *Agents* and *Dynamic Fields*, as well as to set *System Configuration*, that are needed by each process before the import. If the process requires the use of *Access Control Lists (ACL)* those are also needed to be set manually.

Note: If several processes are added to the system, use the filter box to find a particular process by just typing the name to filter.

5.4.2 Example process

Processes are more complex than other resources in OTRS. To create a process, you need to do several steps. The following chapters shows you, how to define a process from the specification and create the needed resources. Let's see an example to make it more demonstrative. We will define a book order process.

Process Specification

The book order process has four states.

Recording the demand Before an order will be placed, the demand for literature by an employee will be recorded. The following book is needed in our example:

```
Title: Prozessmanagement für Dummies
Autor: Thilo Knuppertz
ISBN: 3527703713
```

Approval by manager The head of the employee's department needs to decide on the order. In case of a denial, a reason should be recorded by the manager. In case of approval, the order is passed to the purchasing department.

Processing by purchasing department Purchasing now has the task to find out where the book can be ordered with the best conditions. If it is out of stock, this can be recorded in the order. In case of a successful order purchasing will record the supplier, the price and the delivery date.

Processing by the mail room The shipment will arrive at the company. The incoming goods department checks the shipment and records the date of receipt. Now the employee will be informed that their order has arrived and is ready to be collected.

Introduce The Process Elements

If we assume that a ticket acts in this workflow like an accompanying document that can receive change notes, we already have a clear picture of process tickets.

From the analysis of the example process we can identify the following necessary items:

- Possibility to record data, let's call this *user task activity dialog*.

- Check which can react to changed data automatically, let's call this *sequence flow*.

- Change which can be applied to a process ticket after successful transitions of a process ticket, let's call this *sequence flow action*.

- A possibility to offer more than just one user task activity dialog to be available. In our example this is needed when the manager must have the choice between *Approve* and *Deny*. Let's call this *activity*.

Now, with activities, user task activity dialogs, sequence flows and sequence flow actions we have the necessary tools to model the individual steps of our example. What is still missing is an area where for each workflow the order of the steps can be specified. Let's call this *process*.

Create necessary resources

Before the creation of the process and its parts is necessary to prepare the system. We need to define some *Queues*, *Agents* and *Dynamic Fields* as well as set some *System Configuration* settings.

Create the following *Queues*:

- Management

- Employees

- Purchasing

- Post office

Create the following *Agents*:

- Manager

- Employee

Create the following *Dynamic Fields*:

Object	Type	Name	Label	Possible values
Ticket	Text	Title	Title	
Ticket	Text	Author	Author	
Ticket	Text	ISBN	ISBN	
Ticket	Dropdown	Status	Status	• Approval • Approval denied • Approved • Order denied • Order placed • Shipment received
Ticket	Text	Suplier	Suplier	
Ticket	Text	Price	Price	
Ticket	Date	DeliveryDate	Delivery date	
Ticket	Date	DateOfReceipt	Date of receipt	

Set the the following *System Configuration* settings:

- Ticket::Responsible

    - Enabled

- Ticket::Frontend::AgentTicketZoom###ProcessWidgetDynamicFieldGroups

    - Book $\rightarrow$ Title,Author,ISBN

    - General $\rightarrow$ Status

    - Order $\rightarrow$ Price,Supplier,DeliveryDate

    - Shipment $\rightarrow$ DateOfReceipt

- Ticket::Frontend::AgentTicketZoom###ProcessWidgetDynamicField

    - Author $\rightarrow$ 1 - Enabled

    - DateOfReceipt $\rightarrow$ 1 - Enabled

    - DeliveryDate $\rightarrow$ 1 - Enabled

    - ISBN $\rightarrow$ 1 - Enabled

    - Price $\rightarrow$ 1 - Enabled

    - Status $\rightarrow$ 1 - Enabled

    - Supplier $\rightarrow$ 1 - Enabled

    - Title $\rightarrow$ 1 - Enabled

Note: Don't forget to deploy the modified system configuration settings.

Now, go back to the *Process Management* screen and click on the *Create New Process.* Fill in the required fields.

The new process is created. You can add some process element now.

Fig. 41: Book Ordering - Create New Process

Create User Task Activity Dialogs

Click on the *User Task Activity Dialogs* item in the *Available Process Elements* widget in the left sidebar. This action will expand the *User Task Activity Dialogs* options and will collapse all others doing an accordion like effect. Click on the *Create New User Task Activity Dialog* button.

In the opened popup screen fill in the *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 user task 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.

In this example we will use:

- *Article* field for comments.

- *DynamicField_Title*, *DynamicField_Author*, *DynamicField_ISBN* fields for the data to be collected for the order.

- *DynamicField_Status* with the possibility to choose *Approval*.

Drag these fields from the *Available Fields* pool and drop into the *Assigned Fields* pool.

Note: 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.

As soon as the fields are dropped into the *Assigned Fields* pool another popup screen is shown with some details about the field. We will leave the default options and only for *Article* fields we should make sure that the *Communication Channel* field is set to *OTRS* and that the *Is visible for customer* is not checked.

After all fields are filled in, click on the *Save and finish* button to save the changes and go back to the project management screen.

Create the following user task activity dialogs with fields:

- *Recording the demand* (already created before)
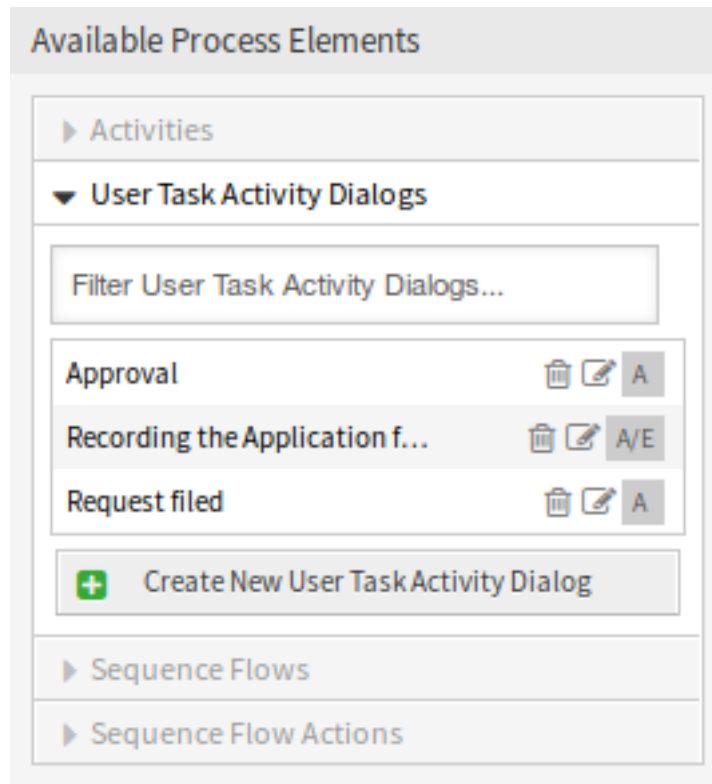
  - *Article* field for comments.

Fig. 42: Book Ordering - User Task Activity Dialogs

Fig. 43: Book Ordering - Add User Task Activity Dialog
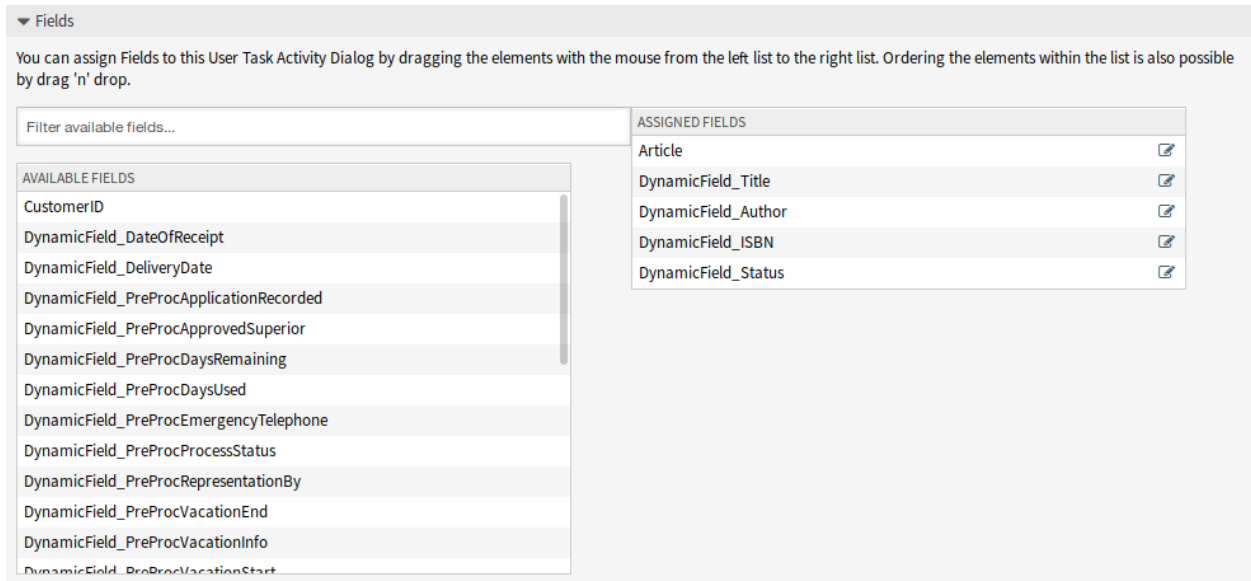
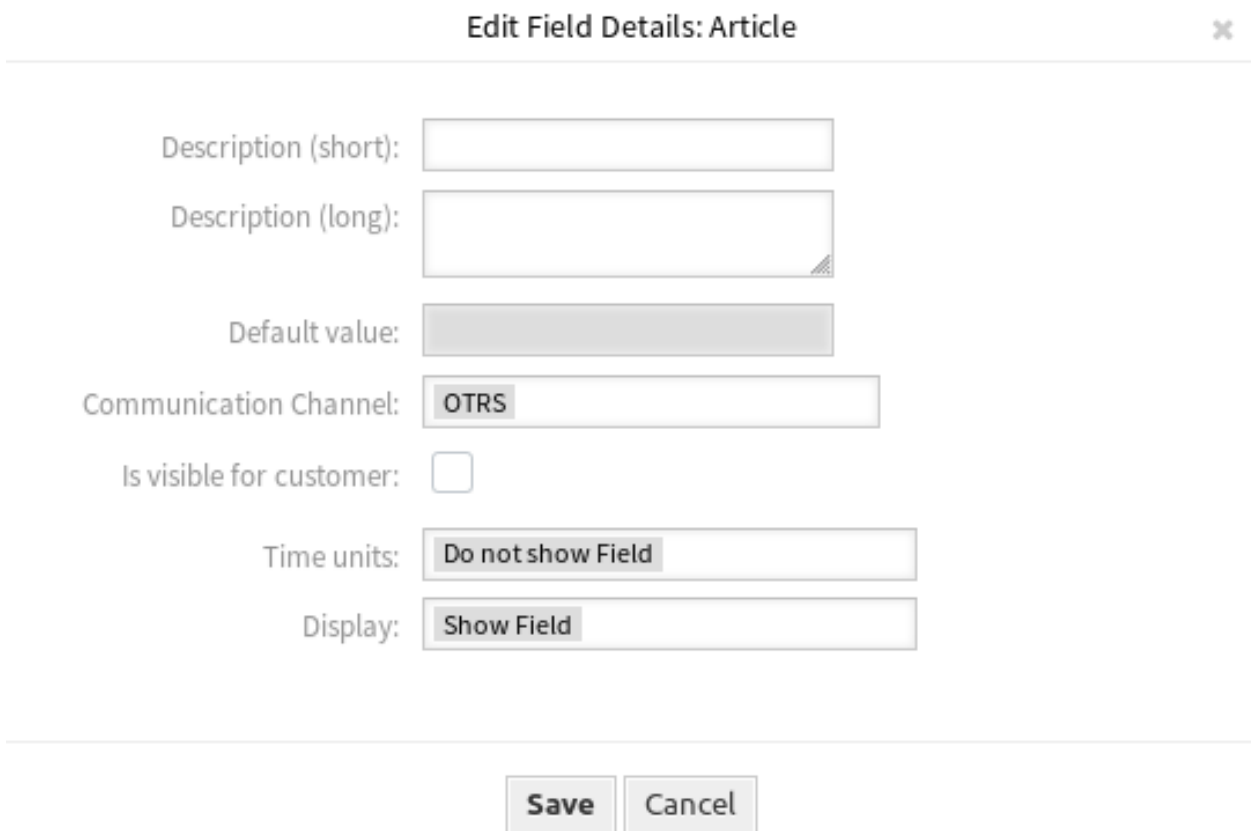Fig. 44: Book Ordering - Add User Task Activity Dialog Fields

Fig. 45: Book Ordering - Edit User Task Activity Dialog Fields

  - *DynamicField_Title*, *DynamicField_Author*, *DynamicField_ISBN* fields for the data to be collected for the order.

  - *DynamicField_Status* with the possibility to choose *Approval*.

- *Approval denied*

  - *Article* field for comments.

  - *DynamicField_Status* with the possibility to choose *Approval denied*.

- *Approved*

  - *DynamicField_Status* with the possibility to choose *Approved*.

- *Order denied*

  - *Article* field for comments.

  - *DynamicField_Status* with the possibility to choose *Order denied*.

- *Order placed*

  - *DynamicField_Supplier*, *DynamicField_Price*, *DynamicField_DeliveryDate* fields for purchasing.

  - *DynamicField_Status* with the possibility to choose *Order placed*.

- *Shipment received*

  - *DynamicField_DateOfReceipt* for the mail room.

  - *DynamicField_Status* with the possibility to choose *Shipment received*.

Create Sequence Flows

Click on the *Sequence Flows* item in the *Available Process Elements* widget in the left sidebar. This action will expand the *Sequence Flows* options and will collapse all others doing an accordion like effect. Click on the *Create New Sequence Flow* button.

In the opened popup screen fill in the *Sequence Flow Name*. For this example in the *Condition Expressions* we will use just one condition expression and just one field, for both we can leave the *Type of Linking* as *and* and we will use the filed match type value as *String*.

After all fields are filled in, click on the *Save and finish* button to save the changes and go back to the project management screen.

Create the following sequence flows:

- *Approval* (already created before)

    Check if the *DynamicField_Status* is set to *Approval*.

- *Approval denied*

    Check if the *DynamicField_Status* field is set to *Approval denied*.

- *Approved*

    Check if the *DynamicField_Status* field is set to *Approved*.

- *Order denied*

    Check if the *DynamicField_Status* field is set to *Order denied*.

- *Order placed*

    Check if the *DynamicField_Status* field is set to *Order placed*.
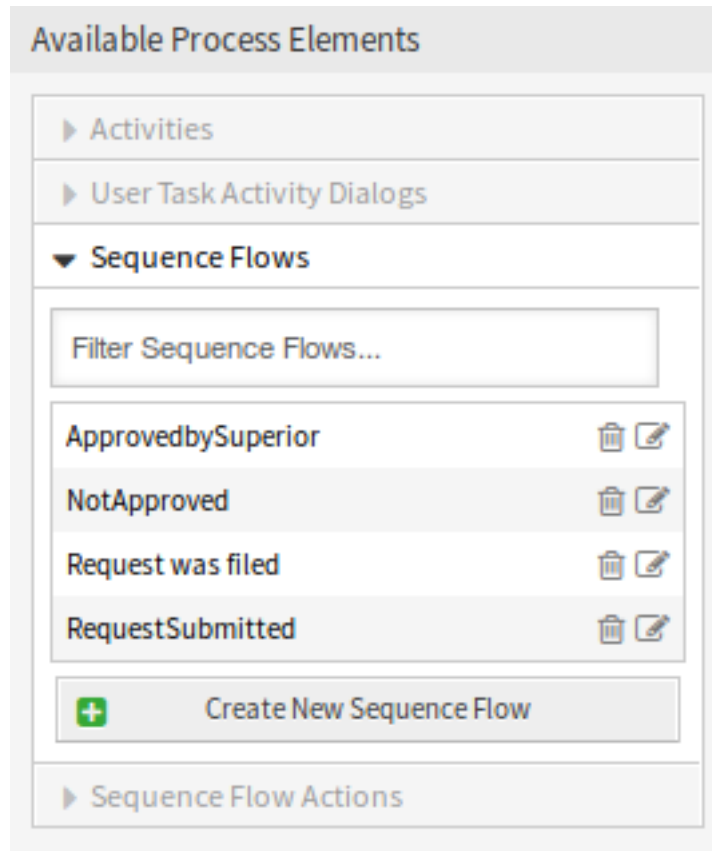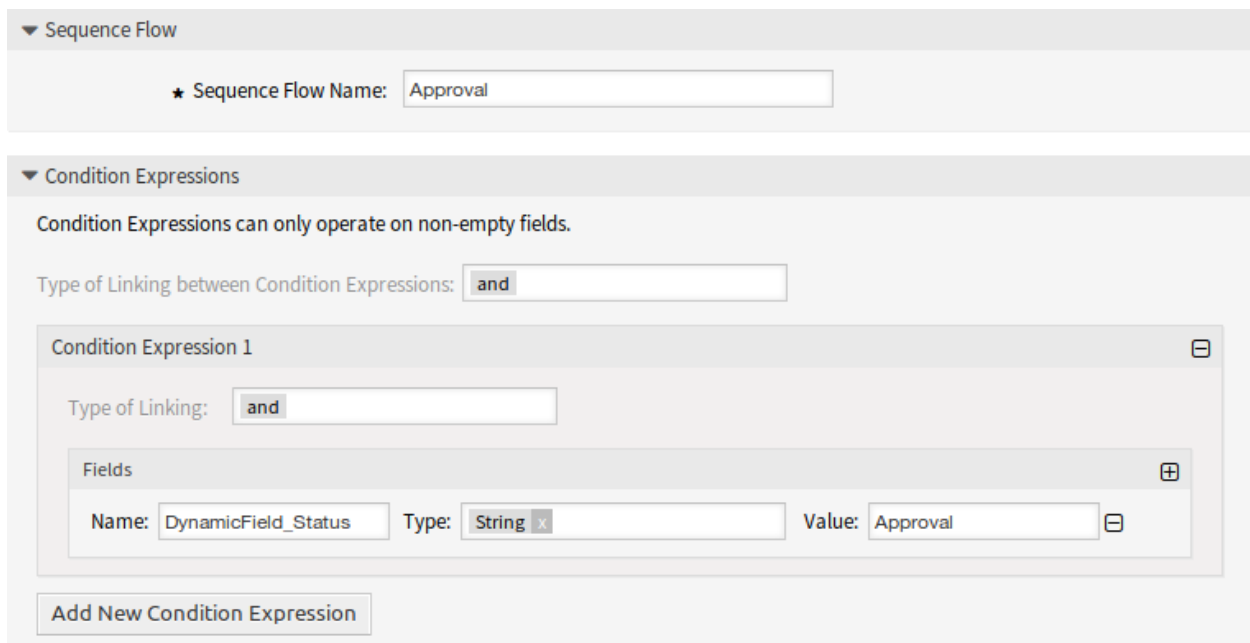
Fig. 46: Book Ordering - Sequence Flows

Fig. 47: Book Ordering - Add Sequence Flow

- *Shipment received*

  Check if the *DynamicField_Status* field is set to *Shipment received*.

Create Sequence Flow Actions

Click on the *Sequence Flow Actions* item in the *Available Process Elements* widget in the left sidebar. This action will expand the *Sequence Flow Actions* options and will collapse all others doing an accordion like effect. Click on the *Create New Sequence Flow Action* button.
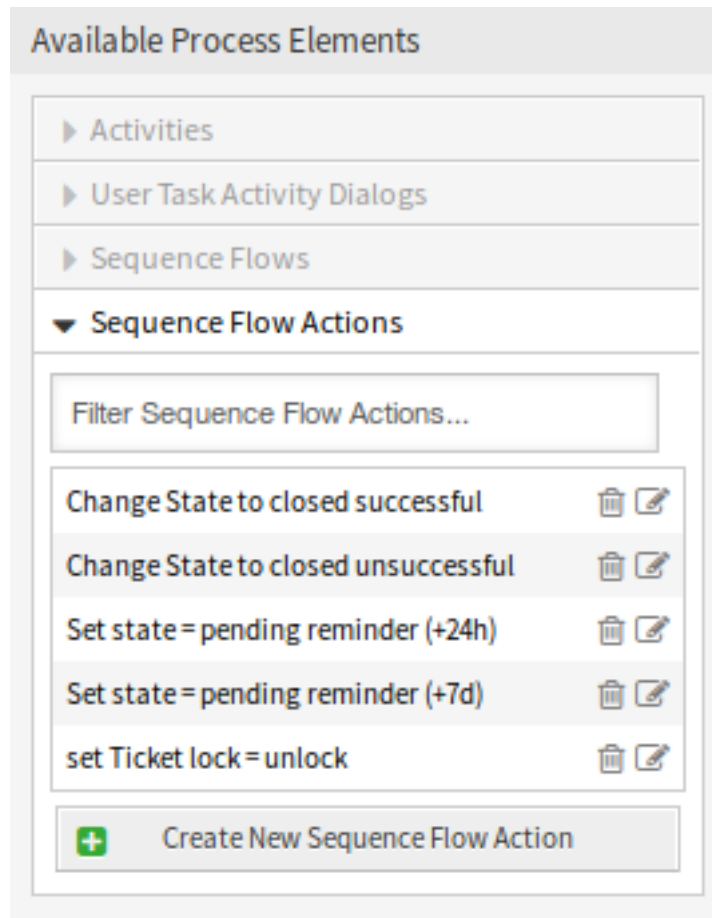
Fig. 48: Book Ordering - Sequence Flow Actions

In the opened popup screen fill in the *Sequence Flow Action Name* and the *Sequence Flow Action module* then click on the *Save* button. A new *Configure* button will appear next to the module field.
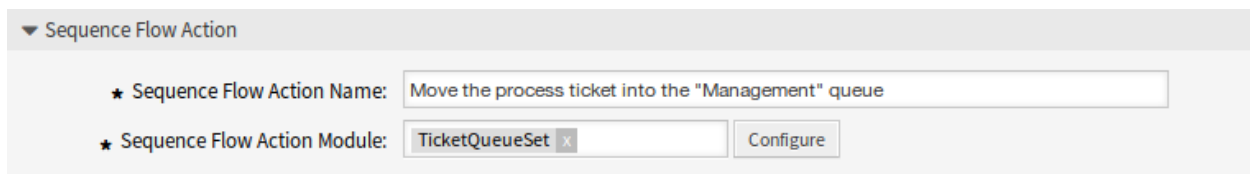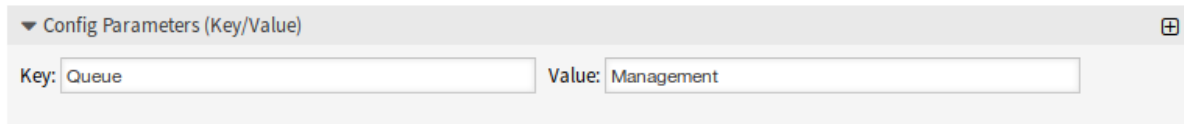
Fig. 49: Book Ordering - Add Sequence Flow Action

Click on the *Configure* button and add the needed configuration parameter keys and values.

Fig. 50: Book Ordering - Sequence Flow Action Parameters

After all fields are filled in, click on the *Save and finish* button to save the changes and go back to the project management screen.

See also:

Each module has its own and different parameters. Please review the module documentation to learn all require and optional parameters.

- DynamicFieldSet
- TicketArticleCreate
- TicketCreate
- TicketCustomerSet
- TicketLockSet
- TicketOwnerSet
- TicketQueueSet
- TicketResponsibleSet
- TicketSendEmail
- TicketServiceSet
- TicketSLASet
- TicketStateSet
- TicketTitleSet
- TicketTypeSet

All the sequence flow action modules are located in the legacy named `Kernel/System/ ProcessManagement/TransitionAction`.

Create the following sequence flow actions:

- *Move the process ticket into the "Management" queue* (already created before)

   This action is supposed to be executed when the sequence flow *Approval* applied.

- *Change ticket responsible to "Manager"*

   To be executed when the sequence flow *Approval* applied.

- *Move process ticket into the "Employees" queue*

   To be executed when:

     – The sequence flow *Approval denied* applied.

     – The sequence flow *Order denied* applied.

– The sequence flow *Shipment received* applied.

• *Change ticket responsible to* "*Employee*"

　　To be executed when:

　　　– The sequence flow *Approval denied* applied.

　　　– The sequence flow *Order denied* applied.

　　　– The sequence flow *Shipment received* applied.

• *Move process ticket into the* "*Purchasing*" *queue*

　　To be executed when the sequence flow *Approved* applied.

• *Move process ticket into the* "*Post office*" *queue*

　　To be executed when the sequence flow *Order placed* applied.

• *Close ticket successfully*

　　To be executed when the sequence flow *Shipment received* applied.

• *Close ticket unsuccessfully*

　　To be executed when:

　　　– The sequence flow *Approval denied* applied.

　　　– The sequence flow *Order denied* applied.

There are places where the same sequence flow actions should be executed. Therefore it is reasonable to make it possible to link sequence flow actions freely with sequence flows to be able to reuse them.

Create Activities

Click on the *Activities* item in the *Available Process Elements* widget in the left sidebar. This action will expand the *Activities* options and will collapse all others doing an accordion like effect. Click on the *Create New Activity* button.

In the opened popup screen fill in the *Activity name* field and select *User task activity* from the *Activity type* dropdown.

To assign dialogs to the activity simple drag the required dialogs from the *Available User Task Activity Dialogs* pool and drop into the *Assigned User Task Activity Dialogs* pool. The order in the *Assigned User Task Activity Dialogs* pool is the order as the dialogs will be presented in the ticket zoom screen. To modify the order simply drag and drop the field within the pool to rearrange it in the correct place.

Note:　This order is specially important in the first activity, since the first user task activity dialog for this activity is the only one that is presented when the process starts.

In this example we need to assign only the *Recording the demand* user task activity dialog. Drag this dialog from the *Available User Task Activity Dialogs* pool and drop into the *Assigned User Task Activity Dialogs* pool.

After all fields are filled in, click on the *Save and finish* button to save the changes and go back to the project management screen.

Create the following activities:

• *Recording the demand* (already created before)
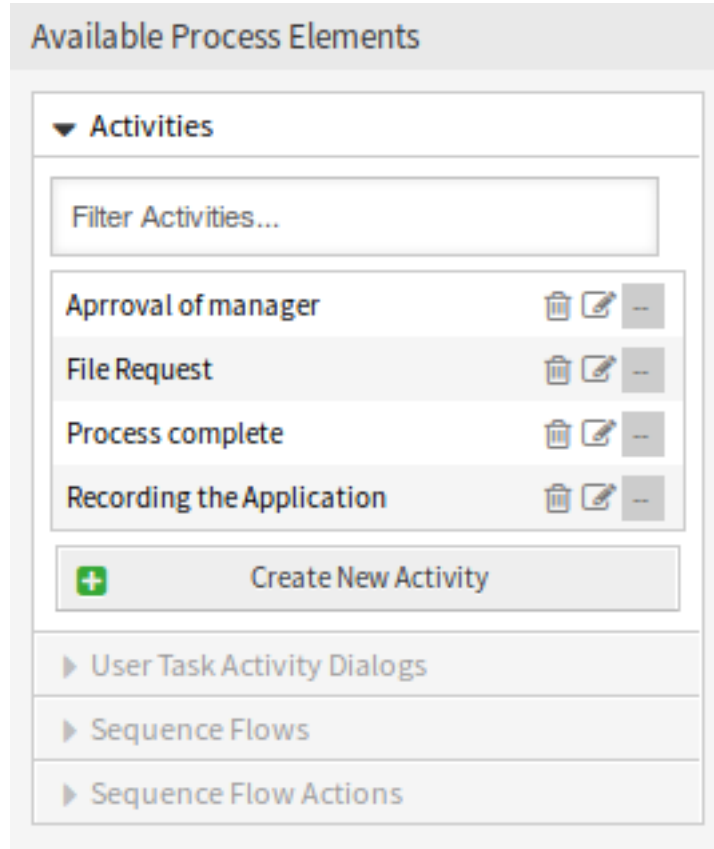

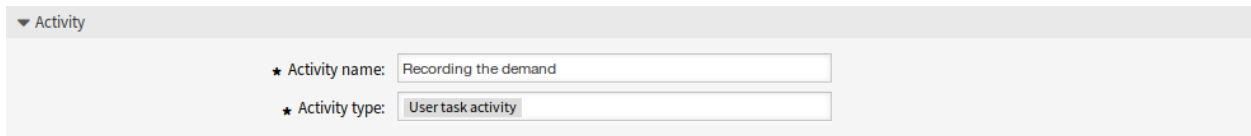Fig. 51: Book Ordering - Activities
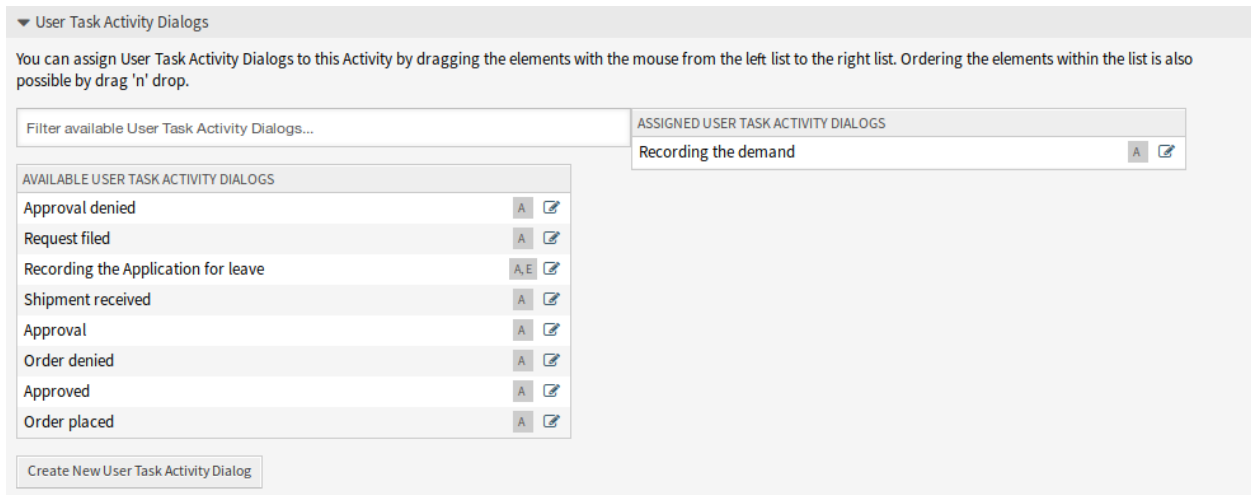

Fig. 52: Book Ordering - Add Activity

Fig. 53: Book Ordering - Assign User Task Activity Dialog

Assign the user task activity dialog *Recording the demand*.

- *Approval*

    Assign the user task activity dialogs *Approval denied* and *Approved*.

- *Order*

    Assign the user task activity dialogs *Order denied* and *Order placed*.

- *Incoming*

    Assign the user task activity dialog *Shipment received*.

- *Process complete*

    This is an activity without possible user task activity dialogs. It will be set after *Approval denied*, *Order denied* or *Shipment received* and represents the end of the process.

Now we can clearly see that activities are precisely defined states of a process ticket. After a successful sequence flow a process ticket moves from one activity to another.

Create Process Path

Let us conclude our example with the last missing piece in the puzzle, the process as the a flow describer. In our case this is the whole ordering workflow. Other processes could be office supply ordering or completely different processes.

The process has a starting point which consists of the start activity and the start user task activity dialog. For any new book order, the first user task activity dialog of the first activity is the first screen that is displayed. If this is completed and saved, the process ticket will be created and can follow the configured workflow.

The process also contains the directions for how the process ticket can move through the process. Let's call this *process path*. It consists of the start activity, one or more sequence flows (possibly with sequence flow actions) and other activities.

Assuming that the activities has already assigned their user task activity dialogs, drag an activity from the accordion in the *Available Process Elements* widget in the left sidebar and drop it into the canvas area below the process information. Notice that an arrow from the process start (white circle) to the activity is placed automatically. This is the first activity and its first user task activity dialog is the first screen that will be shown when the process starts.

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.

Then let's create the process path (connection) between this two activities. For this we will use the sequence flows. Click on sequence flow in the accordion, drag a sequence flow and drop it inside the first activity. As soon as the sequence flow is dropped the end point of the sequence flow arrow will be placed next to the process start point. Drag the sequence flow arrow end point and drop it inside the other activity to create the connection between the activities.

Now that the process path between the actions is defined, then we need to assign the sequence flow actions to the sequence flow. Double click the sequence flow label in the canvas to open a new popup window.

After the sequence flow actions are assigned, click on the *Save* button to go back to the main process edit screen. Click on *Save* button below the canvas to save all other changes.

Complete the process path adding the following activities, sequence flows and sequence flow actions:

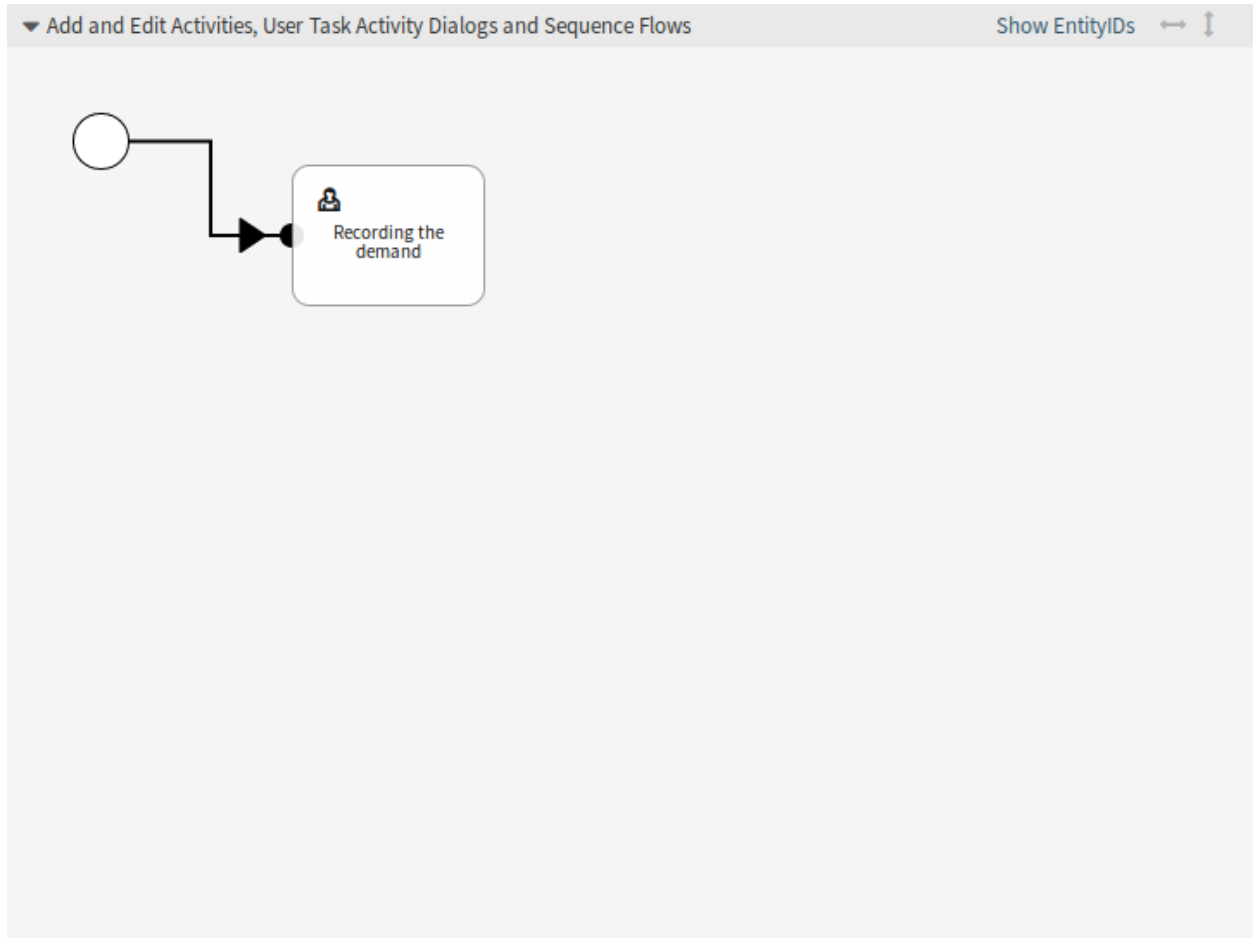- *Recording the demand* (already created before)
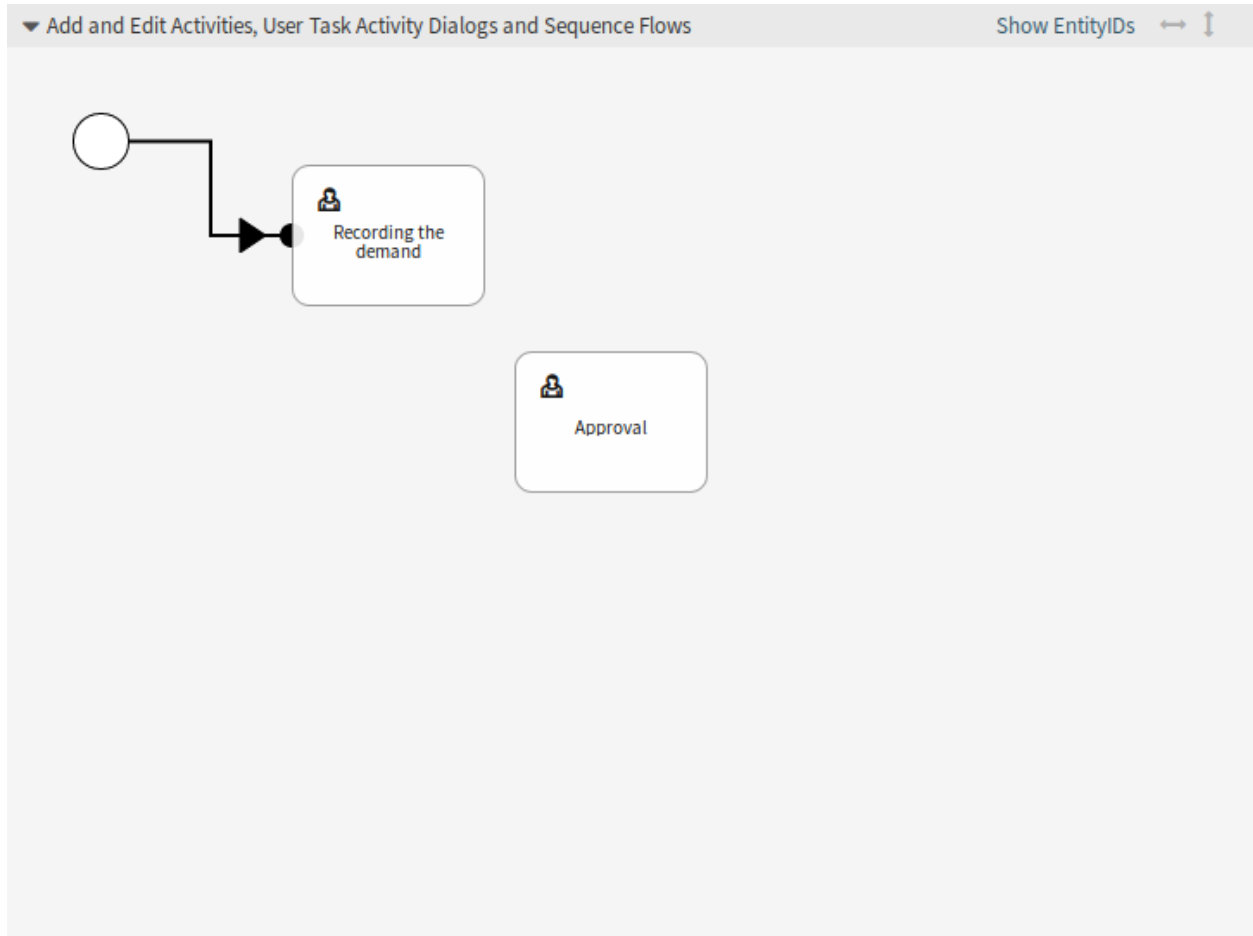
Fig. 54: Book Ordering - First Activity On Canvas

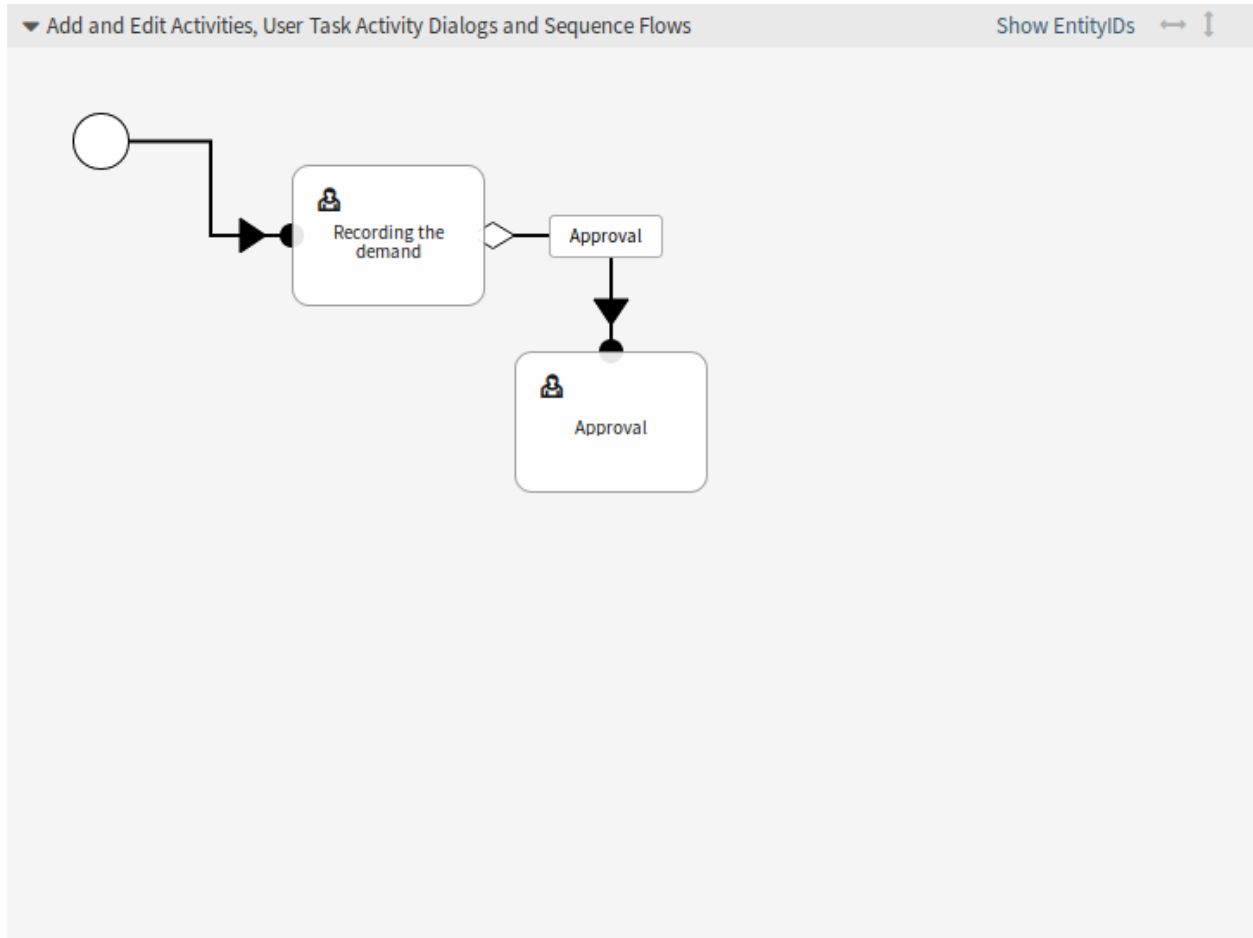Fig. 55: Book Ordering - Second Activity On Canvas

Fig. 56: Book Ordering - First Sequence Flow On Canvas

Fig. 57: Book Ordering - Assign First Sequence Flow Action

Possible sequence flow: *Approval*

Starting activity: *Recording the demand*

Next activity: *Approval*

If the condition of this activity is fulfilled, the ticket will move to activity *Approval*.

Additionally, the following sequence flow actions are executed:

- *Move the process ticket into the "Management" queue*
- *Change ticket responsible to "Manager"*

The activity *Recording the demand* is a defined step of the process ticket, where there is the possibility for the sequence flow *Approval*. If this applies, the ticket will move to the next activity *Approval*, and the sequence flow actions *Move the process ticket into the "Management" queue* and *Change ticket responsible to "Manager"* are executed. In the activity *Approval*, the user task activity dialogs *Approval denied* and *Approved* are available.

- *Approval*

    Possible sequence flow: *Approval denied*

    Starting activity: *Approval*

    Next activity: *Process complete*

    If this matches, the process ticket will move to activity *Process complete*.

    Additionally, the following sequence flow actions are executed:

    - *Move process ticket into the "Employees" queue*
    - *Change ticket responsible to "Employee"*
    - *Close ticket unsuccessfully*

    Possible sequence flow: *Approved*

    Starting activity: *Approval*

    Next activity: *Order*

    If this matches, the process ticket will move to activity *Order*.

    Additionally, the following sequence flow actions are executed:

    - *Move process ticket into the "Purchasing" queue*

    We can see that from the current activity, which defines a step of the process ticket, there are one or more possibilities for sequence flow which have exactly one target activity (and possibly one or more sequence flow actions).

- *Order*

    Possible sequence flow: *Order denied*

    Starting activity: *Order*

    Next activity: *Process complete*

    If this matches, the process ticket will move to activity *Process complete*.

    Additionally, the following sequence flow actions are executed:

    - *Move process ticket into the "Employees" queue*
    - *Set ticket responsible to "Employee"*

– *Close ticket unsuccessfully*

Possible sequence flow: *Order placed*

Starting activity: *Order*

Next activity: *Incoming*

If this matches, the process ticket will move to activity *Incoming*.

Additionally, the following sequence flow actions are executed:

– *Move process ticket into the "Post office" queue*

- *Incoming*

    Possible sequence flow: *Shipment received*

    Starting activity: *Incoming*

    Next activity: *Process complete*

    If this matches, the process ticket will move to activity *Process complete*.

    Additionally, the following sequence flow actions are executed:

    – *Move process ticket into the "Employees" queue*

    – *Set ticket responsible to "Employee"*

    – *Close ticket successfully*

The complete process path for the book ordering process will then look like this:

After you finish the process path, click on *Save and finish* button below the canvas to go back to the process management screen.

Click on the *Deploy All Processes* button in the left sidebar. This will gather all processes information form 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.

Note: Any change that is made of the process will require to re-deploy the process in order to get the change reflected in the system.

5.5 Web Services

In a connected world, a ticket system needs to be able to react to requests from other systems and also to send requests or information to other systems:

- CRM systems
- Project Management systems
- Documentation management systems
- and many more

The ticket system must be reachable by other services without manual intervention by an agent.

OTRS supports this requirement by the Generic Interface. It empowers the administrator to create a web service for a specific task without scripting language knowledge. OTRS reacts on incoming REST or SOAP requests and create objects or provides object data to other systems transparently.
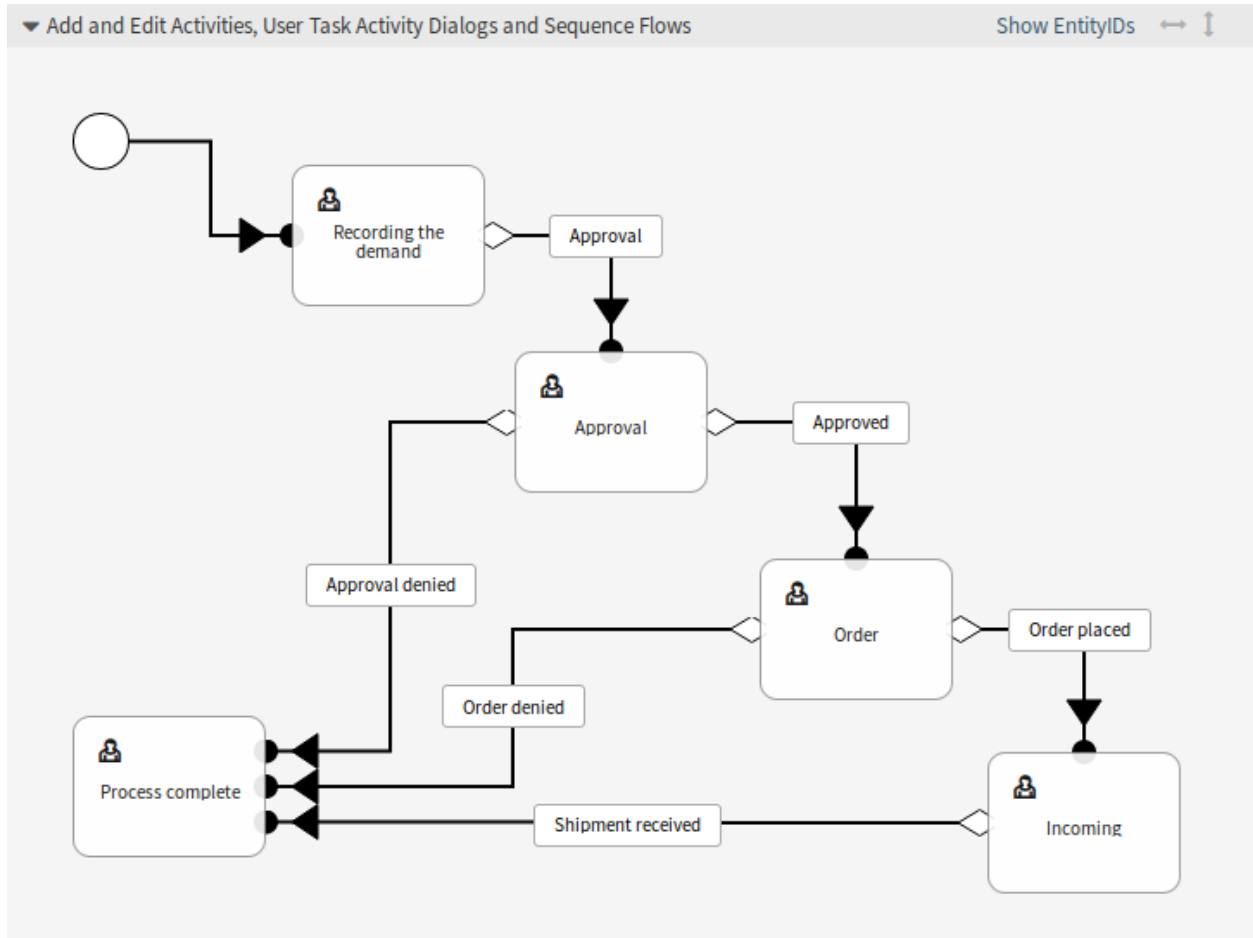

Fig. 58: Book Ordering - Process Complete

A web service is a communication method between two systems, in our case OTRS and a remote system. In its configuration, the *Operation* or *Invoker* determine the direction of communication, and the *Mapping* and *Transport* take care of how the data is received and interpreted.

In its configuration it can be 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.

Use this screen to manage web services in the system. A fresh OTRS installation contains no web service by default. The web service management screen is available in the *Web Services* module of the *Processes & Automation* group.
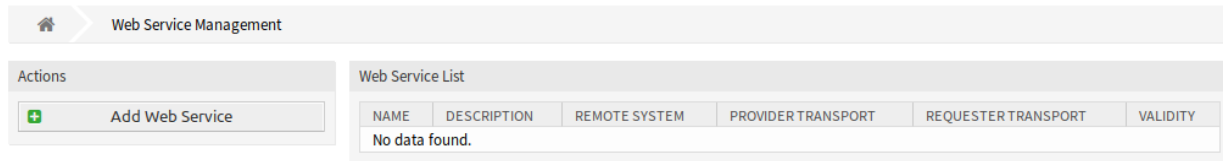

Fig. 59: Web Service Management Screen

5.5.1 Manage Web Services

To create a web service:

1. Click on the *Add Web Service* button in the left sidebar.

2. Fill in the required fields.

3. Click on the *Save* button.

Fig. 60: Create New Web Service Screen

To edit a web service:

1. Click on a web service in the list of web services.

2. Modify the fields.

3. Click on the *Save* or *Save and finish* button.

Fig. 61: Edit Web Service Screen

To delete a web service:

1. Click on a web service in the list of web services.

2. Click on the *Delete Web Service* button in the left sidebar.

3. Click on the *Delete* button in the confirmation dialog.

Fig. 62: Delete Web Service Screen

To clone a web service:

1. Click on a web service in the list of web services.

2. Click on the *Clone Web Service* button in the left sidebar.

3. Enter a new name for the web service.

Fig. 63: Clone Web Service Screen

To export a web service:

1. Click on a web service in the list of web services.

2. Click on the *Export Web Service* button in the left sidebar.

3. Choose a location in your computer to save the `Export_ACL.yml` file.

> **Warning:** All stored passwords in the web service configuration will be exported in plain text format.

To see the configuration history of a web service:

1. Click on a web service in the list of web services.

2. Click on the *Configuration History* button in the left sidebar.

Fig. 64: Web Service Configuration History Screen

To use the debugger for a web service:

1. Click on a web service in the list of web services.

2. Click on the *Debugger* button in the left sidebar.

To import a web service:

1. Click on the *Add Web Service* button in the left sidebar.

2. Click on the *Import Web Service* button in the left sidebar.

Fig. 65: Web Service Debugger Screen

3. Click on the *Browse⋯* button in the dialog.

4. Select a previously exported `.yml` file.

5. Add a name for the imported web service (optional). Otherwise the name will be taken from the configuration file name.

6. Click on the *Import* button.

5.5.2 Web Service Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

General Web Service Settings

Fig. 66: Web Service Settings - General

Name * The name of this resource. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

Description Like comment, but longer text can be added here.

Remote system

Debug threshold The default value is *Debug*. When configured in this manner all communication logs are registered in the database. Each subsequent debug threshold value is more restrictive and discards communication logs of lower order than the one set in the system.

Debug threshold levels (from lower to upper):

- Debug
- Info
- Notice
- Error

Validity Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

Provider Web Service Settings

Fig. 67: Web Service Settings - OTRS as Provider

Network transport Select which network transport would you like to use with the web service. Possible values are *HTTP::REST* and *HTTP::SOAP*.

Note: After selecting the transport method, you have to save the configuration with clicking on the *Save* button. A *Configuration* button will be displayed next to this field.

Configuration The *Configuration* button is visible only, after a network transport was selected and saved. See the configuration for *OTRS as Provider - HTTP::REST* and *OTRS as Provider - HTTP::SOAP* below.

Add Operation This option is visible only, after a network transport was selected and saved. Selecting an operation will open a new screen for its configuration.

Fig. 68: Web Service Settings - OTRS as Provider - Operation

Fig. 69: Web Service Settings - OTRS as Provider - HTTP::REST

OTRS as Provider - HTTP::REST

OTRS as Provider - HTTP::SOAP

Requester Web Service Settings

Network transport Select which network transport would you like to use with the web service. Possible values are *HTTP::REST* and *HTTP::SOAP*.

Note: After selecting the transport method, you have to save the configuration with clicking on the *Save* button. A *Configuration* button will be displayed next to this field.

Configuration The *Configuration* button is visible only, after a network transport was selected and saved. See the configuration for *OTRS as Requester - HTTP::REST* and *OTRS as Requester - HTTP::SOAP* below.

Add error handling module This option is visible only, after a network transport was selected and saved. Selecting an operation will open a new screen for its configuration.

OTRS as Requester - HTTP::REST

OTRS as Requester - HTTP::SOAP

Network Transport

Properties

Type: HTTP::SOAP

★ Endpoint: [   ]

URI to indicate specific location for accessing a web service.
e.g. https://local.otrs.com:8000/Webservice/Example

★ Timeout: [120]

Timeout value for requests.

★ Set SOAPAction: [Yes]

Set to "Yes" in order to send a filled SOAPAction header.
Set to "No" in order to send an empty SOAPAction header.

★ SOAPAction scheme: [<NameSpace><Separator><Operation>]

Select how SOAPAction should be constructed.
Some web services require a specific construction.

★ SOAPAction separator: [#]

Character to use as separator between name space and SOAP operation.
Usually .Net web services use "/" as separator.

★ 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: [<FunctionName>DATA</FunctionName>]

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: [<FunctionNameResponse>DATA</FunctionNameResponse>]

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.

Authentication: [   ]

An optional authentication mechanism to access the remote system.

★ Use Proxy Options: [No]

Show or hide Proxy options to connect to the remote system.

★ Use SSL Options: [No]

Show or hide SSL options to connect to the remote system.

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

Fig. 71: Web Service Settings - OTRS as Requester

▼ General options

⋆ Name:

The name can be used to distinguish different error handling configurations.

Description:

Error handling module backend: RequestRetry

This OTRS error handling backend module will be called internally to process the error handling mechanism.

▼ Processing options

Configure filters to control error handling module execution.

Only requests matching all configured filters (if any) will trigger module execution.

Invoker filter:

Only execute error handling module for selected invokers.

Error message content filter:

Enter a regular expression to restrict which error messages should cause error handling module execution.
Error message subject and data (as seen in the debugger error entry) will considered for a match.
Example: Enter '^.*401 Unauthorized.*$' to handle only authentication related errors.

Error stage filter:

Only execute error handling module on errors that occur during specific processing stages.
Example: Handle only errors where mapping for outgoing data could not be applied.

Error code:

An error identifier for this error handling module.
This identifier will be available in XSLT-Mapping and shown in debugger output.

Error message:

An error explanation for this error handling module.
This message will be available in XSLT-Mapping and shown in debugger output.

Stop after match:

Define if processing should be stopped after module was executed, skipping all remaining modules or only those of the same backend.
Default behavior is to resume, processing the next module.

▼ Request retry options

Retry options are applied when requests cause error handling module execution (based on processing options).

⋆ Schedule retry: No

Should requests causing an error be triggered again at a later time?

Submit

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Save or Cancel

Network Transport

Properties

Type:	HTTP::REST
★ Endpoint:	

URI to indicate specific location for accessing a web service.
e.g https://www.otrs.com:10745/api/v1.0 (without trailing backslash)

★ Timeout:	120

Timeout value for requests.

Authentication:	

An optional authentication mechanism to access the remote system.

★ Use Proxy Options:	No

Show or hide Proxy options to connect to the remote system.

★ Use SSL Options:	No

Show or hide SSL options to connect to the remote system.

Default command:	GET

The default HTTP command to use for the requests.

Save or Save and finish or Cancel

Fig. 73: Web Service Settings - OTRS as Requester - HTTP::REST

Fig. 74: Web Service Settings - OTRS as Requester - HTTP::SOAP

External Interface

This is the chapter *External Interface*.

6.1 Customer Service Catalogue

Use this screen to add categories and items for use in external interface. A fresh OTRS installation doesn't contain any categories or items by default. The catalogue management screen is available in the *Customer Service Catalogue* module of the *External Interface* group.

This module consists of two management screens: a category management screen and an item management screen.
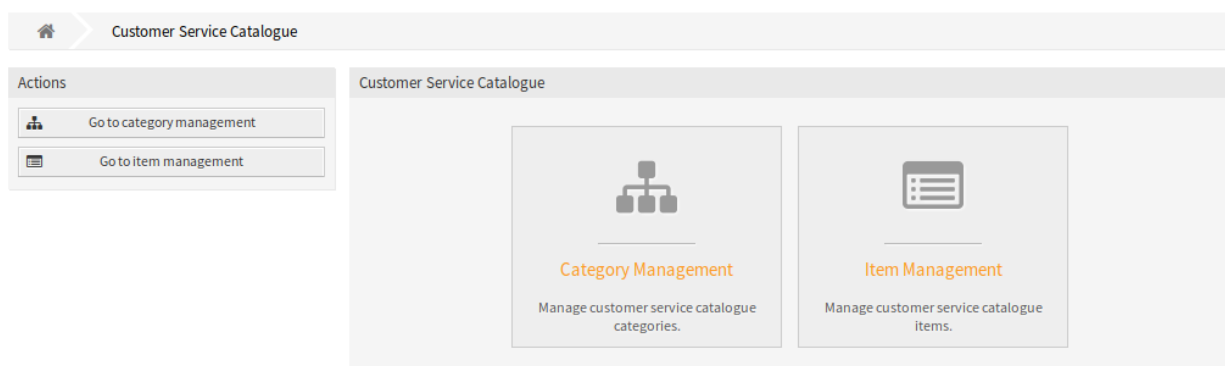

Fig. 1: Customer Service Catalogue Management Screen

6.1.1 Manage Categories

Use this screen to add categories to collect the same items into groups. The *Category Management* screen in available via the *Go to category management* button or via the *Category Management* module.
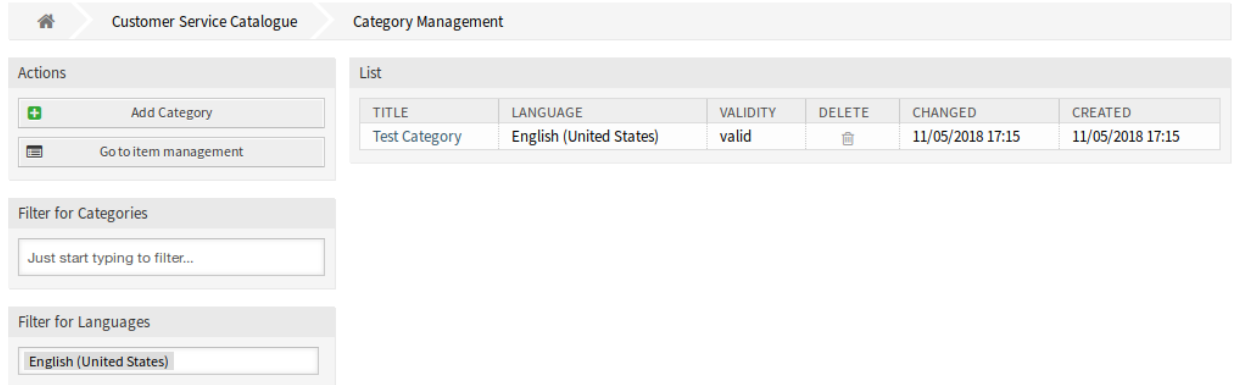

Fig. 2: Category Management Screen

To add a category:

1. Click on the *Add Category* button in the left sidebar.

2. Fill in the required fields.

3. Click on the *Save* button.

Fig. 3: Add Category Screen

To edit a category:

1. Click on a category in the list of categories.

2. Modify the fields.

3. Click on the *Save* or *Save and finish* button.

To delete a category:

1. Click on the trash icon in the *Delete* column of the overview table.

2. Click on the *Confirm* button.

Note: If several categories are added to the system, use the filter box to find a particular category by just typing the name to filter.

Fig. 4: Edit Category Screen

Fig. 5: Delete Category Screen

Category Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

Title * The name of this resource. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

Sub-category of It is possible to add the new category under an existing one as sub-category. This will be displayed as *Parent Category::Child Category*.

Language * Select a language from the available languages of the system.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

6.1.2 Manage Items

Use this screen to add items to the catalogue. Items can be collected into categories. The *Item Management* screen in available via the *Go to item management* button or via the *Item Management* module.

To add an item:

1. Click on the *Add Item* button in the left sidebar.

2. Fill in the required fields.

3. Click on the *Save* button.

To edit an item:

1. Click on an item in the list of items.

2. Modify the fields.

3. Click on the *Save* or *Save and finish* button.

To delete an item:

1. Click on the trash icon in the *Delete* column of the overview table.

Fig. 6: Item Management Screen

Fig. 7: Add Item Screen

Fig. 8: Edit Item Screen

2. Click on the *Confirm* button.

Edit Item

⭐ Internal Title: | Test Item
⭐ Validity: | valid

Fig. 9: Delete Item Screen

Note: If several items are added to the system, use the filter box to find a particular item by just typing the name to filter.

Item Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

Internal Title * The name of this resource, that are only displayed in the admin interface. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

Item Content In this widget can be added some localized content for the item.

> **Title *** The name of this resource in the given language. Any type of characters can be entered to this field including uppercase letters and spaces.

> **Text *** The text for this item in the given language.

> **Categories** One ore more categories can be selected for the item in which the item should be visible.

> > **Note:** Only those categories can be selected, that have the same language as the selected language for this widget.

> **Link *** A link to an internal or an external URL.

> **Add new item content** Select which languages should be added to create localized item content. All added languages can hold its own localized content, that are explained above.

6.2 Custom Pages

Use this screen to add custom pages for use in external interface. A fresh OTRS installation already contains some custom pages by default. The custom page management screen is available in the *Custom Pages* module of the *External Interface* group.

Fig. 10: Custom Page Management Screen

6.2.1 Manage Custom Pages

> **Warning:** Make sure to save your changes when you finish. The new configuration will be immediately deployed.

To add a custom page:

1. Click on the *Add Custom Page* button in the left sidebar.
2. Fill in the required fields.
3. Click on the *Save* button.

To edit a custom page:

1. Click on a custom page in the list of custom pages.
2. Modify the fields.
3. Click on the *Save* or *Save and finish* button.

To delete a custom page:

1. Click on the trash icon in the fourth column of the overview table.
2. Click on the *Confirm* button.

Note: If several custom pages are added to the system, use the filter box to find a particular custom page by just typing the name to filter.

6.2.2 Custom Page Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

Add Custom Page

★ Internal Title:

★ Slug:

Route Link: Route will be available after saving the custom page.

★ Validity: valid

Custom Page Content

▼ English (United States)   ⊟

★ Title:

★ Content:

Add new custom page content:

Save Changes

Save or Cancel

Fig. 11: Add Custom Page Screen

Fig. 12: Edit Custom Page Screen

Fig. 13: Delete Custom Page Screen

Internal Title * The name of this resource, that are only displayed in the admin interface. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

Slug * This will be the URL of the custom page. Recommended characters are lowercase letters, numbers and minus sign.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

Custom Page Content In this widget can be added some localized content for the item.

> **Title** * The name of this resource in the given language. Any type of characters can be entered to this field including uppercase letters and spaces.
>
> **Content** * The text for this item in the given language.
>
> **Add new custom page content** Select which languages should be added to create localized item content. All added languages can hold its own localized content, that are explained above.

6.3 Home Page

Use this screen to define home page configuration for different user languages, that are displayed in the external interface. The home page management screen is available in the *Home Page* module of the *External Interface* group.

This screen contains several widget for each languages, where localized content can be added.

> **Warning:** Make sure to save your changes when you finish. The new configuration will be immediately deployed.

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

6.3.1 Hero Unit

Title This is the most important sentence or motto of the home page.

Background Style Define the behavior of background image and background color. The following options are available:

- Only use the background image
- Only use the background color
- Use the background image and overlay it with the selected color

Background Image Select an image used as background image for the hero unit. To select an image, click on the *Select image to upload* button and chose an image from your file system.

Background Color To change the background color, just select a new color from the color palette. You can chose from the pre-selected colors or define other colors by choosing it from the color selector or typing the hexadecimal value.

Fig. 14: Hero Unit Widget

Fig. 15: Ticket List Widget

6.3.2 Ticket List

Show a ticket list for logged in users This setting defines if the ticket list should be visible for logged in users or not.

Row Title This is an optional title for the row, that contains this widget in the external interface.

6.3.3 Image Teasers

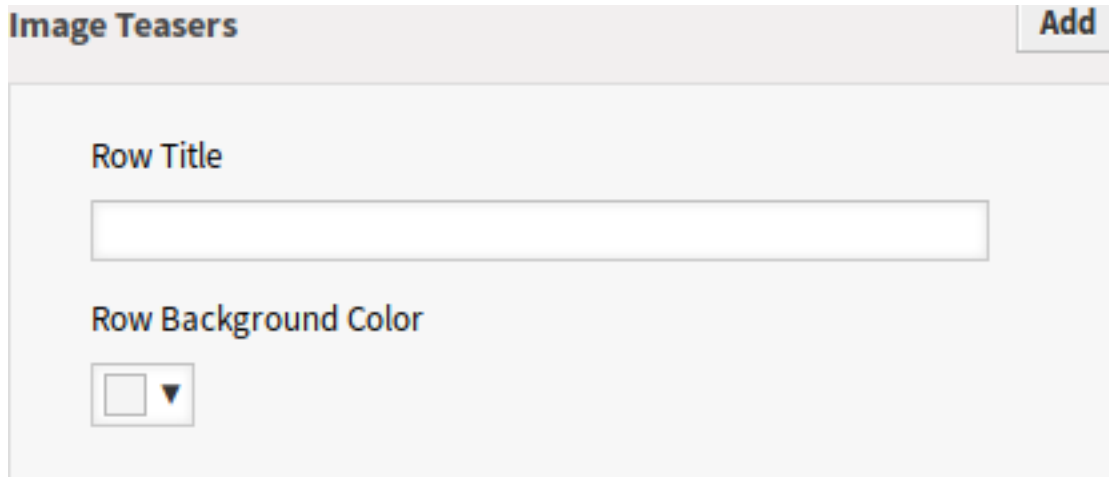The image teasers are displayed in a separate row in the external interface.

Fig. 16: Image Teasers Widget

Row Title This is an optional title for the row, that contains this widget in the external interface.

Row Background Color To change the background color, just select a new color from the color palette. You can chose from the pre-selected colors or define other colors by choosing it from the color selector or typing the hexadecimal value.

You can add up to three image teasers by clicking on the *Add* button in the top right corner of the widget.

Image Select an image to display it in the image teaser widget. To select an image, click on the *Select image to upload* button and chose an image from your file system.

Title * The heading text that are displayed in this item.

Text * The text for this item.

Link Target * An URL that will be opened after clicking on this item in the external interface.
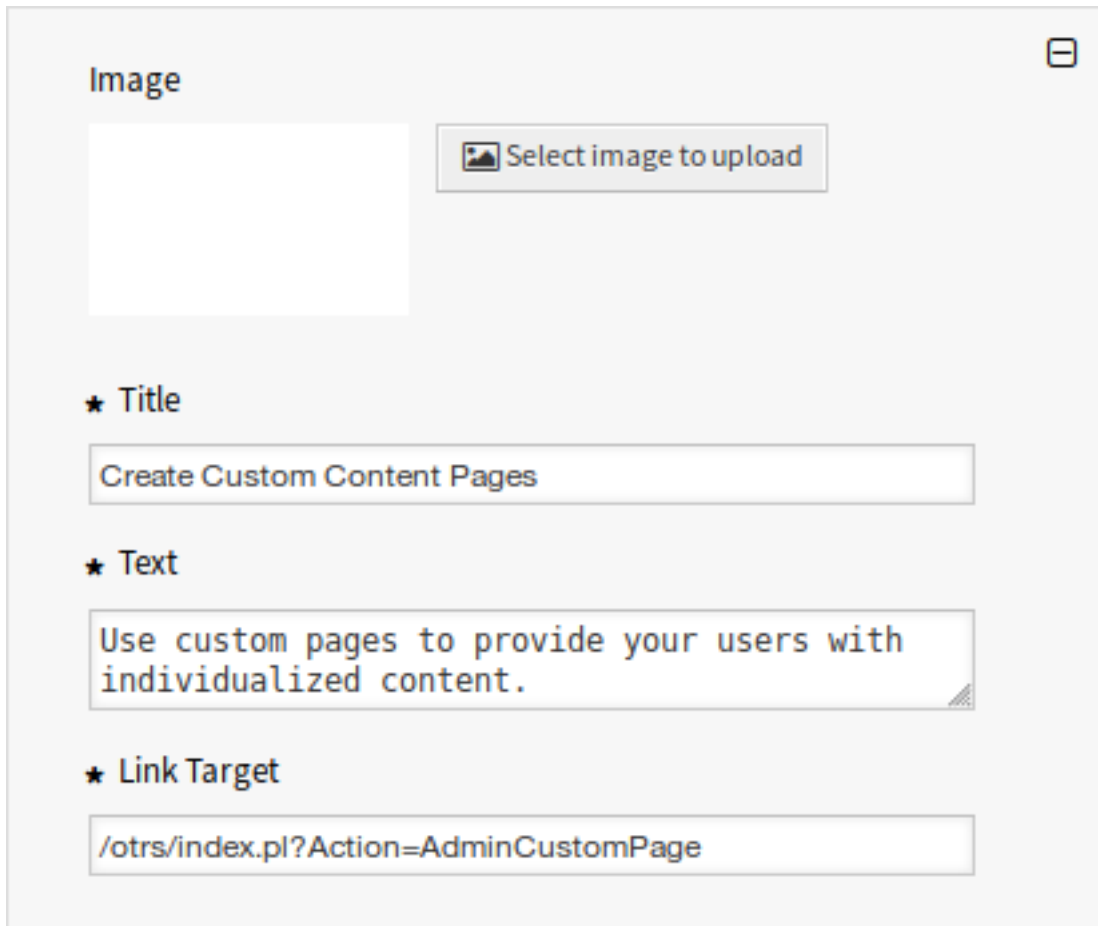
6.3.4 Link Lists

The link lists are displayed in a separate row in the external interface.

Row Title This is an optional title for the row, that contains this widget in the external interface.

You can add up to four link lists by clicking on the *Add* button in the top right corner of the widget.

Title * The heading text that are displayed in this item.

Link Text Add the text for the show more link.

Fig. 17: Image Teaser

Fig. 18: Link Lists Widget

Fig. 19: Link List

Link Target Add the URL for the show more link.

Link List Type * Specifies the functionality how the item will be added.

> **Add the Items Manually** Clicking on the edit button a new widget will be visible to add the items.
>
> **Show the Results of a Search** Clicking on the edit button a new widget will be visible to add the items.

6.3.5 Content Cards

The link lists are displayed in a separate row in the external interface.

Row Title This is an optional title for the row, that contains this widget in the external interface.

You can add up to three content cards by clicking on the *Add* button in the top right corner of the widget.

Title * The heading text that are displayed in this item.

Text * The text for this item.

Link Text Add the text for the show more link.

Link Target An URL that will be opened after clicking on this item in the external interface.

6.4 Layout

Use this screen to edit the layout displayed in external interface. The layout management screen is available in the *Layout* module of the *External Interface* group.

Fig. 20: Add the Items Manually

Fig. 21: Show the Results of a Search

Fig. 22: Content Cards Widget

Fig. 23: Content Card

Fig. 24: Edit Layout Screen

A fresh OTRS installation already contains a default layout. In this screen all parameters can be changed.

> **Warning:** Make sure to save your changes when you finish. The new configuration will be immediately deployed.

Logo The logo is a small image that is displayed in the top left corner of the external pages.

To change the logo, click on the *Select image to upload* button, and select a new logo image. Recommended file format is PNG.

Favicon The favorite icon is an icon that is displayed in the URL bar of the web browser.

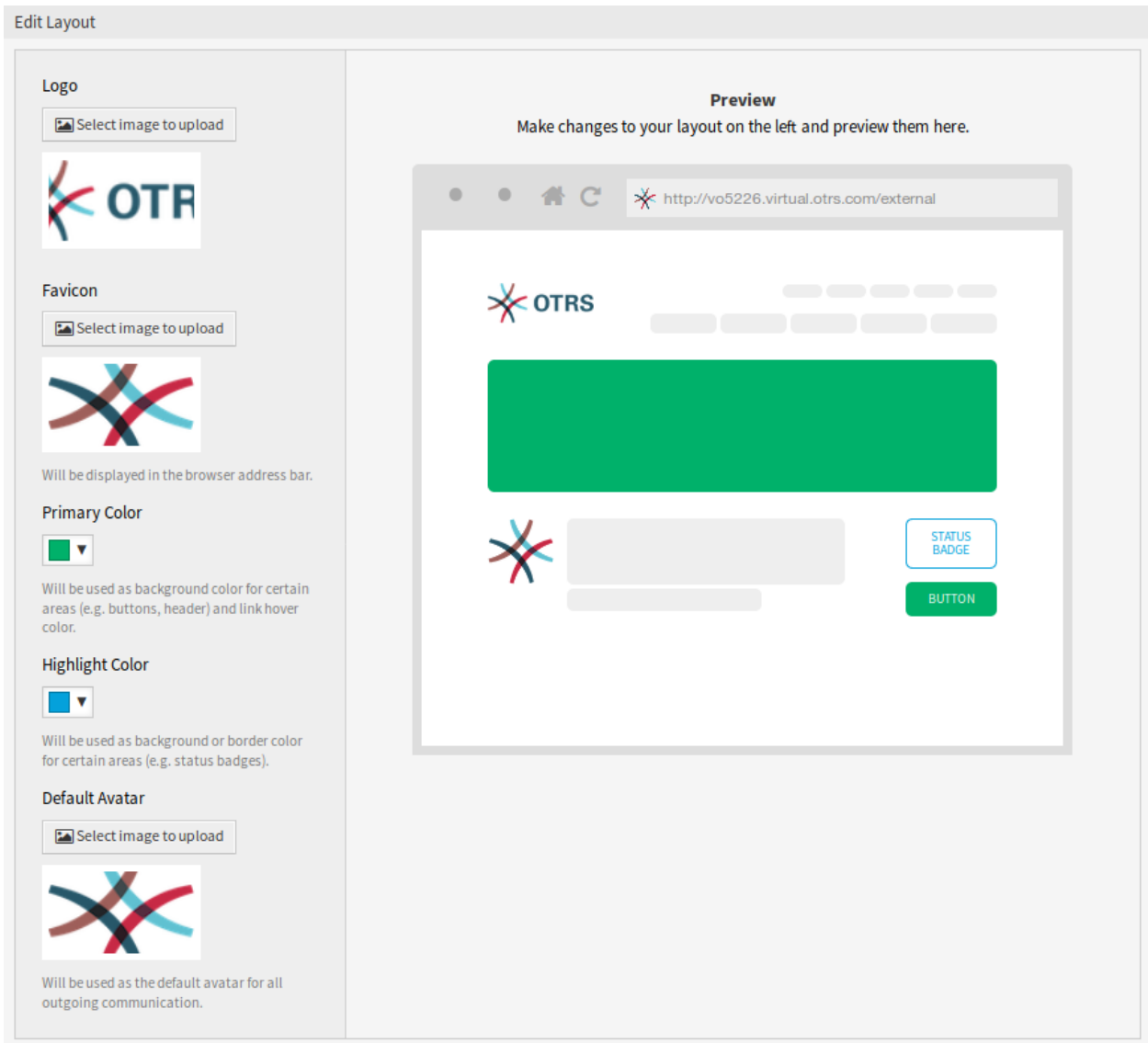To change the favorite icon, click on the *Select image to upload* button, and select a new icon. This is usually a 16×16 pixel image in PNG or ICO format.

Primary Color Primary color is the most important color of the external pages (see the preview screen).

To change the primary color, just select a new color from the color palette. You can chose from the pre-selected colors or define other colors by choosing it from the color selector or typing the hexadecimal value. The new color will be displayed in the preview widget immediately.

Highlight Color Highlight color is the second color of the external pages using for status badges, links, etc.

To change the highlight color, just select a new color from the color palette. You can chose from the pre-selected colors or define other colors by choosing it from the color selector or typing the hexadecimal value. The new color will be displayed in the preview widget immediately.

Default Avatar Will be used as the default avatar for all outgoing communication.

To change the avatar, click on the *Select image to upload* button, and select a new avatar image.

Custom CSS Use this text area to add custom CSS to be applied in the external interface.

Fig. 25: Custom CSS Widget
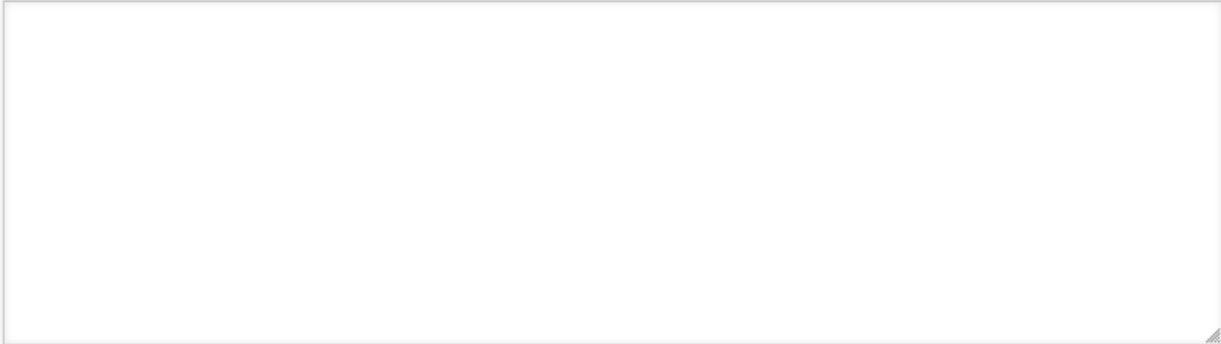
CHAPTER 7

OTRS Group Services

This is the chapter *OTRS Group Services*.

7.1 Cloud Services

Use this screen to add cloud services to the system. A fresh OTRS installation doesn't contain any configured cloud services by default. The cloud service management screen is available in the *Cloud Services* module of the *OTRS Group Services* group.
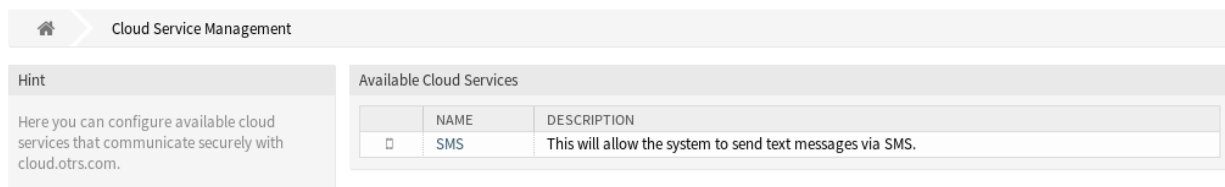
Fig. 1: Cloud Service Management Screen

7.1.1 Manage Cloud Services

Activate SMS Cloud Service

To be able to use SMS cloud service in OTRS, you have to activate it first. To activate the SMS cloud service:

1. Click on the *Activate SMS Cloud Service* button in the left sidebar.

2. Fill in the required fields.

3. Click on the *Save* button.

Fig. 2: Add Cloud Service Screen

Configuration

The following settings are available when adding an SMS cloud service. The fields marked with an asterisk are mandatory.

Phone field for agent * Agent data field from which the mobile phone number for sending messages via SMS should be taken.

Phone field for customer * Customer data field from which the mobile phone number for sending messages via SMS should be taken.

Sender string * Will be shown as sender name of the SMS (Not longer than 11 characters).

Allowed role members If selected, only agents assigned to these roles will be able to receive notifications via SMS.

Perform URL shortening Perform URL shortening before sending the message.

**Phone black list** A blacklist of telephone numbers where it is forbidden to send SMS messages to. Phone numbers must be added in international format without spaces, e.g. +491791234567, one number per field.

Comment Add additional information to this resource. It is recommended to always fill this field as a description of the resource with a full sentence for better clarity, because the comment will be also displayed in the overview table.

Validity Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

Data Protection Information In order to be able to use the SMS transmission feature of the OTRS AG, the Data Protection Information needs to be read and understood.

7.2 Support Data Collector

Support data collector is used to collect some data and sent to OTRS Group on a regular basis, if the system is registered.

Use this screen to review the data to be sent to OTRS Group. The support data collector screen is available in the *Support Data Collector* module of the *OTRS Group Services* group.

7.2.1 Manage Support Data Collector

Support data collector is used to collect some data and sent to OTRS Group on a regular basis, if the system is registered. To register your system:

1. Click on the *System Registration* button in the left sidebar.

2. Follow the registration instructions.

To show what kind of data will be sent:

1. Click on the *Show transmitted data* button in the left sidebar.

2. Review the *System Registration Data* and *Support Data* in the newly opened screen.

To manually trigger the support data sending:

1. Click on the *Send Update* button in the left sidebar.

To generate a support bundle:
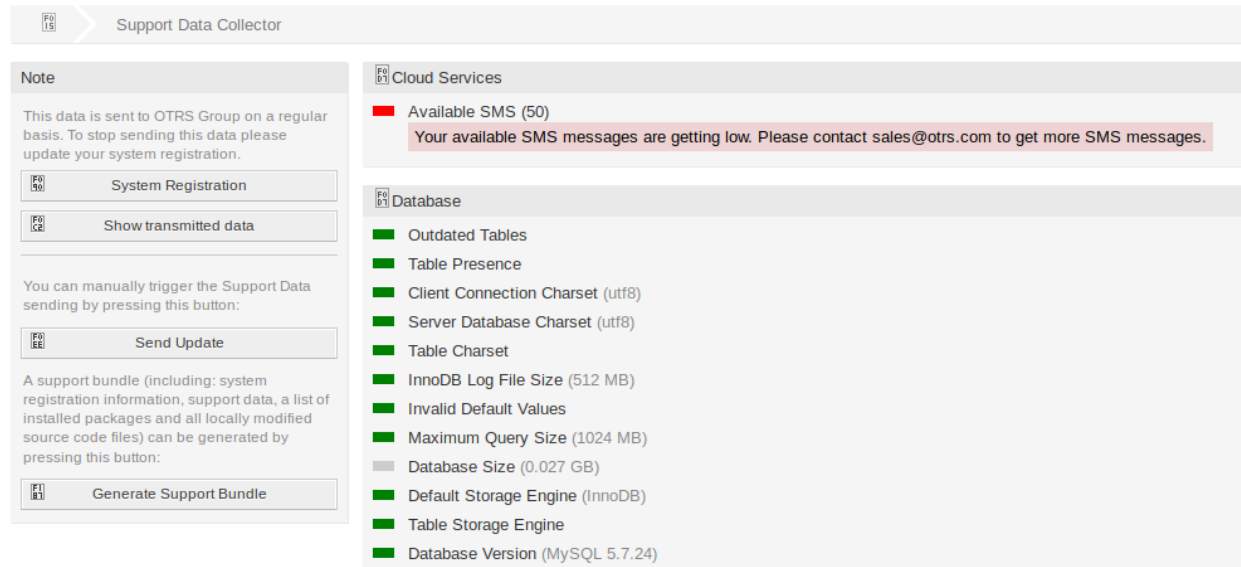
Fig. 3: Download Support Bundle Screen

1. Click on the *Generate Support Bundle* button in the left sidebar.

2. Download the generated support bundle.

3. Open it with an archive manager and review the content.

7.2.2 Collected Data

The screen contains several sections. Each section has some entries with a traffic light, that indicates the following:

- Gray LED means information, just display a value.

- Green LED means OK, the entry has a good value.

- Yellow LED means notification, you have to check the value, but it is not an error.

- Red LED means error, you have to do something to solve the issue.

Cloud Services Section

This section displays information about OTRS cloud services.

Available SMS This entry shows information about your available SMS messages. If they are getting low, the LED changes to red.

Database Section

This section displays information about the database used by OTRS.

Outdated Tables Display the outdated database tables. Green LED means, there are no outdated tables.

Table Presence Display whether all needed tables exist in the database or not.

Client Connection Charset Display the character set for the client connection. It must be utf8.

Fig. 4: Download Support Bundle Dialog

Server Database Charset Display the character set of the database server. It must be `utf8`.

Table Charset Display the character set of the database table. It must be `utf8`.

InnoDB Log File Size Display the log file size for InnoDB driver. It must be at least `512 MB`.

Invalid Default Values Display the invalid default values. Green LED means, there are no invalid default values.

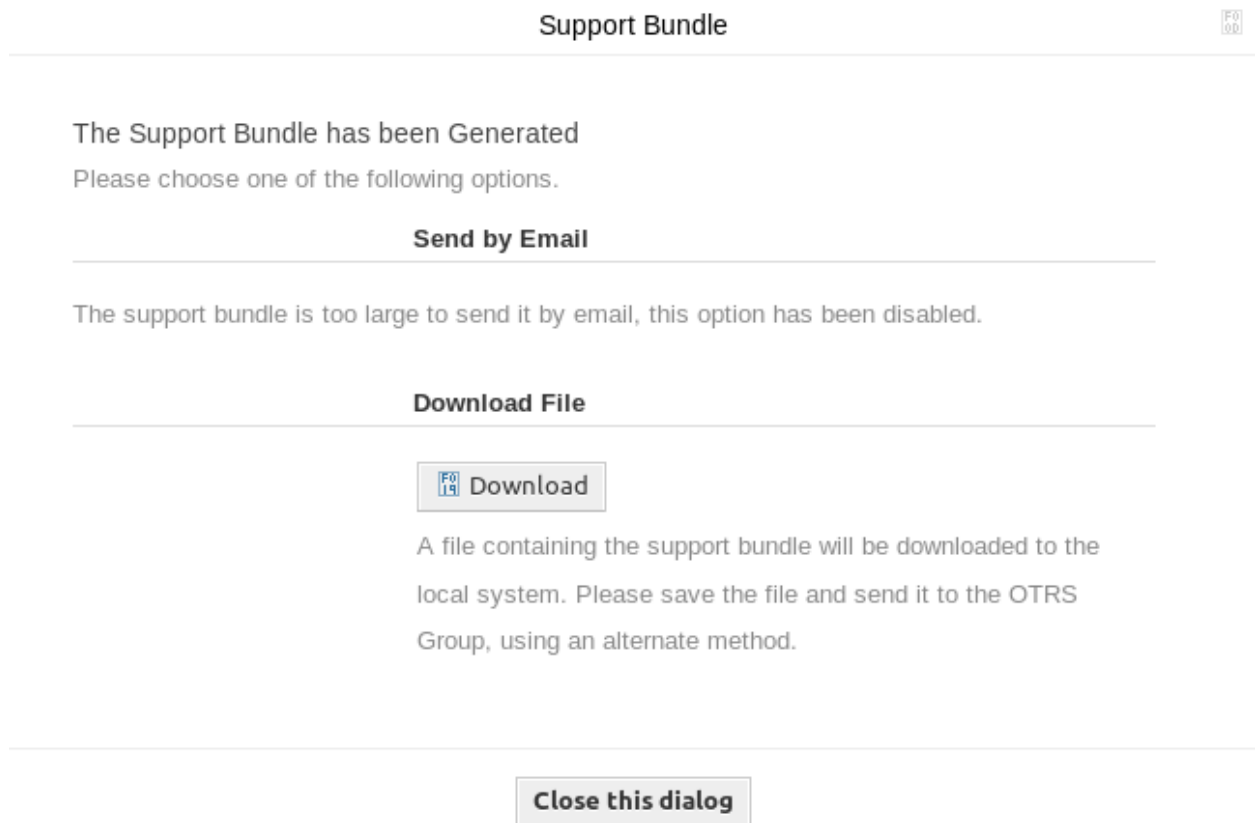**Maximum Query Size** Display the maximum size of a database query. It must be at least `1024 MB`.

Database Size Display the size of database. This is just an information.

Default Storage Engine Display the default storage engine of the database. It must be `InnoDB`.

Table Storage Engine Display the storage engine of the database tables. It must be `InnoDB`.

Database Version Display the database driver version. Green LED means, the version is high enough.

Document Search Section

This section displays information about document search and the used cluster.

Cluster The name of the used cluster.

Cluster Health Details Display some internal variable of the used cluster.

Indices Health Display information about indices.

Indices Size Display the size of each index.

Node Health Display information about the used node.

Operating System Section

This section displays information about the running operating system and installed software components.

Environment Dependencies Display information about environment dependencies.

OTRS Disk Partition Display the disk partition to where OTRS is installed.

Information Disk Partitions Usage Display the used space per disk partitions.

Distribution Display the distribution name of the operating system.

Kernel Version Display the kernel version of the operating system.

System Load Display the system load of the operating system. The system load should be at maximum the number of CPUs the system has (e.g. a load of 8 or less on a system with 8 CPUs is OK).

Perl Version Display the version of Perl.

Free Swap Space (%) Display the free swap space as percentages. There should be more than 60% free swap space.

Used Swap Space (MB) Display the used swap space in megabytes. There should be no more than 200 MB swap space used.

OTRS Section

This section displays information about the OTRS instance.

Article Search Index Status Display information about indexed articles.

Articles Per Communication Channel Display the number of articles per communication channels.

Communication Log Displayed aggregated information about communications.

Communication Log Account Status (last 24 hours) Display information about communication log account status in the last 24 hours.

Concurrent Users Details Display information about the logged in users at the same time separated by hourly.

Concurrent Users Display information about the number of maximum logged in users in the same time.

Config Settings Display some important configuration settings from system configurations.

Daemon Display whether the OTRS daemon is running or not.

Database Records Display the main OTRS object and the related number of records in the database.

Default Admin Password Green LED means, that the default administrator password was changed.

Email Sending Queue Display the number of emails that are queued for sending.

Domain Name Display the fully qualified domain name set in system configuration setting FQDN.

File System Writable Display whether the file system is writable or not.

Legacy Configuration Backups Green LED means, there are no legacy configuration backup files found.

Package Installation Status Green LED means, that all packages are installed correctly.

Package Framework Version Status Green LED means, that the OTRS framework version is suitable for the installed packages.

Package Verification Status Green LED means, that all installed packages are verified by the OTRS Group.

Session Config Settings Display the maximum allowed sessions per agents and customers.

Spooled Emails Display the number of emails that are in the sending pool.

SystemID Display the system identifier set in system configuration setting SystemID.

Ticket Index Module Display the ticket index module set in system configuration setting Ticket::IndexModule.

Invalid Users with Locked Tickets Display the number of users, who are set to invalid, but have some ticket locked for him.

Open Tickets Display the number of open tickets in the system. You will not have performance trouble until you have about 60,000 open tickets in your system.

Ticket Search Index Module Display the ticket search index module set in system configuration setting Ticket::SearchIndex::ForceUnfilteredStorage.

Orphaned Records In ticket_index Table Display the number of orphaned records in `ticket_index` table.

Orphaned Records In ticket_lock_index Table Display the number of orphaned records in `ticket_lock_index` table.

Time Settings Display timezone information for OTRS, for the calendars and for users.

UI - Agent Skin Usage Display the used skins per agents.

UI - Agent Theme Usage Display the used theme on the agent interface.

UI - Special Statistics Display some statistics about personal modifications like using favorites, custom menu ordering, etc.

OTRS Version Display the version number of OTRS.

7.3 System Registration

If the free trial or the registration period is expired, the system will lock itself. In these cases you have to register your system or you have to extend the registration.

Use this screen to register your system with the OTRS Group. The registration screen is available in the *System Registration* module of the *OTRS Group Services* group.
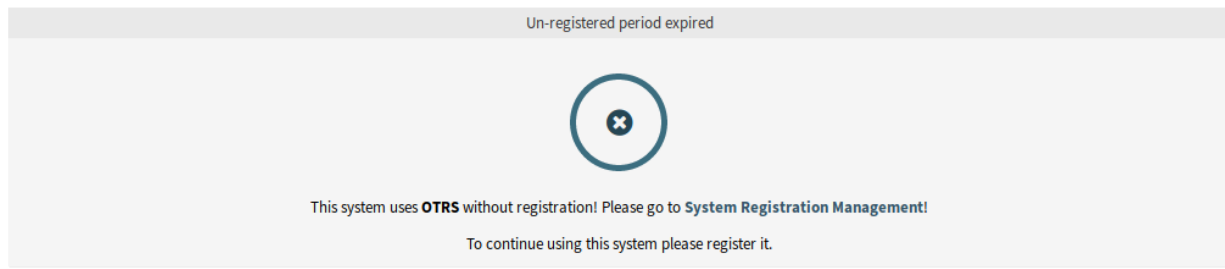

Fig. 5: Un-Registred System Screen

7.3.1 Manage System Registration

To register your system:

1. Obtain an OTRS ID. You have to register in the OTRS Portal. After the registration you will get your OTRS ID.

2. Go to the *System Registration* module of the *OTRS Group Services* group, and enter your OTRS ID and your password.
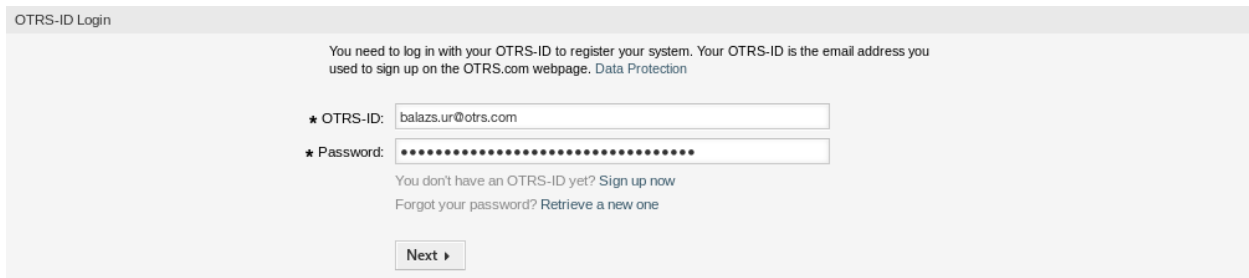

Fig. 6: System Registration - Add OTRS ID

3. Click on the *Next* button.

4. Select the system type and enter a description.

Fig. 7: System Registration - Select System Type

5. Click on the *Register* button.

6. Check your registration.

Fig. 8: Registered System

To edit the system registration:

1. Click on the *Edit details* button in the left sidebar.

2. Modify the system type and the description.

3. Click on the *Update* button.

To show the transmitted data:

1. Click on the *Show transmitted data* button in the left sidebar.

2. Review the data in JSON format.

See also:

Detailed explanation of the fields is available in the *Support Data Collector* chapter.

To overview the registered system:

1. Click on the *Overview the registered systems* button in the left sidebar.

2. Log in the OTRS Portal.

3. Review the list of registered systems.

Fig. 9: Edit System Registration Screen

Fig. 10: Overview of Transmitted Data Screen

To deregister a system:

1. Click on the *Deregister system* button in the left sidebar.

Note: You can't deregister your system if you're using the **STORM powered by OTRS™** or having a valid service contract.

Administration

Any system requires configuration. Configuring a system should be an easy task and the tools for configuration fit-for-purpose.

OTRS offers several administration tools to configure, monitor, control and extend OTRS.

This is the chapter *Administration*.

8.1 Calendars

When working with customers, resource planning and scheduling can be a complex task. Appointments enable you to meet your customers where and whenever needed.

OTRS supports this requirement with calendars. Calendars allow management of appointments and resources inside the ticket system. Connecting your tickets to scheduled tasks and making them available to all users to see. This feature adds transparency to show your teams workload and prevent users from promising resources which are not available.

Use this screen to manage calendars in the system. A fresh OTRS installation contains no calendars by default. The calendar management screen is available in the *Calendars* module of the *Administration* group.
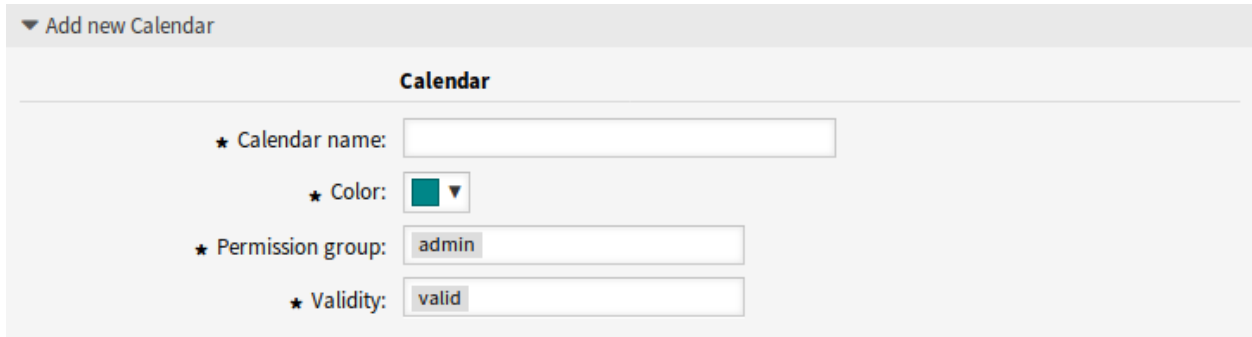
Fig. 1: Calendar Management Screen

8.1.1 Manage Calendars

To add a new calendar:

1. Click on the *Add Calendar* button in the left sidebar.

2. Fill in the required fields.

3. Click on the *Save* button.

Fig. 2: Add New Calendar Screen

> **Warning:** Calendars can not be deleted from the system. They can only be deactivated by setting the *Validity* option to *invalid* or *invalid-temporarily*.

To edit a calendar:

1. Click on a calendar in the list of calendars.

2. Modify the fields.

3. Click on the *Save* or *Save and finish* button.

Fig. 3: Edit Calendar Screen

To export a calendar:

1. Click on the export icon in the list of calendars.

2. Choose a location in your computer to save the `Export_Calendar_CalendarName.yml` file.

To import calendars:

1. Click on the *Browse⋯* button in the left sidebar.

2. Select a previously exported `.yml` file.

3. Click on the *Overwrite existing entities* checkbox, if you would like to overwrite the existing calendars.

4. Click on the *Import Calendar* button.

Note: If several calendars are added to the system, use the filter box to find a particular calendar by just typing the name to filter.

8.1.2 Calendar Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

General Calendar Settings

Calendar name * The name of this resource. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

Color * The calendar color that will be displayed in the calendar overview screens.

To change the calendar color, just select a new color from the color palette. You can chose from the pre-selected colors or define other colors by choosing it from the color selector or typing the hexadecimal value.

Permission group * Select which *Groups* can access the calendar.

Depending on the group field, the system will allow users the access to the calendar according to their permission level.

- Read only: users can see and export all appointments in the calendar.

- Move into: users can modify appointments in the calendar, but without changing the calendar selection.

- Create: users can create and delete appointments in the calendar.

- Read/write: users can manage the calendar itself.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

Calendar Ticket Appointments

Define rules for creating automatic appointments in this calendar based on ticket data. To add a new rule, click on the *Add Rule* button.

Start date Select a start date for the ticket appointment.

End date Select the end date for the ticket appointment.

Queues * Select one or more queues to narrow down for which tickets appointments will be automatically created.

Search attributes Additional search attributes can be added for further filtering by selecting an attribute and clicking on the button.

Fig. 4: Calendar Settings - Ticket Appointments

8.1.3 Import Appointments

If at least one calendar have been added to the system, it is possible to import some appointments into the calendar.

To import some appointments:

1. Click on the *Import Appointments* button in the left sidebar.

2. Upload an iCal file and select a calendar.

3. Click on the *Import appointments* button.

Fig. 5: Import Appointments Screen

Upload * Click on the *Browse⋯* button, and select a valid iCal (`.ics`) file to upload.

Calendar * Select an available calendar.

Note: If desired calendar is not listed here, please make sure that you have at least *create* permis-

---

sions.

Update existing appointments? If checked, all existing appointments in the calendar with same `UniqueID` will be overwritten.

8.2 Chat Channel

Being able to offer chat possibilities to customers is a must-have for many organizations. Depending on the amount of customer chat requests and the organization's structure, it must be possible to group chat requests.

OTRS offers chat channels with different permissions per channel, so it is, e.g. possible to have different chat channels for registered contract customers and public prospects.

Use this screen to add chat channels to the system. A fresh OTRS installation contains no chat channels by default. The chat channel management screen is available in the *Chat Channel* module of the *Administration* group.

Fig. 6: Chat Channel Management Screen

8.2.1 Manage Chat Channels

To add a chat channel:

1. Click on the *Add Chat Channel* button in the left sidebar.
2. Fill in the required fields.
3. Click on the *Save* button.

> **Warning:** Chat channels can not be deleted from the system. They can only be deactivated by setting the *Validity* option to *invalid* or *invalid-temporarily*.

To edit a chat channel:

1. Click on a chat channel in the list of chat channels.
2. Modify the fields.
3. Click on the *Save* or *Save and finish* button.

Fig. 7: Add Chat Channel Screen

Fig. 8: Edit Chat Channel Screen

8.2.2 Chat Channel Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

Name * The name of this resource. Any type of characters can be entered to this field including uppercase letters and spaces. The name will be displayed in the overview table.

Group * Select which *Groups* can access the chat channel.

Available to customer users Select the checkbox if you want to display the chat channel for customer users.

Available to public users Select the checkbox if you want to display the chat channel for public users.

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

Comment Add additional information to this resource. It is recommended to always fill this field as a description of the resource with a full sentence for better clarity, because the comment will be also displayed in the overview table.

8.3 Package Manager

Modular systems can be extended by adding additional software packages to the framework. Administrators need an easy way to see which features are installed in which version and for sure to add, update and remove packages.

OTRS uses the package manager to perform all package-related activities as mentioned above in the graphical interface.

Note: This module is only available when using On-Pemise or the ((otrs)) Community Edition. To see a list of installed modules, you may also see the *Support Data Collector*

Use this screen to install and manage packages that extend the functionality of OTRS. The package manager screen is available in the *Package Manager* module of the *Administration* group.

8.3.1 Manage Packages

Warning: The installation of packages which are not verified by the OTRS Group is not possible by default.

See also:

You can activate the installation of not verified packages in the system configuration setting Package::AllowNotVerifiedPackages.

Install Packages

To install a package from online repository:

1. Select an online repository from the dropdown in the left sidebar.
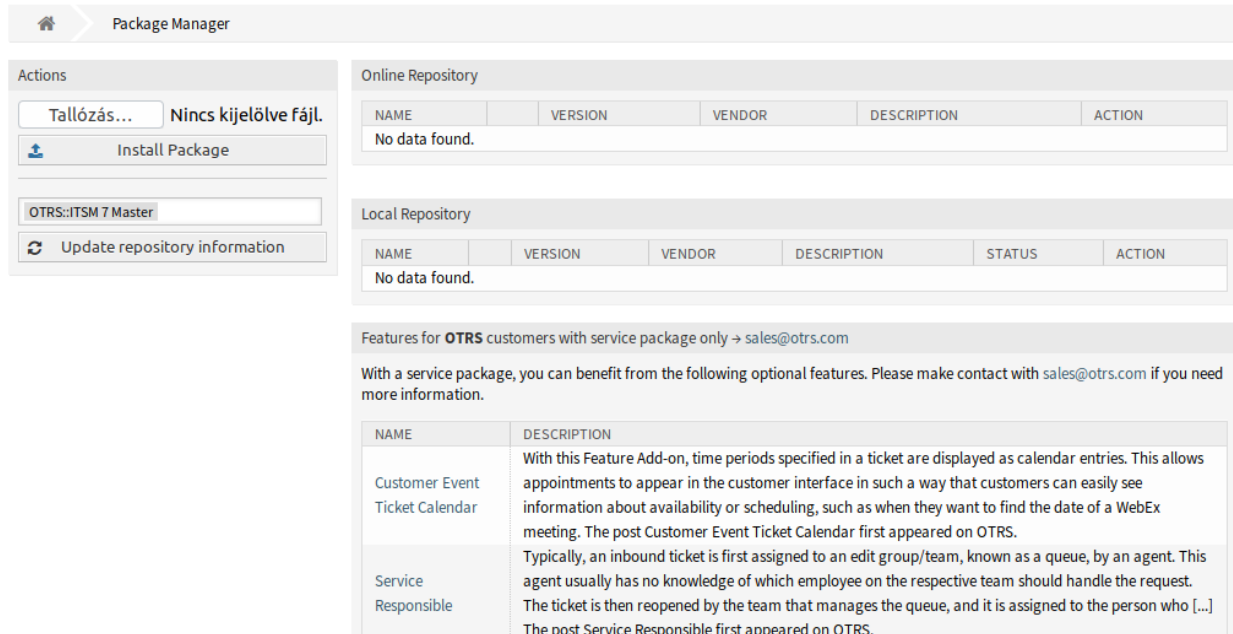

Fig. 9: Package Manager Screen

2. Click on the *Update repository information* button to refresh the available package list.

3. Select a package from the *Online Repository* widget and click on the *Install* in the last column.

4. Follow the installation instructions.

5. After installation, the package is displayed in the *Local Repository* widget.

Fig. 10: Online Repository Widget

See also:

The repository list can be changed in system configuration setting Package::RepositoryList.

To install a package from file:

1. Click on the *Browse⋯* button in the left sidebar.

2. Select an `.opm` file from your local file system.

3. Click on the *Install Package* button.

4. Follow the installation instructions.

5. After installation, the package is displayed in the *Local Repository* widget.

Fig. 11: Local Repository Widget

Update Packages

To update a package from online repository:

1. Check the available packages in the *Online Repository* widget if there is *Update* in the *Action* column.

2. Click on the *Update* link.

3. Follow the update instructions.

4. After updating, the package is displayed in the *Local Repository* widget.

To update a package from file:

1. Click on the *Browse⋯* button in the left sidebar.

2. Select an `.opm` file which is newer than the installed package.

3. Click on the *Install Package* button.

4. Follow the update instructions.

5. After updating, the package is displayed in the *Local Repository* widget.

To update all packages:

1. Click on the *Update all installed packages* button in the left sidebar.

2. Follow the update instructions.

3. After updating, the package is displayed in the *Local Repository* widget.

This feature reads the information of all defined package repositories and determines if there is a new version for every installed package in the system and calculates the correct order to update the packages respecting all other package dependencies, even if new versions of existing packages require new packages not yet installed in the system.

Note: If there are packages installed that do not have a corresponding repository defined in the system, they can not be updated by this feature and will be marked as failed (due to the missing on-line repository).

Reinstall Packages

If at least one of the package files are modified locally, the package manager marks the package as broken, and need to reinstall.

To reinstall a package:

1. Select the package from the *Local Repository* widget that are marked for reinstall.

2. Click on the *Reinstall* link in the *Action* column.

3. Follow the installation instructions.

Uninstall Packages

To uninstall a package:

1. Select the package from the *Local Repository* widget.

2. Click on the *Uninstall* link in the *Action* column.

3. Follow the uninstall instructions.

Fig. 12: Local Repository Widget

8.4 Performance Log

Performance is always a crucial topic for web-based applications. Administrators need to have the possibility to see which activities use which time to execute over time to identify potential increases over time and take proper measures.

OTRS supports this requirement with the performance log. The performance log can, when it is activated, log activities and display various activity types and their min/max/average response time and a number of requests for different timeframes.

Use this screen to view the performance log of OTRS. The log overview screen is available in the *Performance Log* module of the *Administration* group.

Note: To be able to see performance log in OTRS, you have to enabled its setting first.

If the performance log is enabled, OTRS collects all the information about requests and responses in an overview table.

Clicking on an entry will show the details.

8.5 Session Management

Administrators of web-based applications need to have access to the information who's connected to the system and, if required, delete unwanted sessions.

OTRS offers the session management to quickly get an overview of agent and customer sessions, unique agents and customers currently logged in and the ability to kill sessions with just a mouse click.
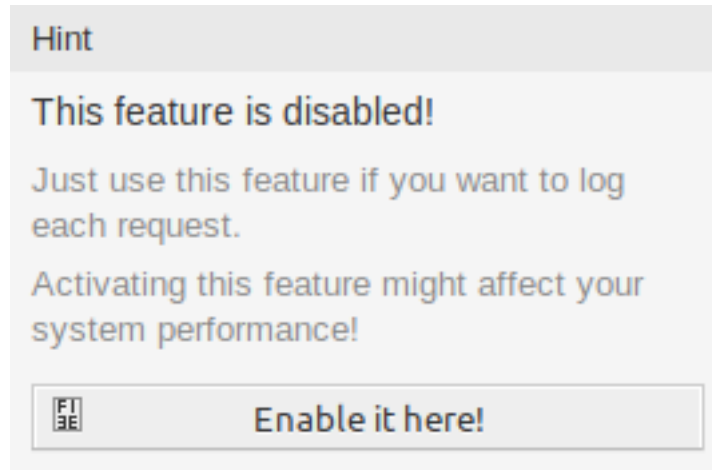

Fig. 13: Enable Performance Log Support

Use this screen to manage logged in user sessions in the system. The session management screen is available in the *Session Management* module of the *Administration* group.

8.5.1 Manage Sessions

To see a logged in user session:

1. Select a logged in user from the list of sessions.

2. Click on the token.

3. See the details.

To kill a session:

1. Select a logged in user from the list of sessions.

2. Click on the *Kill this session* link in the *Kill* column.

> **Warning:** Clicking the *Kill this session* link removes the session immediately without confirmation. The unsaved work of the user will be lost!

To kill all sessions:

1. Click on the *Kill all sessions* button in the left sidebar.

> **Warning:** Clicking the *Kill all session* link removes all sessions immediately without confirmation. The unsaved work of the users will be lost!

Note: If several users are logged in to the system, use the filter box to find a particular session by just typing the name to filter.

Overview

Range (last 5 m)

INTERFACE	REQUESTS	MIN RESPONSE	MAX RESPONSE	AVERAGE RESPONSE
Agent	4	0s	1s	0.75s
Admin	2	0s	1s	0.5s
AdminSystemConfiguration&AJAXNavigati...	1	1s	1s	1s
AdminSystemConfiguration;ChallengeTok...	1	1s	1s	1s

Range (last 30 m)

INTERFACE	REQUESTS	MIN RESPONSE	MAX RESPONSE	AVERAGE RESPONSE
Agent	4	0s	1s	0.75s
Admin	2	0s	1s	0.5s
AdminSystemConfiguration&AJAXNavigati...	1	1s	1s	1s
AdminSystemConfiguration;ChallengeTok...	1	1s	1s	1s

Range (last 1 h 0 m)

INTERFACE	REQUESTS	MIN RESPONSE	MAX RESPONSE	AVERAGE RESPONSE
Agent	4	0s	1s	0.75s
Admin	2	0s	1s	0.5s
AdminSystemConfiguration&AJAXNavigati...	1	1s	1s	1s
AdminSystemConfiguration;ChallengeTok...	1	1s	1s	1s

Range (last 2 h 0 m)

INTERFACE	REQUESTS	MIN RESPONSE	MAX RESPONSE	AVERAGE RESPONSE
Agent	4	0s	1s	0.75s
Admin	2	0s	1s	0.5s
AdminSystemConfiguration&AJAXNavigati...	1	1s	1s	1s
AdminSystemConfiguration;ChallengeTok...	1	1s	1s	1s

Range (last 1 d 0 h)

INTERFACE	REQUESTS	MIN RESPONSE	MAX RESPONSE	AVERAGE RESPONSE
Agent	4	0s	1s	0.75s
Admin	2	0s	1s	0.5s
AdminSystemConfiguration&AJAXNavigati...	1	1s	1s	1s
AdminSystemConfiguration;ChallengeTok...	1	1s	1s	1s

Range (last 2 d 0 h)

INTERFACE	REQUESTS	MIN RESPONSE	MAX RESPONSE	AVERAGE RESPONSE
Agent	4	0s	1s	0.75s
Admin	2	0s	1s	0.5s
AdminSystemConfiguration&AJAXNavigati...	1	1s	1s	1s
AdminSystemConfiguration;ChallengeTok...	1	1s	1s	1s

Fig. 14: Performance Log Screen

Fig. 15: Performance Log Details Screen

Fig. 16: Session Management Screen

Fig. 17: Session Management Details Screen

Fig. 18: Session Kill Screen

8.6 SQL Box

In a ticket system, it is usually possible to have statistics that show a summarized view of ticket information when needed. Sometimes, it is however required to access the database directly to have even more individual reports, allow external statistic tools to query information from the system or perform in-depth analysis of a ticket behavior.

Direct access to the database requires access to the command line which an administrator may not have. In addition to the username and password for the command line access, which is not given by all organizations, the username and password for the database are needed. These hurdles can prevent an administrator from using the database for more complex searches and operations.

OTRS offers application administrators the SQL Box in the graphical interface. It allows read access to the database. All results can be seen in the GUI or exported to CSV/Excel files.

Use this screen to query SQL statements in the system. The SQL box screen is available in the *SQL Box* module of the *Administration* group.

Fig. 19: SQL Box Screen

8.6.1 Query SQL statements

Note: The SQL statements entered here are sent directly to the application database. By default, it is not possible to change the content of the tables, only SELECT queries are allowed.

See also:

It is possible to modify the application database via SQL box. To do this, you have to enabled the system configuration setting AdminSelectBox::AllowDatabaseModification. Activate it to your own risk!

To execute an SQL statement:

1. Enter the SQL statement into the SQL box.
2. Select the result format.
3. Click on the *Run Query* button.

8.6.2 SQL Settings

The following settings are available when adding or editing this resource. The fields marked with an asterisk are mandatory.

Fig. 20: SQL Box Widget

SQL * The SQL statement to be queried.

Limit Enter a number to limit the result to at most this number of rows. Leaving this field empty means there is no limit.

Note: Don᾽t use `LIMIT` inside the SQL statement. Always use this field to limit the number of results.

Result format The format of the SQL statement result.

> **HTML** The results are visible below the SQL box in a new widget.
>
> **CSV** The results can be downloaded in comma separated plain text format.
>
> **Excel** The results can be downloaded as Microsoft Excel spreadsheet.

8.6.3 SQL Examples

To list some information about agents and output the results as HTML:

```
SELECT id, login , first_name, last_name, valid_id FROM users
```


Fig. 21: SQL Box Result

To list all tables, you need to leave empty the *Limit* field and run the following query:

```
SHOW TABLES
```

To show the structure of the `users` table, you need to limit the results to 1 and run the following query (see the table header for the columns):

```
SELECT * FROM users
```

8.7 System Configuration

Modern systems have many ways to configure their behavior. Some use configuration files edited on the command line, and some use a graphical interface (and save the information to config files in the background), yet others use a database. Maintaining changes and auditing can sometimes be an issue, as it's not always clear who made a change. Making bulk changes is not always possible, and rolling back changes a chore.

OTRS uses a comfortable graphical interface to configure the system. All changes to the default system configuration are stored in the database and can be audited ("who changed a setting, when, what was the old and what is the new value?") and rolled back to a previous state in case of misconfiguration.

Comfortable search allows finding the needed settings quickly and easily.

Note: Using the OTRSSystemConfigurationHistory package, you can easily roll back changes made by users. Contact sales@otrs.com to add this feature to your system.

Use this screen to manage the system configuration settings. OTRS brings about 2200 configuration settings. The system configuration management screen is available in the *System Configuration* module of the *Administration* group.

8.7.1 Manage System Configurations

Note: For security reasons, the configuration settings for the database connection cannot be changed in the graphical user interface of the system configuration. These have to be set manually in `Kernel/Config.pm`.

To modify a system configuration, you need to do several steps. The following example shows you, how to find, modify, deploy and reset the system configuration `FirstnameLastnameOrder`.

1. Find the system configuration by entering a search term `lastname` into to search box.

   With the full text search, all configuration settings can be scanned for one or more keywords. The full text search not only searches through the names of the configuration settings, but also the descriptions and values. This allows an element to be found easily even if its name is unknown.

2. Select the setting from the search results.

3. Click on the header of the widget to see the options.

4. Hover the mouse over the widget body to see the *Edit this setting* button.

5. Click on the *Edit this setting* button to activate the edit mode. In edit mode the widget gets an orange border on the left.

   Note: If a setting is currently edited by another administrator, it is not possible to get access to the edit mode for that setting until the other administrator finished their work.

   ---

6. Change the value of the setting. Editing can be cancelled by clicking the *Cancel* button on the right or hitting the *Escape* key on your keyboard. When editing is cancelled, all changes made during the current editing session are discarded.

7. Click on the *Save* button. If the modification is saved, the widget gets a green border on the left.
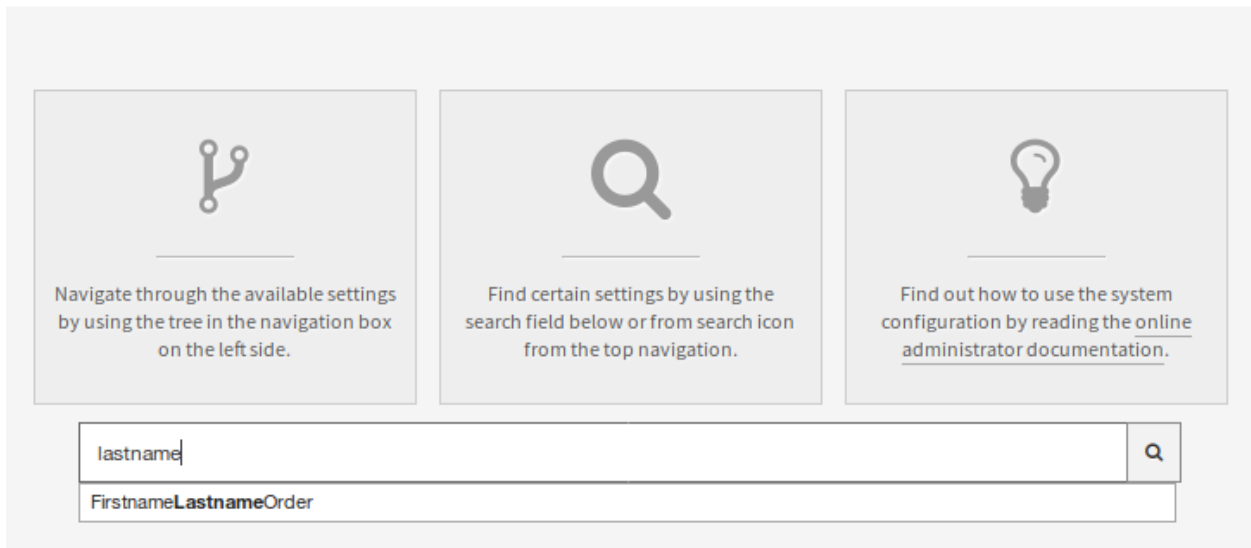

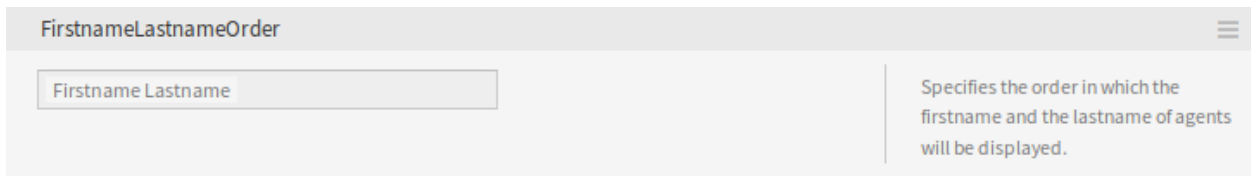Fig. 22: System Configuration - Search For Setting

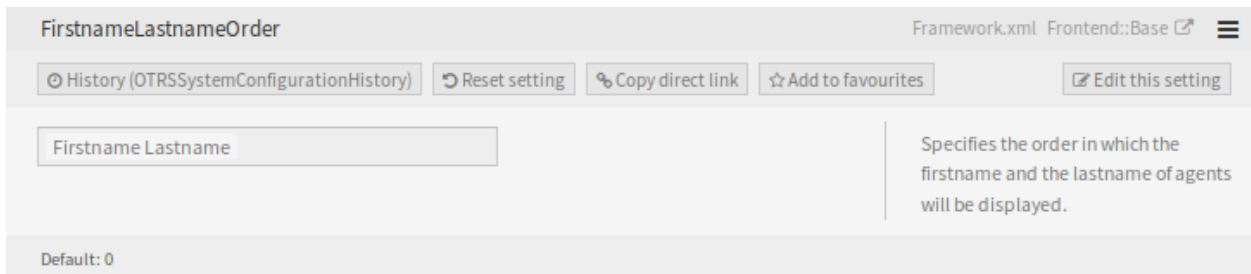Fig. 23: System Configuration - Setting Found

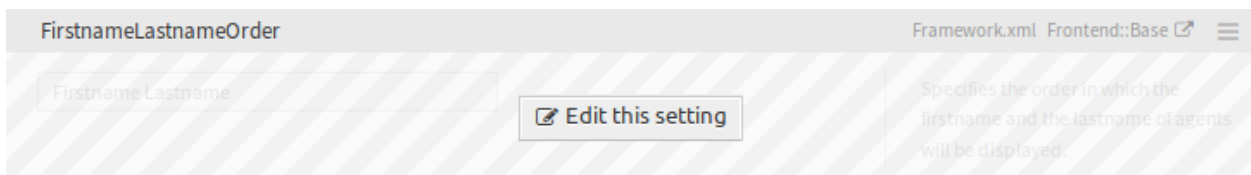Fig. 24: System Configuration - Setting Expanded

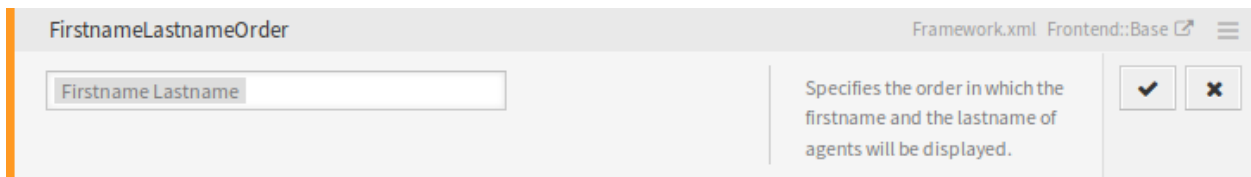Fig. 25: System Configuration - Setting Hovered

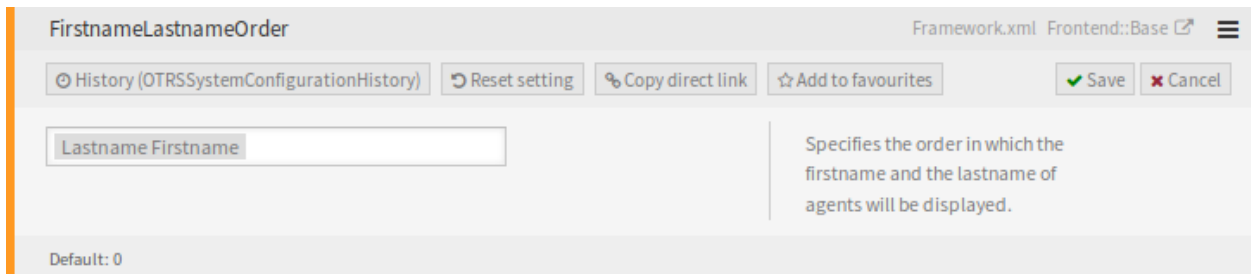Fig. 26: System Configuration - Setting Clicked

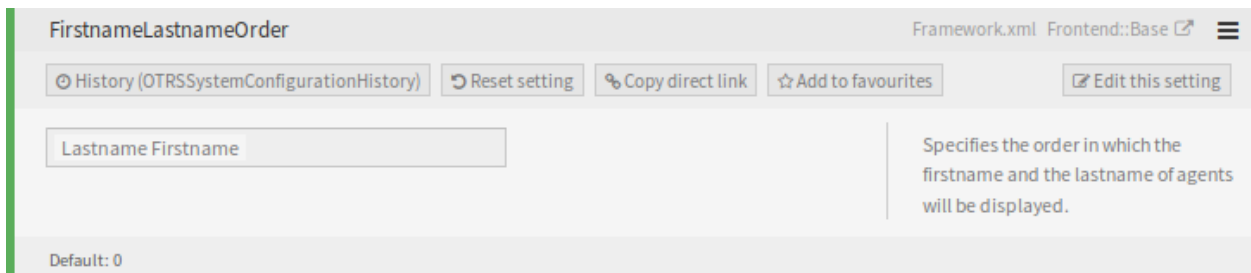Fig. 27: System Configuration - Setting Modified

Fig. 28: System Configuration - Setting Saved

8. Go back and click on the *Deployment* button in the left sidebar. You are also notified in the notification bar, that you have undeployed settings.
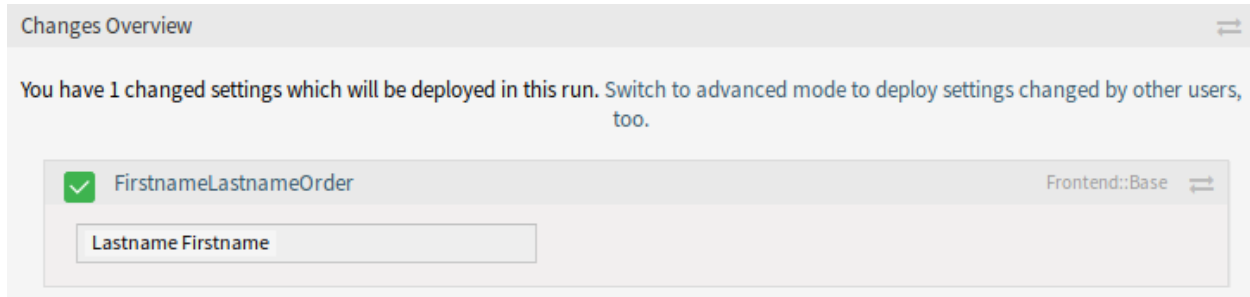

Fig. 29: System Configuration - Setting Changes

9. Review the changes.

10. You can click on the   button in the top right corner to compare the changes side-by-side.
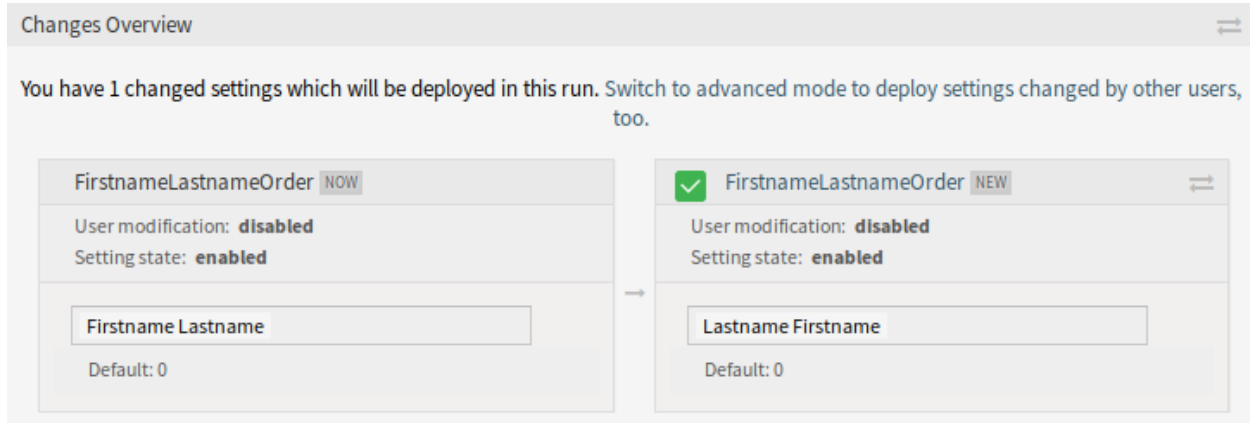

Fig. 30: System Configuration - Setting Different

11. Click on the *Deploy selected changes* button. If several settings are changed, it is possible to deploy on the selected settings.

12. Add a deployment comment, that explain for other administrators, what is changed and why. Use full sentence here.

13. Go back and search again the term `lastname` to find the modified setting. The widget has a gray border on the left to indicate, this setting is modified.

14. To reset the setting, click on the header of the widget to see the options. Then click on the *Reset setting* button.

15. Click on the *Confirm* button.
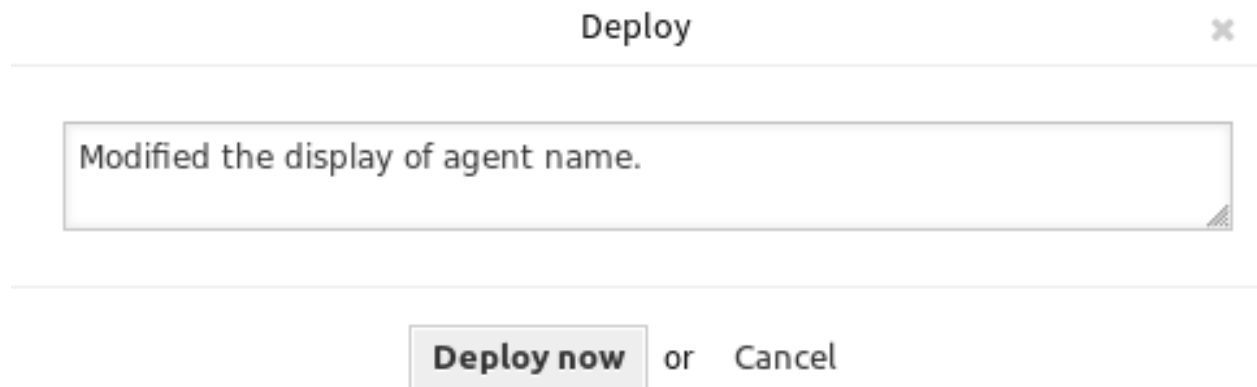
16. Deploy the settings.

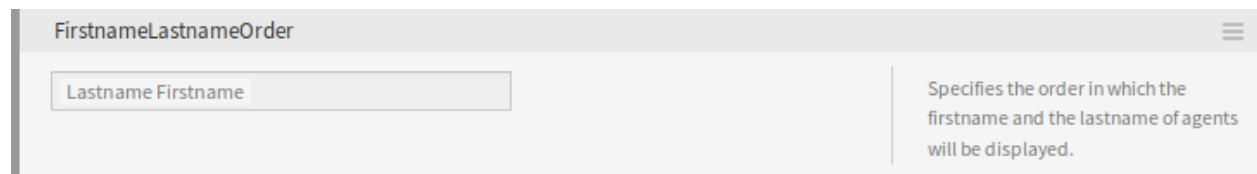Fig. 31: System Configuration - Deploy Setting

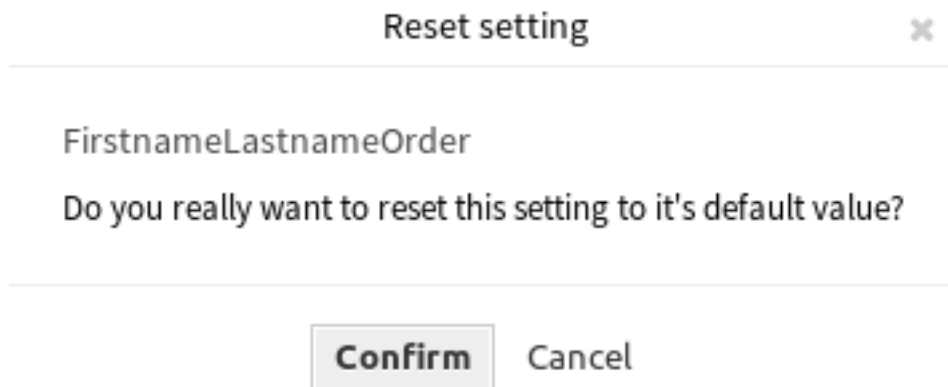Fig. 32: System Configuration - Setting Deployed

Fig. 33: System Configuration - Reset Setting

8.7.2 Using The Navigation Tree

Each configuration setting is classified by a category and a navigation group. Navigation groups are individual elements in the main navigation tree. By selecting one of these navigation entries, all settings assigned to the selected group will be shown. As long as no extensions are installed, the category selection is automatically hidden, but as soon as a package is installed which brings its own configuration settings (such as ITSM modules or Survey), the category selection will be revealed. Selecting a category makes the main navigation tree show only the navigation groups belonging to the selected category.
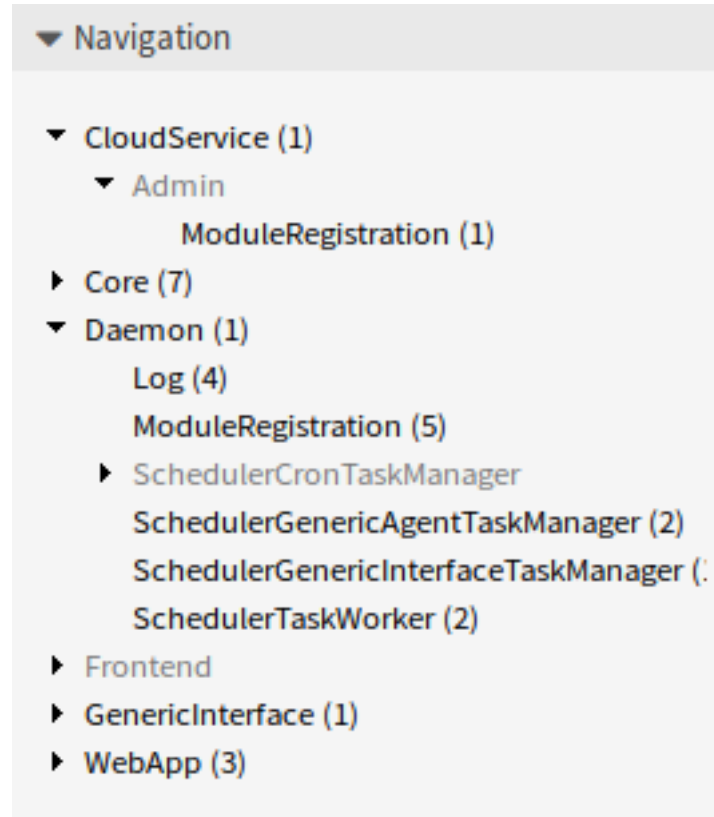
Fig. 34: System Configuration Navigation Tree

To expand an element, click on the arrow next to it. The number between the parentheses indicates how many settings belongs to this element. If an element has no number, this element is only a wrapper category. It doesn't have settings, it has only sub-categories.

Using the navigation tree results the same as search for a setting. If you would like to see for a setting to which group belongs to, expand it by clicking on the header of the widget.

For example `FirstnameLastnameOrder` can be found in *Frontend → Base*.

8.7.3 Import And Export System Configurations

Click on the *Import & Export* button in the left sidebar to access the import-export screen.

To export the system configurations:

1. Click on the *Export current configuration* button in the *Export* widget.
2. Save the `Export_Current_System_Configuration.yml` file to your local file system.
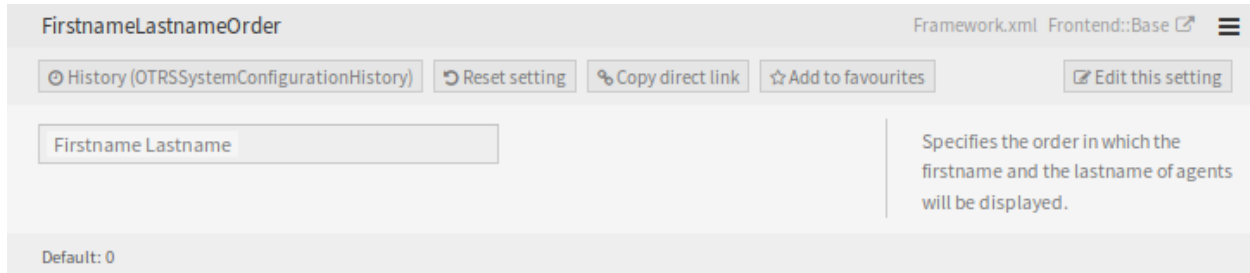
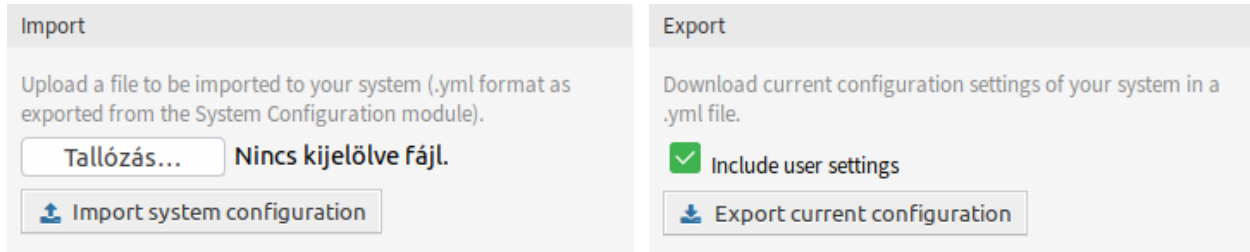Fig. 35: System Configuration - Setting Expanded

Fig. 36: System Configuration - Import and Export

3. Rename the file to a more descriptive name.

To import the system configurations:

1. Click on the *Browse⋯* button in the *Import* widget.

2. Select a previiusly exported `.yml` file.

3. Click on the *Import system configuration* button.

8.8 System Log

Professional systems log their activities in one or more log files to help administrators when troubleshooting or to get an overview of what is going on in their system on a detailed level.

These logs are usually not available to application administrators without a certain level of permissions, and skills, on the operating system.

OTRS allows application administrators to access the system log comfortably by using the graphical interface without the need to have access to the server's command shell. The administrator can decide which level of logging is needed, to make sure that the log files are not unnecessarily filled.

Use this screen to view log entries of OTRS. The log overview screen is available in the *System Log* module of the *Administration* group.

Each line in the log contains a timestamp, the log priority, the system component and the log entry itself.

Note: If several log entries are displayed in the log, use the filter box to find a particular log entry by just typing the name to filter.

Fig. 37: System Log Screen

8.8.1 System Log Configuration Options

Core → Log

8.9 System Maintenance

System maintenance is a crucial part of the work done by all system administrators. Some maintenance tasks require to put the operation on hold. In such cases, pro-active information to users is essential to raise their awareness and understanding.

OTRS supports this with the System Maintenance Module, which allows administrators to schedule maintenance windows in advance and inform users with login messages and notifications about the planned maintenance. Also, during a scheduled maintenance window, only administrators are allowed to log into the system.

Use this screen to schedule system maintenance for the system. The system maintenance management screen is available in the *System Maintenance* module of the *Administration* group.

Fig. 38: System Maintenance Management Screen

8.9.1 Manage System Maintenance

To schedule a system maintenance:

1. Click on the *Add New System Maintenance* button in the left sidebar.

2. Fill in the required fields.

3. Click on the *Save* button.

Fig. 39: Schedule New System Maintenance Screen

To edit a system maintenance:

1. Click on a system maintenance entry in the list of system maintenance entries or you are already redirected here from *Add New System Maintenance* screen.

2. Modify the fields.

3. Click on the *Save* or *Save and finish* button.

To delete a system maintenance:

1. Click on the trash icon in the last column of the overview table.

2. Click on the *Confirm* button.

Note: If several system maintenance entries are added to the system, use the filter box to find a particular system maintenance by just typing the name to filter.

Fig. 40: Edit System Maintenance Information Screen

Fig. 41: Delete System Maintenance Screen

8.9.2 System Maintenance Settings

Start date Select a date from when the system maintenance is scheduled.

Stop date Select a date when the system maintenance is planned to finish.

Comment * The name of this resource. Any type of characters can be entered to this field including upper-case letters and spaces. The comment will be displayed in the overview table.

Login message If this text is given, it will be displayed in the login screen, if the next option is checked.

    See also:

There are some default system maintenance massage set in the system configuration. For more information see the following system configuration settings:

- SystemMaintenance::IsActiveDefaultLoginErrorMessage
- SystemMaintenance::IsActiveDefaultLoginMessage
- SystemMaintenance::IsActiveDefaultNotification

Show login message If checked, the login message is displayed in the login screen of OTRS.

Notify message If this text is given, a notification will be displayed in the agent interface before the start of the system maintenance.

    See also:

Set the minutes a notification is shown for notice about upcoming system maintenance period in system configuration setting:

- SystemMaintenance::TimeNotifyUpcomingMaintenance

Validity * Set the validity of this resource. Each resource can be used in OTRS only, if this field is set to *valid*. Setting this field to *invalid* or *invalid-temporarily* will disable the use of the resource.

Manage Sessions This widget gives an overview about the currently logged in users. It is possible to kill each sessions by clicking on the *Kill this session* links. You can also kill all sessions except yours by clicking on the *Kill all Sessions, except for your own* button.

Fig. 42: Edit System Maintenance - Manage Sessions

CHAPTER 9

Glossary

Activity Part of the process management.

Agent An agent is a users which services customer users. The person working for your organization.

Back end A configuration file, module, script or other functional item within OTRS which is not reachable via the browser.

Calendar Defines working hours, time-zone, and holidays to be applied when using *escalation times*.

Customer Physical organizations to which customer users are assigned. These provide the function to group users together which belong to a single organization.

Customer User Physical persons, and their contact data, which belong to a Customer. These are the people raising tickets.

Dynamic Field A field used in tickets and articles to extend the data which can be saved in a ticket or article. They are saved from values in the database or accessed from outside resources.

Escalation Times The defined amount of working time before a ticket breeches an agreement.

Front end The graphical interface to OTRS as viewed in a browser.

Group This is a resource within OTRS. An *agent* or a *customer* can be assigned permissions to this resource as needed. Additionally, they can be used for access control, processes and web services.

Invoker An invoker is a special perl module which allows OTRS to provide information to a remote system via REST or HTTP. Invokers must be developed in perl by a back end developer.

Mapping A mapping allows OTRS to provide inbound and outbound translation of data allowing us to offer a specific data construction to rebuild incoming structures to meet our needs.

Operation Similar to a Webhook, a provider operation offers a specific sub-set of OTRS Perl API functionality to external systems.

Process Part of the process management.

Process Path Part of the process management.

Resource A resource is any object which has effective permissions. This can be, but is not limited to, a ticket, dashboard widget, statistic, or module.

Screen A graphical interface to OTRS viewed in a browser. (see also *Front end*)

Service A means of delivering added value to customers by making it easier for customers or helping them to achieve their desired results without them having to personally bear the responsibility for specific costs and risks.

Service Level Agreement A service level agreement (SLA) is a contract between a service provider (either internal or external) and the end user that defines the level of service expected from the service provider. SLAs are output-based in that their purpose is specifically to define what the customer will receive.

Service Request (see also *Ticket*)

Sequence Flow Part of the process management.

Sequence Flow Action Part of the process management.

SLA (see also *Service Level Agreement*)

SMS SMS (short message service) is a text messaging service component of most telephone, internet, and mobile-device systems. It uses standardized communication protocols to enable mobile devices to exchange short text messages.

Ticket A ticket is a collection of all communications with a customer during the course of a service request. A ticket contains article, which are the communication received from or sent to customers, agents, external systems, etc. tickets belong to a customer user, are assigned to agents and reside in queues.

Transport A transport is the method choosen for communication. OTRS Support REST and SOAP.

User Task Activity Dialog Part of the process management.

Working Time A definition of minutes passed during the defined working hours of any *calendar*.

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