

OTRS::ITSM Administration Manual

Release 8.0

OTRS AG

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CHAPTER 1

Introduction

This manual is intended for OTRS::ITSM administrators and users to provide information on the basic use of OTRS::ITSM by IT service managers, IT service staff (agents) and end users (customers). Information pertaining to the installation, configuration and administration of OTRS::ITSM is only provided if there are differences to the OTRS core product or for functions, which only exist in OTRS::ITSM.

IT is expected to consistently deliver high service quality in an increasingly complex field. In this context, effective and efficient incident and problem management are indispensable. However, IT service management remains a task almost impossible if there is no consistent and up-to-date database with information about the state and configuration of the IT infrastructure.

The IT Infrastructure Library®, short ITIL®, is a series of books published by the United Kingdom's Office of Government Commerce (OGC), which generically combine best practice approaches to designing, providing, operating and managing IT services. ITIL does not focus on the technology but the services provided by the IT and comprises information on processes, roles, responsibilities, potential problem fields/resolutions, and definitions of terms.

ITIL has established itself as de facto standard over the past years and its circulation in IT organizations has contributed considerably to the development of a collective awareness and consistent terminology for IT service management. However, ITIL only describes **who should do what** and what should be considered along the way. In order to cover as wide a user group as possible, it does not or to a little extent address the issue of how to do things. Therefore, no implementable information is given for particular industries, companies, or manufacturers.

In December 2005, the ITIL based ISO/IEC 20000 industry standard for IT service management was published. IT organizations can apply for ISO/IEC 20000 certification and prove their conformity.

The continuing boom caused demand for IT service management tools, which could represent the ITIL-based processes. So far, only proprietary solutions existed. Because of their considerable complexity, most of these tools are only affordable for large companies and effective in large IT departments.

The development of OTRS::ITSM was started as a result of the great success of the OTRS framework in order to combine the globally accepted, public ITIL recommendations with the benefits of open-source software.

OTRS::ITSM was the first real-world ITIL compliant IT service management solution on open-source basis, built on the solid basis of OTRS with its over thousands known OTRS installations and its community.

OTRS::ITSM is practically-oriented. This was accomplished by developing it in collaboration with ITIL consultants and with some of OTRS Groups' customers.

The service-desk and ticket system solution OTRS is the basis for the ITIL compliant IT service management solution OTRS::ITSM, its incident management, problem management, service level management, configuration management modules, and integrated CMDB.

Just like ITIL, OTRS::ITSM does not claim to be an *out-of-the-box* solution for all tasks and questions arising in IT service management. It is, in fact, supposed to serve as a flexible, stable and easy to understand information platform that can be adapted to meet the requirements of virtually every organization.

Therefore, please excuse us for bringing the following to your attention: The use of an ITIL aligned tool such as OTRS::ITSM only makes sense if processes, people, and products (IT services) are truly ITIL aligned.

Without the thoughtful tailoring of generic ITIL processes to meet the requirements of the specific business scenario, OTRS::ITSM will not achieve a discernible improvement of the key performance indicators of IT service management.

You should also be aware of the fact that successful ITIL implementation projects typically take up to a year and longer. Their scope and impact on the organization is not to be underestimated. However, we would like to mention that a neatly implemented ITIL aligned ITSM tool can help to save time and money, as the process support of the tool aids and accelerates the process of organizational realignment.

Note: The implementation of OTRS::ITSM is based on ITIL v3.

OTRS::ITSM supports the following features and processes, which are usually designed during the first phase of an ITIL implementation:

- Incident Management
- Problem Management
- Service Level Management
- Configuration Management Database

A more detailed description of use and adaptation of the system can be found in the following sections. Please note that the each OTRS::ITSM package can be installed independently and that their names correspond to their respective ITIL topics.

Note: The ITSM packages are installed into **OTRS** by the *Customer Solution Team*. In case of *On-Premise* systems, the customer can install the packages from the package manager, when the *Customer Solution Team* added the selected packages to the repository. To install a package, please contact the *Customer Solution Team* via support@otrs.com or in the OTRS Portal.

Service Management

The service desk (which, according to ITIL, is not a process but a function) is usually the ticket system's main field of application. All user messages and notifications from system monitoring and internal IT organization converge here. The ITIL service management process, closely interwoven with the service desk, describes which work steps, information, escalations and/or interfaces are relevant in connection with the processing of incidents or service requests.

This package adds new objects and basic functionalities needed for common features and processes of ITIL implementation. It contains the general catalog, which is the basic for ITSM relevant configurations in the service management. Additionally, adds new statistics to the system for ensuring that all service level agreements are appropriate and satisfy the agreements, as well as to monitor and report on service levels.

The incident and problem management processes within OTRS::ITSM are based on ITIL recommendations and ITIL terminology. At the same time, user comfort was a main consideration, and terms known from OTRS have been retained as much as possible.

2.1 Administrator Interface

This chapter describes the new features that are available in the administrator interface after installation of the package.

2.1.1 Ticket Settings

After installation of the package a new module will be available in the administrator interface. A new state is added to the ticket states and some new types are added to ticket types. Furthermore, *Service Level Agreements* and *Services* screens are extended with some new fields.

2.1.1.1 Criticality Impact Priority

Use this screen to manage the criticality impact priority matrix. The management screen is available in the *Criticality Impact Priority* module of the *Ticket Settings* group.

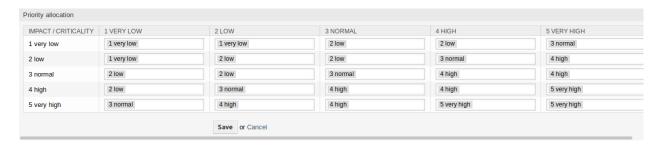


Fig. 1: Criticality Impact Priority Screen

2.1.1.2 Service Level Agreements

The service level agreement management screen is available in the *Service Level Agreements* module of the *Ticket Settings* group.

Service Level Agreement Settings

Only those settings are described here, that are added by the package. The explanation of other settings can be found in the administrator manual. The fields marked with an asterisk are mandatory.

Type Select a type for the service level agreement. The possible values come from *General Catalog* added by the package.

Minimum Time Between Incidents (minutes) You can define here the minimum time between incidents.

2.1.1.3 Services

The service management screen is available in the *Services* module of the *Ticket Settings* group.

Service Settings

Only those settings are described here, that are added by the package. The explanation of other settings can be found in the administrator manual. The fields marked with an asterisk are mandatory.

Type Select a type for the service. The possible values come from *General Catalog* added by the package.

Criticality Select a criticality for the service. The possible values come from *General Catalog* added by the package.

2.1.1.4 States

After installation of the package a new state is added to the system. The state management screen is available in the *States* module of the *Ticket Settings* group.

New State

closed with workaround This end state is for tickets, that are closed successfully, but with a workaround.

Add SLA	
* SLA:	
Type:	Availability
Service:	
Calendar:	
Escalation - first response time	(Notify by
(minutes):	0 = no escalation - 24 hours = 1440 minutes - Only business hours are counted.
Escalation - update time (minutes):	(Notify by
	0 = no escalation - 24 hours = 1440 minutes - Only business hours are counted.
Escalation - solution time (minutes):	(Notify by
	0 = no escalation - 24 hours = 1440 minutes - Only business hours are counted.
Minimum Time Between Incidents	
(minutes):	
* Validity:	valid
Comment:	
Dialog message:	
	Is being displayed if a customer chooses this SLA on ticket creation.
	Save or Cancel

Fig. 2: Add Service Level Agreement Screen

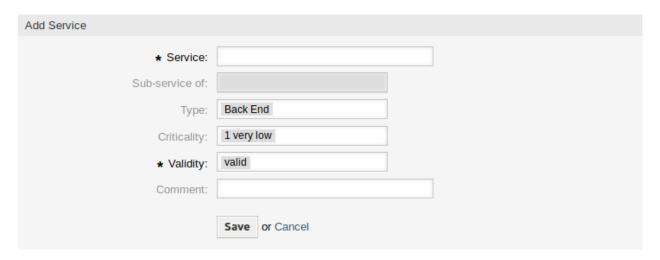


Fig. 3: Add Service Screen

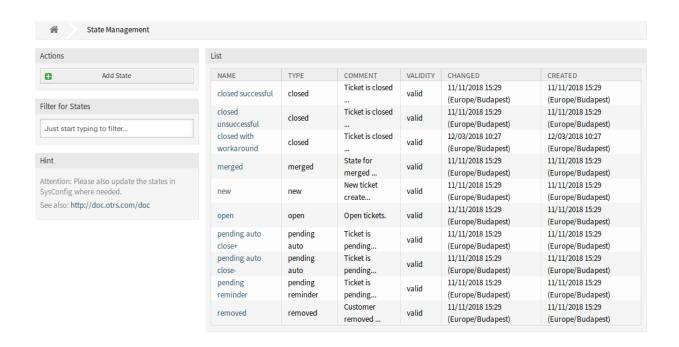


Fig. 4: State Management Screen

2.1.1.5 Types

After installation of the package some new types are added to the system. The type management screen is available in the *Types* module of the *Ticket Settings* group.

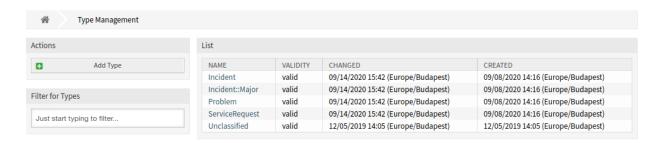


Fig. 5: Type Management Screen

New Types

Incident For tickets that are created for normal incidents.

Incident::Major For tickets that are created for major incidents.

Problem For tickets that are created for problems.

ServiceRequest For tickets that are created for service requests.

2.1.2 Users, Groups & Roles

After installation of the package a new group is added to the system.

2.1.2.1 Groups

After installation of the package a new group is added to the system. The group management screen is available in the *Groups* module of the *Users*, *Groups* & *Roles* group.

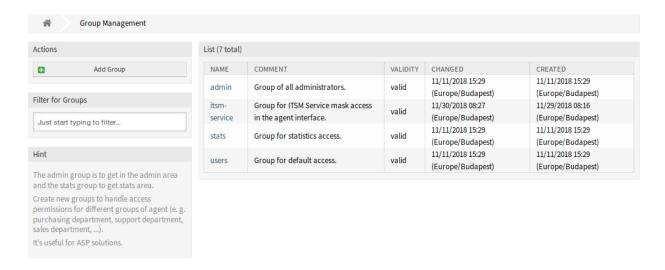


Fig. 6: Group Management Screen

New Group

After installation of the package the following group is added to the system:

itsm-service Group for accessing the Service Management screens of the agent interface.

Note: The primary administrator user (root@localhost) is added to the group with permission *rw* by default.

See also:

To set the correct permissions for other users, check the following relations:

- · Agents Groups
- · Customers Groups
- · Customer Users Groups
- · Roles Groups

2.1.3 Processes & Automation

After installation of the package some new dynamic fields are added to the system and activated on screens.

2.1.3.1 Dynamic Fields

After installation of the package some new dynamic fields are added to the system. The dynamic field management screen is available in the *Dynamic Fields* module of the *Processes & Automation* group.



Fig. 7: Dynamic Field Management Screen

New Dynamic Fields

ITSMCriticality This is a drop-down dynamic field that contains criticality levels from 1 very low to 5 very high.

ITSMImpact This is a drop-down dynamic field that contains impact levels from 1 very low to 5 very high.

ITSMReviewRequired This is a drop-down dynamic field that contains *Yes* and *No* to indicate if a review is required.

ITSMDecisionResult This is a drop-down dynamic field that contains some possible results for decisions.

ITSMRepairStartTime This is a date/time dynamic field for holding the repair start time.

ITSMRecoveryStartTime This is a date/time dynamic field for holding the recovery start time.

ITSMDecisionDate This is a date/time dynamic field for holding the decision time.

ITSMDueDate This is a date/time dynamic field for holding the due date.

The new dynamic fields are activated in many screens by default.

To see the complete list of screens:

- 1. Go to the system configuration.
- 2. Filter the settings for ITSMIncidentProblemManagement group.
- 3. Navigate to Frontend \rightarrow Agent \rightarrow View or Frontend \rightarrow External \rightarrow View to see the screens.

2.1.4 Administration

After installation of the package some new modules will be available in the administrator interface.

2.1.4.1 General Catalog

Use this screen to add catalog classes and items to the system. The general catalog management screen is available in the *General Catalog* module of the *Administration* group.



Fig. 8: General Catalog Management Screen

Manage General Catalog

To add a catalog class:

- 1. Click on the Add Catalog Class button in the left sidebar.
- 2. Fill in the required fields.
- 3. Click on the Save button.



Fig. 9: Add Catalog Class Screen

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

To add a catalog item:

- 1. Select a catalog class in the list of catalog classes.
- 2. Click on the Add Catalog Item button in the left sidebar.
- 3. Fill in the required fields.
- 4. Click on the Save button.

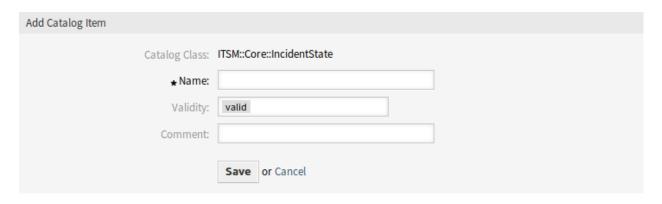


Fig. 10: Add Catalog Item Screen

Warning: Catalog items 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 catalog item:

- 1. Select a catalog class in the list of catalog classes.
- 2. Select a catalog item in the list of catalog items.
- 3. Modify the fields.
- 4. Click on the Save or Save and finish button.

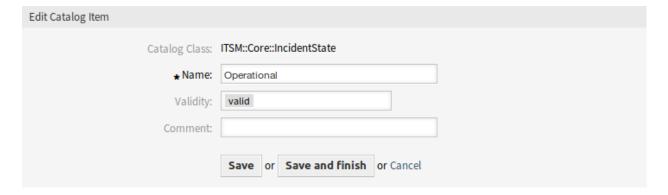


Fig. 11: Edit Catalog Item Screen

Catalog Class Settings

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

Catalog Class * The name of the catalog class. The catalog class will be displayed in the overview table of catalog classes.

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

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.

Catalog Item Settings

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

Catalog Class The name of the catalog class. This is read only in this screen.

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

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.

Classes

The package adds some classes to the General Catalog.



Fig. 12: General Catalog Class List Screen

ITSM::Core::IncidentState This class contains incident states.

ITSM::Service::Type This class contains service types.

ITSM::SLA::Type This class contains service level agreement types.

2.1.4.2 System Configuration

Hiding Service Incident State in Forms

This section describes how to hide the incident state field in a form if selecting a service. In default state, the incident state is shown in a form after selecting a service:

In order to hide the service incident state in a form, you need to edit the YAML configuration of the relevant form and add the following part:

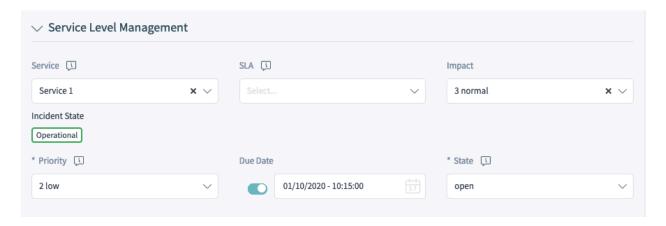


Fig. 13: Service Incident State in the New Phone Ticket Form

```
- Name: ServiceID
Config:
HideIncidentState: 1
```

The following example shows how to hide the service incident state for the New Phone Ticket form:

- 1. Search in the system configuration for the setting Forms ###AgentFrontend::TicketCreate::Phone::CreateP
- 2. Hover over the widget in order to display the button Edit this setting and click on the button.
- 3. Search in the YAML configuration for the ServiceID field:



Fig. 14: YAML Configuration of the Form

4. Add the Config key with the HideIncidentState sub-key set to 1:

```
- Name: ServiceID
Config:
HideIncidentState: 1
```

- 5. Click on the tick button on the left side of the widget to save the configuration.
- 6. Deploy the modified settings.

After successful deployment the service incident state will be hidden in the New Phone Ticket form:

2.2 Agent Interface

This chapter describes the new features that are available in the agent interface after installation of the package.

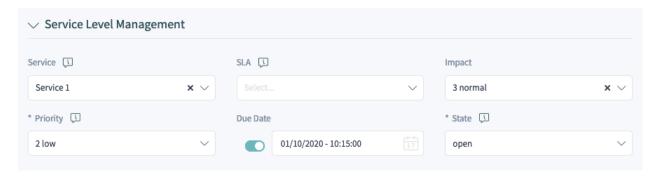


Fig. 15: New Phone Ticket Form without the Service Incident State

2.2.1 Tickets

After installation of the package some new fields will be available in the ticket create screens and the ticket detail view will have some new widgets and actions.

2.2.1.1 Create Ticket

Some new fields will be available in New Phone Ticket, New Email Ticket and New SMS Ticket screens.

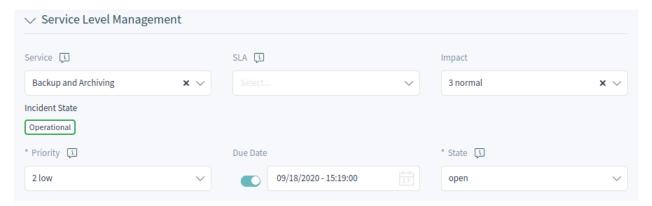


Fig. 16: New Ticket Screen

New Fields

Type Select the incident type of the ticket.

Service Select a service for the new ticket.

Service Level Agreement Select a service level agreement for the new ticket.

Impact Select the impact level from 1 very low to 5 very high.

Due Date Select a date as due date for the new ticket.

The priority of the new ticket is automatically calculated from the selected service and impact based on the *Criticality Impact Priority* matrix. However, the priority can be overridden and changed manually.

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2.2.1.2 Ticket Detail View

Many new dynamic fields will be available in the ticket detail view and in the ticket actions. Additionally, two new actions are added to the actions menu.

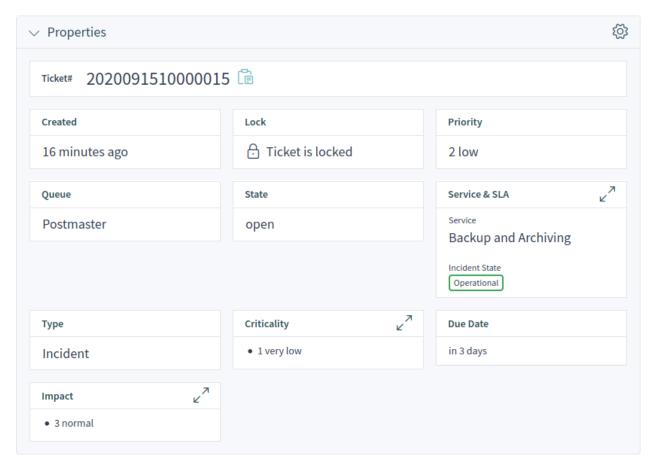


Fig. 17: Properties Widget

Ticket Detail View Actions

The package extends some ticket actions with new dynamic fields and two new actions are added to the actions menu.

Change Free Fields This action can be extended with new fields.

Type Select the incident type of the ticket.

Service Select a service for the new ticket.

Service Level Agreement Select a service level agreement for the new ticket.

Impact Select the impact level from 1 very low to 5 very high.

Change Additional ITSM Fields In this window the additional ITSM fields can be set regarding to repair and recovery start time, as well as the due date.

Title This is the title of the ticket.

Repair Start Time Select the date and time when the problem started to be repaired.

Recovery Start Time Select the date and time when the recovery of the problem started.

Due Date Select the date and time as due date for the ticket.

Change Decision In this window the decision result and the decision date can be set.

Decision Result Select a possible result for the decision. The available decision results can be set as *Dynamic Fields*.

Decision Date Select the date and time when the decision was made.

It is possible to add an article to the ticket if the action needs to be explained more detailed.

Close Ticket This action can be extended with new fields.

Review Required Select if a review is required after the ticket close.

Change Priority This action can be extended with new fields.

Type Select the incident type of the ticket.

Service Select a service for the new ticket.

Service Level Agreement Select a service level agreement for the new ticket.

Impact Select the impact level from 1 very low to 5 very high.

2.2.2 Services

After installation of the package a new menu section will be available in the main menu.

Note: In order to grant users access to the *Service Management* menu, you need to add them as member to the group *itsm-service*.

2.2.2.1 Service List

Use this screen to get a list of services directly in the agent interface. The *Services* menu item is available in the main menu.

A view on services and configuration items, including information on each object's current state, allows you to analyze an incident and calculate the incident's impact on affected services and customers, and service level agreements and linked configuration items are also displayed. For each configuration item, the current incident state is shown. In addition, the incident state will be propagated for dependent service level agreements and configuration items. If a service is selected, the service detail view will be shown, now with the additional current incident *State*, which is calculated from the incident states of dependent services and configuration items.

Service states can have one of the following three values:

- Operational (green)
- Warning (yellow)
- Incident (red)

The propagation of the incident state will be carried out if configuration items are linked with the link type *depend on*. Here the following rules apply:

• If a configuration item is dependent on another configuration item, which is in the state *Incident*, the dependent configuration item gets the state *Warning*.

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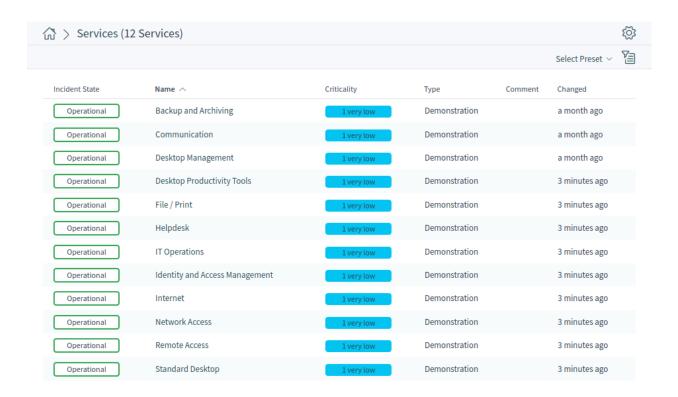


Fig. 18: Service List

- If a service is dependent on configuration items, and one of these configuration items has a state *Incident*, the service will also get the state *Incident*.
- If a service is dependent on configuration items, and one of these configuration items has the state *Warning*, the service will also get the state *Warning*.
- If a service has sub-services, and one of these services has the state *Incident*, the parent service will get the state *Warning*.
- If a service has sub-services, and one of these services has the state *Warning*, the parent service will get the state *Warning*.

The states of the respective services, sub-services, and configuration items will be shown in the view.

See also:

Read the chapter about configuration item *Configuration Items* to setup the dynamic calculation of service states.

2.2.2.2 Service Detail View

Use this screen to see the details of a service. The service detail view is available if you select a service from a service list.

Service Detail View Widgets

Like other business object detail views, the service detail view is also highly customizable. Some of the following widgets are displayed with the default installation, but others have to be added in the screen configuration.

Service Information Widget This widget shows information about the service.

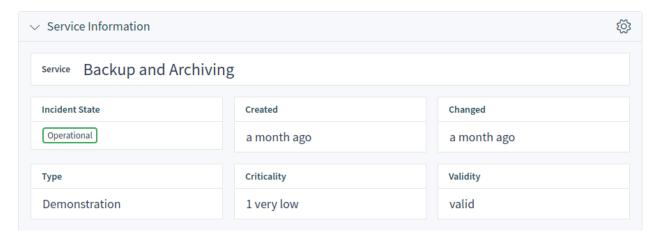


Fig. 19: Service Information Widget

Associated SLAs Widget This widget shows the service level agreements that are associated to the service. If you click on a service level agreement, the *Service Level Agreements* detail view will open.



Fig. 20: Associated SLAs Widget

Linked Knowledge Base Articles Widget This widget shows the linked knowledge base articles, but the widget is only displayed when at least one knowledge base article is linked to this business object. New links can be added with the *Link Objects* action. Existing links can also be managed there.

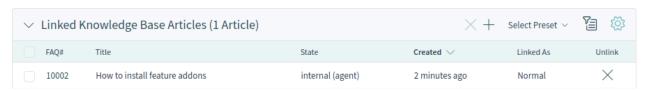


Fig. 21: Linked Knowledge Base Articles Widget

Service Detail View Actions

The following actions are available in the service detail view.

Link Objects This action allows agents to link other business objects to the service.

Print Service This action allows agents to print the service to a PDF file and to download it.

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2.2.3 Service Level Agreements

After installation of the package a new menu section will be available in the main menu.

Note: In order to grant users access to the *Service Management* menu, you need to add them as member to the group *itsm-service*.

2.2.3.1 Service Level Agreement List

Use this screen to get a list of service level agreements directly in the agent interface. The *Service Level Agreements* menu item is available in the main menu.

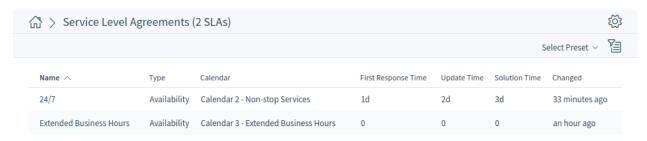


Fig. 22: Service Level Agreement List

2.2.3.2 Service Level Agreement Detail View

Use this screen to see the details of a service level agreement. The service level agreement detail view is available if you select a service level agreement from a service level agreement list.

Service Level Agreement Detail View Widgets

Like other business object detail views, the service level agreement detail view is also highly customizable. Some of the following widgets are displayed with the default installation, but others have to be added in the screen configuration.

Service Level Agreement Information Widget This widget shows information about the service level agreement.

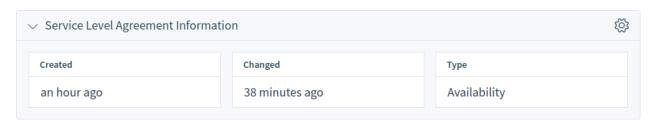


Fig. 23: Service Level Agreement Information Widget

Service Level Agreement Times Widget This widget shows times related to the service level agreement.

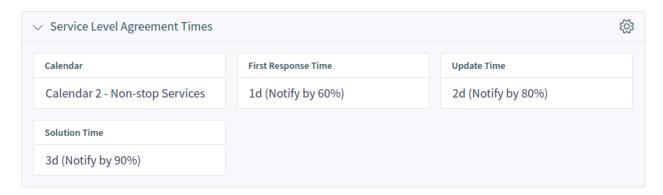


Fig. 24: Service Level Agreement Times Widget

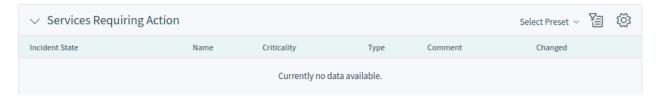


Fig. 25: Services Requiring Action Widget

Services Requiring Action Widget This widget lists the services that required an action.

Associated Services Widget This widget shows the services that are associated to the service level agreement. If you click on a service, the *Services* detail view will open.



Fig. 26: Associated Services Widget

Service Level Agreement Detail View Actions

The following actions are available in the service level agreement detail view.

Print Service Level Agreement This action allows agents to print the service level agreement to a PDF file and to download it.

2.2.4 Statistics and Reports

After installation of the package some new statistics are added to the system. The statistic management screen is available in the *Statistics and Reports* menu item of the main menu.

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2.2.4.1 Statistics

The following metrics are added to the system as new statistics:

```
Total number of all tickets ever created per Ticket-Type and Priority
Total number of all tickets ever created per Ticket-Type and State
Total number of all tickets ever created per Ticket-Type and Queue
Total number of all tickets ever created per Ticket-Type and Service
Monthly overview of all tickets created in the last month per Ticket-Type
Monthly overview of all tickets created in the last month per Priority
Monthly overview of all tickets created in the last month per State
Monthly overview of all tickets created in the last month per Queue
Monthly overview of all tickets created in the last month per Service
Number of tickets created in a specific time period per Ticket-Type and
→Priority
Number of tickets created in a specific time period per Ticket-Type and State
Number of tickets created in a specific time period per Ticket-Type and Queue
Number of tickets created in a specific time period per Ticket-Type and Service
Number of currently open tickets per Ticket-Type and Priority
Number of currently open tickets per Ticket-Type and Queue
Number of currently open tickets per Ticket-Type and Service
Total number of all configuration items ever created per Class and State
Monthly overview of all configuration items created in the last month per Class
Monthly overview of all configuration items created in the last month per State
Number of configuration items created in a specific time period per Class and u
First level solution rate for all tickets ever created per Ticket-Type and
→Priority
First level solution rate for all tickets ever created per Ticket-Type and
First level solution rate for all tickets ever created per Ticket-Type and
-Service
Monthly overview of first level solution rate per Ticket-Type in the last month
Monthly overview of first level solution rate per Priority in the last month
Monthly overview of first level solution rate per Queue in the last month
Monthly overview of first level solution rate per Service in the last month
First level solution rate for all tickets created in a specific time periodu
→per Ticket-Type and Priority
First level solution rate for all tickets created in a specific time periodu
→per Ticket-Type and Queue
First level solution rate for all tickets created in a specific time period_{\mathbf{u}}
→per Ticket-Type and Service
Average solution time for all tickets ever created per Ticket-Type and u
→Priority
Average solution time for all tickets ever created per Ticket-Type and Queue
Average solution time for all tickets ever created per Ticket-Type and Service
Monthly overview of the average solution time per Ticket-Type in the last \Box
⊶month
Monthly overview of the average solution time per Priority in the last month
Monthly overview of the average solution time per Queue in the last month
Monthly overview of the average solution time per Service in the last month
Average solution time of tickets created in the last month per Ticket-Typeu
→and Priority
```

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(continued from previous page)

Average solution time of tickets created in the last month per Ticket-Type⊔ → and Queue

Average solution time of tickets created in the last month per Ticket-Type⊔ → and Service

2.3 External Interface

This package has no external interface.

2.3. External Interface 23

Configuration Management

The configuration management database (CMDB) is not a database in the technical sense, but a conceptual IT model, which is indispensable for efficient IT service management. All IT components and inventories are managed in the CMDB. Configuration management exceeds asset management, often incorrectly used as a synonym, as it does not only document assets from a financial point of view, but captures information regarding the relationship between components, specifications, or their location. Thus IT support can quickly access information on the interdependence of IT services and the IT components (aka. configuration items or CIs) necessary for them.

This package provides a tool to import and export configuration items in the CSV format.

Note: This package requires the *Service Management* feature.

3.1 Administrator Interface

This chapter describes the new features that are available in the administrator interface after installation of the package.

3.1.1 Users, Groups & Roles

After installation of the package a new group is added to the system.

3.1.1.1 Groups

After installation of the package a new group is added to the system. The group management screen is available in the *Groups* module of the *Users*, *Groups* & *Roles* group.

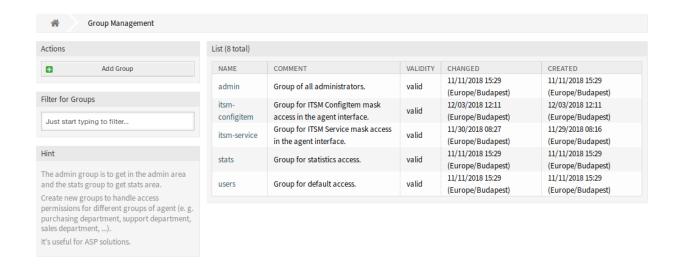


Fig. 1: Group Management Screen

New Group

After installation of the package the following group is added to the system:

itsm-configitem Group for accessing the Asset Management screens of the agent interface.

Note: The primary administrator user (root@localhost) is added to the group with permission *rw* by default.

See also:

To set the correct permissions for other users, check the following relations:

- · Agents Groups
- · Customers Groups
- · Customer Users Groups
- · Roles Groups

3.1.2 Processes & Automation

After installation of the package two new scripts are added to the script task activity element of process management and some new operations are added to the generic interface.

3.1.2.1 Process Management

After installation of the package two new scripts are added to the script task activity element of process management.

New Scripts

To see the new scripts:

- 1. Go to the *Process Management* screen of the administrator interface.
- 2. Create a new process or select an existing process that contains a script task activity.
- 3. Click on the Activities item in the Available Process Elements widget in the left sidebar.
- 4. Create a new script task activity or edit an existing one.
- 5. Select one of the new scripts TicketLinkITSMConfigItem and TicketUpdateByLinkedCI in the Script drop-down.
- 6. Click on the Save button, if the Configure button is not visible next to the Script drop-down.
- 7. Click on the *Configure* button to add parameters (key-value pairs) for the script.

TicketLinkITSMConfigItem

This script searches for one or more configuration items and link all matches to the ticket.

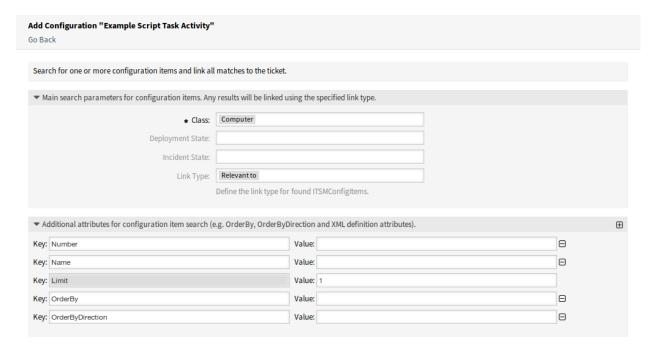


Fig. 2: Configuration Screen for TicketLinkITSMConfigItem Script

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

The main search parameters can be selected in the first section. The following parameters can be used for restrictions:

- · Class *
- · Deployment State
- · Incident State
- Link Type

Additional search parameters can be set as key-value pairs in the second section. Some keys are added by default.

TicketUpdateByLinkedCI

This script copies all specified attributes of a linked configuration item to the ticket.

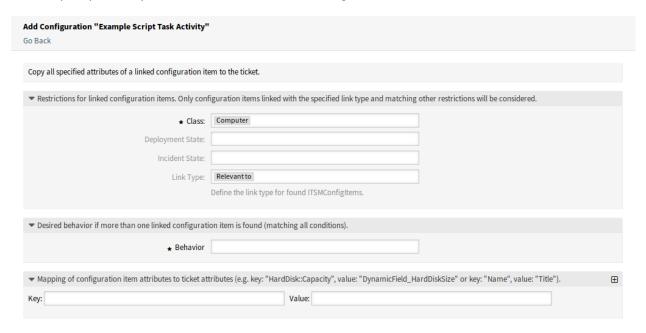


Fig. 3: Configuration Screen for TicketUpdateByLinkedCI Script

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

The main search parameters can be selected in the first section. The following parameters can be used for restrictions:

- · Class *
- · Deployment State
- · Incident State
- · Link Type

Behavior * Desired behavior if more than one linked configuration item is found (matching all conditions).

- Copy attributes from configuration item that was linked first.
- Copy attributes from configuration item that was linked last.
- · Ignore configuration item, do not copy anything.

The third section is used for mapping of configuration item attributes (keys) to ticket attributes (values).

3.1.2.2 Web Services

This package adds some new operations for creating, changing, retrieving, deleting and searching configuration items via generic interface. The following operations are available:

- ConfigItemCreate()
- ConfigItemDelete()

- ConfigItemGet()
- ConfigItemSearch()
- ConfigItemUpdate()

See also:

For more information please take a look at the WSDL file on GitHub.

New Operations

These new operations are available in the Web Services module of the Processes & Automation group:

- ConfigItem::ConfigItemCreate
- ConfigItem::ConfigItemDelete
- ConfigItem::ConfigItemGet
- ConfigItem::ConfigItemSearch
- ConfigItem::ConfigItemUpdate

To use these operations:

- 1. Add or edit a web service.
- 2. Select a Network transport in the OTRS as provider widget and save the web service.
- 3. The new operations are available in the Add Operation field of the OTRS as provider widget.

3.1.3 Administration

After installation of the package some new classes will be available in the *General Catalog* and a new module will be available in the administrator interface.

3.1.3.1 General Catalog

ITSM configuration management adds some new classes to the General Catalog. The general catalog management screen is available in the General Catalog module of the Administration group.

New Classes

ITSM::ConfigItem::Class A class for configuration item classes.

See also:

The class definition of configuration item classes can be managed in the *Configuration Items* module of the *CMDB Settings* group.

ITSM::ConfigItem::Computer::Type A class for computer types, that can be selected in *Configuration Items* when adding or editing configuration items of type computer.

ITSM::ConfigItem::DeploymentState A class for deployment states, that can be selected in *Configuration Items* when adding or editing configuration items.

ITSM::ConfigItem::Hardware::Type A class for hardware types, that can be selected in *Configuration Items* when adding or editing configuration items of type hardware.



Fig. 4: General Catalog Class List Screen

ITSM::ConfigItem::Location::Type A class for location types, that can be selected in *Configuration Items* when adding or editing configuration items of type location.

ITSM::ConfigItem::Network::Type A class for network types, that can be selected in *Configuration Items* when adding or editing configuration items of type network.

ITSM::ConfigItem::Software::LicenceType A class for software license types, that can be selected in *Configuration Items* when adding or editing configuration items of type software.

ITSM::ConfigItem::Software::Type A class for software types, that can be selected in *Configuration Items* when adding or editing configuration items of type software.

ITSM::ConfigItem::YesNo This class contains the items *Yes* and *No*.

3.1.3.2 Import and Export

Use this screen to create import and export templates. The import/export template management screen is available in the *Import and Export* module of the *Administration* group.



Fig. 5: Import/Export Template Management Screen

Manage Import/Export Templates

To create a new template:

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

- 2. Fill in the required fields in all steps.
- 3. Click on the Finish button.

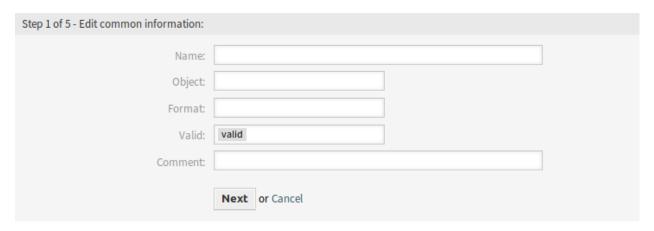


Fig. 6: Create New Import/Export Template Screen

To edit a template:

- 1. Click on a template in the list of templates.
- 2. Modify the fields in all steps.
- 3. Click on the Finish button.



Fig. 7: Edit Import/Export Template Screen

To delete a template:

- 1. Click on the trash icon in the list of templates.
- 2. Click on the Confirm button.



Fig. 8: Delete Import/Export Template Screen

To import data based on a template:

- 1. Click on the *Import* link in the list of templates.
- 2. Click on the Browse... button and select a CSV file.
- 3. Click on the Start Import button.

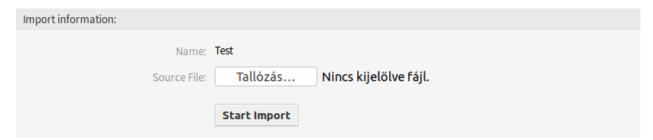


Fig. 9: Import Data Screen

To export data based on a template:

- 1. Click on the *Export* link in the list of templates.
- 2. Choose a location in your computer to save the Export.csv file.

Import/Export Template Settings

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

Note: Import/Export package is meant to be independent. This means, that the following settings can be different if no configuration items will be imported or exported.

Edit Common Information



Fig. 10: Edit Common Information 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.

Object * Select the object type you want to import to or export from.

Format * Select the import and export format.

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.

Edit Object Information

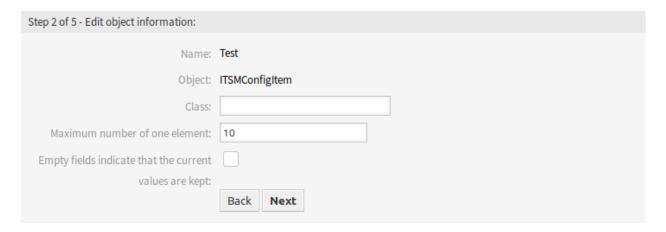


Fig. 11: Edit Object Information Screen

Name This is a read only field from the previous step. Use the Back button to edit it.

Object This is a read only field from the previous step. Use the *Back* button to edit it.

Class * Select the class that is needed to be affected by the import and export.

Maximum number of one element * Specify, how many items can have an item.

Empty fields indicate that the current values are kept Select this checkbox if the empty field should keep the data in OTRS. Otherwise the data will be overwritten with blank value.

Edit Format Information

Name This is a read only field from the previous step. Use the Back button to edit it.

Format This is a read only field from the previous step. Use the Back button to edit it.

Column Separator * Select a column separator for CSV file.

Charset Select a character encoding for the CSV file.

Include Column Headers Specify if column headers should be included or not.

Edit Mapping Information

Click on the *Add Mapping Element* button to add element from the class. You can also specify if this element is an identifier. The order of the elements is sortable.

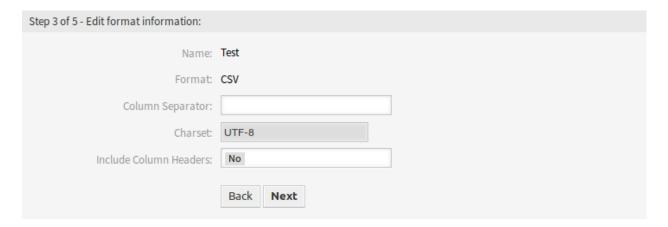


Fig. 12: Edit Format Information Screen



Fig. 13: Edit Mapping Information Screen

Edit Search Information

Step 5 of 5 - Edit search information:	
Template Name:	Test
Restrict export per search:	
Number:	
Name:	
Deployment State:	
Incident State:	
Vendor:	
Model:	
Description:	
Type:	
Serial Number:	
FQDN:	
Network Adapter::IP Address:	
Note:	
	Back Finish

Fig. 14: Edit Search Information Screen

Template Name This is a read only field from the previous step. Use the *Back* button to edit it.

Restrict export per search You can add search term for each attribute of the selected class to restrict the import and export functions. The possible fields are listed below this field.

Note: The other fields come from the back end driver, and can be different depending on the used object to be imported or exported.

3.1.3.3 System Configuration

Displaying Configuration Item Class Specific Columns

Configuration item class specific columns (i.e. the capacity of a hard disc) are not shown in the configuration overview list and at the configuration item organizer item list per default.

In order to display configuration item field values as table columns, the YAML configuration of the lists needs to be extended .

The following example shows how to add the field Computer::HardDisk::1 and Computer::HardDisk::1::Capacity::1 of the class Computer to the configuration item overview list:

- 1. Search in the system configuration for the setting AgentFrontend::ConfigItemList###DefaultConfig.
- 2. Add the following to the YAML configuration:

```
Columns:
   Computer::HardDisk::1:
   IsVisible: 2
   Computer::HardDisk::1::Capacity::1:
   IsVisible: 2
```



Fig. 15: Example YAML Configuration of the Configuration Item Overview

3. Deploy the modified configuration.

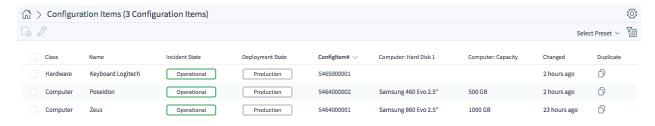


Fig. 16: Configuration Item Overview with Class Specific Columns

Applying Configuration Item Class Specific Filters

The following example shows how to apply the filter for the Computer::Model field of the class Computer in the configuration item overview list.

First you need to make sure, that the relevant class filter is also applied, otherwise all class-specific filters will be simply ignored.

This can be done via the ClassIDs filter, which takes the ID of the class as the value. Please follow the steps below to get the ID of the class and apply the filters.

1. Go to the Configuration Management section of the administrator interface.

2. Click on the relevant class in the list.

The ClassID is now shown at the URL, i.e.:

otrs/index.pl/?Action=AdminITSMConfigItem; Subaction=DefinitionList; ClassID=22 In this case the ID is 22.

- 3. Search in the system configuration for the setting Agent Frontend:: Config I tem List ###Default Config
- 4. Set both the filter for the class to the value determined in step 2 and the field filter to the desired value:

```
ActiveFilters:
ClassIDs:
Value:
- 22
Computer::Model:
Value: ModelA
```

5. Deploy the modified configuration.

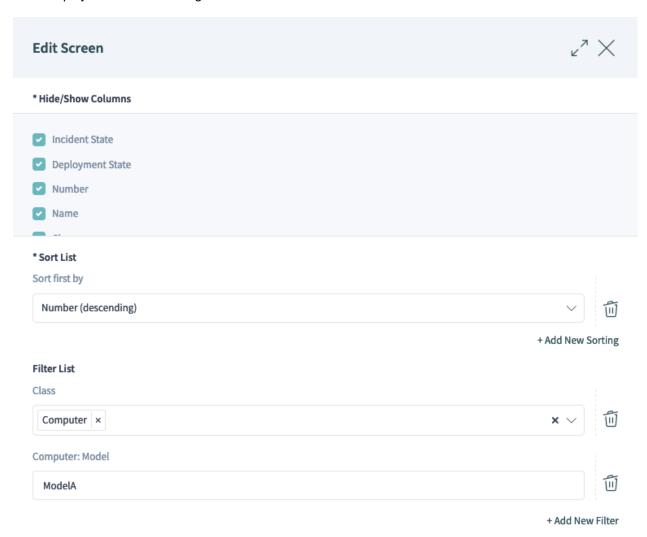


Fig. 17: Configuration Item Overview with Class Specific Filter

Note: The fields that can be filtered need to have Searchable: 1 set in their class definitions. See *here* for more information.

Applying Configuration Item Filters for All Classes

The following example shows how to apply the filters for the common Owner and CustomerID fields which are used in all classes in the configuration item overview list.

- 1. Search in the system configuration for the setting AgentFrontend::ConfigItemList###DefaultConfig.
- 2. Add the following to the YAML configuration:



3. Deploy the modified configuration.

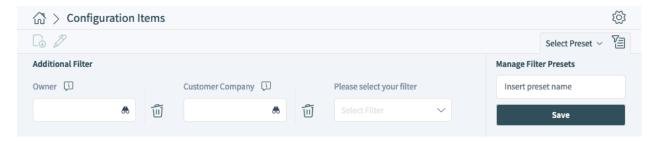


Fig. 18: Configuration Item Overview with All Class Filters

3.1.4 CMDB Settings

After installation of the package a new group CMDB Settings will be available with a new module in the administrator interface.

3.1.4.1 Configuration Items

Use this screen to manage class definition of configuration item classes. The configuration item class management screen is available in the *Configuration Items* module of the *CMDB Settings* group.

To add or edit the class definition of a configuration item class:

- 1. Select a class from the drop-down menu in the left sidebar.
- 2. Click on the *Change class definition* button.
- 3. Add or edit the class definition in YAML format.
- 4. Click on the Save or Save and finish button.

To see the class definition of a configuration item class:

- 1. Click on a class name in the list of classes.
- 2. Select a version by clicking on a class name in the list of class versions.

Configuration Item Management Actions List CONFIGURATION ITEM CLASS Computer Hardware Location Network Software

Fig. 19: Configuration Item Management Screen

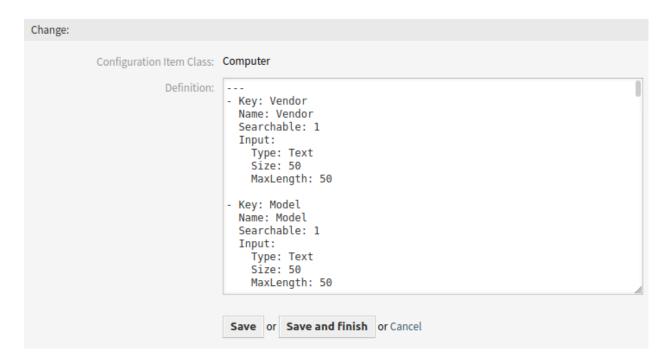


Fig. 20: Edit Configuration Item Class Definition Screen

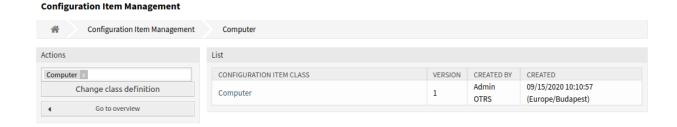


Fig. 21: Configuration Item Class Versions Screen

See also:

New configuration item classes can be added in *General Catalog* module in the administrator interface.

Class Definition Types and Form Elements

Multiple input field types can be used when defining a class. These input field types are used to generate the edit form for creating new or editing already existing configuration items.

Warning: Since version 7.0.7 the configuration item class definitions have to be written in YAML format.

The following block is an example of a form field called *Operating System*.

```
---
- Key: OperatingSystem
Name: Operating System
Input:
    Type: Text
    Size: 50
    MaxLength: 100
```

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

Key * Must be unique and only accept alphabetic and numeric characters. If this is changed, data will not be readable from old definitions.

Name * The label of the field in the form. Any type of characters can be entered to this field including uppercase letters and spaces.

Note: It is recommended to always use English words for names.

See also:

Names can be translated into other languages with custom translation files. See the Custom Translation File chapter in the developer manual.

Searchable Defines whether the field is searchable or not. Possible values are 0 or 1.

Input * Initiates the definition of the input field. An input field can contain the following attributes:

Type * Defines the type of the element. Must be placed indented as a logical block. Possible values are:

- Text: A single text field.
- TextArea: A text field with multiple rows.
- GeneralCatalog: A drop-down list for select a general catalog class. The general catalog class must be defined before use it as input type. The items of the general catalog class will be the options of the drop-down list.
- CustomerCompany: A drop-down list for select a customer from the database back end.
- Customer: A drop-down list for select a customer user from the database back end. The field can be used with wildcards (*).

- Date: A field for select a date.
- DateTime: A field for select date and time.
- Integer: A drop-down list with integer numbers.

Required Defines whether the field is mandatory or not. Possible values are 0 or 1.

Size Defines the size of the text field. The value must be a positive integer.

MaxLength Defines the maximum amount of characters that can be entered in the text field. The value must be a positive integer.

RegEx A regular expression to restrict the possible values of the text field.

RegExErrorMessage The displayed error message if the input does not match to definition given in the regular expression.

Class The name of the class to be used for the drop-down list. Required for type GeneralCatalog.

Translation Defines whether the items of a general catalog have to be translated. Possible values are: 0 or 1.

YearPeriodPast Defines how many years in the past are available for selection from the present year in a date or date/time field. The value must be a positive integer.

YearPeriodFuture Defines how many years in the future are available for selection from the present year in a date or date/time field. The value must be a positive integer.

ValueMin Defines the minimum value for an integer field.

ValueMax Defines the maximum value for an integer field.

ValueDefault Defines the default value for an integer field.

CountMin Defines at least how many of the current input types are available. The value must be a positive integer.

CountMax Defines at most how many of the current input types are available. The value must be a positive integer.

CountDefault Defines how many field should be displayed by default. The value must be a positive integer.

Sub Defines a sub-element in the input field. The sub-element can contain its own input fields. It is useful if you have certain properties under a main property.

SuppressVersionAdd This can be used to suppress creating a new version of a configuration item, when an attribute has changed. Possible values are <code>UpdateLastVersion</code> and <code>Ignore</code>.

- UpdateLastVersion: If this value is set and there is no other updated attribute, the attribute is updated in the current version without creating a new version.
- Ignore: If this value is set and there is no other updated attribute, nothing will be done, and no new version is created.

Class Definition Reference

The following class definition is an example for all possible options.

Note: The CustomerID and Owner are special keys, since these keys are used in *Customers* and *Customer Users* to assign configuration items automatically to customers and customer users by default.

```
- Key: OperatingSystem
 Name: Operating System
 Searchable: 1
 Input:
   Type: Text
   Required: 1
   Size: 50
   MaxLength: 100
   RegEx: Linux | MacOS | Windows | Other
   RegExErrorMessage: The operating system is unknown.
 CountMin: 0
 CountMax: 5
 CountDefault: 1
- Key: Description
 Name: Description
 Searchable: 0
 Input:
   Type: TextArea
   Required: 0
 CountMin: 0
 CountMax: 1
 CountDefault: 0
- Key: Type
 Name: Type
 Searchable: 1
 Input:
    Type: GeneralCatalog
   Class: ITSM::ConfigItem::Software::Type
   Required: 1
   Translation: 1
- Key: CustomerID
 Name: Customer Company
 Searchable: 1
 Input:
   Type: CustomerCompany
- Key: Owner
 Name: Owner
 Searchable: 1
 Input:
   Type: Customer
- Key: LicenseKey
 Name: License Key
 Searchable: 1
 Input:
   Type: Text
   Size: 50
```

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```
MaxLength: 50
   Required: 1
 CountMin: 0
 CountMax: 100
 CountDefault: 0
 Sub:
 - Key: Quantity
   Name: Quantity
   Input:
     Type: Integer
     ValueMin: 1
     ValueMax: 1000
     ValueDefault: 1
     Required: 1
   CountMin: 0
   CountMax: 1
   CountDefault: 0
 - Key: ExpirationDate
   Name: Expiration Date
   Input:
      Type: Date
     Required: 1
     YearPeriodPast: 20
      YearPeriodFuture: 10
   CountMin: 0
   CountMax: 1
   CountDefault: 0
- Key: LastUsed
 Name: Last Used
 Input:
   Type: DateTime
   Required: 1
 CountMin: 0
 CountMax: 1
 CountDefault: 0
 SuppressVersionAdd: UpdateLastVersion
```

3.2 Agent Interface

This chapter describes the new features that are available in the agent interface after installation of the package.

3.2.1 Configuration Items

After installation of the package a new menu section will be available in the main menu.

Note: In order to grant users access to the Asset Management menu, you need to add them as member

to the group itsm-configitem.

3.2.1.1 Create Configuration Item

Use this screen to add new configuration items to the configuration management database.

To add a configuration item:

- 1. Select a class from the list of classes.
- 2. Fill in the required fields.
- 3. Click on the Create button.

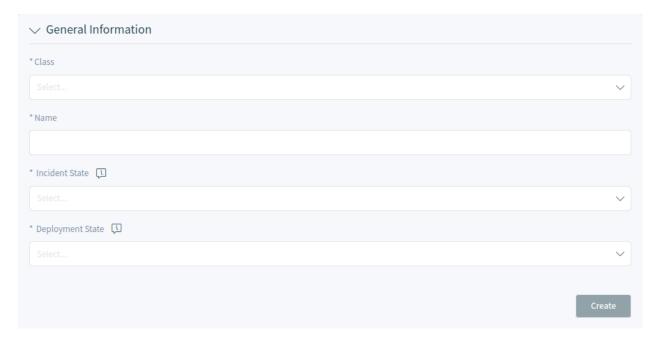


Fig. 22: Create Configuration Item Screen

See also:

The fields in the *Properties* widget can be very different on each classes. To see the available fields, check the *Configuration Items* module in the administrator interface.

3.2.1.2 Configuration Item List

This screen gives an overview of configuration items. Configuration items have an *Incident State* column, which includes two state types:

- Operational
- Incident

For each state type, any number of states can be registered. The state of a configuration item affects the service state, which will be dynamically calculated and displayed in the *Services* screen of the agent interface.

See also:

To enable the dynamic calculation, activate the following system configuration settings:

- ITSMConfigItem::SetIncidentStateOnLink
- ITSMConfigItem::LinkStatus::TicketTypes

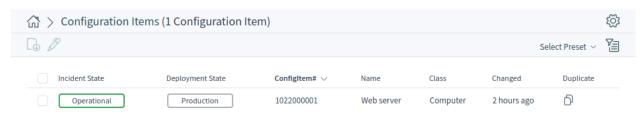


Fig. 23: Configuration Item List

3.2.1.3 Configuration Item Detail View

Use this screen to see the details of a configuration item. The configuration item detail view is available if you select a configuration item from a configuration item list.

Configuration Item Detail View Widgets

Like other business object detail views, the configuration management detail view is also highly customizable. Some of the following widgets are displayed with the default installation, but others have to be added in the screen configuration.

Configuration Item Information Widget This widget shows information about the configuration item.

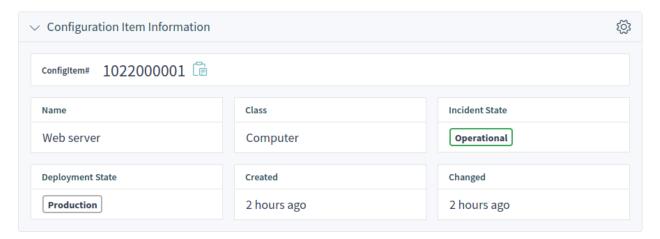


Fig. 24: Configuration Item Information Widget

Configuration Item Version Details Widget This widget shows the configuration item versions. Any change on a configuration item will create a new version. Clicking on a version in this widget will expand the details.

Attachments Widget This widget can be used to display attachments to the configuration item. The attachments can be downloaded and, for the images, a preview function is supported.

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Fig. 25: Configuration Item Version Details Widget

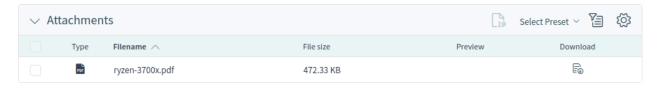


Fig. 26: Attachments Widget

Configuration Item Detail View Actions

The following actions are available in the ticket detail view.

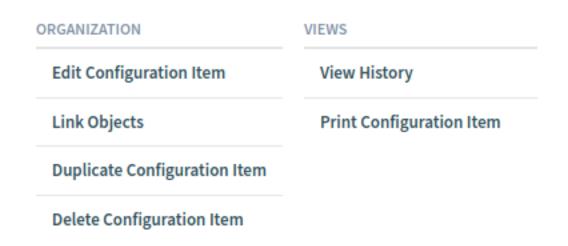


Fig. 27: Configuration Item Detail View Actions

Organization This column groups the following actions together:

Edit Configuration Item This action allows agents to edit the configuration item.

Link Objects This action allows agents to link other business objects to the configuration item.

Duplicate Configuration Item This action allows agents to duplicate the configuration item.

Delete Configuration Item This action allows agents to delete the configuration item.

Views This column groups the following actions together:

View History This action allows agents to view the history of the configuration item. The history contains all operations that happened with the configuration item in the past, along with timestamp and username of the person who took the action.

Print Configuration Item This action allows agents to print the configuration item to a PDF file and to download it.

3.2.2 Customers

After installation of the package a new widget named *Configuration Item List* will be available in the customer detail view.

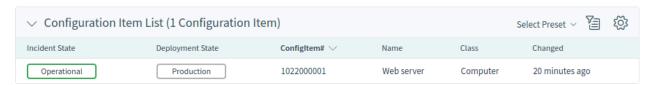


Fig. 28: Configuration Item List Widget

This widget displays the configuration items that are assigned to the customer.

The assignment is done via attribute CustomerID by default. If the configuration item uses different attribute for linking, you should change it in the system configuration settings.

See also:

See AgentFrontend::CustomerCompanyDetailView::WidgetType###ConfigItemList system configuration setting for more information.

The default setting is:

```
ClassBasedCustomerIDSearch:
    Computer: CustomerID
    Hardware: CustomerID
    Location: CustomerID
    Network: CustomerID
    Software: CustomerID
    ClassBasedCustomerSearch:
    Computer: CustomerID
    Hardware: CustomerID
    Location: CustomerID
    Network: CustomerID
    Software: CustomerID
```

You also need to have this CustomerID attribute in the class definition to display the assigned configuration items. Check the existing class definitions in the *Configuration Items* module.

If your class definition doesn't contain the CustomerID attribute, then you have to add it manually.

```
- Key: CustomerID
Name: Customer Company
Searchable: 1
Input:
Type: CustomerCompany
```

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3.2.3 Customer Users

After installation of the package a new widget named *Configuration Item List* will be available in the customer user detail view.

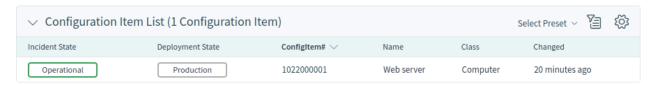


Fig. 29: Configuration Item List Widget

This widget displays the configuration items that are assigned to the customer user.

The assignment is done via attribute Owner by default. If the configuration item uses different attribute for linking, you should change it in the system configuration settings.

See also:

See AgentFrontend::CustomerUserDetailView::WidgetType###ConfigItemList system configuration setting for more information.

The default setting is:

```
ClassBasedCustomerUserSearch:
    Computer: Owner
    Hardware: Owner
    Location: Owner
    Network: Owner
    Software: Owner
ClassBasedCustomerSearch:
    Computer: Owner
    Hardware: Owner
    Location: Owner
    Network: Owner
    Software: Owner
```

You also need to have this Owner attribute in the class definition to display the assigned configuration items. Check the existing class definitions in the *Configuration Items* module.

If your class definition doesn't contain the Owner attribute, then you have to add it manually.

```
- Key: Owner
Name: Owner
Searchable: 1
Input:
Type: Customer
```

3.3 External Interface

This package has no external interface.