

OTRS::ITSM 2.0 - Basic

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Preface

The document at hand addresses OTRS::ITSM users and administrators and provides information on the basic use of OTRS::ITSM by IT service managers, IT service staff (agent) and end users (customer). Information regarding installation, configuration and administration is only provided if there are differences to the OTRS core product or for functions, which only exist in OTRS::ITSM.

In spite of the many many hours of work, even more cups of coffee and quite a few sausages and pretzels consumed in the course of writing the following sections, this manual does not claim to be complete. The chapters will be revised and/or amended periodically for continual improvement.

We welcome your feedback as a critical contribution to the best possible quality of the following chapters and of the product itself. Please tell us if you miss information, find it difficult to understand certain aspects the way they are presented, have suggestions or other comments. Any feedback submitted at <http://otrs.org> is highly appreciated.

We are very proud of the product at hand and want to thank the ITIL experts of Enterprise Consulting GmbH and our top-notch OTRS developers. Their joint efforts have significantly contributed to the successful development of OTRS::ITSM.

We want to thank you, the users and OTRS::ITSM community, in advance for any kind of aid and feedback and hope you will have fun using OTRS::ITSM.

André Mindermann, Managing Partner OTRS AG

Bad Homburg, May 2007

((enjoy))

Chapter 1. OTRS::ITSM - The OTRS for IT service management

IT is expected to deliver consistently 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 center 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 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 only rudimentarily 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 initiated as a logical consequence of the great success of the Open Ticket Request System OTRS in order to combine the globally accepted, public ITIL recommendations with the benefits of open-source software.

OTRS::ITSM 1.0 was the first real-world ITIL compliant IT service management solution on open-source basis, built on the solid fundament of over 55,000 known OTRS installations and the related active community (information dating from April 2007). OTRS::ITSM is under permanent development and new ITIL topics are added continuously.

Core objective of the development of OTRS::ITSM is a strong praxis orientation. This aim can be accomplished by the close development collaboration with Enterprise Consulting GmbH from Bad Homburg, which is very experienced in the practical application of ITIL. Additionally to providing ITSM consulting services and solutions, Enterprise operates complete ITIL compliant IT organizations for renowned customers.

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

OTRS::ITSM and OTRS are freely available (no license fees apply) and are subject to GNU General Public License (GPL).

Features

OTRS::ITSM 2.0 is based on the Open Ticket Request System OTRS 2.4. All functionalities known from OTRS continue to be available and the functionalities representing ITIL processes can be installed as packages.

New OTRS::ITSM 2.0 features

OTRS::ITSM 2.0 offers:

- Change Management

The new OTRS::ITSM package "ITSMChangeManagement" implements the ITIL discipline Change Management.

New OTRS::ITSM 1.3 features

OTRS::ITSM 1.3 is based on the Open Ticket Request System OTRS 2.4

It offers the same features as OTRS::ITSM 1.2, but runs on the OTRS 2.4 framework.

New OTRS::ITSM 1.2 features

OTRS::ITSM 1.2 is based on the Open Ticket Request System OTRS 2.3

OTRS::ITSM 1.2 offers:

- Modularization

From now on the additional ITSM packages covering single ITIL disciplines like incident management / problem management, configuration management, service level management, can be installed independently from each other. To you as a user that means that you neither have to install the packages in a certain installation order nor that you have to install them all to use OTRS::ITSM.

- Reduced reloads

ITSM functionalities (e. g. priority calculation based on a tickets impact) have been reimplemented in AJAX technology to reduce necessary reloads. That leads to an increased speed using OTRS::ITSM.

- Joint Link-Object mechanism

OTRS::ITSM 1.1 and lower releases were designed based on an own extended Object-Link mechanism. As a consequence, the Object-Link functionality of OTRS couldn't be used in OTRS::ITSM. A joint Object-Link mechanism has now been implemented, which covers all the features from both former Link object mechanisms.

- Improved speed

The improvement to faster access the Configuration Items (CI) database has been achieved by switching database access technology to SQL bind parameters.

- Locations

Locations are no longer a separate menu item. They are now integrated into the Configuration Items, which will bring a sustainable gain in flexibility.

- SLA-Service multi-assignments

It is now possible to assign an SLA to multiple Services.

- SLA Overview

In the service menu, there is now a new SLA overview mask.

- Refresh-Mechanism

Added a refresh mechanism to refresh the service overview and the config item overview screens automatically.

New OTRS::ITSM 1.1 features

OTRS::ITSM 1.1 offers:

- Authorization concept

Each object like Service/SLA, Location, CI, Linkobject now creates an own group, so the agents rights can be assigned more granularly.

- Allocation of services to customers

Services can be assigned to authorized customers. Further more, services may be assigned as general 'default services' which are valid to use for each customer.

- Service/CI view

A view on services and CIs including information on each objects current state allows to analyze an incident and calculate the incidents impact on affected services and customers. As an enhancement of the service view, now SLAs and linked CIs are displayed too. For each CI the current incident state is shown. Also, the incident state will be propagated for dependent SLAs and CIs. If a service is selected, the service details will be shown, now with the additional 'current incident state', which is calculated from the incident states of dependent services and CIs.

CIs are now enhanced with a 'current incident state', which includes two state types:

- Operational
- Incident

For each state type any number of states can be registered. The state of a CI affects the service state, which will be dynamically calculated, and 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 CIs are linked with the link type 'depend on'. Here the following rules apply:

- If a CI is dependent from another CI, which is in the state 'Incident', the dependent CI gets the state 'Warning'.
- If a service is dependent from CIs, and one of these CIs has a state 'Incident', the service will also get the state 'Incident'.
- If a service is dependent from CIs, and one of these CIs 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 CIs will be shown in the view.

- CI search and linking from agent interface

A service agent may search, select and assign any of a customers configuration items (CIs) or existing tickets while recording a new incident ticket.

- CMDB Import/Export (CSV and API)

This feature offers the possibility to import or update data from CSV files into the CMDB of OTRS::ITSM, and to export data from the CMDB to CSV files. Each line of the CSV file describes one CI, with the data of the CI in the columns.

The import and export is controlled with ImEx definitions. These definitions map the columns of the CSV file to the fields in the CMDB. You can create an ImEx definition via the admin interface in OTRS. For each available field in the CMDB, the corresponding column in the CSV file needs to be defined. This is done in a form, which represents the current CI definition. Also, a filter can be applied, to limit the number of the exported CIs. Any number of ImEx definitions can be stored in the system, and each definition can be used for import and for export.

To start an import (exports work the same way), two possibilities exist: interactive with the web interface, or automatically with a script. Using the interactive way, the desired ImEx definition is selected, and then the CSV file is uploaded to the system. During the interactive export, the CSV file will be offered for download respectively.

The automatic import is carried out via a script, which needs the name of the ImEx definition and the name of the CSV file as arguments. During the script based export, the CIs that were given the script as arguments, will be saved in a CSV file. Before the execution of the import or export, the selected ImEx definition will be compared with the current CI definition. If inconsistencies were found, the process will be cancelled. Also, during import, restrictions in the CI definition (e.g. mandatory fields) will be checked. If applicable, the data record is rejected, but the import process continues. An import protocol can be found in the syslog. Via the API the CSV based import/export can be replaced or enhanced by other formats/transports, like direct database access or XML. The implementation of the CSV interface can be used as a reference.

- A huge variety of additional reports have been created, e.g.:

Basic reports for tickets and configuration items (CIs):

- Total of all ever created tickets per ticket-type and priority (state, queue, service).
- Monthly overview of all ever created tickets of a previous month per ticket-type (priority, state, queue, service).
- Total of created tickets in a defined period per ticket-type and priority (state, queue, service).
- Total of all open tickets per ticket-type and priority (queue, service).
- Total of all configuration items (CIs) created per class (per state).
- Total of all configuration items (CIs) created in a previous month per class (per state).
- Total of all configuration items (CIs) created in a defined period per class (per state).

Much more reports have been added providing specific data regarding first time solution rate and average resolution time:

- First time solution rate of all ever created tickets per ticket-type and priority (queue, service).
- First time solution rate in a previous month per ticket-type (priority, queue, service).
- First time solution rate in a defined period per ticket-type and priority (queue, service).
- Average resolution time of all ever created tickets per ticket-type and priority (queue, service).
- Average resolution time in a previous month per ticket-type and priority (queue, service).
- Average resolution time in a defined period per ticket-type and priority (queue, service).
- Added print function for CIs, Services, SLAs, Locations.

OTRS::ITSM 1.0 features

OTRS::ITSM 1.0 offers:

- ITIL compliant representation of "service support" processes
 - incident management
 - problem management
 - configuration management
- an integrated, individually extensible configuration management database (CMDB)
- ITIL compliant names for new functions
- ITIL compliant role, responsibility and permission model
- cross-process communication management: within the IT service organization, with customers/users/management and suppliers/providers
- flexible stats functions for (trend) analyses; reporting, planning and controlling based on performance figures
- flexible configuration, customization and upgrade to meet individual requirements

- native ticket types are supported (integrated in OTRS): Various ticket types can be managed in the admin interface. Free-text fields are therefore no longer needed to specify ticket types. Installations using free-text fields for ticket type classification do not have to be migrated. The new feature is also shown in the ticket content and in the print view for agents and customers and can be adjusted in the agent interface.

Configuration management & integrated CMDB:

OTRS::ITSM is based on an integrated configuration management data base (CMDB), which serves as the fundament for the comprehensive control of the service management processes. It represents the configuration items (CI), their complex relationships and interdependencies with each other and with other components of the service chain.

- Comprehensive recording and management of ITSM relevant configuration items (CIs) such as computers, hardware, software, networks, documents and services, SLAs and organizational structures.
- Illustration of the IT service catalog and agreements in force (SLA, OLA, UC)
- Recording, management and illustration of technical and service related relationships and interdependences among CMDB data, e.g. a service with all necessary, alternative or relevant CIs
- Management of historic, current and future CI states, e.g. for problem diagnosis, server maintenance or planned changes
- Analysis of the potential impact of service failures or configuration changes
- Display of virtualized IT infrastructures, e.g. server / memory virtualization
- Software license management, e.g. licenses available / in use (third party products required)
- Chronological life cycle management for CIs, from acquisition to disposal
- Reporting of all configuration changes performed on CMDB data
- Interface to company directories (e.g. LDAP, eDirectory, Active Directory)

Incident management:

- Services and SLAs (integrated in OTRS): The new attributes "service" and "service level agreements (SLA)" were integrated in OTRS 2.2 on its way to becoming an IT service management tool. When creating a ticket, the customer can select a service (e.g. e-mail service) and a corresponding SLA. SLA attributes are "response time", "update time" and "solution time". IT service can use these attributes for notifications or ticket escalation in order to meet existing SLAs. Service and SLA specific information in the header of new e-mails can be analyzed as usual with the PostMaster filter module.
- Comprehensive support of IT service support organization processes with incident recording, classification, prioritization, direct help (1st level support), diagnosis, coordination (2nd/3rd level support, external partners etc.), service recovery, resolution, closure and documentation
- Incidents and service requests can be recorded quickly and intuitively by service desk staff and users (web self-service)
- Rule-based ticket generation and/or notification, e.g. in interaction with IT monitoring systems
- Classification and prioritization options (priority, impact, urgency)

- Complete CMDB coverage, e.g. services affected by the incident, configuration items concerned, FAQ database, link-up between tickets and CIs for analyses and reporting
- (Automatic) recording of "articles" for tickets (activity record)
- Constant monitoring and evaluation of the ticket processing progress
- complete integration of OTRS role, group and queue mechanisms for incident ticket allocation, tracking, escalation and interpretation
- Provision and storage of relevant time data, e.g. for service level management
- practical ticket handling (merge, split), allows to merge similar incidents and/or split complicated ones
- planning, proactive control and monitoring of service request activities (work packages, work plans, service lead times, due dates)
- generation and tracking of problem tickets from incidents

Problem management:

- comprehensive support of IT organization processes in problem identification, recording, classification, prioritization, problem origin diagnosis, resolution coordination, e.g. workaround or request for change, closure and documentation
- provision of relevant information for subprocesses
 - problem control (trouble-shooting),
 - error control (error processing),
 - proactive problem management (e.g. ticket trend analyses) and
 - management information (on incidents, problems and known errors)
- current/historic incidents, knowledge base (FAQs) and CMDB are constantly available
- complete integration of OTRS role, group and queue mechanisms to allocate, track, escalate and evaluate incident tickets
- systematic automated notifications on the problem resolution progress for users (user groups) concerned or the management
- incident management receives ready signal for resolved problems

Tickets are central information containers for IT service process management: They transport multiple possible underlying data such as:

- persons, organizations
- time stamp
- priority, impact, severity
- associations to IT service catalog and projects
- activities, e.g. note about a call with time accounting
- objects, e.g. CIs, including relations

- (sub)tickets, e.g. a problem with the underlying incidents
- notes and attachments, e.g. scanned service request forms
- work packages, i.e. planned, allocated tasks
- SLA information
- thresholds and escalation data
- ticket history (all changes)
- accounting information (time accounting).

Hardware and software requirements

The requirements for OTRS::ITSM are the same as for OTRS. More information can be found in the OTRS Admin Manual.

Community

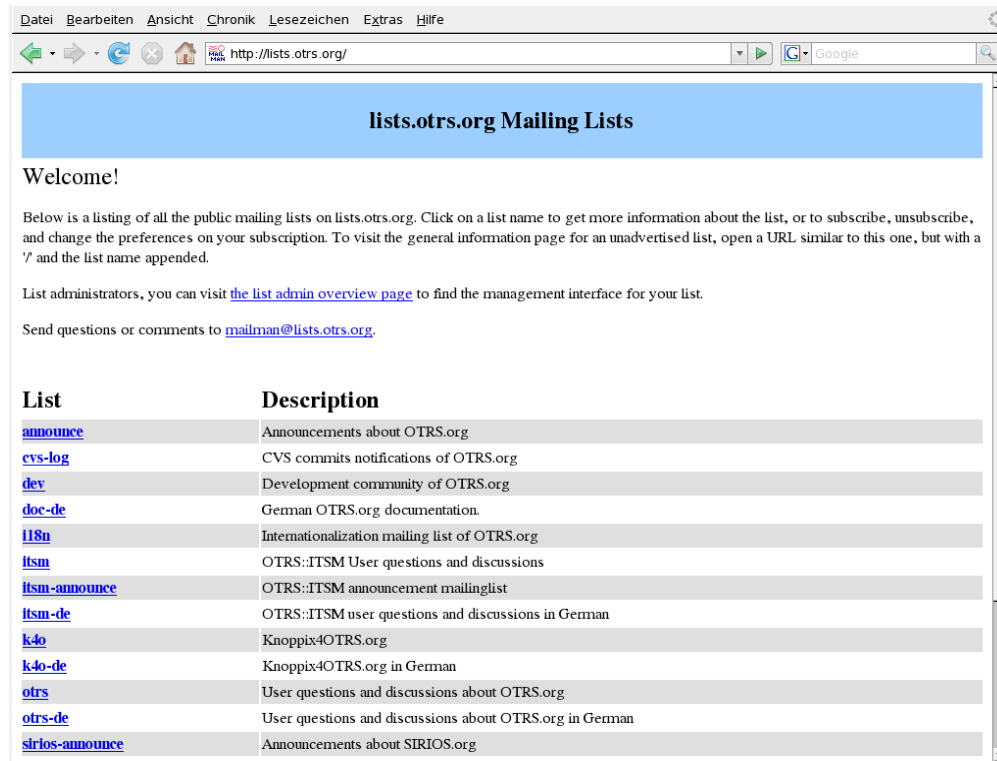
A large community evolved around OTRS in the past years. Users and developers use mailing lists to share their insights about a wide variety of issues connected with the trouble ticket system. They address questions about installation, configuration, use, localization and development. Bugs can be reported using the bug tracking system at <http://bugs.otrs.org> (<http://bugs.otrs.org/>). They directly reach the developers responsible and fixes can be provided quickly.

The above mentioned community channels are open for OTRS::ITSM users, too, to constantly improve the product's quality. You can join the community at our homepage <http://otrs.org> (<http://otrs.org/>).



Mailing lists

Separate mailing lists have been set up for OTRS::ITSM. Please visit <http://lists.otrs.org> (<http://lists.otrs.org/>):



Chapter 2. Commercial services for OTRS::ITSM

OTRS AG is manufacturer and source code owner of OTRS and all modules based upon it (e.g. OTRS::ITSM) and a professional service provider. Unlike those of proprietary software providers, OTRS AG's business model is not based on license fees: OTRS and OTRS::ITSM are available free of cost and we offer commercial services associated with the software applications instead.

As your capable partner, we provide optimal support in all phases of your OTRS project design, realization and operation. We believe in deploying the most modern methods and our staff are highly skilled experts. This philosophy guarantees credit for powerful business applications and happy customers lauding our service quality (<http://www.otrs.com/en/references/>).

OTRS::ITSM consulting and implementation

Are you planning to use OTRS::ITSM or have found out about OTRS::ITSM in a new product screening and want to assess the system's eligibility for your requirements. Or is your OTRS::ITSM evaluation completed and you want to make use of our consulting services to efficiently lead your project towards success.

We offer extensive practical expertise in IT process consulting, software engineering, development, and ITIL compliant IT operations and support. Security and quality management for your project complement our service portfolio. You benefit from an extensive and quick knowledge transfer.

Our services include:

- identification of your requirements and assistance with product evaluation
- guidance on design and implementation of ITSM process and organizational structures
- ITIL assessments and support with ISO 20000 certification
- ITIL trainings and coaching
- ITIL implementation
- compilation of IT service catalogs
- CMDB design
- installation & configuration of OTRS::ITSM including integration with your existing system environment
- review & optimization of existing OTRS::ITSM installations
- process and data migration from predecessor systems
- release updates
- specification of business and IT requirements and features, which exceed the given functional range of OTRS::ITSM
- design and realization of project complimentary administrator and service agent trainings

- advisory services regarding managed operations (ASP/SaaS) of OTRS::ITSM and application support

Software development

One significant advantage of the open-source software OTRS::ITSM is its flexibility regarding potential extensions of the functional range. No "vendor lock-in", a typical risk of proprietary systems and protracted negotiations with the manufacturer about expanding the functional range or building interfaces apply with OTRS::ITSM.

Experienced project managers and developers are at your disposal at any time to translate your requirements exceeding the functional range of OTRS::ITSM into business and IT specifications. We develop your features, program interfaces or upgrade existent functionalities according to your conception.

Extensions, which are useful for other customers too, will be added to the standard in later releases. All parties involved benefit: OTRS::ITSM is even more powerful with the features "born" by you and other customers, and you save the cost of porting your features to new releases.

Application support

The decision for an IT service management solution is an investment into the future which should not be underestimated, even if you opt for open-source software. A competent consulting partner is critical for the success of such an implementation project. Just as important, however, is a planned and successful porting of the solution to the life system and the lasting support of a reliable partner guaranteeing a faultless operating application service.

We provide this continuous support and our service packages are tailored flexibly to meet your requirements. They offer differentiated response times for the various service level agreements with up to 24/7/365 support, 24/7/365 access to our support portal, and optional phone support. Please visit <http://www.otrs.com/en/support/> for all details or contact our sales team at sales@otrs.com.

You will only pay for the services you really need. Optional add-on packages, e.g. support via remote control or an extension of the application support services to other OTRS::ITSM instances can be booked if required.

Our ITIL compliant operating Application Support Team is continually optimizing its processes and performance. Therefore, our service manager will contact you regularly to discuss your wishes and requirements regarding our services. The monthly service reporting in the service package of your choice serves as a base for these conversations.

Managed application services (ASP/SaaS)

You do not have to operate OTRS and/or OTRS::ITSM yourself. The products can be rented via the so called "ASP" (application service provisioning) resp. "SaaS" (software as a service) model from specialized companies.

The customers (software users) are admitted internet access to exclusively rented OTRS systems and, where required, functional application support (see section above) at a fixed monthly price and can employ the application in their business to the contracted extent. No additional license fees apply as only open-source products are used.

The application service provider operates IT infrastructure, systems and software ITIL compliantly and guarantees service quality according to the agreed service levels. The provider maintains the application system, (e.g. patches, backup, monitoring), and supports the customer with incidents and/or service requests such as consultation requests, software extensions or configuration requests.

Chapter 3. Installing OTRS::ITSM

OTRS framework 2.4 must be installed prior to the installation of OTRS::ITSM. All necessary information, options and installation procedures are depicted in the OTRS Admin Manual.

Warning

Installation of the OTRS::ITSM packages requires empty free-text fields 13-16 and free-time fields 3-6 in the complete system!

Installation

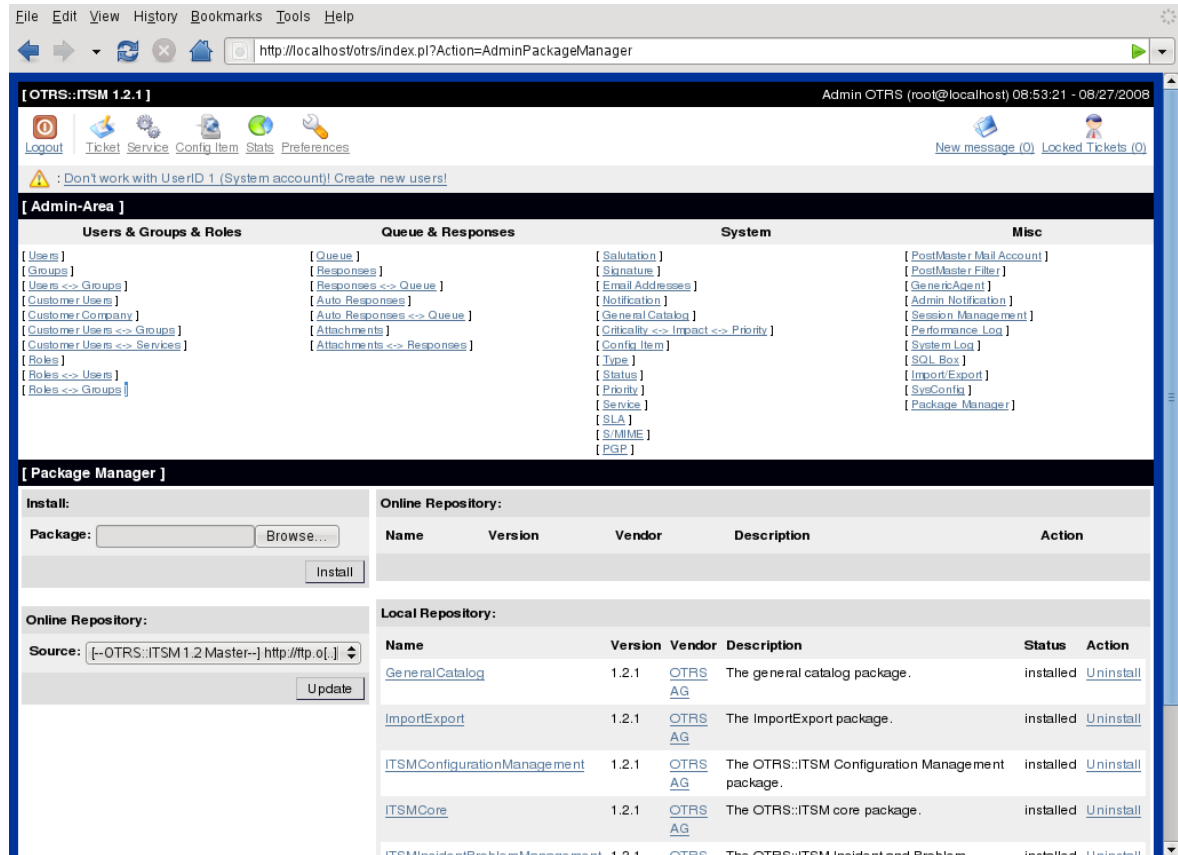
As soon as OTRS 2.4 or later is installed, sign on as administrator. Using the package manager in the admin area or via <ftp://ftp.otrs.org/pub/otrs/itsm/packages20/> and install the ITSM packages in the following order:

- GeneralCatalog
- ITSMCore

If you have internet access from OTRS, use the online repository [--OTRS::ITSM 2.0 Master--] to install the packages below. Otherwise download the packages and use the package manager to install the packages:

- ITSMIncidentProblemManagement
- ITSMConfigurationManagement
- ITSMChangeManagement
- ITSMServiceLevelManagement
- ImportExport

You can find further information about the installation process here: INSTALL-20.ITSM [<http://ftp.otrs.org/pub/otrs/itsm/INSTALL-2.0.ITSM>]



Upgrade

If an older version than OTRS::ITSM 1.1 is installed, update the system to the latest version 1.1 first.

If OTRS::ITSM 1.1 is installed already, update your OTRS 2.2 framework to version 2.3 BEFORE you update OTRS::ITSM. To do so, download the latest OTRS 2.3 framework and follow the instructions in the file UPGRADING. After that, log in to your system and use the package manager to install the package ITSMUpgradeTo12. You can download it manually or use the online repository. Ignore all error messages about not correctly installed old ITSM packages. This package will install all needed packages to update your system to an OTRS::ITSM 1.2 version, and it will migrate all your data.

Note: The upgrade can take several minutes! Please do not stop the upgrade process once it is running!

If OTRS::ITSM 1.2 is installed already, update your OTRS 2.3 framework to version 2.4 BEFORE you update OTRS::ITSM. To do so, download the latest OTRS 2.4 framework and follow the instructions in the file UPGRADING. After that, log in to your system and use the package manager to install the packages as described in the section "Installation".

To upgrade an already installed OTRS::ITSM 1.3, use the package manager in the admin area. If you have internet access from OTRS, use the online repository [--OTRS::ITSM 2.0 Master--] to install newer packages. An 'upgrade' link next to the package name indicates if a newer package is available.

Otherwise download the packages and use the package manager to install the packages. Do not uninstall your current packages, or your data will get lost!

Chapter 4. First steps in OTRS::ITSM

OTRS::ITSM completely uses the agent and customer interfaces (customer frontend) implemented in OTRS. If OTRS has been used before, all features and steps such as login, queue configuration, user preferences, filters, rules, user permissions etc. can continually be used without any modifications.

The manual at hand will therefore only discuss differences to OTRS and new aspects of OTRS::ITSM and will focus particularly on:

- IT services and SLAs
- the CMDB
- new ticket fields and functions
- ITIL compliant terminology

Detailed information on the settings and proceedings identical in OTRS and OTRS::ITSM are provided at <http://doc.otrs.org/2.4/en/html/> in the OTRS Admin Manual, which is constantly being revised.

The screenshot shows a web browser window displaying the OTRS 2.3 Admin Manual. The browser's address bar shows the URL <http://doc.otrs.org/2.3/en/html/>. The page has a blue header with the text "OTRS - Open Ticket Request System" and the date "2008-8-27". Below the header, there are links to otrs.org, bugs.otrs.org, lists.otrs.org, faq.otrs.org, and doc.otrs.org. The main content area is titled "OTRS 2.3 - Admin Manual" and includes copyright information for 2003-2008 OTRS AG, listing authors René Bakker, Hauke Böttcher, Jens Bothe, Udo Bretz, Martin Edenhofer, Manuel Hecht, Christopher Kuhn, André Mindermann, Henning Oswald, Thomas Raith, Stefan Rother, and Burchard Steinbild. It also contains a "Table of Contents" with links to the Preface, Basics about trouble ticket systems, and OTRS - Open Ticket Request System. The left sidebar contains a "Navigation:" section with links to HTML and PDF Admin-Manuals and ITSM-Manuals for versions 2.3, 2.2, 2.1, and 2.0 in both English and German.

Chapter 5. ITIL compliant service support with OTRS::ITSM

Just as 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.

Without the thoughtful adaptation of generic ITIL processes to the individual business situation, OTRS::ITSM will confer no marked improvement core objective of IT service management to IT organization or customer service.

Therefore please excuse our raised finger at this point: The use of an ITIL compliant tool such as OTRS::ITSM only makes sense if processes, people and products (IT services) really are ITIL compliant.

Successful ITIL implementation projects typically take up to a year and longer. A neatly implemented ITIL compliant ITSM tool can help to save time and money though, as the process support of the tool supports and accelerates the process of rethinking.

OTRS::ITSM 2.0 supports the incident and problem management processes, service level management, and configuration management database and change management which usually are designed in the first phase of ITIL implementation. A closer description of use and adaptation of the system can be found in the following sections. The package names correspond to their respective ITIL topics, each package can be installed independently.

Implementation of OTRS::ITSM is based on ITIL v3.

Chapter 6. The CMDB - the central IT repository

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 (= configuration items = CIs) necessary for them.

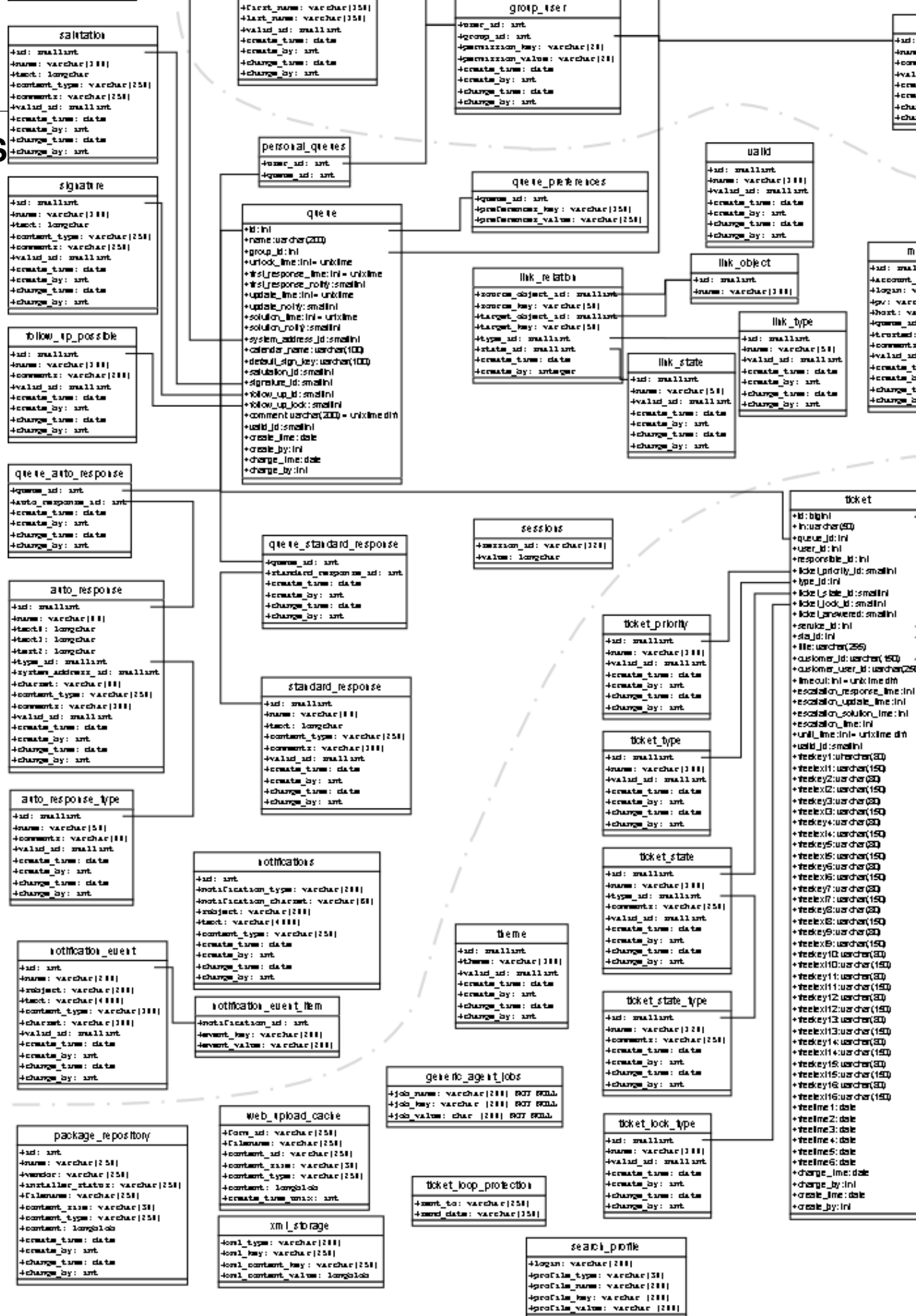
According to ITIL, a CMDB must feature the following functionalities:

- manual and, where applicable, automatic recording and modification of configuration items
- description of the relationship and/or interdependence between CIs
- change of CI attributes (e.g. serial numbers)
- location and user management for CIs
- integration via the ITIL processes represented in the system

OTRS::ITSM meets all requirements stated above and offers numerous additional IT support functions in the CMDB.

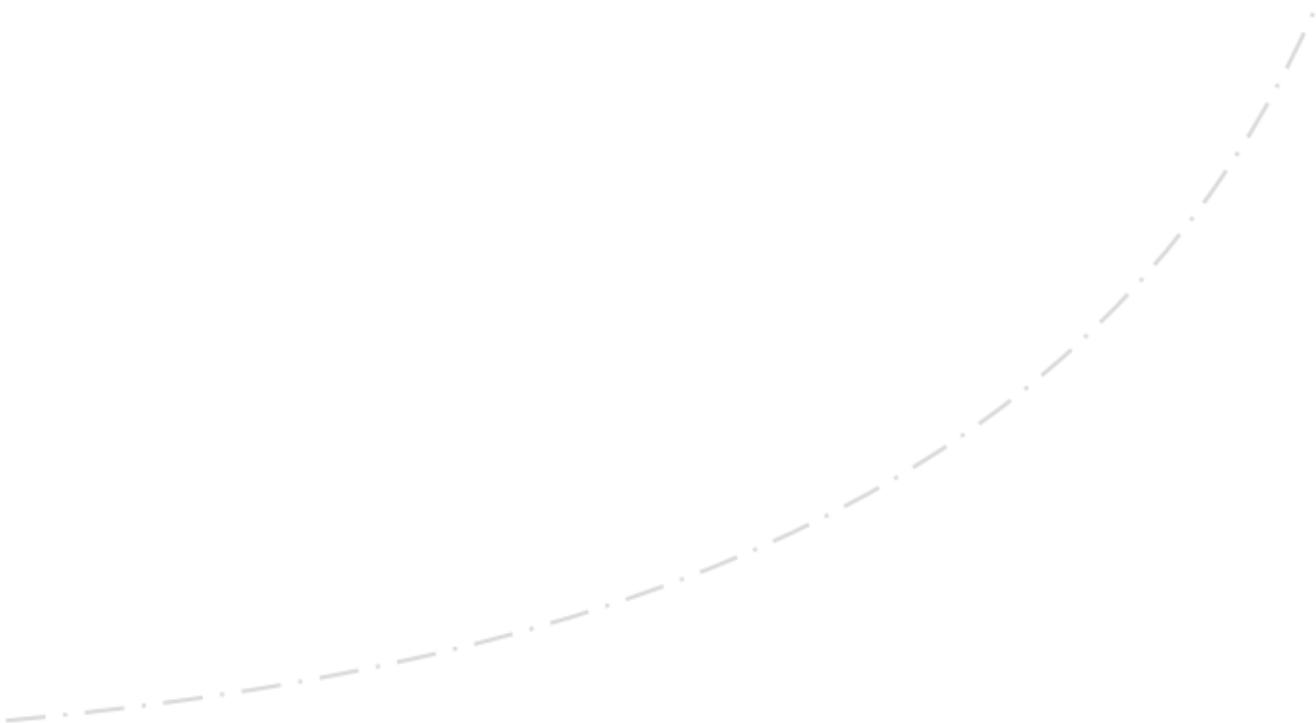
The OTRS::ITSM database model

The modular architecture of OTRS::ITSM and the ability to install single OTRS::ITSM packages independently, make it difficult to display a complete database model in a single graphic. For this reason, separate graphics will be provided for the OTRS framework and for ITSM packages which change or extend the database scheme.

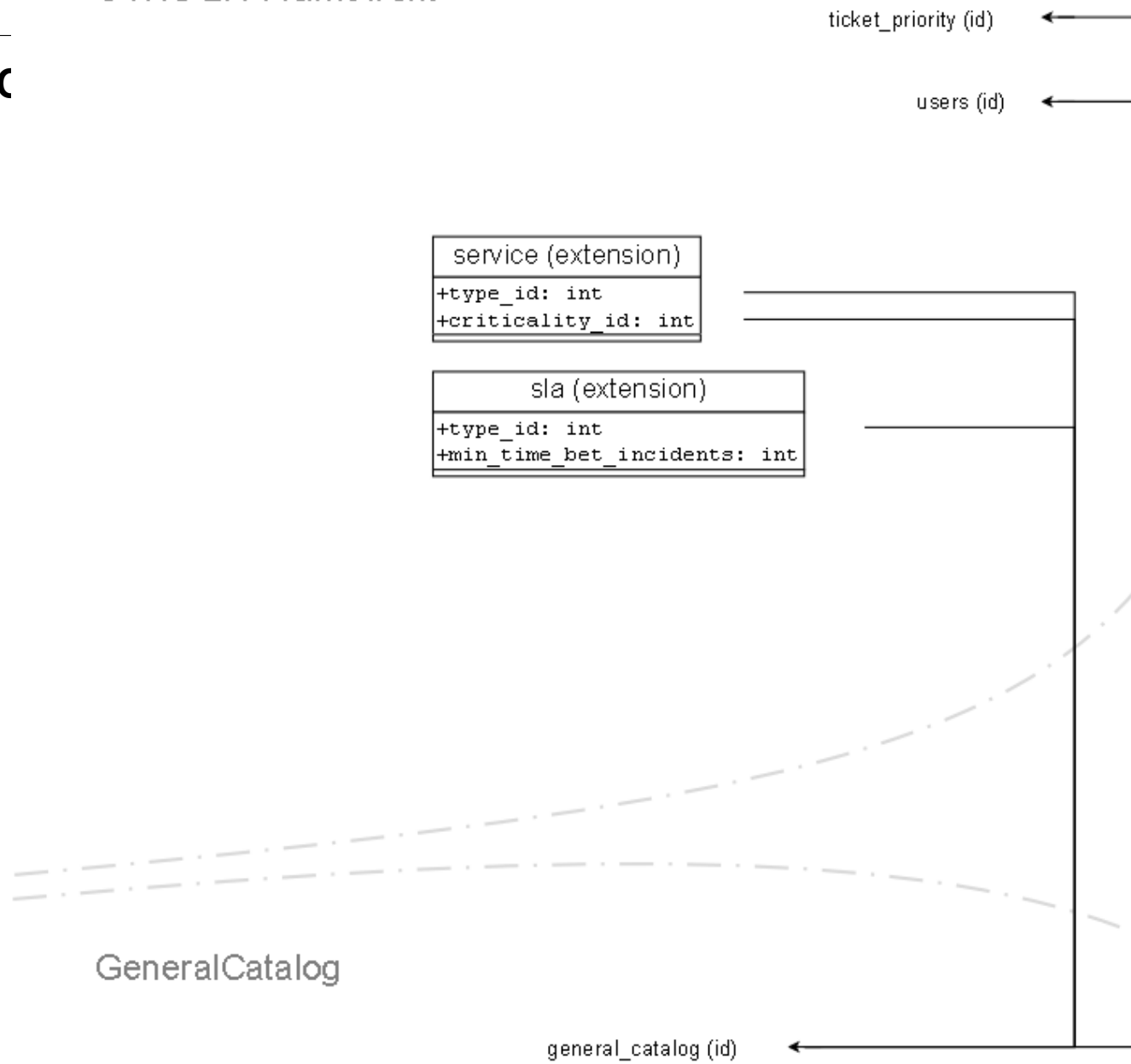


For better readability, the diagram can be found at <http://ftp.otrs.org/pub/otrs/misc/otrs-2.4-database.png>.

users (id)

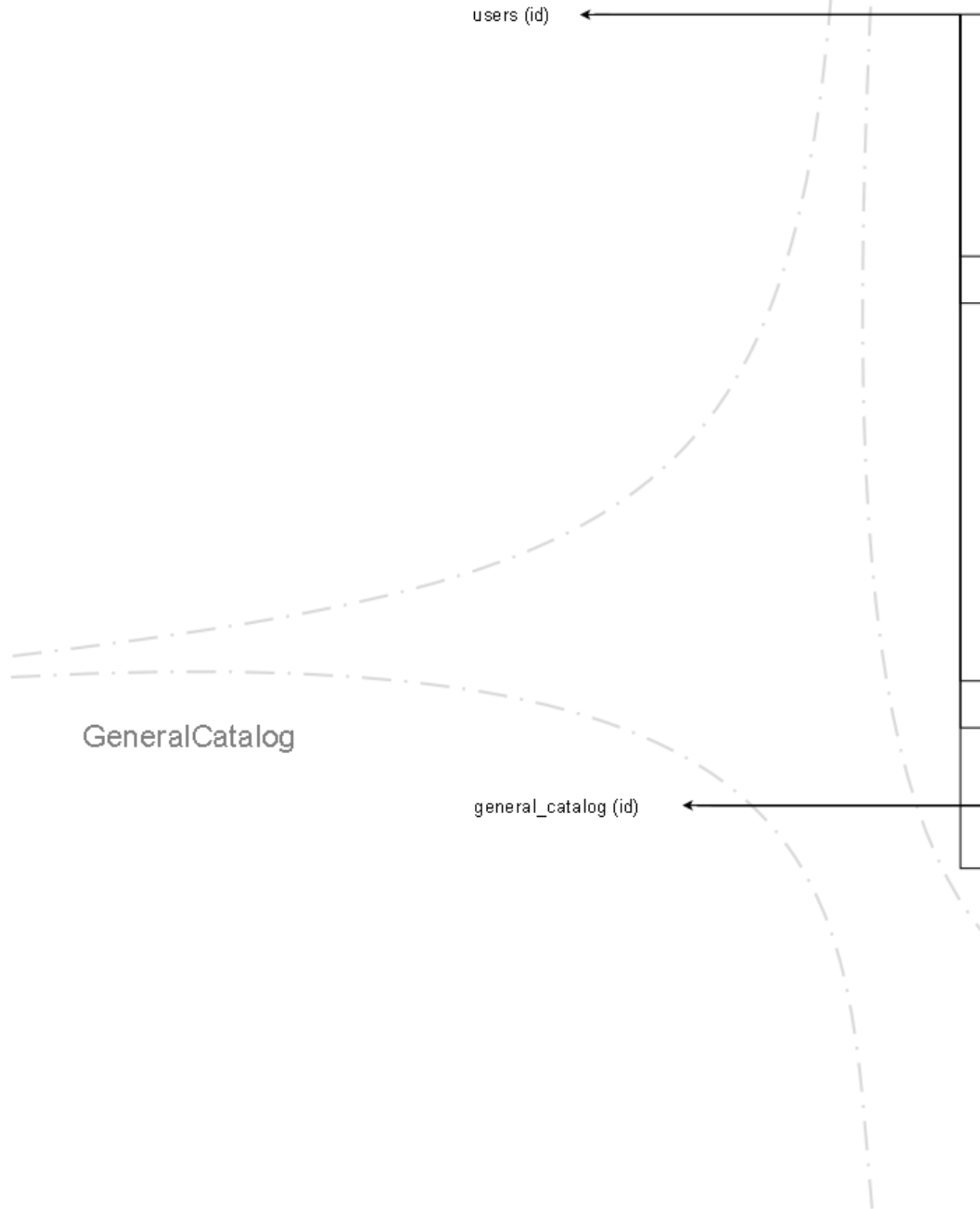


For better readability, the diagram can be found at <http://cvs.otrs.org/viewvc.cgi/GeneralCatalog/doc/general-catalog-database.png?revision=2.0>.

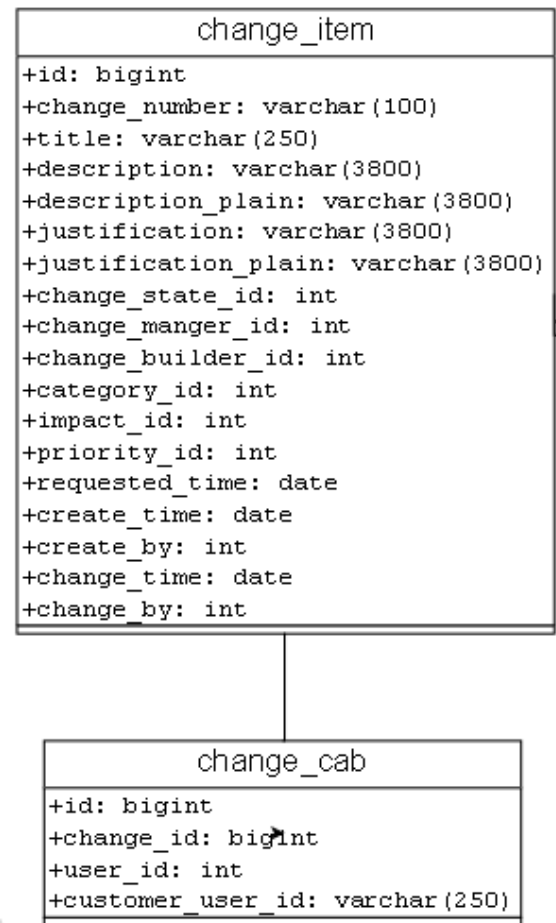
ITSMC

For better readability, the diagram can be found at <http://cvs.otrs.org/viewvc.cgi/ITSMCore/doc/itsm-core-database.png?revision=2.0>.

ITSMC



For better readability, the diagram can be found at <http://cvs.otrs.org/viewvc.cgi/ITSMConfigurationManagement/doc/itsm-configuration-management-database.png?revision=2.0>.

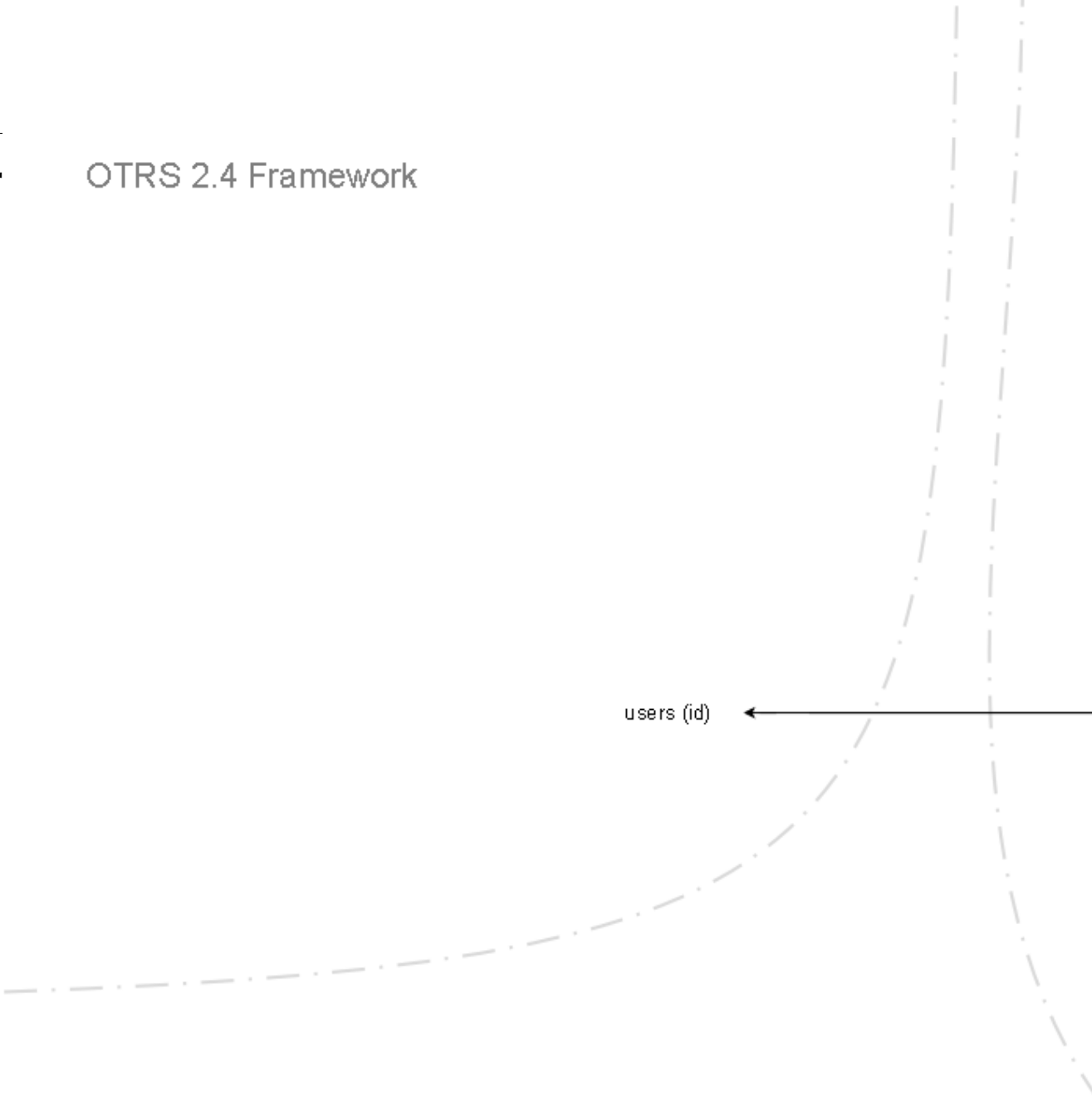


For better readability, the diagram can be found at <http://cvs.otrs.org/viewvc.cgi/ITSMChangeManagement/doc/itsm-change-management-database.png?revision=2.0>.

Impor

OTRS 2.4 Framework

users (id)



For better readability, the diagram can be found at <http://cvs.otrs.org/viewvc.cgi/ImportExport/doc/import-export-database.png?revision=2.0>.

Services, at the core of everything

Services such as "standard IT workstation", "e-mail" or "web access" are IT products and should at all costs be compiled in a so called IT service catalog prior to the adoption of OTRS::ITSM. Such service catalogs are usually customer or company specific, can be structured hierarchically and should be formulated in a user friendly, i.e. easily understood, language, as they can be accessed by IT personnel (agents) and IT users (customers).

Warning

Service catalog design is a task which should not be underestimated. Our experience shows that it is highly recommendable to validate conceptual thoughts in a dry run first and transfer the service structures to OTRS::ITSM in a second step. It has proven of value to resort to external assistance, e.g. of ITIL practice experts.

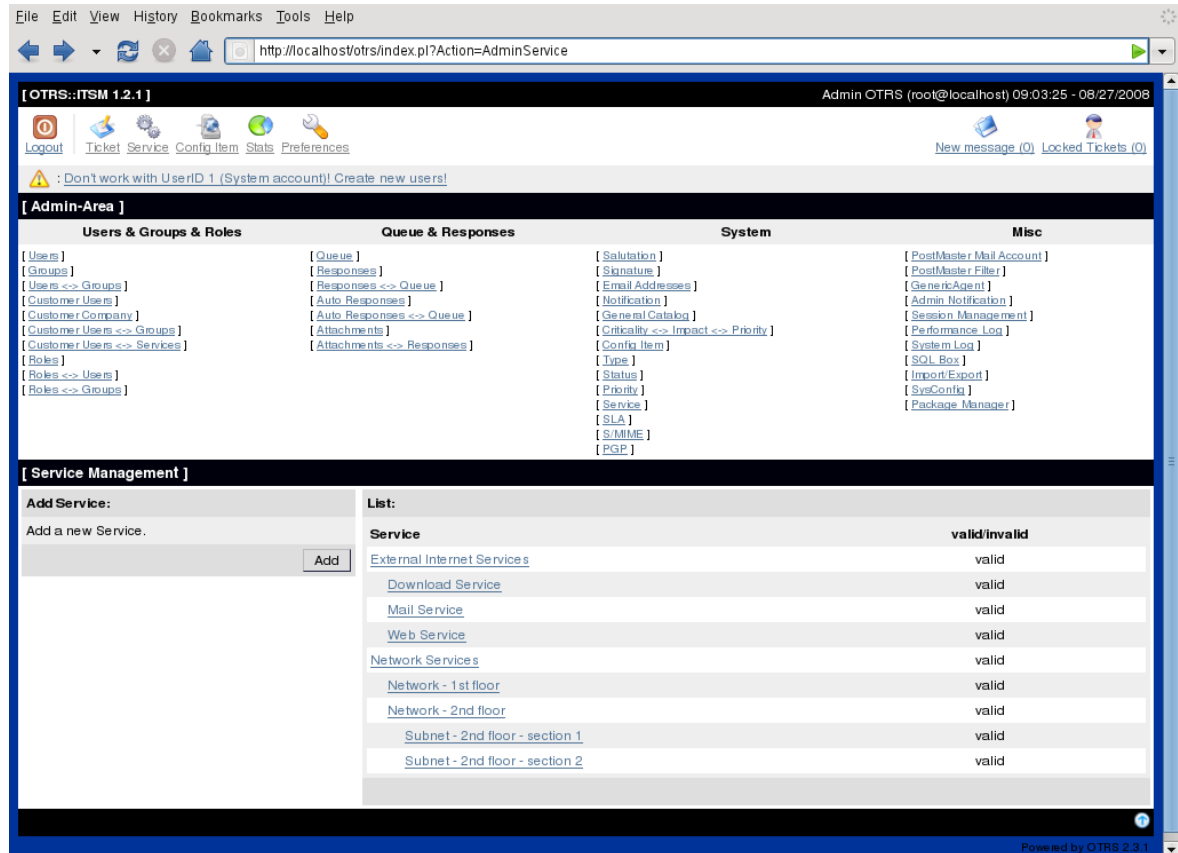
Example of (part of) a hierarchic IT service catalog specified in OTRS::ITSM as shown when a ticket is created

The screenshot shows the OTRS web interface for creating a ticket. The browser address bar displays `http://localhost/otrs/index.pl?Action=AgentTicketPhone`. The form includes the following fields and options:

- Subject:** Text input field.
- Service:** Dropdown menu with a list of services:
 - Application Service
 - Application Service::Application Email Service
 - Application Service::Application File Service
 - Application Service::Application Print Service
 - Archive & Restore
 - User Administration
 - User Administration::Application Access
 - User Administration::Authentication
 - User Administration::Door Access
 - User Administration::Email Access
 - User Administration::User Entry
 - User Administration::User Exit
 - User Equipment Service
 - User Equipment Service::Fixed and Mobile Phones
 - Webhosting
- SLA:** Dropdown menu.
- Owner:** Text input field.
- Options:** Text input field.
- Text:** Text area.
- Attachment:** Text input field with "Browse..." and "Attach" buttons.
- CustomerID:** Text input field.
- Next ticket state:** Dropdown menu with "open" selected.
- Pending Date (for pending states):** Date and time picker set to 06/12/2007 02:51.
- Impact:** Dropdown menu.
- Priority:** Dropdown menu with "3 normal" selected.
- Due Date:** Date and time picker set to 06/11/2007 02:51.
- Time units (work units):** Text input field.
- Create:** Button at the bottom left.

and in the administration area.

The CMDB - the central IT repository



Service levels and service level agreements

Service levels and the respective agreements (service level agreements, SLAs) document quality pledges for IT services. SLAs are recorded and administered in the admin interface.

The CMDB - the central IT repository

File Edit View History Bookmarks Tools Help

http://localhost/otrs/index.pl?Action=AdminSLA

[OTRS::ITSM 1.2.1] Admin OTRS (root@localhost) 09:04:55 - 08/27/2008

Logout Ticket Service Config Item SLAs Preferences

New message (0) Locked Tickets (0)

⚠ : Don't work with UserID 1 (System account)! Create new users!

[Admin-Area]

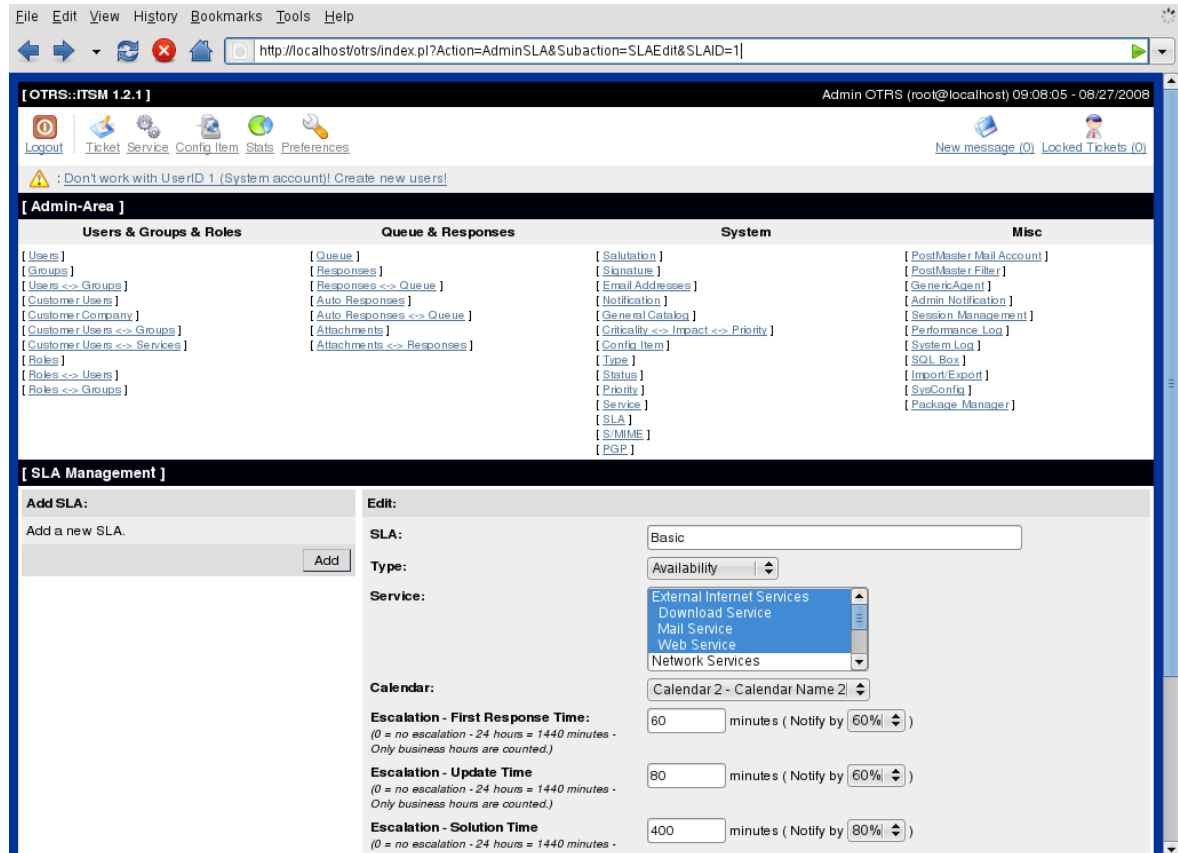
Users & Groups & Roles	Queue & Responses	System	Misc
[Users]	[Queue]	[Salutation]	[PostMaster Mail Account]
[Groups]	[Responses]	[Signature]	[PostMaster Filter]
[Users <-> Groups]	[Responses <-> Queue]	[Email Addresses]	[GenericAgent]
[Customer Users]	[Auto Responses]	[Notification]	[Admin Notification]
[Customer Company]	[Auto Responses <-> Queue]	[General Catalog]	[Session Management]
[Customer Users <-> Groups]	[Attachments]	[Criticality <-> Impact <-> Priority]	[Performance Log]
[Customer Users <-> Services]	[Attachments <-> Responses]	[Config Item]	[System Log]
[Roles]		[Type]	[SQL Box]
[Roles <-> Users]		[Status]	[Import/Export]
[Roles <-> Groups]		[Priority]	[SysConfig]
		[Service]	[Package Manager]
		[SLA]	
		[SLA-MIME]	
		[PGP]	

[SLA Management]

SLA	Service	valid/invalid	Changed	Created
Basic	External Internet Services	valid	08/07/2008 09:42	08/07/2008 09:41
	External Internet Services::Download Service			
	External Internet Services::Mail Service			
	External Internet Services::Web Service			
Gold	External Internet Services	valid	08/07/2008 09:43	08/07/2008 09:43
	External Internet Services::Download Service			
	External Internet Services::Mail Service			

The following parameters can be recorded with every SLA:

The CMDB - the central IT repository



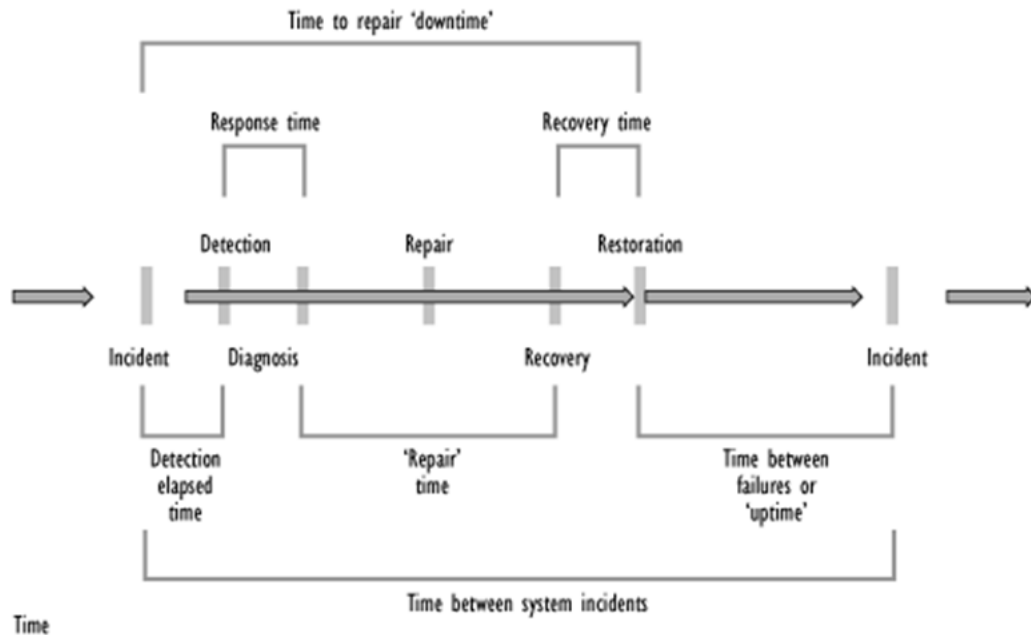
OTRS::ITSM offers up to 99 different calendars by default to describe the various time zones for work or service times. The SLAs can be allocated to them ("service level window"). Various time spans can be entered (in minutes) which OTRS::ITSM uses to control notification and escalation:

- [Response Time]
 - = reaction time with incidents
 - = start of service request procession ("service request lead time")
- [Update Time]
 - = notification time
- [Solution Time]
 - = time elapsed until incidents are resolved ("maximum time to repair", "MTTR")
 - = delivery time for service requests ("delivery time")
- [Min. Time Between Incidents]
 - = "MTBI": minimal time between closure of the last incident ticket and recurrence of an incident for which the same SLA applies.

Warning

If no values for the above-named times are entered in the SLAs, escalation is effected according to the time fields "response time", "update time" and "solution time" assigned to all queues!

Important time values of OTRS::ITSM are based on the "ITIL incident lifecycle":



Source: OGC, ITIL Service Support Documentation

The OTRS stats framework facilitates, among other things, the definition of the actual availability of a service from recorded incidents, which often serves as a performance figure in system-oriented SLAs.

Configuration items

Exemplary overview of recorded computer CIs (part) with current CI state:

The CMDB - the central IT repository

The screenshot displays the OTRS ITSM 1.2.1 web interface. The browser address bar shows the URL: `http://localhost/otrs/index.pl?Action=AgentITSMConfigItem&ClassID=32`. The page header includes the OTRS logo, navigation links (Logout, Overview, New, Search, Ticket, Service, Stats, Preferences, Admin), and user information (Admin OTRS (root@localhost) 09:11:43 - 08/27/2008). A warning message states: "Don't work with UserID 1 (System account)! Create new users!".

The main content area is titled "[Overview: Config Item]" and shows "Config Items shown: 2 - Page: 1 - Config Items available: 2". The class filter is set to "Class: Computer (2)".

Below the filter, a table lists the configuration items for the "Class: Computer":

Number	Name	Deployment State	Last Change
30032000002	FTP Server	Production	08/07/2008 09:56:55
30032000001	Mac Server (internal)	Production	08/07/2008 09:51:46

The footer of the interface indicates "Powered by OTRS 2.3.1".

Example of an individual CI view:

The CMDB - the central IT repository

The screenshot displays the OTRS::ITSM 1.2.1 web interface. The browser address bar shows the URL: `http://localhost/otrs/index.pl?Action=AgentITSMConfigItemZoom&ConfigItemID=3`. The interface includes a top navigation bar with links for Logout, Overview, New, Search, Ticket, Service, Stats, Preferences, and Admin. A status bar at the top right indicates the user is Admin OTRS (root@localhost) and the time is 09:14:56 on 08/27/2008. A warning message states: "Don't work with UserID 1 (System account)! Create new users!". The main content area is titled "[Zoom Config Item: 30032000002]" and contains a breadcrumb trail: "Back - Show Versions - Edit - Print - Link - Duplicate". Below this, a green status icon and a link "1. FTP Server (Production) root@localhost (Admin OTRS) - 08/07/2008 09:56:55" are visible. The configuration item details are presented in two columns. The left column lists various attributes such as Name, Deployment State, Incident State, Vendor, Model, Description, Type, Owner, Serial Number, Operating System, CPU, Ram, Hard Disk (with Capacity), FQDN, Network Adapter, IP over DHCP, IP Address, Graphic Adapter, and Warranty Expiration Date. The right column shows summary information including Class (Computer), Name (FTP Server), Current Deployment State (Production), Current Incident State (Operational), Created (08/07/2008 09:56:55), Created by (root@localhost (Admin OTRS)), Last changed (08/07/2008 09:56:55), and Last changed by (root@localhost (Admin OTRS)).

[Zoom Config Item: 30032000002]	
Back - Show Versions - Edit - Print - Link - Duplicate	
1. FTP Server (Production) root@localhost (Admin OTRS) - 08/07/2008 09:56:55	
Name:	FTP Server
Deployment State:	Production
Incident State:	Operational
Vendor:	Thomas Krenn AG
Model:	4HE Intel Single-CPU RM414 Server
Description:	FTP Server
Type:	Server
Owner:	
Serial Number:	KF1243441-011
Operating System:	openSUSE 11.0
CPU:	Intel Xeon Quad Core 3350 2.66GHz 12MB FSB1333
Ram:	16GB
Hard Disk:	Fujitsu MBA3300RC 15000 U/min
Capacity:	300GB
Hard Disk:	Fujitsu MBA3300RC 15000 U/min
Capacity:	300GB
Hard Disk:	Fujitsu MBA3300RC 15000 U/min
Capacity:	300GB
Hard Disk:	Fujitsu MBA3300RC 15000 U/min
Capacity:	300GB
FQDN:	http://ftp.company.com
Network Adapter:	Intel PRO/1000 PT Quad Port Server
IP over DHCP:	No
IP Address:	80.12.33.111
Graphic Adapter:	onboard Intel GPU
Warranty Expiration Date:	10/10/2012

Summary Information	
Class:	Computer
Name:	FTP Server
Current Deployment State:	Production
Current Incident State:	Operational
Created:	08/07/2008 09:56:55
Created by:	root@localhost (Admin OTRS)
Last changed:	08/07/2008 09:56:55
Last changed by:	root@localhost (Admin OTRS)

The graphic exemplarily shows the links between CIs. OTRS differentiates between bidirectional and nondirectional links. Whenever a CI is linked to another CMDB object, OTRS::ITSM automatically creates the respective reverse link.

The OTRS::ITSM standard offers seven link types:

The screenshot shows the OTRS::ITSM 1.2.1 Admin interface. The top navigation bar includes links for Logout, Overview, New, Search, Ticket, Service, Stats, Preferences, and Admin. The main content area is titled '[Link Object: ConfigItem# 30032000002]'. It features a search form with fields for ConfigItem#, Name, Deployment State (Expired, Inactive, Maintenance), and Incident State (Incident, Operational, Warning). Below the search form is a table of search results for ConfigItem# 30032000002. The table has columns for ConfigItem#, Name, Deployment State, Created, and Linked as. The search results show a single entry for ConfigItem# 30032000001, named 'Mac Server (internal)', with a Deployment State of 'Production' and a Created date of '08/07/2008 09:51:46'. The table also includes a 'Link' button and an 'Alternative to' dropdown menu.

ConfigItem#	Name	Deployment State	Created	Linked as
<input type="checkbox"/> 30032000001	Mac Server (internal)	Production	08/07/2008 09:51:46	-

To link objects, the source object is chosen first, then the link type is defined and the target object chosen. The target object can be searched for using various criteria:

Documents and knowledge database

Using the FAQ system, which is an independent external module since OTRS 2.1, a knowledge database can be designed and managed, e.g. for suggestions and/or procedures related to the resolution of known errors.

Entries can be provided for internal use only, for all customers or the public. They can be created and sorted according to language or categories. The quality of FAQ articles can be evaluated by agents. The number of articles last created or last revised to be displayed can be configured without any limitations. All articles can be indexed for an efficient search.

Changes and amendments to the data model

The data model can be adapted flexibly and can be extended with data types, attributes and even classes. Detailed information can be found in the section "The admin area of OTRS::ITSM" in this document or in "The admin area of OTRS" in the OTRS Admin Manual.

Warning

The design of a CMDB data model and the CIs to be managed within it is a task which should not be underestimated. Our experience shows that it is highly recommendable to validate conceptual thoughts in a dry run against the existing IT infrastructure first

and change the OTRS::ITSM default data model and CI classes only afterwards. It has proven of value to resort to external assistance, e.g. of ITIL practice experts for CMDB design.

Ticket types and attributes

With OTRS 2.2, native ticket types were introduced, which are used in OTRS::ITSM, too. In the ITIL sub-processes which can be structured in queues, tickets are classified on their ticket types.

All ITIL processes to be implemented in later versions of OTRS::ITSM, e.g. change management, will be implemented in such a way. Ticket types such as RfC ("Request for Change") could be created.

[Admin-Area]

Users & Groups & Roles

- [Users]
- [Groups]
- [Users <=> Groups]
- [Customer Users]
- [Customer Company]
- [Customer Users <=> Groups]
- [Customer Users <=> Services]
- [Roles]
- [Roles <=> User]
- [Roles <=> Groups]

Queue & Responses

- [Queue]
- [Responses]
- [Responses <=> Queue]
- [Auto Responses]
- [Auto Responses <=> Queue]
- [Attachments]
- [Attachments <=> Responses]

System

- [Salutation]
- [Signature]
- [Email Addresses]
- [Notification]
- [General Catalog]
- [Criticality <=> Impact <=> Priority]
- [Config Item]
- [Type]
- [Status]
- [Priority]
- [Service]
- [SLA]
- [S/MIME]
- [PGP]

Misc

- [PostMaster Mail Account]
- [PostMaster Filter]
- [Generic Agent]
- [Admin Notification]
- [Session Management]
- [Performance Log]
- [System Log]
- [SQL Box]
- [Import/Export]
- [SysConfig]
- [Package Manager]

[Type Management]

Add Type:

Add a new Type.

List:

Name	valid/invalid	Changed	Created
Incident	valid	08/07/2008 08:48	08/07/2008 08:48
Incident:Disaster	valid	08/07/2008 08:48	08/07/2008 08:48
Incident:ServiceRequest	valid	08/07/2008 08:48	08/07/2008 08:48
Problem	valid	08/07/2008 08:48	08/07/2008 08:48
Problem::KnownError	valid	08/07/2008 08:48	08/07/2008 08:48
Problem::PendingRfC	valid	08/07/2008 08:48	08/07/2008 08:48
default	invalid	08/07/2008 09:45	08/07/2008 08:41

Powered by OTRS 2.3.1

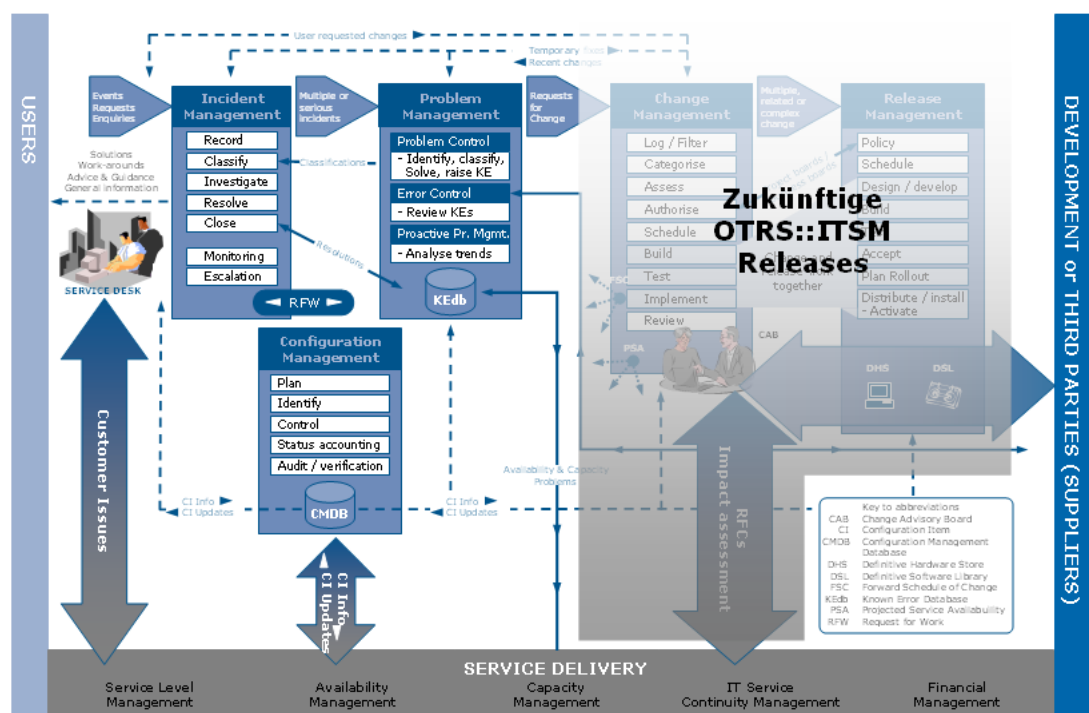
Warning

In order to assure the consistency of the data managed in OTRS::ITSM, information created in the admin area of the system cannot be deleted as a general rule. If you want to deactivate such information, change the value in the respective listbox settings from "valid" to "invalid" or "invalid-temporarily".

Chapter 7. Service desk, incident & problem 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 meet here. The ITIL service management process describes, closely interweaved with the service desk, which work steps, information, escalations and/or interfaces are relevant in connection with the processing of incidents or service requests.

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 far as possible.



Source: ILX Group (www.ilxgroup.com)

Ticket generation, classification and prioritization

At ticket generation in our case a phone ticket the following information can be registered additionally to the information implemented in OTRS:

- ticket type
- relevant service
- SLA

- impact
- priority

Depending on the service selected, impact and priority are automatically submitted from the criticality impact priority matrix but can be overwritten. Requests can thus be prioritized higher or lower, which corresponds to real day-to-day IT business requirements.

Surely every IT service staff member knows a so called VIP customer who wants to be treated more equal than others and can be, this way.

The screenshot shows a web browser window with the URL `http://localhost/ots/index.pl`. The page has a navigation bar with links like [Logout](#), [Queueview](#), [Phone-ticket](#), [Email-ticket](#), [Search](#), [Company](#), [Customer](#), [Bulk-Action](#), [Service](#), [Contact item](#), [Location](#), [Stats](#), [Preferences](#), and [Admin](#). A notification bar at the top says "You have 3 new message(s)!". Below this is a header for "[Phone call / new ticket]". The main form contains the following fields:

- Type:** Incident:ServiceRequest (dropdown)
- From:** "Michaela Kunz" <michaela.kunz@sunshine.com> (text field with "Search Customer" and "Clear From" buttons)
- To:** Service Desk (dropdown)
- Subject:** Please create a shar MAR-Collateral on our file server (text field)
- Service:** Application Service::Application File Service (dropdown)
- SLA:** Application File Service (dropdown)
- Owner:** Skywalker Anakin (skywalker) [All] (dropdown)
- Options:** [Spell Check] [Attachments] [Customer] (checkboxes)
- Text:** A text area containing:
Hi,

In order to let the MAR team collaborate more efficient,
they would like to get a distinct file-space for "Marketing
collateral".

Kind regards

Marry Tiger
- Attachment:** A text field with "Browse..." and "Attach" buttons.
- CustomerID:** CID008 (text field)
- Next ticket state:** open (dropdown)
- Pending Date (for pending):** 06 / 12 / 2007 - 22 / 53 (calendar and time pickers)

On the right side, there is a "Customer Info" section with the following details:

- Salutation:** Frau
- Firstname:** Michaela
- Lastname:** Kunz
- Username:** Michaela.Kunz

By following the ticket content (zoom) link, detailed information about the ticket can be called up. All data relevant for IT support is consolidated in the right hand section:

The screenshot displays the OTRS ITSM 1.2.1 web interface. The browser address bar shows the URL `http://localhost/otrs/index.pl?Action=AgentTicketZoom&TicketID=2`. The interface includes a top navigation bar with links like Logout, QueueView, Phone-Ticket, Email-Ticket, Search, Customer, Bulk-Action, Service, Config Item, Stats, Preferences, and Admin. A warning message states: "Don't work with UserID 1 (System account)! Create new users!". The main content area shows a ticket titled "[Zoom Ticket#: 20080827300000015] No network connection" with an age of 0 minutes. The ticket details include: From: "Theo Test" <tt@otrs.org>, To: Misc, Subject: No network connection, Created: 08/27/2008 09:29:23. The message body reads: "I get no connection to the internet. Please help!". On the right, a sidebar provides additional ticket information: Type: Incident, State: open, Queue: Misc, Locked: unlock, Owner: root@localhost (Admin OTRS), Service: External Internet [...], SLA: Basic, First Response Time: 59 minutes, Time: 08/27/2008 10:29, Solution Time: 6 hours 39 minutes, Criticality: 5 very high, Impact: 3 normal, Priority: 4 high. It also lists Decision Result, Decision Date, Repair Start Time, Recovery Start Time, Due Date, Accounted time: 0, CustomerID: 1, and Customer Info: Firstname: Theo.

SLA relevant time information

With the additional ITSM fields link, time information additional to the response, update and solution time provided in the SLA can be recorded and existing information can be changed:

The screenshot displays the OTRS::ITSM 1.2.1 web interface. The browser address bar shows the URL: `http://localhost/otrs/index.pl?Action=AgentTicketAddITSMField&TicketID=2`. The page header includes the OTRS logo, navigation links (Logout, QueueView, Phone-Ticket, Email-Ticket, Search, Customer, Bulk-Action, Service, Config Item, Stats, Preferences, Admin), and user information (Anakin Skywalker (skywalker@otrs.org) 09:35:51 - 08/27/2008). The main content area is titled '< [Change ITSM fields of ticket: 20080827300000015]' and features a 'Back' link. The 'Options' section contains the following fields:

- Title:** No network connection
- Repair Start Time:** ☐ 08/27/2008 09:35
- Recovery Start Time:** ☐ 08/27/2008 09:35
- Due Date:** ☐ 08/30/2008 09:35

A 'Submit' button is located at the bottom right of the form. The footer of the page indicates 'Powered by OTRS 2.3.1'.

Allocate tickets (queues)

The OTRS::ITSM queues can be adapted flexibly to your organizational structures. They can follow the vertical scheme of service desk, first, second and third level support often used in IT service support or be configured in a process oriented manner based on the ticket life cycle of generation, processing, closure and post-processing.

Contrary to OTRS versions prior to version 2.2, ticket escalation in OTRS::ITSM is based first of all on the response, update and recovery times provided in the SLA. If no values are provided in the SLA, escalation is effected based on the queues and time information stored in them.

Tickets can be moved by choosing a new queue in the bottom right corner of the ticket view.

The screenshot displays the OTRS::ITSM 1.2.1 web interface. The browser address bar shows the URL: `http://localhost/otrs/index.pl?Action=AgentTicketQueue&QueueID=4`. The interface includes a navigation bar with links such as Logout, QueueView, Phone-Ticket, Email-Ticket, Search, Customer, Bulk-Action, Service, Config Item, Stats, Preferences, and Admin. The main content area shows a ticket titled "[Ticket#: 20080827300000015] No network connection" with a status of "No network connection" and an age of "11 minutes". The ticket details include:

- From:** "Theo Test" <tt@otrs.org>
- To:** Misc
- Subject:** No network connection
- Message:** I get no connection to the internet. Please help!

On the right side, a summary of the ticket is provided:

- Type:** Incident
- State:** open
- Queue:** Misc
- Service:** External Internet [...]
- SLA:** Basic
- First Response Time:** 49 minutes
- Solution Time:** 6 hours 29 minutes
- Criticality:** 5 very high
- Impact:** 3 normal
- Priority:** 4 high
- CustomerID:** 1

At the bottom right, there are links for "Compose Answer (email)" and "Contact customer (phone)", and a "Change queue" dropdown menu set to "Misc".

Warning

The design of a queue structure is a task which should not be underestimated. Our experience shows that it is highly recommendable to validate conceptual thoughts in a dry run against the existing IT infrastructure before configuring OTRS::ITSM. It has proven of value to resort to external assistance, e.g. of OTRS or ITIL practice experts for the queue design.

Change ticket data

All changes to the ticket can be effected just as in OTRS using the links below the navigation bar.

The screenshot displays the OTRS::ITSM 1.2.1 web interface. The browser address bar shows the URL `http://localhost/otrs/index.pl?Action=AgentTicketZoom&TicketID=2`. The interface includes a top navigation bar with links like Logout, QueueView, Phone-Ticket, Email-Ticket, Search, Customer, Bulk-Action, Service, Config Item, Stats, Preferences, and Admin. A warning message states: "Don't work with UserID 1 (System account)! Create new users!". The main content area shows a ticket titled "[Zoom Ticket#: 20080827300000015] No network connection" with an age of 0 minutes. The ticket details include: From: "Theo Test" <tt@otrs.org>, To: Misc, Subject: No network connection, Created: 08/27/2008 09:29:23. The description reads: "I get no connection to the internet. Please help!". On the right, a summary table provides details: Type: Incident, State: open, Queue: Misc, Locked: unlock, Owner: root@localhost (Admin OTRS), Service: External Internet [...], SLA: Basic, First Response Time: 59 minutes, Time: 08/27/2008 10:29, Solution Time: 6 hours 39 minutes, Criticality: 5 very high, Impact: 3 normal, Priority: 4 high. The Decision Result section shows Decision Date, Repair Start Time, Recovery Start Time, Due Date, and Accounted time: 0. Customer ID is 1, and Customer Info shows Firstname: Theo.

Approvals and decisions

In many cases, especially with service requests, decisions have to be taken before requests can be implemented. Depending on the competence framework, decisions are either taken directly by the service staff (standard changes) or the approval of a supervising manager must be obtained first. This is primarily the case with permission changes (a user wants to access a restricted file system directory) or cost generating requests (new laptop).

In OTRS::ITSM approvals and refusals are shown via the decision link and are permanently saved with the ticket:

The screenshot shows a web browser window with the URL `http://localhost/otrs/index.pl?Action=AgentTicketDecision&TicketID=2`. The page title is "[OTRS::ITSM 1.2.1]". The user is logged in as "Anakin Skywalker (skywalker@otrs.org)" on 09:42:32 - 08/27/2008. The navigation bar includes links for Logout, QueueView, Phone-Ticket, Email-Ticket, Search, Customer, Bulk-Action, Service, Config Item, Stats, Preferences, Admin, New message (0), and Locked Tickets (0). The main content area is titled "[Add decision to ticket: 20080827300000015]" and contains a "Back" link. The form has the following fields:

- Options:**
 - Subject:** Decision
 - Options:** [Spell Check] [Attachments]
 - Text:** Reason: (large text area)
- Attachment:** (text input) [Browse...] [Attach]
- Note type:** note-internal
- Decision Result:** Approved
- Decision Date:** 08 / 27 / 2008 - 09 : 42
- Time units (work units):** (text input)

A "Submit" button is located at the bottom right of the form.

Generation of problem tickets from incidents

To generate a problem ticket from one or more incidents, generate a new ticket and link it with the relevant incident tickets. This way, the underlying incidents can be processed individually, can be closed with a workaround if necessary and later be substituted with a permanent solution.

A merging of incident and problem tickets obscures the reporting and complicates controlling and the continuous improvement of the IT services.

Ticket closure

Unlike the OTRS standard, OTRS::ITSM facilitates ITIL compliant ticket closure with a workaround.

Processing of service requests

Service requests are incidents, too and are processed equally. They are distinguishable from disruptions because of the ticket type Incident::Service Request.

Another difference, the SLA relevant times, is explained in greater detail in the service levels and service level agreements section.

Service desk, incident & problem management

File Edit View History Bookmarks Tools Help

http://localhost/otrs/index.pl?Action=AgentITSMSLAZoom&SLAID=2

[OTRS::ITSM 1.2.1] Anakin Skywalker (skywalker@otrs.org) 09:45:47 - 08/27/2008

Logout Service SLA Ticket Config Item SLAs Preferences Admin New message (0) Locked Tickets (0)

[Zoom: SLA]

[Back](#) - [Print](#)

SLA: Gold
Type: Availability
Calendar: Calendar 2 - Calendar Name 2
First Response Time: 15 minutes
Update Time: 30 minutes
Solution Time: 120 minutes
Minimum Time Between Incidents: 10080 minutes

Created: 08/07/2008 09:43:09
Created by: root@localhost (Admin OTRS)
Last changed: 08/07/2008 09:43:09
Last changed by: root@localhost (Admin OTRS)

Associated Services

Service	Type	Criticality	Changed
External Internet Services	Back End	5 very high	08/07/2008 08:53:15
External Internet Services::Download Service	Back End	4 high	08/07/2008 08:53:58
External Internet Services::Mail Service	Back End	4 high	08/07/2008 08:54:22
External Internet Services::Web Service	End User Service	3 normal	08/07/2008 08:54:44

Powered by OTRS 2.3.1

Chapter 8. Change Management

Change Management, according to ITIL, is a Service Transition process whose purpose is to manage IT changes, including planning, documentation and implementation upon approval and clearance. The objective is to minimize negative effects on the IT infrastructure, particularly on critical services, resulting from ad-hoc or poorly-managed changes or amendments.

Change Management Module Requirements

Required Expertise

The implementation of OTRS::ITSM requires significant technical specification and preparation. Prior to a technical implementation, key elements of the Change Management process, such as required workflows, metrics or reports, must be defined.

Technical Requirements

The software below is necessary to implement the Change Management module:

1. OTRS Framework, version 2.4.5 or higher (2.4.7 is recommended)
2. ITSM "GeneralCatalog" package, version 2.0
3. ITSM "ITSMCore" package, version 2.0

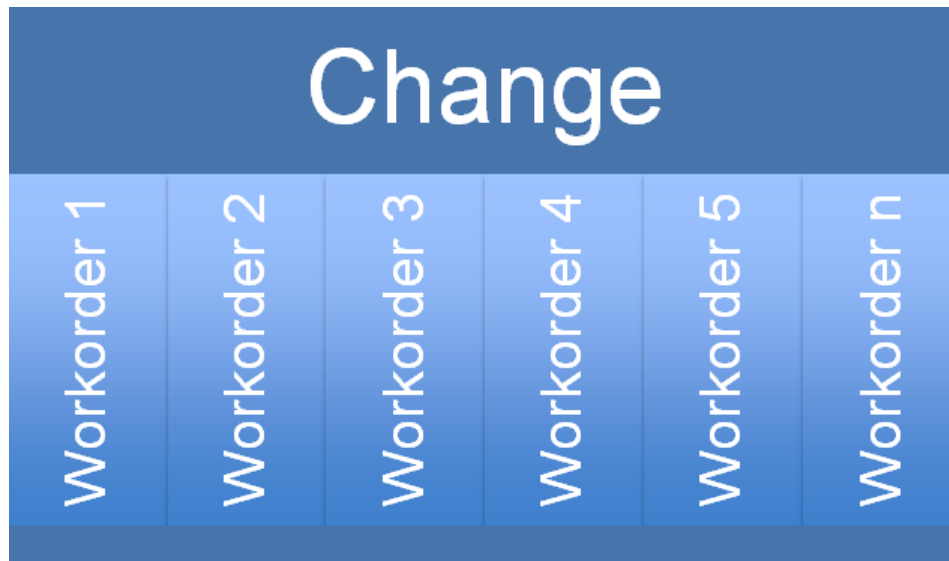
The following packages are recommended, but from a technical perspective not absolutely necessary:

- ITSM "ITSMIncidentProblemManagement" package, version 2.0
- ITSM "ITSMServiceLevelManagement" package, version 2.0
- ITSM "ITSMConfigurationManagement" package, version 2.0
- ITSM "ImportExport" package, version 2.0

Diagram of Change Management in OTRS::ITSM

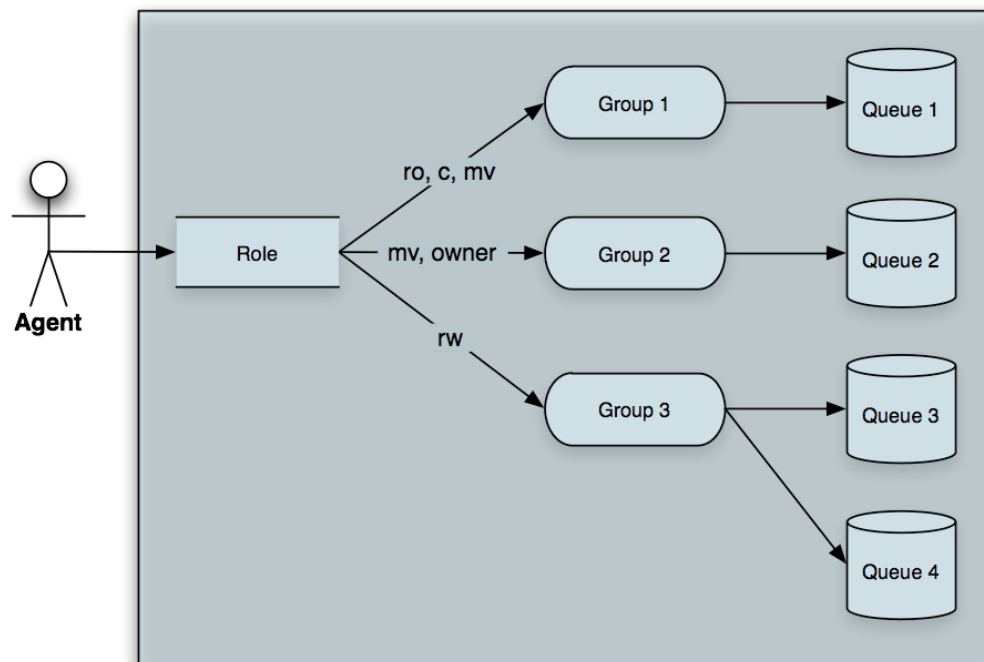
The Change Management implementation in OTRS::ITSM defines a Change as an alteration of the existing IT landscape, such as the installation of a new mail server.

As Changes typically consist of several sub-tasks, OTRS::ITSM allows any number of sub-tasks to be defined per change. These are known as Work Orders.



Available User Roles

Access to the Change Management module is managed on a role-based access concept. The required user roles are created via the OTRS Administrator, according to corresponding user group permissions in the Change Management module.



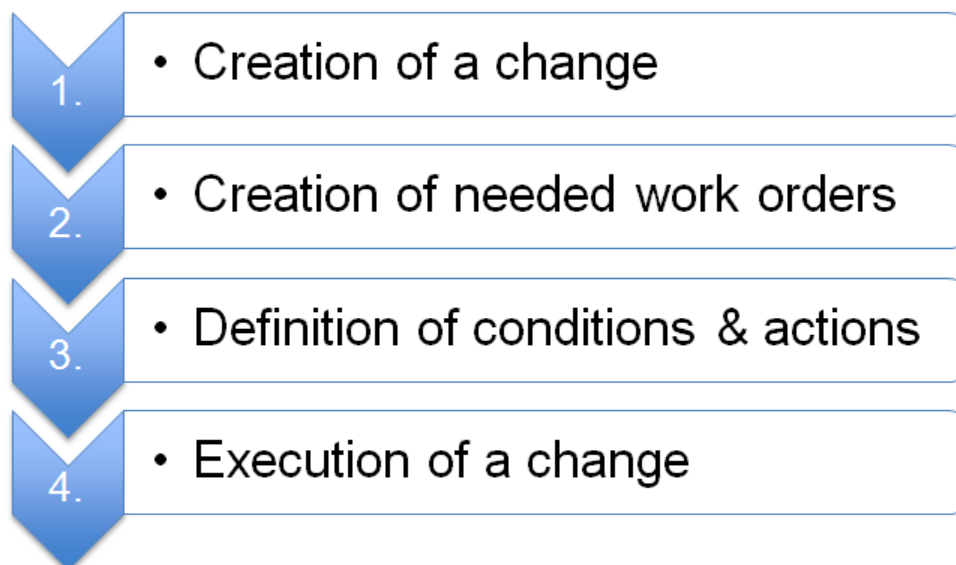
By installing the OPMs listed under "Technical Requirements", the user groups in the table below will be created:

Table 8.1. User roles

User role	Access and privileges
itsm-change	<p>Members of this user group have access to the Change Management module. All potential Work Order Agents should be assigned to this group.</p> <p>All Changes and Work Orders can be viewed by these users.</p>
itsm-change-builder	<p>Members of this user group can create new Changes and Work Orders in the system.</p> <p>All Changes and Work Orders can be viewed by this group.</p> <p>Changes and Work Orders created by the Change Builder, or that have been defined as accessible to the Change Builder, may be edited by these users.</p>
itsm-change-manager	<p>Members of this user group can create new Changes and Work Orders in the system.</p> <p>All Changes and Work Orders can be viewed by this group.</p> <p>These users can edit all Changes and Work Orders.</p>

Underlying Workflow

The implementation of a change, including all required Work Orders, follows the underlying workflow shown below.



Creating a New Change

Attributes of a Change

To create a new Change, the following attributes must be entered.

Table 8.2. Attributes of a Change

Attribute	Required Field	Details
Title	Yes	Short description / name of Change
Description	No	Longer text description of the Change
Justification	No	Text explanation of the reasons behind the Change; answer to the question: "What is the likely consequence if the Change is not implemented?"
Category	Yes	Defines the type of Change, e.g "3 normal" etc.
Impact	Yes	Defines the effects or impact the Change will have, eg. "4 high", etc.
Priority	Yes	Defines the priority of the Change, eg. "5 very high", "3 normal", etc. .
State	Yes	When creating a new Change, the status is automatically set. When modifying an existing Change, the Change Builder and Change Manager can manually set the status. Available status and result status are defined by the integrated State Machine, see the section called "Change State Machine".
Requested (by customer) Date	No	If required, this attribute can be deactivated via SysConfig for the 'ChangeEdit', 'ChangeAdd' and 'ChangeZoom' templates, and display the customer's desired implementation date.
Attachment	No	Enables related files and documents to be attached

Category - Impact - Priority Matrix

To determine the priority of a Change, OTRS::ITSM supports the Change Builder through an integrated matrix which suggests a priority for selection, based on the chosen category and change impact entered in the system. This suggested priority can always be overridden by the Change Builder.

The category, impact and priority values given upon installation can be customized in the General Catalog by the administrator.

Priority allocate:

	Category 1 very low	Category 2 low	Category 3 normal	Category 4 high	Category 5 very high
Impact 1 very low	1 very low	1 very low	2 low	2 low	3 normal
Impact 2 low	1 very low	2 low	2 low	3 normal	4 high
Impact 3 normal	2 low	2 low	3 normal	4 high	4 high
Impact 4 high	2 low	3 normal	4 high	4 high	5 very high
Impact 5 very high	3 normal	4 high	4 high	5 very high	5 very high

Save

Here, the menu item "General Catalog" should be selected in the OTRS::ITSM Administration interface.

ITSM::Change Management::Category

Upon installation, OTRS::ITSM Change Management generates the following values for the Category selection field:

- 1 very low
- 2 low
- 3 normal
- 4 high
- 5 very high

ITSM::Change Management::Impact

Upon installation, OTRS::ITSM Change Management generates the following values for the Impact selection field:

- 1 very low
- 2 low
- 3 normal
- 4 high

- 5 very high

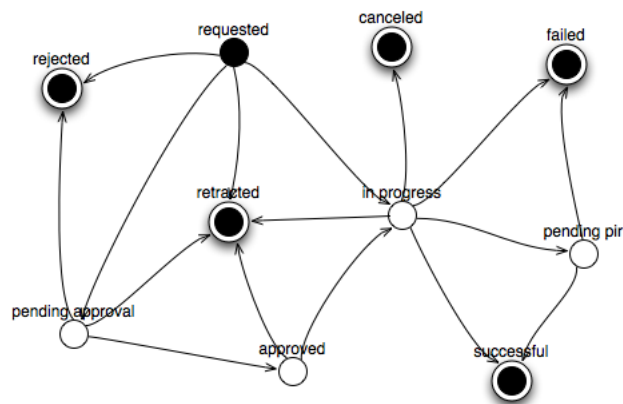
ITSM::Change Management::Priority

Upon installation, OTRS::ITSM Change Management generates the following values for the Priority selection field:

- 1 very low
- 2 low
- 3 normal
- 4 high
- 5 very high

Change State Machine

OTRS::ITSM features a State Machine which defines valid statuses and possible result statuses for a Change. The standard installation generates suggestions based on the following logic model:



Adjustments to the State Machine can be made by the system administrator in the administration front end, under menu option State Machine. The statuses and possible result statuses should be defined here.

Where necessary, additional statuses can be defined under the menu option "General Catalog" -> "ITSM::Change Management::Change::State". In OTRS::ITSM, this is illustrated as a table:

Overview over state transitions for Change:		
State	Next State	Delete
START	Requested	
Requested	Pending Approval	X
Requested	Rejected	X
Requested	Retracted	X
Pending Approval	Approved	X
Pending Approval	Retracted	X
Rejected	*END*	X
Approved	Retracted	X
Approved	In Progress	X
Approved	Pending Approval	X
In Progress	Canceled	X
In Progress	Failed	X
In Progress	Retracted	X
In Progress	Successful	X
Successful	*END*	X
Failed	*END*	X
Canceled	*END*	X
Retracted	*END*	X

Defining Participant Roles / Persons Related to a Change

After entering the basic data of the Change, the persons participating in implementation can be defined in the Involved Persons feature.

Involved Persons

Change Manager:

Change Builder:

Change Advisory Board

Add CAB Template:

Add to CAB:

Current CAB:

Agent:

jd (John Doe)

tt (Theo Test)

ub (Udo Bretz)

SAP (CC 1000) (Werner Siebecke)

Kunde:

ub (Udo Bretz)

Here, the system offers convenient access to all connected client backends and agent backends, such as SQL databases or LDAP directory services. If specified, the CAB can be defined according to an existing CAB template.

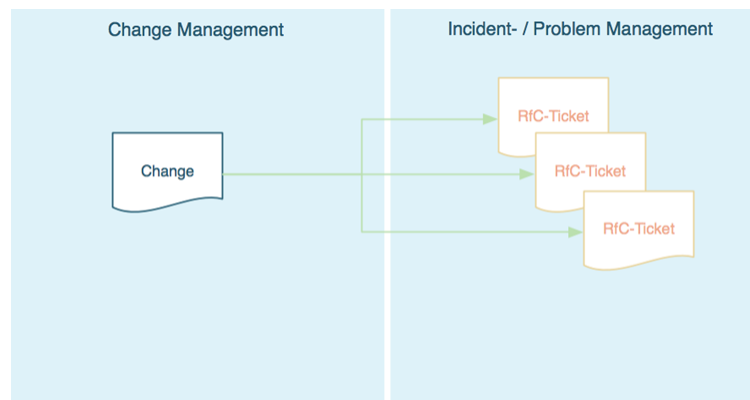
53

Table 8.3. Involved Persons

Attribute	Required Field	Details
Change Manager	Yes	Assigns Change Manager privileges to an agent, for the current Change.
Change Builder	Yes	Defines the agent who processes and defines the current Change. When creating a new Change, the current agent is automatically entered as the Change Builder.
Change Advisory Board	No	Defines a group of people which can include agents and customers.

Linking a Change with a Request for Change

Through the OTRS Framework's renowned linking mechanism, the system allows a change to be linked to a ticket. In this way, the origin of a change ie. the Request for Change or problem can be easily identified.



Furthermore, it is possible to open the corresponding Change directly from a ticket within the Incident or Problem Management process ie. the ticket system from which it originated. In this case, the system creates a transparent link between the ticket and Change. In the configuration, this feature can be restricted to only those agents who are permitted to create Changes. It is also possible to restrict the usage of the ticket type "RfC" to only those agents who have access to the Change Management area. Please have a look at the following sysconfig options:

- Ticket -> Core::TicketACL - Ticket::Acl::Module###200-Ticket::Acl::Module
- ITSM Change Management -> Core::ITSMChange -
ITSMChange::AddChangeLinkTicketTypes
- ITSM Change Management -> Core::ITSMChange -
ITSMChange::RestrictTicketTypes::Groups

Defining Conditions

OTRS::ITSM allows conditions and actions to be defined based on the attributes of a Change and/or Work Order. Through the administration front-end, these attributes can be activated or deactivated for the Change Builder.

Workflows can be defined here. For example, a workflow to set the entire Change to "canceled" or request review / approval clearance when a Work Order is canceled.

The screenshot shows the 'Condition' configuration page in OTRS::ITSM. It is divided into three main sections: 'Condition', 'Expressions', and 'Actions'.

- Condition Section:**
 - Name:** * Test Conditions
 - Matching:** ☐ Any expression ☒ All expressions
 - Valid:** valid
 - Comment:** (empty text area)
- Expressions Section:**
 - Row 1: Change (dropdown) 201002031215000011 (dropdown) Category (dropdown) is (dropdown) 4 high (dropdown) [Delete]
 - Row 2: Workorder (dropdown) ITSMCondition::Selector::any (dropdown) WorkOrderState (dropdown) is (dropdown) Canceled (dropdown) [Delete]
 - Buttons: Add new expression. [Add]
- Actions Section:**
 - Row 1: Change (dropdown) 201002031215000011 (dropdown) ChangeState (dropdown) set (dropdown) Canceled (dropdown) [Delete]
 - Row 2: Change (dropdown) 201002031215000011 (dropdown) Priority (dropdown) set (dropdown) 5 very high (dropdown) [Delete]
 - Buttons: Add new action. [Add]

At the bottom right, there is a [Save] button.

It should be noted that the defined conditions are not executed in a certain order; rather, actions are processed in the order they were set.

Conditions Available at the Change Level

The following attributes can be used to define Conditions at the Change level

Table 8.4. Conditions available at the Change level

Change Attribute	Logical Operator
AccountedTime	is
PlannedEffort	is not
	is empty
	is not empty
	is greater than
	is less than
Category	is
ChangeBuilder	is not
ChangeState	

Change Attribute	Logical Operator
Impact	
Priority	
ChangeManager	is is not is empty is not empty
ChangeTitle	begins with ends with contains does not contain is is not is empty is not empty

Conditions Available at the Work Order Level

The following attributes can be used to define conditions at the Work Order level.

Table 8.5. Conditions available at the Work Order level

Work Order Attribute	Logical Operator
AccountedTime	is
PlannedEffort	is not is empty is not empty is greater than is less than
WorkOrderNumber	is is not is greater than is less than
WorkOrderState	is
WorkOrderType	is not

Work Order Attribute	Logical Operator
WorkOrderAgent	
WorkOrderTitle	begins with ends with contains does not contain is is not is empty is not empty

Defining Actions

After the conditions have been established, OTRS::ITSM allows you to define any number of actions to be executed on the current Change or all / one of the Work Orders of the current change.

Actions Available at the Change Level

The following actions can be performed for Change objects. The operator "set" enables the selected attribute to be set at a specific value, if the defined condition is true. On the other hand, the operator "lock" freezes the selected attribute, for as long as the defined condition is true ie. a manual change is not possible.

Table 8.6. Actions available at the Change level

Change Attribute	Action
Category	set
Impact	
Priority	
ChangeState	set lock

Actions Available at the Work Order Level

The following actions can be performed for Work Order objects. The operator "set" enables the selected attribute to be set at a specific value, if the defined condition is true. On the other hand, the operator "lock" freezes the selected attribute, for as long as the defined condition is true ie. a manual change is not possible.

Table 8.7. Actions available at the Work Order level

Work Order Attribute	Action
WorkOrderState	set

Work Order Attribute	Action
	lock

Rescheduling (Postponing) the Start / End Time of a Change

In practice, the planned start or end time of a Change may need to be revised. The system allows the Change Builder to do this with the "Move Time Slot" feature.

Through selector fields, the Change Builder has the ability to shift the planned Change implementation timeframe.

Creating a Work Order

Within a Change, the system offers a "Add Work Order" feature which enables any number of sub-tasks (Work Orders) related to a selected Change to be entered.

Attributes of a Work Order

Once a Change is created, it effectively serves as a container for the definition of sub-tasks, ie. Work Orders, and these Work Orders can now be defined by the Change Builder.

Table 8.8. Attributes of a Work Order

Attribute	Required Field	Details
Title	Yes	Short description / name of Work Order.
Instruction	No	Longer text description of the Work Order.
Work Order Type	Yes	Selection list to define the type of Work Order, eg. approval, work order, PIR, etc.
Category	Yes	Defines the type of Change, e.g "3 normal" etc.
Impact	Yes	Defines the effects or impact of the Change, eg. "4 high", etc.
Priority	Yes	Defines the priority of the Change, eg. "5 very high", "3 normal", etc.
State	Yes	When creating a new Change, the status is automatically set. When modifying an existing

Attribute	Required Field	Details
		Change the Change Builder and Change Manager can manually set the status. Available statuses and result statuses are defined by the integrated State Machine, see the section called "Change State Machine".
Requested (by customer) Date	No	If required, this attribute can be deactivated via SysConfig for the 'ChangeEdit', 'ChangeAdd' and 'ChangeZoom' templates, and display the customer's desired implementation date.
Attachment	No	Enables related files and documents to be attached

In addition to these attributes, the assigned Work Order agent can collect attributes through the "Report" feature, which is explained in detail in the "Work Order Agent Report" chapter.

Work Order Type

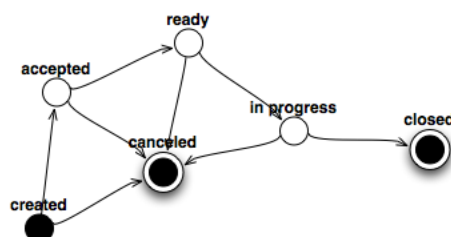
The following entries for the "Work Order Type" attribute are available in the standard installation of OTRS::ITSM Change Management:

- Approval
- Work Order
- Backout
- Decision
- PIR (Post Implementation Review)

The administrator can freely define and specify Work Order types, as well as add new types.

Work Order State Machine

OTRS::ITSM features a State Machine which defines valid statuses and possible result statuses for a Work Order. The standard installation generates suggestions based on the following logic model:



Adjustments to the State Machine can be made by the system administrator in the administration front end, under menu option State Machine. The statuses and possible result statuses should be defined here.

Where necessary, additional statuses can be defined under the menu option "General Catalog" -> "ITSM::ChangeManagement::WorkOrder::State".

In OTRS::ITSM, this is illustrated as a table:

Overview over state transitions for WorkOrder:		
State	Next State	Delete
START	Created	
Created	Accepted	X
Created	Canceled	X
Accepted	Ready	X
Accepted	Canceled	X
Ready	Canceled	X
Ready	In Progress	X
In Progress	Canceled	X
In Progress	Closed	X
Closed	*END*	X
Canceled	*END*	X

Defining the Work Order Agent

Each Work Order can be assigned to a so-called Work Order agent, ie. a person responsible for the execution of the Work Order.

The system offers access to all connected agent back-ends here. It is important to note that only agents who have full access rights to the user group "have itsm-change" are displayed.

Workorder Agent

Workorder Agent: **

agent1 Test Agent 1 (2)

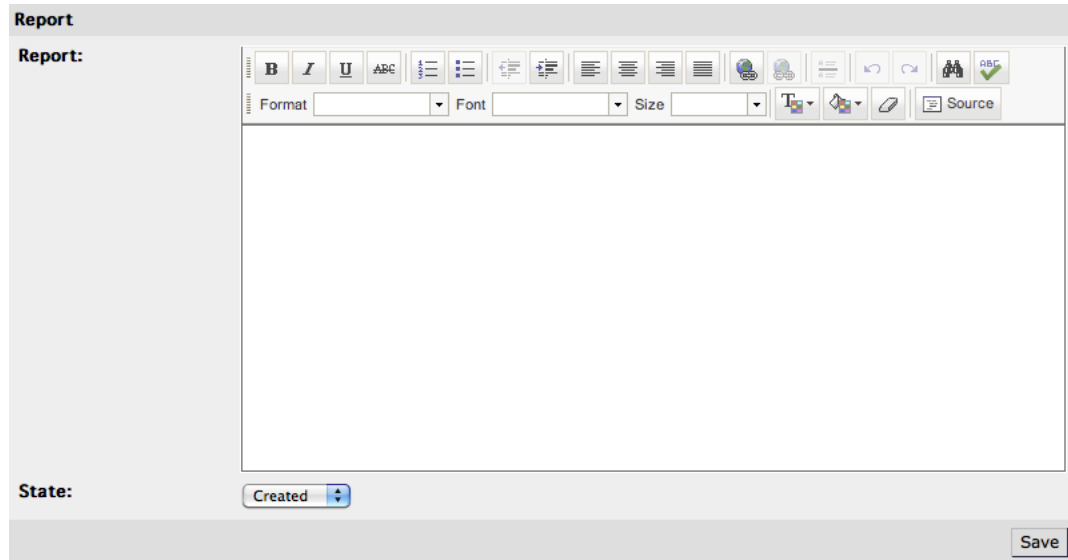
agent2 Test Agent 2 (3)

root@localhost Admin OTRS (1)

Save

Work Order Agent Report

The assigned Work Order agent can document related information such as comments, the actual Work Order start and end times, required processing time and status.



Linking Work Orders to Configuration Items / Services

Within a Work Order, OTRS::ITSM allows linking to other objects.

In the standard installation, a Work Order can be linked to the following objects:

- CIs
 - CI-Class Computer
 - CI-Class Hardware
 - CI-Class Location
 - CI-Class Network
 - CI-Class Software
- Services
- Tickets

These settings are defined via SysConfig under "Framework -> Core::LinkObject" and can be extended when desired.

Saving a Work Order as a Template


A Work Order can be saved as a template through the "Template" feature, within the Work Order itself.

The dialog box requires the Change Builder to give the template a name and an optional comment. Once the user leaves the dialog box by clicking the "Add" button, the Work Order will be available as a template when a new Work Order is being created.

Save Workorder as Template

Template Name: *

Comment:

Valid: 

Deleting a Work Order

The Change Builder can delete a Work Order as long as it is not referred to in a Condition (see the "Defining conditions" section).

Delete Workorder# 2010020411000048-3

You can not delete this Workorder. It is used in at least one Condition!

This Workorder is used in the following Condition(s):

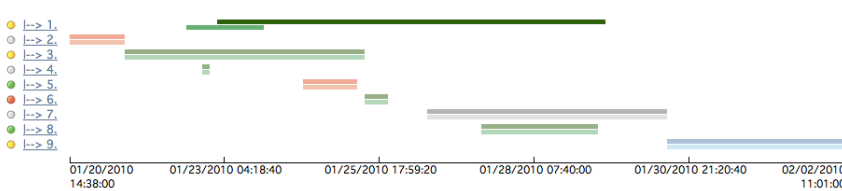
Condition Name: [Delivery after successful PIR](#)

Viewing the Content of a Change

After creating a Change and its associated Work Order, the system has the capability to display other information related to the Change, including corresponding Work Orders, linked tickets and CIs.


[Zoom Change#: 20100120401000016] Replacement of mailserver in company headquarter


[Back](#) - [History](#) - [Edit](#) - [Involved Persons](#) - [Add Workorder](#) - [Conditions](#) - [Link](#) - [Template](#)



Description: The mailserver must be replaced with a new one. Add some lines here.

Justification: The old mail server is too slow.

Attachment: MailServer-Infrastructure.pdf  423.0 KBytes

Change State: Approved 

Planned Start: 01/20/2010 14:38:00
Planned End: 02/02/2010 11:01:00
Actual Start: 01/22/2010 09:51:00
Actual End: -

Requested (by customer) Date: -

Planned Effort: 42.00
Accounted Time: 26.00

Category: 2 standard
Impact: 3 All Users Affected
Urgency: 4 high

Change Initiator(s): root@localhost (Admin OTRS)
 ub (Udo Bretz)



Change Manager: root@localhost (Admin OTRS)

Change Builder: root@localhost (Admin OTRS)



CAB: jd (John Doe)
 tt (Theo Test)
 ub (Udo Bretz)
 SAP (CC 1000) (Werner Siebecke)
 ub (Udo Bretz)

Created: 01/20/2010 16:02:44
Created by: root@localhost (Admin OTRS)
Last changed: 02/09/2010 08:56:12
Last changed by: root@localhost (Admin OTRS)

Linked: Configitem (Computer)

Configitem#	Name	Deployment State	Created	Linked as
 40167000002	HP Proliant 3438 - Mail server	Review	01/25/2010 13:10:39	Peer-2-Peer
 40167000001	Sony i8000	To be disposed	01/25/2010 12:20:54	Peer-2-Peer

Linked: Service

Service	Type	Criticality	Changed	Linked as
 Email Service	Back End	1 very low	01/21/2010 10:09:41	Depends on
 User Services::User Request for Information	Back End	1 very low	01/21/2010 10:13:36	Peer-2-Peer

Linked: Ticket

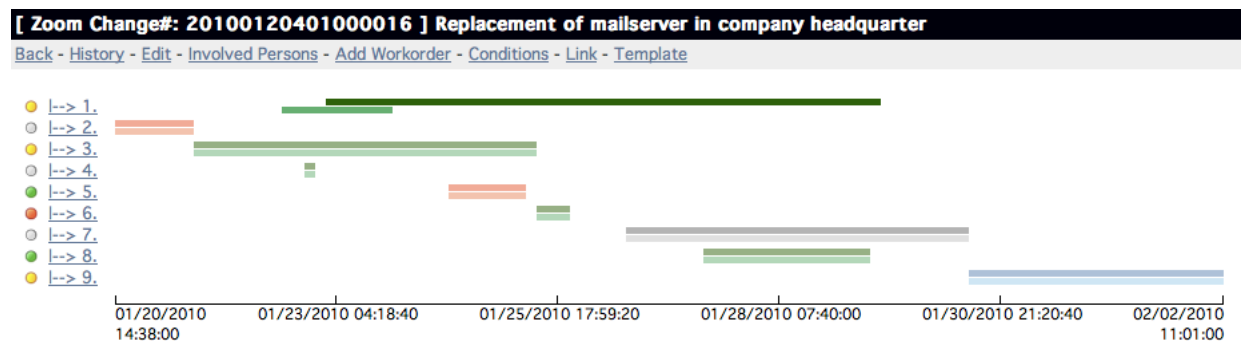
Ticket#	Title	Type	State	Created	Linked as
20100125401000016	Please provide to me a new std. laptop	Service Request	pending reminder	01/25/2010 14:13:59	Peer-2-Peer
20100122401000195	Test	Incident	open	01/22/2010 16:16:04	Peer-2-Peer
20100121401000014	Mailserver should be replaced with a faster machin[...]	RFC	open	01/21/2010 10:04:30	Peer-2-Peer

The defined Work Orders are numbered in order of their planned execution and displayed in a timeline. The color of the displayed Work Order in the timeline reflects their type, and can be customized via SysConfig "ITSM Change Management -> Frontend::Agent::ViewChangeZoom" as required.

The system generates two bars per Work Order in the Change timeline. The upper, darker bar represents the planned Work Order implementation time, while the lower, lighter bar displays the actual Work Order implementation time.

The status of each Work Order is represented by traffic lights, as seen in the following view:

- Gray - Work Order is "created"
- Yellow - Work Order is "pending approval"
- Green - Work Order is "closed"
- Red - Work Order is "canceled"



Change Views

OTRS::ITSM offers a variety of ways to view the Changes saved in the system. Access to these views can be disabled where desired.

Change Overview

All Changes are displayed in an overview screen, which can be sorted in ascending or descending order per column.

Change Management

[Overview: Change: All]								
Filter: All (12) - Requested (2) - Pending Approval (3) - Rejected (0) - Approved (0) - In Progress (1) - Successful (6) - Failed (0) - Canceled (0) - Retracted (0)								
Changes: 1-12 of 12 - Page: 1								
Change# 🔍 / 🔄	Change Title 🔍 / 🔄	Change Builder 🔍 / 🔄	Workorders	Change State 🔍 / 🔄	Urgency 🔍 / 🔄	Services 🔍 / 🔄	Planned Start 🔍 / 🔄	Planned End 🔍 / 🔄
20100120401000016	Replacement of mailserver in company hea[...]	SAP (CC 1000) (Werner Siebecke)	9	Pending Approval	4 high	Email Service User Services::User Request for Information	01/20/2010 14:38:00	02/02/2010 11:01:00
20100122401000012	Another change	root@localhost (Admin OTRS)	4	Successful	2 low		01/24/2010 11:39:00	01/27/2010 15:35:00
20100122401000021	new change	root@localhost (Admin OTRS)	1	In Progress	1 very low	User Services::Provisioning of User Equipment	01/23/2010 21:19:00	01/23/2010 22:19:00
20100125401000016	Another change	root@localhost (Admin OTRS)	4	Successful	2 low		01/27/2010 14:15:00	01/29/2010 11:14:00
20100127401000012	Austausch Ticketsystems	root@localhost (Admin OTRS)	2	Requested	3 normal		01/27/2010 09:00:00	01/28/2010 15:42:00
20100127401000021	Replacement of mailserver in company hea[...]	SAP (CC 1000) (Werner Siebecke)	9	Pending Approval	4 high		01/20/2010 14:38:00	02/02/2010 11:01:00
20100201401000014	Another change	root@localhost (Admin OTRS)	4	Successful	1 very low		02/03/2010 05:05:00	02/04/2010 14:30:00
20100201401000022	Another change	root@localhost (Admin OTRS)	3	Successful	2 low		02/08/2010 03:39:00	02/09/2010 08:00:00
20100201401000031	Another change	root@localhost (Admin OTRS)	3	Successful	2 low		01/24/2010 11:39:00	01/25/2010 16:00:00
20100201401000048	test	root@localhost (Admin OTRS)	2	Requested	3 normal		02/01/2010 22:15:00	02/12/2010 23:18:00
20100203401000011	Another change	root@localhost (Admin OTRS)	3	Successful	2 low		01/24/2010 11:39:00	01/25/2010 16:00:00
20100203401000028	Replacement of mailserver in company hea[...]	SAP (CC 1000) (Werner Siebecke)	9	Pending Approval	4 high		02/03/2010 16:29:00	02/16/2010 12:52:00
Changes: 1-12 of 12 - Page: 1								

The columns can be defined via SysConfig "ITSM Change Management -> Frontend::Agent::ViewChangeOverview" with the following available attributes:

Table 8.9. Change Overview

Attribute	Active	Details
ActualStartTime	No	Date and time at which the Change implementation began
ActualEndTime	No	Date and time at which the Change implementation ended
Category	No	Category or type of Change
ChangeBuilder	Yes	Change Builder's name
ChangeManager	Yes	Change Manager's name
ChangeNumber	Yes	System generated Change number
ChangeState	Yes	Change status
ChangeStateSignal	Yes	Change status indicator, shown as traffic light
ChangeTitle	Yes	Name of Change
CreateTime	No	Date and time at which the Change was created
Impact	No	Expected effect of the Change
PlannedStartTime	Yes	Planned Change implementation start date and time
PlannedEndTime	Yes	Projected Change implementation end date and time
Priority	Yes	Priority level of the Change

Attribute	Active	Details
RequestedTime	No	Customer's desired implementation date
Services	Yes	Services affected by the Change
WorkOrderCount	Yes	Number of Work Orders related to the Change

Additionally, the Change Overview can filter and display changes according to various attributes. The following filters are available and can be defined via SysConfig "ITSM Change Management -> Frontend::Agent::ViewChangeOverview":

Table 8.10. Change Overview Filters

Attribute	Details
requested	Displays all changes that have the status "requested"
pending approval	Displays all changes that have the status "pending approval"
rejected	Displays all changes that have the status "rejected"
approved	Displays all changes that have the status "approved"
in progress	Displays all changes that have the status "in progress"
successful	Displays all changes that have the status "successful"
failed	Displays all changes that have the status "failed"
canceled	Displays all changes that have the status "canceled"
retracted	Displays all changes that have the status "retracted"

Change Schedule

In the Change Schedule view, all Changes which have the status "approved" ie. are in the queue for implementation, are displayed. The column titles can be sorted by the following attributes in ascending or descending order:

[Overview: FSC: Approved]							
Filter: Approved (2) Changes: 1-2 of 2 - Page: 1							
Change#	Change Title	Change Builder	Workorders	Change State	Urgency	Planned Start	Planned End
20100120401000016	Replacement of mailserver in company hea[...]	root@localhost (Admin OTRS)	9	Approved	4 high	01/20/2010 14:38:00	02/02/2010 11:01:00
20100127401000012	Austausch Ticketsystems	root@localhost (Admin OTRS)	2	Approved	3 normal	01/27/2010 09:00:00	01/28/2010 15:42:00

Changes: 1-2 of 2 - Page: 1

The displayed attributes can be defined via SysConfig "ITSM Change Management -> Frontend::Agent:: ViewChangeScheduleOverview":

Table 8.11. Change Schedule

Attribute	Active	Details
ActualStartTime	No	Date and time at which the Change implementation began
ActualEndTime	No	Date and time at which the Change implementation was completed
Category	No	Category or type of Change
ChangeBuilder	Yes	Change Builder's name
ChangeManager	Yes	Change Manager's name
ChangeNumber	Yes	System generated Change number
ChangeState	Yes	Change status
ChangeStateSignal	Yes	Change status indicator; shown as traffic light
ChangeTitle	Yes	Name of the Change
CreateTime	No	Date and time at which the Change was created
Impact	No	Expected effect of the Change
PlannedStartTime	Yes	Planned Change implementation start date and time
PlannedEndTime	Yes	Projected Change implementation completion date and time
Priority	Yes	Priority level of the Change
RequestedTime	No	Customer's desired implementation date
Services	Yes	Services affected by the Change
WorkOrderCount	Yes	Number of Work Orders related to the Change

PIR - Post Implementation Review

This view displays work orders of the "PIR" type, which can be sorted in ascending or descending order by the given column headings.

[Overview: PIR: Alle]						
Filter: Alle (3) - Accepted (0) - Ready (3) - In Progress (0) - Closed (0) - Canceled (0)						
Changes: 1-3 von 3 - Seite: 1						
Workorder#	Workorder Title	Change Title	Workorder Agent	Workorder State	Planned Start	Planned End
20100127401000021-9	Review the completed change	Replacement of mailserver in company hea[...]	ck (Christopher Kuhn)	Ready	30.01.2010 10:01:00	02.02.2010 11:01:00
20100120401000016-9	Review the completed change	Replacement of mailserver in company hea[...]	ck (Christopher Kuhn)	Ready	30.01.2010 10:01:00	02.02.2010 11:01:00
20100203401000028-9	Review the completed change	Replacement of mailserver in company hea[...]	ck (Christopher Kuhn)	Ready	13.02.2010 11:52:00	16.02.2010 12:52:00
Changes: 1-3 von 3 - Seite: 1						

The columns to be displayed can be defined via SysConfig "ITSM Change Management -> Frontend::Agent::ViewPIROverview":

Table 8.12. PIR - Post Implementation Review

Attribute	Active	Details
ActualStartTime	No	Date and time at which the Change implementation began
ActualEndTime	No	Date and time at which the Change implementation was completed
Category	No	Category or type of Change
ChangeBuilder	Yes	Change Builder's name
ChangeManager	Yes	Change Manager's name
ChangeNumber	No	System generated Change number
ChangeState	No	Change status
ChangeStateSignal	No	Change status indicator; shown as traffic light
ChangeTitle	Yes	Name of Change
CreateTime	No	Date and time at which the Change was created
Impact	No	Expected effect of the Change
PlannedStartTime	Yes	Planned Change implementation start date and time
PlannedEndTime	Yes	Projected Change implementation completion date and time
Priority	Yes	Priority level of the Change
RequestedTime	No	Customer's desired implementation date
Services	Yes	Services affected by the Change
WorkOrderAgent	Yes	Agent assigned to the PIR
WorkOrderNumber	Yes	Work Order number
WorkOrderState	Yes	Number of Work Orders related to the Change
WorkOrderStateSignal	No	Work Order status indicator to be shown as traffic light
WorkOrderTitle	Yes	Name of the Work Order
WorkOrderType	No	The type of Work Order

Template

This view displays all the defined templates in the system. The agent can sort the displayed information in ascending or descending order, by the given column headings.

[Overview: Template: All]						
Filter: All (3) - Change (3) - Workorder (0) - CAB (0) - Condition (0)						
Templates: 1-3 of 3 - Page: 1						
Name 	Type 	Comment	Valid 	Delete	CreateBy	CreateTime 
Test Template 1	Change		valid		root@localhost (Admin OTRS)	2010-01-25 15:11:05
10.01.3879 Std. Laptop Provisioning - [DT: 3d]	Change	To be used when providing Lenovo Thinkpa[...]	valid		root@localhost (Admin OTRS)	2010-01-25 15:14:45
Mailserver Template	Change		valid		root@localhost (Admin OTRS)	2010-02-03 16:29:22
Templates: 1-3 of 3 - Page: 1						

The columns to be displayed can be defined via SysConfig "ITSM Change Management -> Frontend::Agent::ViewTemplateOverview":

Table 8.13. Template

Attribute	Active	Details
ChangeBy	No	Username of the agent who last modified the template
ChangeTime	No	Date and time of the last modification
Comment	Yes	Comments / description of the template
CreateBy	Yes	Username of the agent who created the template
CreateTime	Yes	Date and time at which the template was created
Delete	Yes	Option to delete a chosen template
Name	Yes	Name of the template
TemplateID	No	The template's internal database identity
Type	Yes	Type of template
Valid	Yes	Defines the validity of the template (valid, invalid, and temporarily invalid). Invalid / temporarily invalid templates cannot be used by Change Builders.

After installing the Change Management module, the following template types are available in the system. These can be defined via SysConfig "ITSM Change Management -> Frontend::Agent::ViewTemplateOverview":

Table 8.14. Template Types

Attribute	Details
ITSMChange	Templates for Changes

Attribute	Details	
ITSMWorkOrder	Templates for Work Orders	
CAB	Templates for Change Advisory Boards	

Search

To find Changes or Work Orders which meet specific search criteria, the system is equipped with a separate search function based on the following search query attributes:

Change Management

OTRS::ITSM 2.0.1

Admin OTRS (root@localhost) 10:35:40 - 02/08/2010

Logout

Dashboard

Ticket

Service

Config Item

Change

FAQ

Stats

Customer

Preferences

Admin

Overview

Change Schedule

PIR

Template

Search

New

Change Manager (0)

My Changes (3)

My Workorders (7)

New message (7)

Locked Tickets (16)

⚠ : Don't work with UserID 1 (System account)!. Create new users!

Search: Change

Change#, Workorder and CAB

Change# (e.g. 10*5155 or 105658*)

Change Title

Workorder Title

CABAgent (e. g. 234231)

CABCustomer (e. g. US4231)

Fulltext-Search in Change and Workorder (e. g. "Mar*in" or "Baue**")

Change description

Change Justification

Workorder Instruction

Workorder Report

Change Priority

1 very low
2 low
3 normal
4 high
5 very high

Change Impact

1 One user affected
2 Some Users Affected
3 All Users Affected

Change Category

1 minor
2 standard
3 major
4 emergency

Change State

Requested
Pending Approval
Rejected
Approved
In Progress

Change Manager

Bretz Udo (ub)
Doe John (jd)
Kuhn Christopher (ck)
OTRS Admin (root@localhost)
Siebecke Werner (SAP (CC 1000))

Change Builder

Bretz Udo (ub)
Doe John (jd)
Kuhn Christopher (ck)
OTRS Admin (root@localhost)
Siebecke Werner (SAP (CC 1000))

Created by Agent

Bretz Udo (ub)
Doe John (jd)
Kuhn Christopher (ck)
OTRS Admin (root@localhost)
Siebecke Werner (SAP (CC 1000))

Workorder State

Created
Accepted
Ready
In Progress
Closed

Workorder Agent

Bretz Udo (ub)
Doe John (jd)
Kuhn Christopher (ck)
OTRS Admin (root@localhost)
Siebecke Werner (SAP (CC 1000))

Requested (by customer) Date

☒ No requested (by customer) date settings.
☐ Requested (by customer) date last 1 day(s)
☐ Requested (by customer) date between 01/09/2010 and 02/08/2010

Planned Start Time

☒ No planned start time settings.
☐ Planned start time last 1 day(s)
☐ Planned start time between 01/09/2010 and 02/08/2010

Planned End Time

☒ No planned end time settings.
☐ Planned end time last 1 day(s)
☐ Planned end time between 01/09/2010 and 02/08/2010

Actual Start Time

☒ No actual start time settings.
☐ Actual start time last 1 day(s)
☐ Actual start time between 01/09/2010 and 02/08/2010

Actual End Time

☒ No actual end time settings.
☐ Actual end time last 1 day(s)
☐ Actual end time between 01/09/2010 and 02/08/2010

Create Time

☒ No create time settings.
☐ Create time last 1 day(s)
☐ Create time between 01/09/2010 and 02/08/2010

Change Time

☒ No change time settings.
☐ Change time last 1 day(s)
☐ Change time between 01/09/2010 and 02/08/2010

Search

Powered by OTRS 2.4.6

Table 8.15. Template

Attribute	Details
Change#	Search by Change number; an asterisk ("*") may be used as a wildcard
ChangeTitle	Search by Change title or name
Work Order Title	Search by the title/name of a Work Order
CABAgent	Search by CAB member, defined in the system as an agent
CABCustomer	Search by CAB member, defined in the system as a customer. Here, the auto-complete function can offer suggestions when typing in the CAB customer field
Change Description	Search in the Change description text
Change Justification	Search in the reason / justification for the Change
Work Order Instruction	Search in Work Order instructions
Work Order Report	Search in a Work Order report
Change Priority	Search by Change priority level
Change Impact	Search by Change effect / impact level
Change Category	Search by Change category or type
Change State	Search by Change status
Change Manager	Search by Change Manager
Change Builder	Search by Change Builder
Created by Agent	Search by agent user name who created the Change
Work Order State	Search by the status of a Work Order
Work Order Agent	Search by the entered Work Order agent
Requested (by customer) Date	Search by the customer requested Change implementation date. Search can be performed using absolute time values (eg. from date 1 to date 2) or in relative time values (eg. Changes created in the last x days / weeks).
Planned Start Time	Search by the planned start date and time of a Change implementation. Search can be performed using absolute time values (eg. from date 1 to date 2) or in relative time values (eg. Changes created in the last x days / weeks).
Planned End Time	Search by the projected end date and time of a Change implementation. Search can be performed using absolute time values (eg. from date 1 to date 2) or in relative time values (eg. Changes created in the last x days / weeks).
Actual Start Time	Search by the actual start date and time of a Change implementation. Search can be

Attribute	Details
	performed using absolute time values (eg. from date 1 to date 2) or in relative time values (eg. Changes created in the last x days / weeks).
Actual End Time	Search by the actual end date and time of a Change implementation. Search can be performed using absolute time values (eg. from date 1 to date 2) or in relative time values (eg. Changes created in the last x days / weeks).
Create Time	Search by the Change creation date and time. Search can be performed using absolute time values (eg. from date 1 to date 2) or in relative time values (eg. Changes created in the last x days / weeks).
Change Time	Search by the date and time a Change was modified. Search can be performed using absolute time values (eg. from date 1 to date 2) or in relative time values (eg. Changes created in the last x days / weeks).

Change Manager

OTRS::ITSM offers a separate view to agents currently logged in, which displays the Changes for which they are registered as the Change Manager.

[Overview: Change Manager: All]								
Filter: All (1) - Requested (0) - Pending Approval (0) - Approved (1) - In Progress (0)								
Changes: 1-1 of 1 - Page: 1								
Change#	Change Title	Change Builder	Change Manager	Workorders	Change State	Urgency	Planned Start	Planned End
20100120401000016	Replacement of mailserver in company hea[...]	SAP (CC 1000) (Werner Siebecke)	root@localhost (Admin OTRS)	9	Approved	4 high	01/20/2010 14:38:00	02/02/2010 11:01:00

The displayed column headings can be sorted according the following attributes in ascending or descending order. The columns to be displayed can be defined via SysConfig "ITSM Change Management -> Frontend::Agent::ViewChangeManagerOverview":

Table 8.16. Change Manager

Attribute	Active	Details
ActualStartTime	No	Date and time at which the Change implementation began
ActualEndTime	No	Date and time at which the Change implementation was completed
Category	No	Category or type of Change
ChangeBuilder	Yes	Change Builder's name
ChangeManager	Yes	Change Manager's name
ChangeNumber	Yes	System generated Change number

Attribute	Active	Details
ChangeState	Yes	Change status
ChangeStateSignal	Yes	Change status indicator to be shown as traffic light
ChangeTitle	Yes	Name of Change
CreateTime	No	Date and time at which the Change was created
Impact	No	Expected effect of the Change
PlannedStartTime	Yes	Planned Change implementation start date and time
PlannedEndTime	Yes	Projected Change implementation completion date and time
Priority	Yes	Priority level of the Change
RequestedTime	No	Customer's desired implementation date
Services	Yes	Services affected by the Change
WorkOrderCount	Yes	Number of Work Orders related to the Change

In addition, the Change Manager Overview can filter the displayed Changes by various attributes as follows. These can be defined via SysConfig "ITSM Change Management -> Frontend::Agent::ViewChangeManagerOverview" if desired:

Table 8.17. Change Manager Filter

Attribute	Details
requested	Displays all Changes which have status "requested"
pending approval	Displays all Changes which have status "pending approval"
approved	Displays all Changes which have status "approved"
in progress	Displays all Changes which have status "in progress"

My Changes

The "My Changes" view displays all Changes created by the agent currently logged in, where the agent is registered as the Change Builder.

[Overview: My Changes: All]								
Filter: All (3) - Requested (1) - Pending Approval (0) - Approved (1) - In Progress (1)								
Changes: 1-3 of 3 - Page: 1								
Change#	Change Title	Change Builder	Workorders	Change State	Urgency	Services	Planned Start	Planned End
20100122401000021	new change	root@localhost (Admin OTRS)	1	In Progress	1 very low	User Services::Provisioning of User Equipment	01/23/2010 21:19:00	01/23/2010 22:19:00
20100127401000012	Austausch Ticketsystems	root@localhost (Admin OTRS)	2	Approved	3 normal		01/27/2010 09:00:00	01/28/2010 15:42:00
20100201401000048	test	root@localhost (Admin OTRS)	2	Requested	3 normal		02/01/2010 22:15:00	02/12/2010 23:18:00

The display can be sorted by the column headings in ascending or descending order. The attributes can be defined via SysConfig "ITSM Change Management -> Frontend::Agent::ViewMyChangesOverview":

Table 8.18. My Changes

Attribute	Active	Details
ActualStartTime	No	Date and time at which the Change implementation began
ActualEndTime	No	Date and time at which the Change was completed
Category	No	Category or type of Change
ChangeBuilder	Yes	Change Builder's name
ChangeManager	Yes	Change Manager's name
ChangeNumber	Yes	System generated Change number
ChangeState	Yes	Change status
ChangeStateSignal	Yes	Change status indicator to be shown as traffic light
ChangeTitle	Yes	Name of Change
CreateTime	No	Date and time at which the Change was created
Impact	No	Expected effect the Change will have
PlannedStartTime	Yes	Planned Change implementation start date and time
PlannedEndTime	Yes	Projected Change completion date and time
Priority	Yes	Priority level of the Change
RequestedTime	No	Customer's desired implementation date
Services	Yes	Services affected by the Change
WorkOrderCount	Yes	Number of Work Orders related to the Change

In addition, the My Changes Overview can filter the displayed Changes by various attributes as below. These can be defined via SysConfig "ITSM Change Management -> Frontend::Agent::ViewMyChangesOverview":

Table 8.19. My Changes Filter

Attribute	Details
requested	Displays all Changes which have status"requested"
pending approval	Displays all Changes which have status"pending approval"
approved	Displays all Changes which have status"approved"
in progress	Displays all Changes which have status"in progress"

My Work Orders

Similar to the OTRS Ticket Engine's "Locked Tickets" view, OTRS::ITSM offers the currently logged-in agent a separate view of the Work Orders assigned to him / her.

[Overview: My Workorders: All]						
Filter: All (7) - Accepted (4) - Ready (3) - In Progress (0)						
Changes: 1-7 of 7 - Page: 1						
Workorder# ⚙ / ⚙	Workorder Title ⚙ / ⚙	Change Title ⚙ / ⚙	Workorder Agent ⚙ / ⚙	Workorder State ⚙ / ⚙	Planned Start ⚙ / ⚙	Planned End ⚙ / ⚙
20100127401000021-3	Think about mail server replacement	Replacement of mailserver in company hea[...]	root@localhost (Admin OTRS)	Ready	01/21/2010 09:49:00	01/25/2010 10:49:00
20100120401000016-3	Think about mail server replacement	Replacement of mailserver in company hea[...]	root@localhost (Admin OTRS)	Ready	01/21/2010 09:49:00	01/25/2010 10:49:00
20100127401000021-Z	Backout Plan	Replacement of mailserver in company hea[...]	root@localhost (Admin OTRS)	Accepted	01/26/2010 09:59:00	01/30/2010 10:59:00
20100120401000016-Z	Backout Plan	Replacement of mailserver in company hea[...]	root@localhost (Admin OTRS)	Accepted	01/26/2010 09:59:00	01/30/2010 10:59:00
20100127401000012-1	Evaluierung Systeme	Austausch Ticketsystems	root@localhost (Admin OTRS)	Accepted	01/27/2010 09:00:00	01/27/2010 17:00:00
20100203401000028-3	Think about mail server replacement	Replacement of mailserver in company hea[...]	root@localhost (Admin OTRS)	Ready	02/04/2010 11:40:00	02/08/2010 12:40:00
20100203401000028-Z	Backout Plan	Replacement of mailserver in company hea[...]	root@localhost (Admin OTRS)	Accepted	02/09/2010 11:50:00	02/13/2010 12:50:00

Changes: 1-7 of 7 - Page: 1

The displayed information can be sorted by column heading in ascending or descending order. The attributes used can be defined via SysConfig "ITSM Change Management -> Frontend::Agent::ViewMyWorkOrdersOverview":

Table 8.20. My Work Orders

Attribute	Active	Details
ActualStartTime	No	Date and time at which the Change implementation began
ActualEndTime	No	Date and time at which the Change implementation was completed
Category	No	Category or type of Change
ChangeBuilder	No	Change Builder's name
ChangeManager	No	Change Manager's name

Attribute	Active	Details
ChangeNumber	No	System generated Change number
ChangeState	No	Change status
ChangeStateSignal	No	Change status indicator to be shown as traffic light
ChangeTitle	Yes	Name of Change
CreateTime	No	Date and time at which the Change was created
Impact	No	Expected effect the Change will have
PlannedStartTime	Yes	Planned Change implementation start date and time
PlannedEndTime	Yes	Projected Change completion date and time
Priority	No	Priority level of the Change
RequestedTime	No	Customer's desired implementation date
Services	Yes	Services affected by the Change
WorkOrderAgent	Yes	Agent assigned to the PIR
WorkOrderNumber	Yes	Work Order number
WorkOrderState	Yes	Number of Work Orders related to the Change
WorkOrderStateSignal	No	Work Order status indicator to be shown as traffic light
WorkOrderTitle	Yes	Name of the Work Order
WorkOrderType	No	The type of Work Order

In addition, the My Work Orders Overview can filter the displayed Work Orders by various attributes as below, which can be defined via SysConfig "ITSM Change Management -> Frontend::Agent::ViewMyWorkOrdersOverview":

Table 8.21. My Work Orders Filter

Attribute	Details
created	Displays all Work Orders which have the status "created"
accepted	Displays all Work Orders which have the status "accepted"
ready	Displays all Work Orders which have the status "ready"
in progress	Displays all Work Orders which have the status "in progress"

Change Management Statistics

OTRS::ITSM provides the following reports for the evaluation of key indicators in supervising Change Management. All reports can be accessed through the integrated report generator.

Number of Changes Within a Defined Period

The report allows the definition of a relative (eg. Changes within the last x days) or absolute time period (eg. Changes from date1 to date 2). In addition, it is also possible to define the Change status to be reported.

Reports are available in "CSV" or "Print" (PDF) output formats.

Number of Changes by Change Category

The report allows the definition of a relative (eg. Changes within the last x days) or absolute time period (eg. Changes from date1 to date 2). In addition, it is also possible to define the Change status to be reported.

Reports are available in "CSV" or "Print" (PDF) output formats.

Number of Rejected Changes

The report allows the definition of a relative (eg. Changes within the last x days) or absolute time period (eg. Changes from date1 to date 2). In addition, it is also possible to define the Change status to be reported.

Reports are available in "CSV" or "Print" (PDF) output formats.

Number of Withdrawn Changes

The report allows the definition of a relative (eg. Changes within the last x days) or absolute time period (eg. Changes from date1 to date 2). In addition, it is also possible to define the Change status to be reported.

Reports are available in "CSV" or "Print" (PDF) output formats.

Ratio of Changes to Incidents

The report allows the definition of a relative (eg. Changes within the last x days) or absolute time period (eg. Changes from date1 to date 2). In addition, it is also possible to define the Change status to be reported.

Reports are available in "CSV" or "Print" (PDF) output formats.

RFCs Per Requester

The report allows the definition of a relative (eg. Changes within the last x days) or absolute time period (eg. Changes from date1 to date 2). In addition, it is also possible to define the RFC Requester to be reported.

Reports are available in "CSV" or "Print" (PDF) output formats.

Chapter 9. Release Management

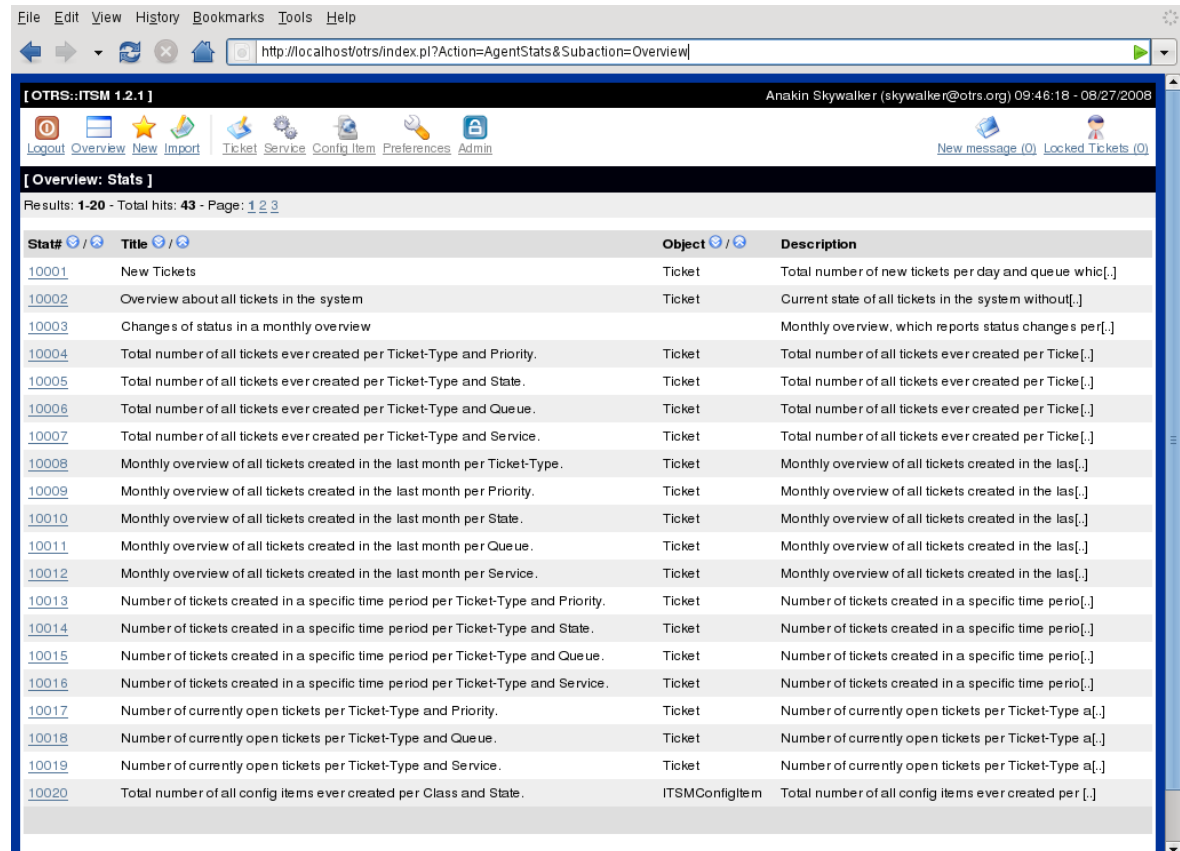
The release management process will be implemented in a later OTRS::ITSM version. Basic information, however, can be configured, captured and controlled since version 1.0 too.

As an example, approval rules or overviews from DSL (Definitive Software Library) can be configured and used.

Chapter 10. Service Level Management

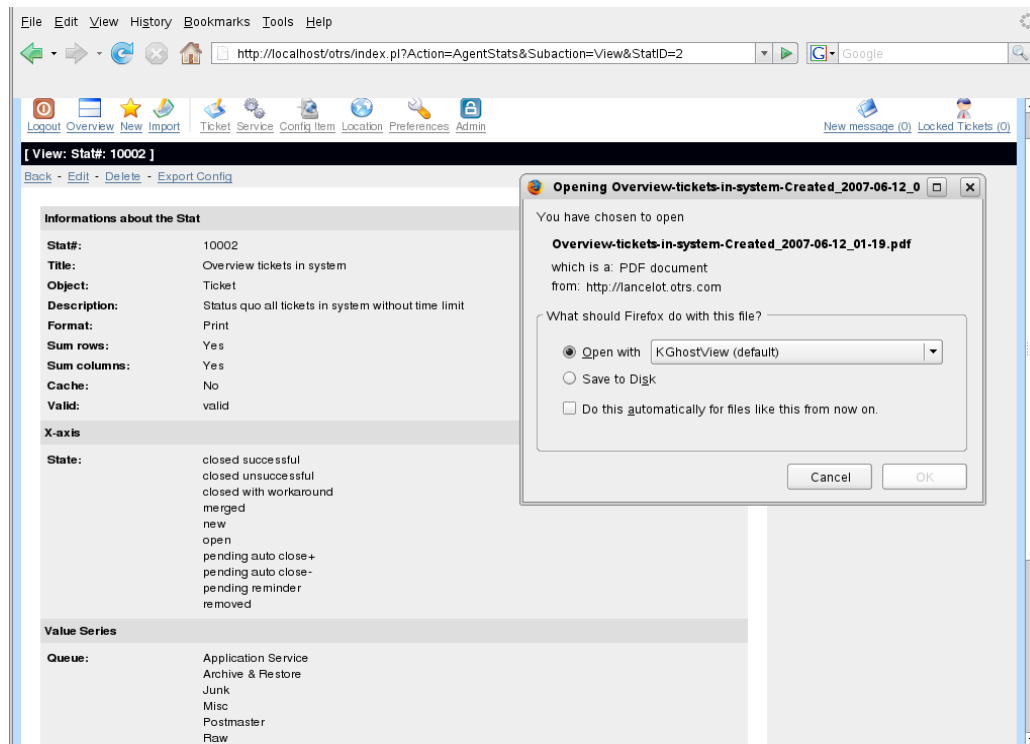
The OTRS stats framework has been completely revised for version 2.1 and nearly every type of ticket report can be created in the web interface. Generation and view of stats and charts can be activated for users, groups and/or roles. It is possible to import or export existing or new stats and further use can be made of stats modules from previous OTRS versions. With the installation of the ITSMServiceLevelManagement package, additional ITSM relevant statistics are available.

Example of a report overview:

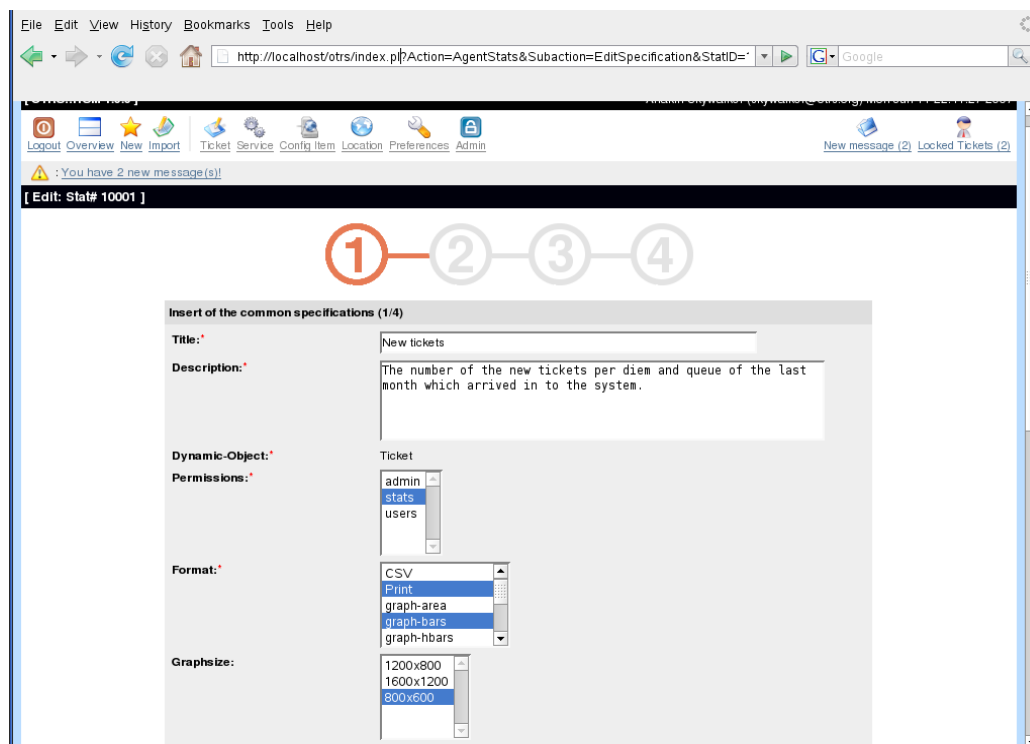


Stat#	Title	Object	Description
10001	New Tickets	Ticket	Total number of new tickets per day and queue which...
10002	Overview about all tickets in the system	Ticket	Current state of all tickets in the system without...
10003	Changes of status in a monthly overview		Monthly overview, which reports status changes per...
10004	Total number of all tickets ever created per Ticket-Type and Priority.	Ticket	Total number of all tickets ever created per Ticke...
10005	Total number of all tickets ever created per Ticket-Type and State.	Ticket	Total number of all tickets ever created per Ticke...
10006	Total number of all tickets ever created per Ticket-Type and Queue.	Ticket	Total number of all tickets ever created per Ticke...
10007	Total number of all tickets ever created per Ticket-Type and Service.	Ticket	Total number of all tickets ever created per Ticke...
10008	Monthly overview of all tickets created in the last month per Ticket-Type.	Ticket	Monthly overview of all tickets created in the las...
10009	Monthly overview of all tickets created in the last month per Priority.	Ticket	Monthly overview of all tickets created in the las...
10010	Monthly overview of all tickets created in the last month per State.	Ticket	Monthly overview of all tickets created in the las...
10011	Monthly overview of all tickets created in the last month per Queue.	Ticket	Monthly overview of all tickets created in the las...
10012	Monthly overview of all tickets created in the last month per Service.	Ticket	Monthly overview of all tickets created in the las...
10013	Number of tickets created in a specific time period per Ticket-Type and Priority.	Ticket	Number of tickets created in a specific time perio...
10014	Number of tickets created in a specific time period per Ticket-Type and State.	Ticket	Number of tickets created in a specific time perio...
10015	Number of tickets created in a specific time period per Ticket-Type and Queue.	Ticket	Number of tickets created in a specific time perio...
10016	Number of tickets created in a specific time period per Ticket-Type and Service.	Ticket	Number of tickets created in a specific time perio...
10017	Number of currently open tickets per Ticket-Type and Priority.	Ticket	Number of currently open tickets per Ticket-Type a...
10018	Number of currently open tickets per Ticket-Type and Queue.	Ticket	Number of currently open tickets per Ticket-Type a...
10019	Number of currently open tickets per Ticket-Type and Service.	Ticket	Number of currently open tickets per Ticket-Type a...
10020	Total number of all config items ever created per Class and State.	ITSMConfigItem	Total number of all config items ever created per ...

XML export of report settings:



Dialog-based creation of a new report template:



A PDF generator is incorporated too, which facilitates the export of the print view of tickets, stats and search results in PDF files:

Service Level Management

((otrs)) Communication with success!

Stat#10001

Neue Tickets 2007-05-01 00:00:00-2007-05-31 23:59:59

printed by Anakin Skywalker (skywalker@otrs.org) 06/10/2007 23:49:58

Queue	Tue 1	Wed 2	Thu 3	Fri 4	Sat 5	Sun 6	Mon 7	Tue 8	Wed 9	Thu 10	Fri 11	Sat 12	Sun 13	Mon 14	Tue 15	Wed 16	Thu 17	Fri 18	Sat 19	Sun 20	Mon 21	Tue 22	Wed 23	Thu 24	Fri 25	Sat 26	Sun 27	Mon 28	Tue 29	Wed 30	Thu 31	Sum
Application Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Archive & Restore	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Junk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Postmaster	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Raw	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Service Desk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
User Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
User administration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

((otrs)) Communication with success!

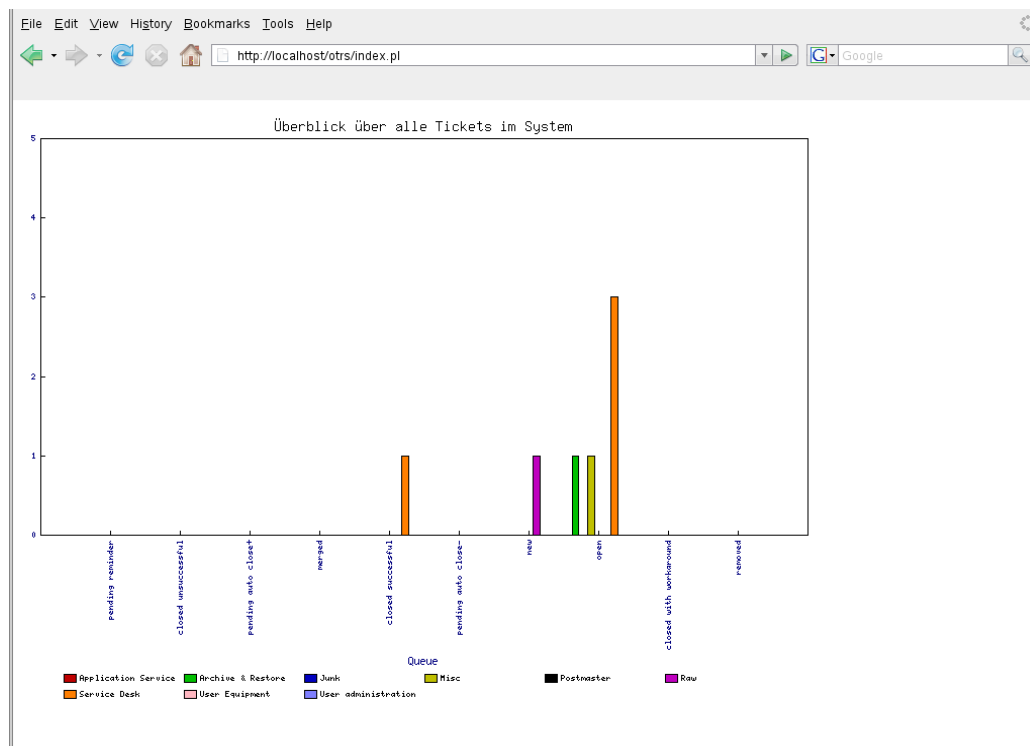
Stat#10002

Überblick über alle Tickets im System

printed by Anakin Skywalker (skywalker@otrs.org) 06/11/2007 01:45:00

Queue	pending reminder	closed unsuccessful	pending auto close	merged	closed successful	pending auto close	new	open	closed with workaround	removed	Sum
Application Service	0	0	0	0	0	0	0	0	0	0	0
Archive & Restore	0	0	0	0	0	0	0	1	0	0	1
Junk	0	0	0	0	0	0	0	0	0	0	0
Misc	0	0	0	0	0	0	0	1	0	0	1
Postmaster	0	0	0	0	0	0	0	0	0	0	0
Raw	0	0	0	0	0	0	1	0	0	0	1
Service Desk	0	0	0	0	1	0	0	3	0	0	4
User Equipment	0	0	0	0	0	0	0	0	0	0	0
User administration	0	0	0	0	0	0	0	0	0	0	0
Sum	0	0	0	0	1	0	1	5	0	0	7

Example of a graphical ticket overview:



Chapter 11. The admin area of OTRS::ITSM

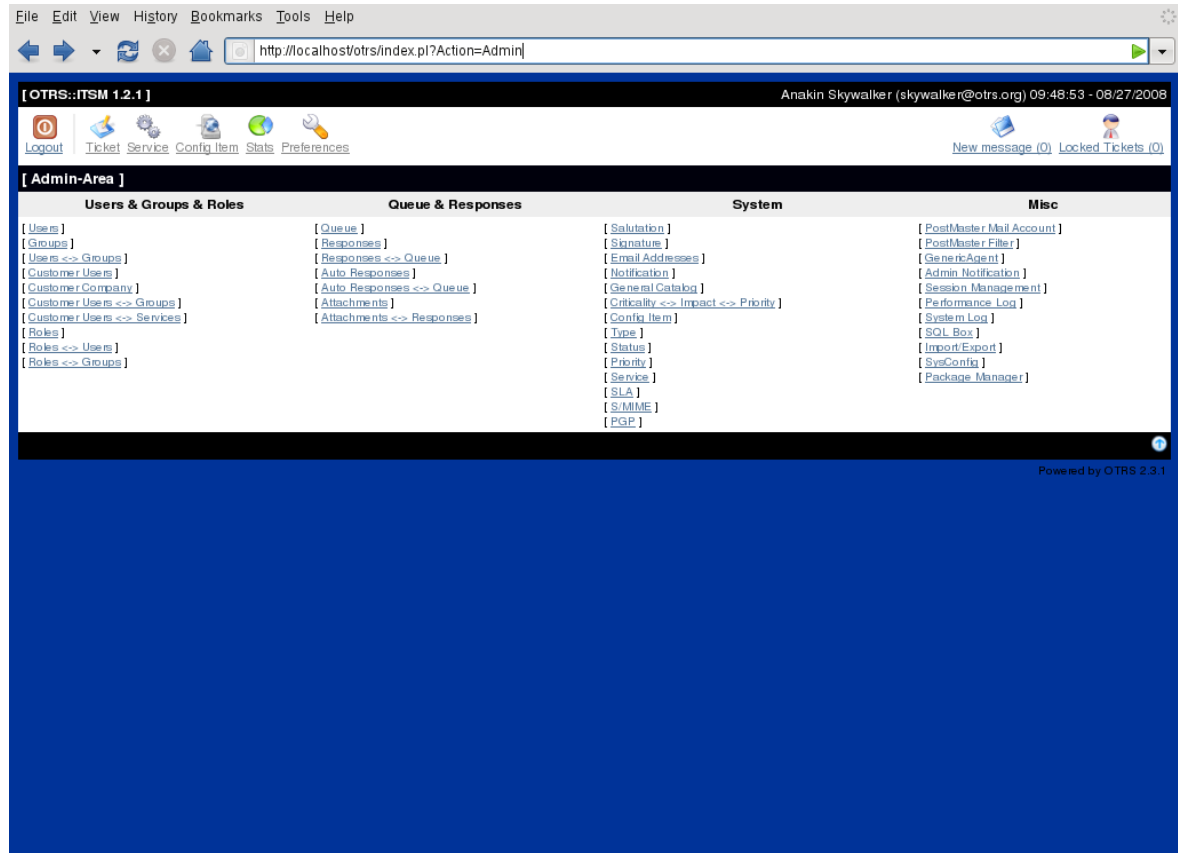
The admin area is the central interface for the ticket system administrator. All important settings of the system configuration can be checked and/or changed here, and the system can be adapted to individual needs.

The admin area can be accessed via the "admin" link in the agent interface navigation bar. The link is only shown to users logged on to the system as OTRS::ITSM administrators or having administrator permissions in the system. After a default installation you can log on to the system as OTRS admin using the user name "root@localhost" and the password "root".

Warning

Make sure to change the password of root@localhost in the user preferences as quickly as possible after the installation as it is the default password and commonly known.

- from OTRS::ITSM 1.0 on
 - [General Catalog]
 - [Criticality - Impact - Priority]
 - [ConfigItem]
- from OTRS::ITSM 1.1 on
 - [Import/Export]
- from OTRS::ITSM 2.0 on
 - [Notification (ITSM Change Management)]
 - [Category - Impact - Priority]
 - [State Machine]
- from OTRS 2.2 on
 - [Type]
 - [Status]
 - [Service]
 - [SLA]
- from OTRS 2.3 on
 - [Priority]



The general catalog

As the name indicates, the general catalog serves for basic ITSM relevant configurations in OTRS::ITSM.

The admin area of OTRS::ITSM

The screenshot shows the OTRS::ITSM 1.2.1 Admin-GeneralCatalog interface. The browser address bar shows `http://localhost/otrs/index.pl?Action=AdminGeneralCatalog`. The page header includes the OTRS logo, navigation links (Logout, Ticket, Service, Config Item, Stats, Preferences), and user information (Anakin Skywalker (skywalker@otrs.org) 09:49:24 - 08/27/2008). The main content area is titled "[Admin-Area]" and contains four tabs: Users & Groups & Roles, Queue & Responses, System, and Misc. The System tab is active, displaying a list of system-related items. Below the tabs, there is a section titled "[General Catalog Management]" with two sub-sections: "Add Catalog Item:" and "Add Catalog Class:". The "Add Catalog Item:" section has a dropdown menu for "Catalog" (currently showing "ITSM::ConfigItem::Class") and an "Add" button. The "Add Catalog Class:" section has a text input for "Add a new Catalog Class." and an "Add" button. The "List:" section displays a list of catalog classes, including "ITSM::ConfigItem::Class", "ITSM::ConfigItem::Computer::Type", "ITSM::ConfigItem::DeploymentState", "ITSM::ConfigItem::Hardware::Type", "ITSM::ConfigItem::Location::Type", "ITSM::ConfigItem::Network::Type", "ITSM::ConfigItem::Software::LicenceType", "ITSM::ConfigItem::Software::Type", "ITSM::ConfigItem::YesNo", "ITSM::Core::Criticality", "ITSM::Core::Impact", "ITSM::Core::IncidentState", and "ITSM::Service::Type".

Users & Groups & Roles	Queue & Responses	System	Misc
[Users]	[Queue]	[Substitution]	[PostMaster Mail Account]
[Groups]	[Responses]	[Signature]	[PostMaster Filter]
[Users <=> Groups]	[Responses <=> Queue]	[Email Addresses]	[Generic Agent]
[Customer Users]	[Auto Responses]	[Notification]	[Admin Notification]
[Customer Company]	[Auto Responses <=> Queue]	[General Catalog]	[Session Management]
[Customer Users <=> Groups]	[Attachments]	[Criticality <=> Impact <=> Priority]	[Performance Log]
[Customer Users <=> Services]	[Attachments <=> Responses]	[Config Item]	[System Log]
[Roles]		[Type]	[SQL Box]
[Roles <=> Users]		[Status]	[Import/Export]
[Roles <=> Groups]		[Priority]	[SysConfig]
		[Service]	[Package Manager]
		[SLA]	
		[S/MIME]	
		[PGP]	

[General Catalog Management]

Add Catalog Item:

Catalog: Class:

Add Catalog Class:

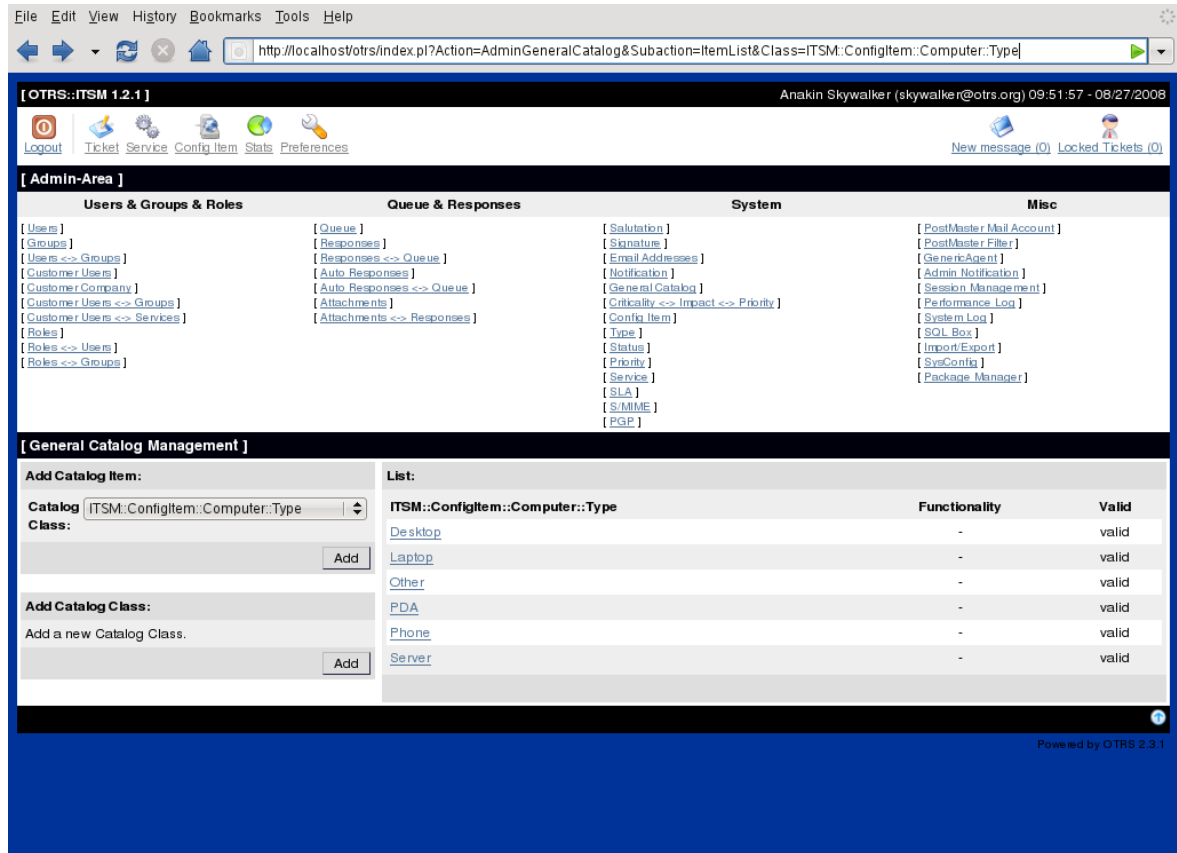
Add a new Catalog Class.

List:

Catalog Class

- [ITSM::ConfigItem::Class](#)
- [ITSM::ConfigItem::Computer::Type](#)
- [ITSM::ConfigItem::DeploymentState](#)
- [ITSM::ConfigItem::Hardware::Type](#)
- [ITSM::ConfigItem::Location::Type](#)
- [ITSM::ConfigItem::Network::Type](#)
- [ITSM::ConfigItem::Software::LicenceType](#)
- [ITSM::ConfigItem::Software::Type](#)
- [ITSM::ConfigItem::YesNo](#)
- [ITSM::Core::Criticality](#)
- [ITSM::Core::Impact](#)
- [ITSM::Core::IncidentState](#)
- [ITSM::Service::Type](#)

For example the editing of reference chart entries for drop-down fields:



Configuring configuration item classes

By default OTRS::ITSM provides five CI classes to represent all relevant IT elements:

- [Computer]

All CIs, which are classically referred to as computers, e.g. desktop PCs or laptops, and all intelligent, configurable and non-peripheral appliances such as switches, routers or other active network components.

- [Hardware]

All hardware components not being considered as computers, ranging from "blade center" chassis, to printers and USB sticks depending on the level of detailedness of the listing.

- [Network]

Logical nets (LAN, WLAN, WAN etc.), which span IP address spaces.

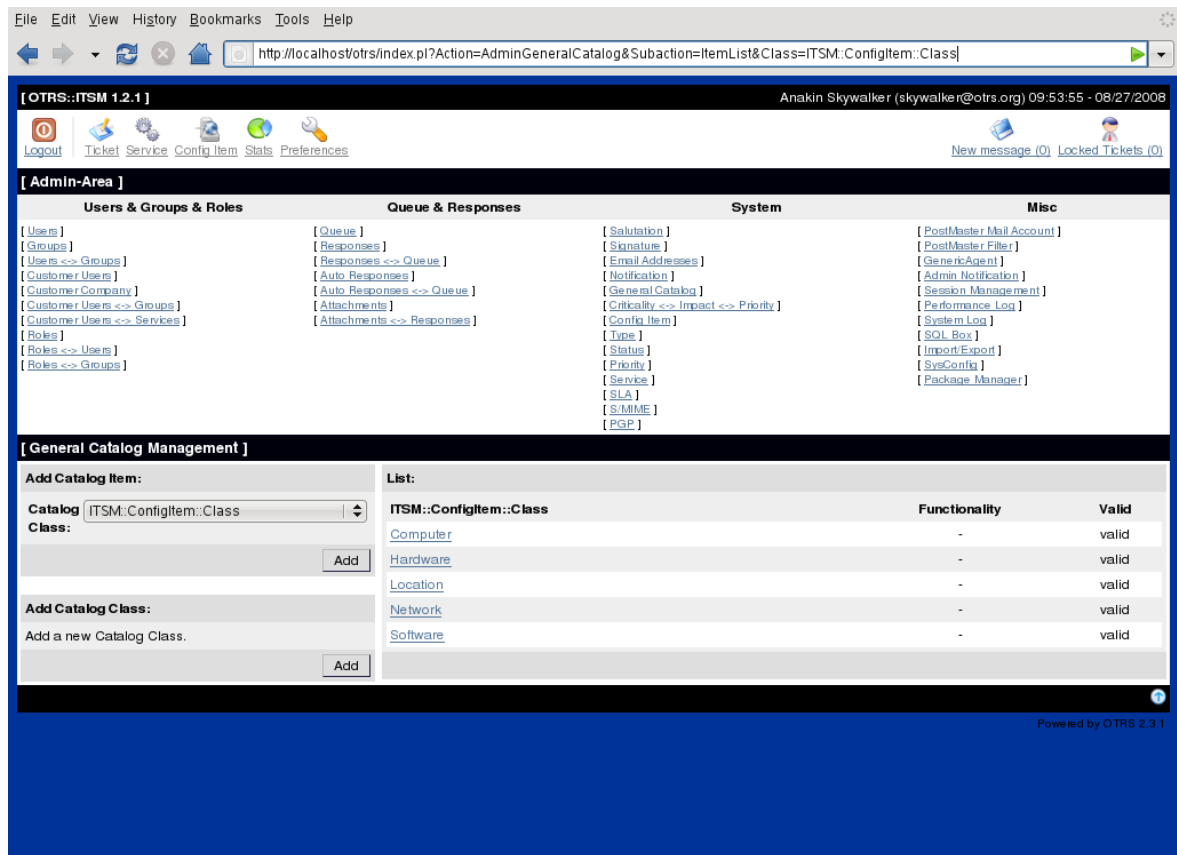
- [Software]

All software products and licenses.

- [Locations]

All Locations, e.g. building, workplace, IT facility.

If the five classes do not suffice to describe your IT environment, further classes can be added via the "general catalog" link in the OTRS::ITSM admin area. After creating a new CI class in the general catalog, a definition must be entered in ConfigItem".



Warning

The design of a CMDB data model and the CIs to be managed in it is a task which should not be underestimated. Our experience shows that it is highly recommendable to validate conceptual thoughts in a dry run against the existing IT infrastructure before changing the OTRS::ITSM standard data model and/or CI classes. It has proven of value to resort to external assistance, e.g. of ITIL practice experts for the CMDB design.

Please find below a part of the self-explaining default configuration for the "computer" CI class:

```
[
  {
    Key => 'Description',
    Name => 'Description',
    Searchable => 1,
    Input => {
      Type => 'TextArea',
    },
  },
  {
    Key => 'Type',
```

```

        Name => 'Type',
        Searchable => 1,
        Input => {
            Type => 'GeneralCatalog',
            Class => 'ITSM::ConfigItem::Computer::Type',
        },
    },
    {
        Key => 'Owner',
        Name => 'Owner',
        Searchable => 1,
        Input => {
            Type => 'Customer',
        },
    },
    {
        Key => 'AssetTag',
        Name => 'Asset Tag',
        Searchable => 1,
        Input => {
            Type => 'Text',
            Size => 50,
            MaxLength => 100,
            Required => 1,
        },
        CountMin => 0,
        CountMax => 1,
        CountDefault => 0,
    },

    :
    :
    :

    {
        Key => 'Model',
        Name => 'Model',
        Searchable => 1,
        Input => {
            Type => 'Text',
            Size => 50,
            MaxLength => 50,
        },
    },
    {
        Key => 'OperatingSystem',
        Name => 'Operating System',
        Input => {
            Type => 'Text',
            Size => 50,
            MaxLength => 100,
        },
    },
    {

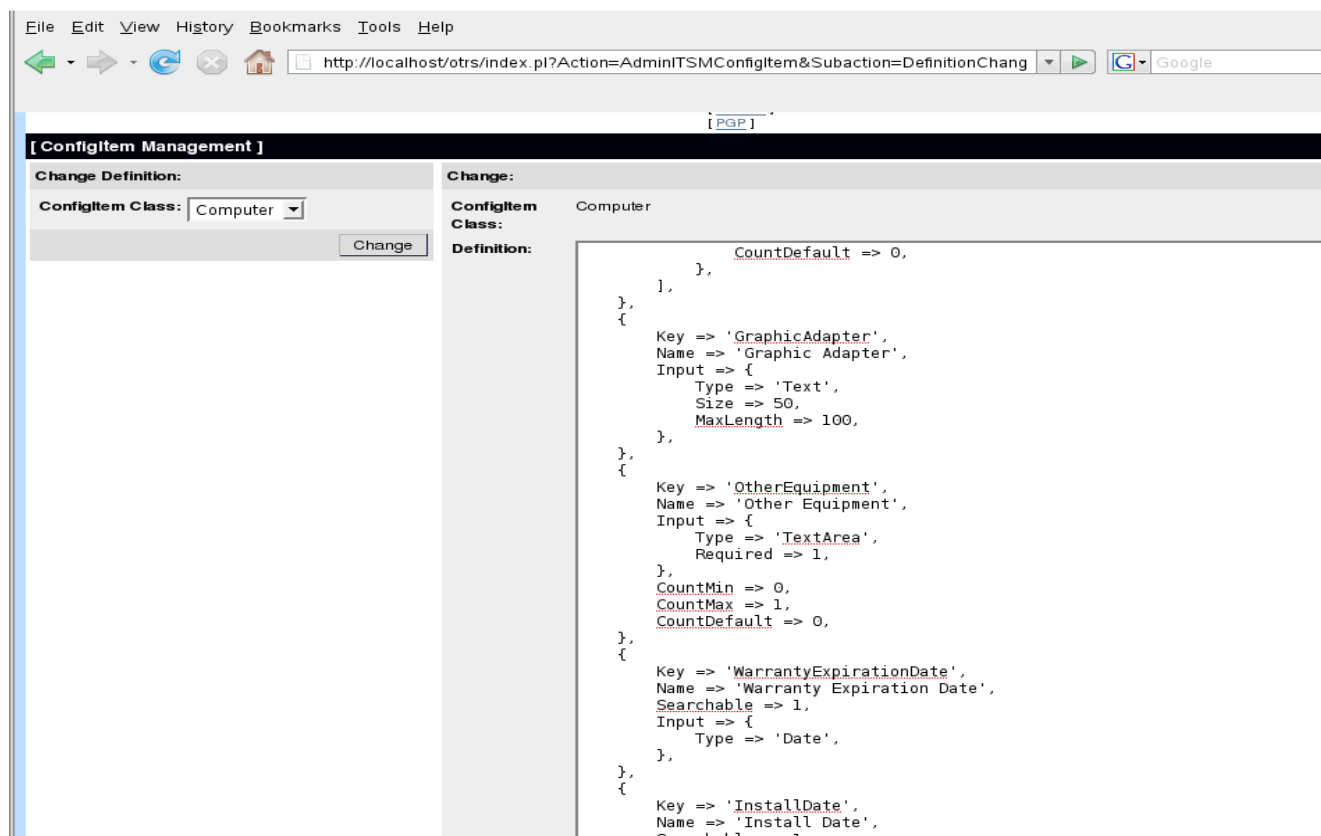
```

```

    Key => 'CPU',
    Name => 'CPU',
    Input => {
        Type => 'Text',
        Size => 50,
        MaxLength => 100,
    },
    CountMin => 1,
    CountMax => 16,
    CountDefault => 1,
},
];

```

Attribute changes and amendments can be effected in the graphical configuration area selecting "change definition":



Warning

In order to assure the consistency of the data managed in OTRS::ITSM, information created in the admin area of the system cannot be deleted as a general rule. If you want to deactivate such information, change the value in the respective listbox settings from "valid" to "invalid" or "invalid-temporarily".

Version management of CI classes

Version management for all CI classes is integrated into the system. The latest versions are used for the processes represented in OTRS::ITSM.

The screenshot displays the OTRS::ITSM 1.2.1 Admin-Area interface. The top navigation bar includes links for Logout, Ticket, Service, Config Item, Stats, and Preferences. The main content area is titled "[Admin-Area]" and contains a table with four columns: Users & Groups & Roles, Queue & Responses, System, and Misc. Below this table is the "[Config Item Management]" section, which includes a "Change Definition:" form and a "List:" table.

[Admin-Area]

Users & Groups & Roles	Queue & Responses	System	Misc
[Users]	[Queue]	[Salutation]	[PostMaster Mail Account]
[Groups]	[Responses]	[Signature]	[PostMaster Filter]
[Users <-> Groups]	[Responses <-> Queue]	[Email Addresses]	[Generic Agent]
[Customer User]	[Auto Responses]	[Notification]	[Admin Notification]
[Customer Company]	[Auto Responses <-> Queue]	[General Catalog]	[Session Management]
[Customer Users <-> Groups]	[Attachments]	[Criticality <-> Impact <-> Priority]	[Performance Log]
[Customer Users <-> Services]	[Attachments <-> Responses]	[Config Item]	[System Log]
[Roles]		[Type]	[SQL Box]
[Roles <-> Users]		[Status]	[Import/Export]
[Roles <-> Groups]		[Priority]	[SysConfig]
		[Service]	[Package Manager]
		[SLA]	
		[S/MIME]	
		[PGP]	

[Config Item Management]

Change Definition:

Config Item Class:

List:

Config Item Class	Version	Created by	Created
Computer	1	root@localhost (Admin OTRS)	08.07/2008 08:48:20

Powered by OTRS 2.3.1

Adjustment of ticket state

In ITIL compliant incident management, incidents are either resolved successfully or closed with a workaround. For such cases, OTRS::ITSM standard provides the ticket state "closed with workaround".

[Admin-Area]

Users & Groups & Roles

- [Users]
- [Groups]
- [Users <=> Groups]
- [Customer Users]
- [Customer Company]
- [Customer Users <=> Groups]
- [Customer Users <=> Services]
- [Roles]
- [Roles <=> Users]
- [Roles <=> Groups]

Queue & Responses

- [Queue]
- [Responses]
- [Responses <=> Queue]
- [Auto Responses]
- [Auto Responses <=> Queue]
- [Attachments]
- [Attachments <=> Responses]

System

- [Solution]
- [Signature]
- [Email Addresses]
- [Notification]
- [General Catalog]
- [Criticality <=> Impact <=> Priority]
- [Config Item]
- [Type]
- [Status]
- [Priority]
- [Service]
- [SLA]
- [S/MIME]
- [PGP]

Misc

- [Postmaster Mail Account]
- [Postmaster Filter]
- [Generate Agent]
- [Admin Notification]
- [Session Management]
- [Performance Log]
- [System Log]
- [SQL Box]
- [Import/Export]
- [SysConfig]
- [Package Manager]

[State Management]

Add State:

Add a new State.

List:

Name	Type	valid/invalid	Changed	Created
closed successful	closed	valid	08/07/2008 08:41	08/07/2008 08:41
closed unsuccessful	closed	valid	08/07/2008 08:41	08/07/2008 08:41
closed with workaround	closed	valid	08/07/2008 08:48	08/07/2008 08:48
merged	merged	valid	08/07/2008 08:41	08/07/2008 08:41
new	new	valid	08/07/2008 08:41	08/07/2008 08:41
open	open	valid	08/07/2008 08:41	08/07/2008 08:41
pending auto close+	pending auto	valid	08/07/2008 08:41	08/07/2008 08:41
pending auto close-	pending auto	valid	08/07/2008 08:41	08/07/2008 08:41
pending reminder	pending reminder	valid	08/07/2008 08:41	08/07/2008 08:41
removed	removed	valid	08/07/2008 08:41	08/07/2008 08:41

[Note]

Attention: Take care that you also updated the default states in you Kernel/Config.pm!

With OTRS::ITSM you can change ticket states or add new ones. There are two important options: the name of the state "state-name" and the type of it "state-type". All states and types available by default are pictured above.

State names can be chosen freely. In the "state" settings within the admin interface new states can be added or changed for existing state types.

Please consider that changes to the "new" state require changes in the configuration file kernel/config.pm or in the graphical configuration front-end.

```
[...]
# PostmasterDefaultState
# (The default state of new tickets.) [default: new]
$Self->{PostmasterDefaultState} = 'new';

# CustomerDefaultState
# (default state of new customer tickets)
$Self->{CustomerDefaultState} = 'new';
[...]
```

The same applies to changes to the "open" state: changes in the kernel/Config.pm or in the graphical configuration frontend are necessary.

```
[...]
# default phone new state
$Self->{'Ticket::Frontend::PhoneNextState'} = 'open';

# PostmasterFollowUpState
# (The state if a ticket got a follow up.) [default: open]

$Self->{PostmasterFollowUpState} = 'open';
[...]
```

Warning

In order to assure the consistency of the data managed in OTRS::ITSM, information created in the admin area of the system cannot be deleted as a general rule. If you want to deactivate such information, change the value in the respective listbox settings from "valid" to "invalid" or "invalid-temporarily".

The criticality impact priority matrix

OTRS::ITSM provides five ticket priority levels:

- [Criticality]

Significance ("criticality") of the service for the IT user(s)/customer(s)

- [Impact]

Impact of failures of the concerned service on the user(s)/customer(s)

- [Priority]

Priority within OTRS::ITSM as resulting from criticality and impact

The OTRS::ITSM ticket priority is determined with the matrix shown below and the prioritized ticket is integrated in the queue views.

The screenshot shows the OTRS::ITSM 1.2.1 Admin-Area interface. The browser address bar displays `http://localhost/otrs/index.pl?Action=AdminITSMCIPAllocate`. The user is logged in as Anakin Skywalker (skywalker@otrs.org) at 10:02:36 on 08/27/2008. The interface includes a navigation menu with links like Logout, Ticket, Service, Config Item, Stats, and Preferences. The main content area is titled '[Admin-Area]' and contains a table with four columns: Users & Groups & Roles, Queue & Responses, System, and Misc. Below this table, there is a section titled '[Criticality <=> Impact <=> Priority]' which contains a 'Priority allocate:' table. This table allows users to map Impact levels (1 very low to 5 very high) to Criticality levels (1 very low to 5 very high) using dropdown menus. A 'Save' button is located at the bottom right of the table.

Impact	Criticality 1 very low	Criticality 2 low	Criticality 3 normal	Criticality 4 high	Criticality 5 very high
Impact 1 very low	1 very low	1 very low	2 low	2 low	3 normal
Impact 2 low	1 very low	2 low	2 low	3 normal	4 high
Impact 3 normal	2 low	2 low	3 normal	4 high	4 high
Impact 4 high	2 low	3 normal	4 high	4 high	5 very high
Impact 5 very high	3 normal	4 high	4 high	5 very high	5 very high

The level number, descriptions and validity can be accessed and changed in the admin interface via the "general catalog" link:

[Admin-Area]

Users & Groups & Roles	Queue & Responses	System	Misc
[Users]	[Queue]	[Salutation]	[PostMaster Mail Account]
[Groups]	[Responses]	[Signature]	[PostMaster Filter]
[Users <=> Groups]	[Responses <=> Queue]	[Email Addresses]	[Generic Agent]
[Customer Users]	[Auto Responses]	[Notification]	[Admin Notification]
[Customer Company]	[Auto Responses <=> Queue]	[General Catalog]	[Session Management]
[Customer Users <=> Groups]	[Attachments]	[Criticality <=> Impact <=> Priority]	[Performance Log]
[Customer Users <=> Services]	[Attachments <=> Responses]	[Config Item]	[System Log]
[Roles]		[Type]	[SQL Box]
[Roles <=> Users]		[Status]	[Import/Export]
[Roles <=> Groups]		[Priority]	[SysConfig]
		[Service]	[Package Manager]
		[SLA]	
		[S/MIME]	
		[PGP]	

[General Catalog Management]

Add Catalog Item:

Catalog:

Class:

Add Catalog Class:

Add a new Catalog Class.

List:

ITSM::Core::Criticality	Functionality	Valid
1 very low	-	valid
2 low	-	valid
3 normal	-	valid
4 high	-	valid
5 very high	-	valid

Powered by OTRS 2.3.1

Adjustment of ticket priorities

Tickets are arranged within OTRS::ITSM on the basis of ticket priorities, i.e. tickets with a higher priority are displayed further up in the queue views and lower priority ones in lower positions. Priorities can be adjusted, re-named and amended in the graphical admin frontend.

[Admin-Area]

Users & Groups & Roles

- [Users]
- [Groups]
- [Users <=> Groups]
- [Customer Users]
- [Customer Company]
- [Customer Users <=> Groups]
- [Customer Users <=> Services]
- [Roles]
- [Roles <=> Users]
- [Roles <=> Groups]

Queue & Responses

- [Queue]
- [Responses]
- [Responses <=> Queue]
- [Auto Responses]
- [Auto Responses <=> Queue]
- [Attachments]
- [Attachments <=> Responses]

System

- [Salutation]
- [Signature]
- [Email Addresses]
- [Notification]
- [General Catalog]
- [Criticality <=> Impact <=> Priority]
- [Config Item]
- [Type]
- [Status]
- [Priority]
- [Service]
- [SLA]
- [S/MIME]
- [PGP]

Misc

- [PostMaster Mail Account]
- [PostMaster Filter]
- [Generic Agent]
- [Admin Notification]
- [Session Management]
- [Performance Log]
- [System Log]
- [SQL Box]
- [Import/Export]
- [SysConfig]
- [Package Manager]

[Priority Management]

Add Priority:

Add a new Priority.

List:

Name	valid/invalid	Changed	Created
1 very low	valid	08/07/2008 08:41	08/07/2008 08:41
2 low	valid	08/07/2008 08:41	08/07/2008 08:41
3 normal	valid	08/07/2008 08:41	08/07/2008 08:41
4 high	valid	08/07/2008 08:41	08/07/2008 08:41
5 very high	valid	08/07/2008 08:41	08/07/2008 08:41

Powered by OTRS 2.3.1

More detailed information can be found in the OTRS Admin Manual.

Warning

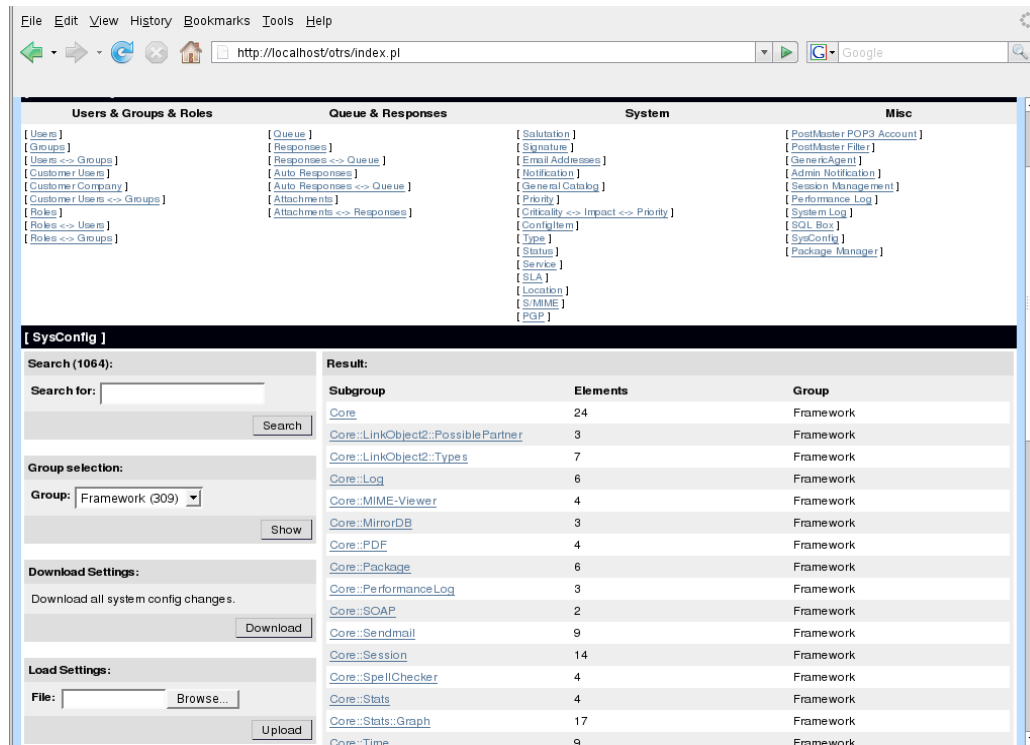
The "id" attribute decides the OTRS::ITSM internal sequence of priorities. => 1 corresponds to the minimum and 5 (or higher) to the maximum. The number in the priority name is used to implement the correct sequence within the priorities.

Warning

In order to assure the consistency of the data managed in OTRS::ITSM, information created in the admin area of the system cannot be deleted as a general rule. If you want to deactivate such information, change the value in the respective listbox settings from "valid" to "invalid" or "invalid-temporarily".

Chapter 12. Additional OTRS applications - calendar

In OTRS 2.4, 9 calendars can directly be configured graphically by default. This number can be extended to 99. Calendar configuration is effected in the admin interface using the SysConfig framework calendar 1 etc. links:



"TimeWorkingHours" can be used in OTRS::ITSM to define so-called "service level windows" time frames in which certain service levels are guaranteed, if applicable monitored and/or evaluated to secure service level compliance.

Additional OTRS applications - calendar

File Edit View History Bookmarks Tools Help

http://localhost/otrs/index.pl?Action=AdminSysConfig&Subaction=Edit&SysConfigSubG Google

Config Options: Framework -> Core::Time::Calendar1

☒ **TimeZone::Calendar1Name:** Calendar Name 1
(Default: Calendar Name 1)

☒ **TimeZone::Calendar1:** + 0
The time zone of the queue.
(Default: + 0)

☒ **TimeVacationDays::Calendar1:**
Add your permanent vacation days. Use single-digit pattern for months January to September and for days of month lower than ten.

month	day	Text	
1	- 1	New Year's Eve!	Delete
5	- 1	1 St. May	Delete
12	- 24	Christmas	Delete
12	- 25	First Christmas Day	Delete
12	- 26	Second Christmas Day	Delete
12	- 31	Silvester	Delete

New

☒ **TimeVacationDaysOneTime::Calendar1:**
One time vacation days. Use single-digit pattern for months January to September and for days of month lower than ten.

year	month	day	Text	
2004	- 1	- 1	test	Delete

New

☒ **TimeWorkingHours::Calendar1:**
Hours and week days to count the working time.

Mon	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Tue	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Chapter 13. OTRS::ITSM interfaces

The following, partly generic, interfaces can be used for data exchange between OTRS::ITSM and other (ITSM) software products:

- NAGIOS
- SOAP
- LDAP
- E-mail (POP3, IMAP, SMTP)
- CSV Import/Export

OTRS AG will gladly create additional interfaces on request or members of the community can develop them.

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Version 1.1, March 2000

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