



One Identity Manager 8.0.4

IT Shop Administration Guide

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Legend

-  **WARNING:** A WARNING icon indicates a potential for property damage, personal injury, or death.
-  **CAUTION:** A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.
-  **IMPORTANT, NOTE, TIP, MOBILE, or VIDEO:** An information icon indicates supporting information.

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Contents

Setting up an IT Shop Solution	10
One Identity Manager Users in the IT Shop	11
Putting the IT Shop into Operation	13
Requestable Products	15
Multi-request resources	17
Preparing Products for Requesting	18
Entering Service Items	19
General Master Data for a Service Item	20
Pricing Information	22
Extended Master Data for a Service Item	23
Default Service Items	23
Additional Tasks for Managing Service Items	23
Specifying Products Dependencies	28
Reports about Service Items	30
Entering Service Categories	32
Service Category Master Data	32
Default Service Categories	34
Additional Tasks for Managing Service Categories	34
Entering Product Specific Request Properties	35
Request Property Master Data	36
Additional Tasks for Managing Request Properties	37
Products with a Limited Request Period	37
Product Request on Customer or Product Relocation	38
Non-Requestable Products	39
Entering Terms of Use	39
Additional Tasks for Terms of Use	40
Entering Tags	41
Additional Tasks for Tags	42
Assigning and Removing Products	43
Assigning a Product	44
Removing a Product	45

Relocating a Product to another Shelf	45
Changing a Product	46
Preparing the IT Shop for Multi-factor Authentication	47
Editing Table Properties	48
Preparing Starling 2FA Token Requests	48
Using Multi-Factoring for Requests	49
Requesting a Security Code	50
Assignment Requests and Delegating	50
Standard Products for Assignment Requests and Delegation	51
Requesting Single Business Roles	53
Customizing Assignment Requests	54
Preparing for Delegation	55
Notifying Delegates	56
Canceling Assignments and Delegations	58
Removing a Customer from a Shop	58
Setting up Assignment Resources	59
General Master Data for an Assignment Resource	59
Default Assignment Resources	60
Additional Tasks for Managing Assignment Resources	60
Creating IT Shop Requests from Existing User Accounts, Assignments and Role Memberships	62
Creating Requests for Employees	63
Creating User Account Requests	64
Creating Requests for Workdesks	65
Creating Assignment Requests	66
Adding Groups Automatically to the IT Shop	67
Deleting Unused Application Roles	70
Approval Processes for IT Shop Requests	71
Editing Approval Policies	71
General Master Data for Approval Policies	72
Default Approval Policies	73
Additional Tasks for Approval Policies	73
Add to IT Shop	73
Validity Check	74
Editing Approval Workflows	74

Approval Workflows	75
Working with the Workflow Editor	75
Setting Up Approval Workflows	77
Editing Approval Levels	78
Setting up an Approval Step	79
Connecting Approval Levels	82
Additional Tasks for Approval Workflows	83
The Approval Workflow Overview	83
Copying Approval Workflows	83
Deleting Approval Workflows	84
Default Approval Workflows	84
Determining Effective Approval Policies	84
Selecting Responsible Approvers	85
Default Approval Procedures	86
Self-Service	88
Using IT Shop Structures to Find Approvers	88
Using the Request Recipient to find Approvers	89
Using a Specific Role to find Approvers	90
Using the Requested Product to Find Approvers	90
Using an Approval Role to Find Approvers	91
Using a Cost Center to Find Approvers	94
Using a Department to Find Approvers	94
Using a Requested Role to find Approvers	95
Deferred Request Approval	95
Calculated approval	97
Making External Approvals	99
Finding Requesters	100
Setting up Approval Procedures	101
General Master Data for an Approval Procedure	101
Queries for Finding Approvers	102
Deleting Approval Procedures	104
Determining Approvers	105
Request Risk Analysis	107
Testing Requests for Rule Compliance	108
Compliance Checking Requests	108

Identifying a Rule Violation	110
Finding an Exception Approver	111
Limitation for Exception Approvers	113
Explicit Exception Approval	114
Checking the Request with Self-Service	115
Approving Requests from an Approver	116
Automatic Request Approval	118
Obtaining Other Information about Requests by an Approver	120
Appointing Other Approvers	120
Setting up an Approval Step	121
Approvers cannot be Established	123
Automatic Approval on Timeout	124
Abort Request on Timeout	124
Approval through Chief Approval Team	126
Approving Requests with Terms of Use	127
Using Default Approval Processes	127
Request Sequence	130
Requests Overview	132
Request Details	132
Approval Sequence	132
Approval History	133
Multiple Requests for one Product	134
Requests with Limited Validity Period	135
Checking Request Validity Periods	136
Relocating a Customer or Product to another Shop	138
Requests for Employees	138
Request Change of Manager for an Employee	139
Canceling a Request	141
Notifications in the Request Process	141
Demands for Approval	142
Remind Approver	143
Scheduled Approval Demands	144
Limited Period Request Sequence	145
Request Granting or Denying Approval	145
Request Abort	146

Escalating a Request	146
Self-Service	147
Approval Rejection	147
Notifications with Questions	148
Request Approval through Additional Approvers	149
Unsubscribing an Approved Request	150
Product Change Notification	150
Default Mail Templates	151
Bulk Delegation Notifications	151
Approval by Mail	152
Modifying an Approval Mail	155
Requests with Limited Validity Period for Challenged Role Memberships	156
Requests from Permanently Disabled Employees	158
Deleting Requests	159
Managing an IT Shop	161
IT Shop Base Data	161
Role Types	162
Processing status	162
Default Processing Status	163
Roles Classes	163
Attestors	164
Product owners	166
Chief approval team	167
Business Partners	168
Functional areas	169
Standard Reasons	170
Predefined Standard Reasons	171
Setting up IT Shop Structures	171
General Master Data for an IT Shop Structure	172
User Defined Data for an IT Shop Structure	174
Additional Tasks for IT Shop Structures	174
Overview of IT Shop Structures	174
Assigning Approval Policies	175
Assigning Requestable Products to a Shelf	175
Setting Up a Customer Node	176

General Master Data for a Customer Node	177
General Master Data for a Customer Node	178
Additional Tasks for Customer Nodes	178
Overview of Entitled Customers	178
Assign Employees	178
Creating Dynamic Roles	179
Deleting IT Shop Structures	180
Deleting Customer Nodes	181
Deleting Shelves	181
Deleting Shops	182
Deleting Shopping Centers	182
Templates for Automatically Filling the IT Shop	182
Implementing Shelf Templates in an IT Shop Solution	186
Editing Shelf Templates	187
General Master Data for a Shelf Template	187
User Defined Master Data for a Shelf Template	189
Additional Tasks for Shelf Templates	189
Assigning Shelf Templates to Shops and Shopping Center Templates	190
Deleting Shelf Templates	192
Creating Custom Mail Templates for Notifications	193
General Properties of a Mail Template	195
Creating and Editing an Email Definition	196
Using Base Object Properties	197
Use of Hyperlinks in the Web Portal	198
Customizing Email Signatures	199
Custom Notification Processes	200
request templates	200
Editing Request Templates	201
General Master Data for a Request Template	201
Cart Items	202
Deleting Request Templates	203
Default Solution for Requesting System Entitlements	204
Adding a SharePoint group	204
Adding an Active Directory group	205
Modifying an Active Directory group	206

Deleting an Active Directory group	206
Requesting Groups Memberships	207
Troubleshooting	208
Timeout on Saving Requests	208
Bulk Delegation Failure	208
Configuration parameters for IT Shop	210
Request Statuses	217
Example of Request Results	218
About us	221
Contacting us	221
Technical support resources	221
Index	222

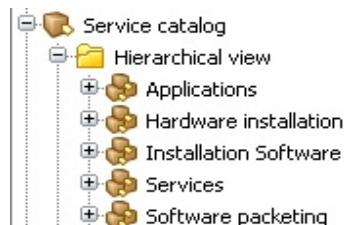
Setting up an IT Shop Solution

The IT Shop allows users to request company resources such as applications, system roles or group membership as well as non-IT resources such as mobile telephones or keys. Furthermore, membership of a hierarchical role (department, location, cost center, business role) can be requested through the IT Shop. The requests are processed by a flexible policy based approval process. Introducing IT Shop avoids time consuming demands within the company and reduces the administration effort. The request history makes it possible to follow who requested which company resource or hierarchical role and when it was requested, renewed or canceled.

Shops, shelves, customers and products all belong to an IT Shop solution. Several shops can be grouped together into shopping centers. The shelves are assigned company resources in the form of products. Products can be grouped into service categories. All the service categories are summarized in a service catalog. Customers can select products from a service catalog in Web Portal, add them to a cart and send a purchase request.

The following visual shows an example of a service catalog with service categories.

Figure 1: Example of a Service Catalog



Requests follow a defined approval process which decides whether a product may be assigned or not. Products can be renewed or canceled. Approval process can also be specified for renewals and cancellations. Approval policies are defined for an approval process. The approval policies are assigned to approval workflows for product requests, renewals or cancellations.

Figure 2: Example for a Simple Approval Workflow



The products are request, renewed and canceled through the Web Portal. Authorized employees have the option to approve requests and cancellations. For more detailed information, see the One Identity Manager Web Portal User Guide.

One Identity Manager Users in the IT Shop

The following users are involved in the setting up and operating of an IT Shop system.

Table 1: Users

User	Task
Administrators for the IT Shop	<p>Administrators must be assigned to the application role Request & Fulfillment IT Shop Administrators.</p> <p>Users with this application role:</p> <ul style="list-style-type: none"> • Create the IT Shop structure with shops, shelves, customers, templates and service catalog. • Create approval policies and approval workflows. • Specify which approval procedure to use to find attestors. • Create products and service items. • Set up request notifications.

User	Task
	<ul style="list-style-type: none"> • Monitor request procedures. • Administrate application roles for product owners and attestors. • Set up other application roles as required. • Create extended properties for company resources of any type. • Edit the resources and assign them to IT Shop structures and employees. • Assign system authorizations to IT Shop structures.
Product owners	<p>The product owners must be assigned to the application roles Request & Fulfillment IT Shop Product owners or an application role below that.</p> <p>Users with this application role:</p> <ul style="list-style-type: none"> • Approve through requests. • Edit service items and service categories under their management.
One Identity Manager administrators	<ul style="list-style-type: none"> • Create customized permissions groups for application roles for role-based login to administration tools in the Designer, as required. • Create system users and permissions groups for non-role based login to administration tools, as required. • Enable or disable additional configuration parameters in the Designer, as required. • Create custom processes in the Designer, as required. • Create and configures schedules, as required. • Create and configure password policies, as required.
Role approver	<ul style="list-style-type: none"> • Request approval in the Web Portal. <p>Approvers are determined through approval procedures.</p>
Attestors for requests	<p>Attestors must be assigned to the application role Request & Fulfillment IT Shop Attestors.</p> <p>Users with this application role:</p> <ul style="list-style-type: none"> • Attest correct assignment of company resource to IT Shop structures for which they are responsible. • Can view master data for these IT Shop structures but not edit them.

User	Task
	<p>NOTE: This application role is available if the module Attestation Module is installed.</p>
Chief approval team	<p>The chief approver must be assigned to the application Request & Fulfillment IT Shop Chief approval team</p> <p>Users with this application role:</p> <ul style="list-style-type: none"> • Approve through requests. • Assign requests to other approvers.

Putting the IT Shop into Operation

Table 2: Configuration Parameters for the IT Shop

Configuration parameter	Meaning
QER\ITShop	Preprocessor relevant configuration parameter to control the component parts for the IT Shop. If the parameter is set, the IT Shop components are available. Changes to the parameter require recompiling the database.

To utilize the IT Shop

- Set the configuration parameter "QER\ITShop" in the Designer.

The shop "Identity & Access Lifecycle" is already included in the default installation of the One Identity Manager. The contains several shelves which have standard products assigned to them. You can use these products to request role or group memberships, for example, or to delegate duties. All active employees automatically become members of this shop and can therefore make requests.

You can use the "Identity & Access Lifecycle" shop to request standard products. Default approval policies are implemented for approving these requests. You can request any company resources you like, by taking the default shop and extending it with your own shelves or by setting up your own IT Shop solution.

To use the shop "Identity & Access Lifecycle"

1. Set the configuration parameter "QER\ITShop" in the Designer.

In the default installation, the configuration parameter is enabled and the IT Shop is available. If the configuration parameter is not set, you can set it in the Designer and then compile the database.

2. Install and configure the Web Portal.

The products are request, renewed and canceled through the Web Portal. Authorized employees have the option to approve requests and cancellations.

For more detailed information, see the One Identity Manager Installation Guide and the One Identity Manager Web Portal User Guide.

- 1** **IMPORTANT:** The shop's customers are determined by dynamic role. If a shop contains a large number of customer, the calculations in the IT Shop can cause a heavy load on the DBQueue Processor and therefore on the database server as well. Formulate the condition for the dynamic role so that no more than 30 00 employees are found. If necessary, set up your own IT Shop solution with several shops and customer nodes.

To customize the shop "Identity & Access Lifecycle"

1. Set up more shelves.

For more information, see [Managing an IT Shop](#) on page 161.

2. Prepare company resources for requesting.

For more information, see [Preparing Products for Requesting](#) on page 18.

3. Assign requestable products to the shelves.

For more information, see [Assigning and Removing Products](#) on page 43.

4. Set up the approval process.

In the default installation, several approval policies are assigned to the "Identity Lifecycle". Therefore, requests from this shop are run through predefined approval processes.

You can also assign your own approval policy to the shop. For more information, see [Approval Processes for IT Shop Requests](#) on page 71.

5. If necessary, edit the dynamic role condition.

For more information, see [Creating Dynamic Roles](#) on page 179. For more detailed information about creating the condition, see the One Identity Manager Identity Management Base Module Administration Guide.

To set up your own IT Shop solution:

1. Set the configuration parameter "QER\ITShop" in the Designer.

In the default installation, the configuration parameter is enabled and the IT Shop is available. If the configuration parameter is not set, you can set it in the Designer and then compile the database.

2. Set up shops, shelves and customer node.

For more information, see [Managing an IT Shop](#) on page 161.

3. Prepare company resources for requesting.

For more information, see [Preparing Products for Requesting](#) on page 18.

4. Assign requestable products to the IT Shop.

For more information, see [Assigning and Removing Products](#) on page 43.

One Identity Manager makes different default products available, which can be requested through the shop "Identity & Access Lifecycle". You can also add these products to your own IT Shop.

5. Set up the approval process.

For more information, see [Approval Processes for IT Shop Requests](#) on page 71.

6. Install and configure the Web Portal.

The products are request, renewed and canceled through the Web Portal. Authorized employees have the option to approve requests and cancellations.

For more detailed information, see the One Identity Manager Installation Guide and the One Identity Manager Web Portal User Guide.

Requestable Products

Requestable products in the IT Shop are company resources such as target system groups, applications as well as non-IT resources after they have been assigned to a shelf. The following company resources can be assigned to shelves as requestable products.

Table 3: Requestable Products

Company Resource	Available in Module	Documentation Guide
Groups of custom target systems	Target System Base Module	One Identity Manager Target System Base Module Administration Guide
Active Directory groups	Active Directory Module	One Identity Manager Administration Guide for Connecting to Active Directory
SharePoint groups and SharePoint roles	SharePoint Module	One Identity Manager Administration Guide for Connecting to SharePoint
IBM Notes groups	IBM Notes Module	One Identity Manager Administration Guide for Connecting to IBM Notes
LDAP groups	LDAP Module	One Identity Manager Administration Guide for Connecting to LDAP
SAP groups, SAP roles and SAP profiles	SAP R/3 User Management module	One Identity Manager Administration Guide for Connecting to SAP R/3

Company Resource	Available in Module	Documentation Guide
	Module	
SAP structural profiles	SAP R/3 Structural Profiles Add-on Module	One Identity Manager Administration Guide for SAP R/3 Structural Profiles Add-on
SAP BI analysis authorizations	SAP R/3 Analysis Authorizations Add-on Module	One Identity Manager Administration Guide for SAP R/3 Analysis Authorizations Add-on
Resources	Identity Management Base Module	One Identity Manager Identity Management Base Module Administration Guide
Multi-request resources	Identity Management Base Module	One Identity Manager Identity Management Base Module Administration Guide
Account definitions	Target System Base Module	One Identity Manager Target System Base Module Administration Guide
System roles	System Roles Module	One Identity Manager System Roles Administration Guide
Subscribable reports	Report Subscription Module	One Identity Manager Report Subscriptions Administration Guide
Applications	Application Management Module	One Identity Manager Application Management Administration Guide
Assign resources	Identity Management Base Module Business Roles Module	Use assignment resources to request any number of assignments to hierarchical roles or to delegate responsibilities through the IT Shop. For more information, see Assignment Requests and Delegating on page 50.
Azure Active Directory groups	Azure Active Directory Module	One Identity Manager Administration Guide for Connecting to Azure Active Directory
Azure Active Directory Administrator Roles	Azure Active Directory Module	One Identity Manager Administration Guide for Connecting to Azure Active Directory

Applications and system roles can also be requested for workdesks. The request's UID_Workdesk is given as additional information here (PersonWantsOrg.UID_WorkdeskOrdered).

Multi-request resources


IT Shop products can only be requested once as a rule. If a product is assigned to a customer, then it cannot be requested a second time. Furthermore, an employee might need several of one type of company resources, for example, consumables.

Multi-request company resources are mapped in One Identity Manager as "Multi-request resources" or as "Multi-requestable/unsubscribable resources".

Table 4: Resource Types

Type	Description	Table
Resources	Resources that an employee (workstation, device) may own just once. The resources can be requested in the IT Shop just once. The resources are assigned to the employees after approval has been granted. They remain assigned until the request is canceled. You can request them again a later point. Examples: phones, company cars	QERResource
Multi-request resources	Resources that can be requested more than once in the IT Shop. Requests are automatically canceled once approved. The resources are not explicitly assigned to employees. Example: consumables, like pens, printer paper	QERReuse
Multi-requestable/unsubscribable resources	Resources which an employee can request more than once in the IT Shop but must return them explicitly once they are no longer needed. The resources are assigned to the employees after approval has been granted. They remain assigned until the request is canceled. Example: printer, monitor	QERReuseUS

To set up multi-request resources and add them as products in the IT Shop

1. Select the category **Entitlements | Multi request resources for IT Shop**.
- OR -
Select the category **Entitlements | Multi requestable/unsubscribable resources for IT Shop**.
2. Select a resource in the result list. Select **Change master data** in the task view.
- OR -
Click  in the result list toolbar.
3. Edit the resource's master data.
4. Save the changes.
5. Select **Add to IT Shop** in the task view.
6. Assign a shelf in **Add assignments**.
7. Save the changes.

Detailed information about this topic

- One Identity Manager Identity Management Base Module Administration Guide

Preparing Products for Requesting

Company resources have to fulfill at least the following prerequisites before you can request them in the Web Portal:


- The company resource has to be labeled with the option **IT Shop**.
- A service item must be assigned to the company resource.
- The company resource must be assigned to a shelf as a product.
- Label the company resource with the option **Only use in IT Shop** if it can only be assigned to employees using IT Shop requests. This means that the company resource cannot be directly assigned to roles outside the IT Shop.

All company resources that can be requested through the IT Shop are displayed in the category **Entitlements**. This includes applications, system entitlements, system roles, account definitions, resources, multi request resources and assignment resources if the corresponding modules are installed.

You can prepare the company resources for requesting in the IT Shop if you are an IT Shop administrator and have logged in as role-based. You can assign service items, edit the options **IT Shop** and **Only use in IT Shop** and assign company resources to an IT Shop shelf.

To prepare company resources for requesting

1. Select the category **Entitlements**.
2. Select the company resources you want from the navigation view and result list.
3. Select **Change master data** in the task view.
4. Set the option **IT Shop**.
5. Assign a new service item in **Service item**.

To add a new service item, click . Copy the name of the company resource as identifier for the service item. Enter the other properties on the service item master data form.

6. Save the changes.
7. Select **Add to IT Shop** in the task view.
8. Assign the company resource to shelves in **Add assignments**.
9. Save the changes.

Customer keep their requested products on the shelf until they unsubscribe them. In this way, membership in a target system group, for example, may only be valid for the period of the project. There are other settings required to provide limited period products.

Detailed information about this topic

- [Entering Service Items](#) on page 19
- [Products with a Limited Request Period](#) on page 37


Entering Service Items

In order to request company resources in the Web Portal, a service item must be assigned to them. Service items contain additional information about the company resources. For example, you can specify article numbers, request properties, product supervisors or approvers for requests. A service catalog can be put together from the service items in the Web Portal. These contain all the requestable products. You can use service categories, tags and service item names to find the product in the service catalog.

NOTE: It is possible to assign a service item to different company resources. If these company resources are assigned to one and the same shelf, the product cannot be uniquely identified. Then a randomly select product is given in the request.

If you groups several company resources under one service item, assign the company resources to different shelves. In the Web Portal, the requester can select from which shelf he wants to request the product.



To edit service items

1. Select the category **IT Shop | Service catalog | Hierarchical view | <service category>**.
- OR -
Select the category **IT Shop | Service catalog | Hierarchical view | Singles**.
2. Select the product's service item in the result list.
- OR -
Click  in the result list toolbar.
3. Select **Change master data** in the task view.
4. Enter the service item's master data.
5. Save the changes.

General Master Data for a Service Item

Enter the following data on the **General** tab: If you add a new service item, you must fill out the compulsory fields.

Table 5: General Master Data for a Service Item

Master Data	Meaning
Service item	Service item name
Special service item	If a product is used for a specific purpose, for example, for product collection, then mark it as a special service item.
Service category	Group individual products into a collection of products. Select an existing service category from the list or add a new one. To create a new service category, click  . Enter at least one name for the service item.
Product owners	Assign a Request & Fulfillment IT Shop Product owners application role. Product owners can be used as approvers in a defined approval process within the IT Shop. They can decide on approval of the service item request. To create a new application role, click  . Enter the application role name and assign a parent application role. If no product owner is assigned, the product owner of the assigned service category is determined by template.
Attestors	Assign Request & Fulfillment IT Shop Attestors to an application role.

Master Data	Meaning
	<p>The members of this application role can be chosen as attestor in an attestation procedure.</p> <p>To create a new application role, click New. Enter the application role name and assign a parent application role.</p>
Cost center	Cost center for booking the service item in the accounts.
Manufacturer	Manufacturer data.
Terms of use	Terms of use for the product. The product can only be requested if the requester has accepted the terms of use.
Request number, product code, product code (foreign).	Company specific service item properties.
Functional area	Company specific service item property.
Approval policies	Approval policy used to determine the approver when the service item is requested from the IT Shop.
Request property	Select the group for defining extended properties for a request. These request properties are displayed in the Web Portal depending on the configuration, requester or approver.
Calculation info	Enter the calculation mode as accounting information.
Availability	Company specific information about the service item's availability.
Sort order	Customer specific criteria for sorting service items.
Web page	<p>Web page with more information about the service item.</p> <p>This field allows you to link product descriptions in the internet or intranet to the service item. The web page is opened in the default browser when you select the task Visit website.</p>
Validity period	<p>Time period for limited assignments through the IT Shop.</p> <p>The service item is automatically canceled when the time expires. This value has no effect if multi-request resources (QERRReuse) are requested.</p>
Description	Spare text box for additional explanation.
Retain service item assignment on relocation	Specifies whether requests belonging to this service item remain intact when a customer or a product relocates.
Not available	Specifies whether the service item can still be requested in the IT Shop.

Master Data	Meaning
	If this option is enabled, no new requests can be placed for this item. Existing requests remain intact.
Request properties must be defined separately per recipient	Specifies whether additional request properties must be entered separately for each recipient of this product, if the product is requested for different recipients in one request procedure. If this option is not set, the selected requested properties apply uniformly to all recipients of the product.
Approval by multi-factor authentication	The approval of requests with this service item requires multi-factor authentication.

Detailed information about this topic

- [Entering Service Categories](#) on page 32
- [Selecting Responsible Approvers](#) on page 85
- [Product owners](#) on page 166
- [Attestors](#) on page 164
- [Business Partners](#) on page 168
- [Functional areas](#) on page 169
- [Determining Effective Approval Policies](#) on page 84
- [Entering Product Specific Request Properties](#) on page 35
- [Products with a Limited Request Period](#) on page 37
- [Product Request on Customer or Product Relocation](#) on page 38
- [Relocating a Product to another Shelf](#) on page 45
- [Entering Terms of Use](#) on page 39
- [Preparing the IT Shop for Multi-factor Authentication](#) on page 47

Related Topics

- One Identity Manager Attestation Administration Guide.
- One Identity Manager Identity Management Base Module Administration Guide

Pricing Information

Enter the required pricing information for booking the service item to the accounts on the **Calculation** tab.

Table 6: Pricing for a Service Item

Property	Description
Purchase price	Purchase price.
Sales price	Sales price.
Internal price	Internal transfer price.
Rental rate (purchasing)	Purchase price on product rental.
Rental rate (selling)	Sales price on product rental
Rental rate (internal)	Internal transfer price on product rental
Currency	Currency unit
Sales tax	Sale tax to apply in percent (%)

Extended Master Data for a Service Item

On the **Picture** tab you can import an image of the product into the data base. Select the path where the picture is stored.

Additional company specific information. Use the Designer to customize display names, formats and templates for the input fields.

Default Service Items

The One Identity Manager provides service items by default. These service items are assigned to the shop "Identity & Access Lifecycle". You can request them as standard products through the Web Portal.

To edit default service items

- Select the category **IT Shop | Service catalog | Predefined**.

Additional Tasks for Managing Service Items

After you have entered the master data, you can apply different tasks to it. The task view contains different forms with which you can run the following tasks.

Service Item Overview

To obtain an overview of a service item

1. Select the category **IT Shop | Service catalog | Hierarchical view | <service category>**.
- OR -
Select the category **IT Shop | Service catalog | Hierarchical view | Singles**.
2. Select the service item in the result list.
3. Select **Service item overview** in the task view.

Editing Product Dependencies for Requests

Dependencies between products are taken into account by Web Portal requests. For more information, see [Specifying Products Dependencies](#) on page 28.

- TIP:** If the Chargeback Module is installed, the additional tasks, **Assign child service item** and **Assign parent service item**, are available. For more detailed information, see the One Identity Manager Chargeback Administration Guide.

Assign Hierarchical Roles

You can use the One Identity Manager to assess the risk of assignments. The assessments can be evaluated separately by role. Prerequisite is that service items are assigned to the roles. For more detailed information about risk assessment, see the One Identity Manager Risk Assessment Administration Guide.

Assign Organizations

To assign a service item to departments, cost centers and locations

1. Select the category **IT Shop | Service catalog | Hierarchical view | <service category>**.
- OR -
Select the category **IT Shop | Service catalog | Hierarchical view | Singles**.
 2. Select the service item in the result list.
 3. Select **Assign organizations**.
Assign organizations in **Add assignments**.
 - Assign departments on the **Departments** tab.
 - Assign locations on the **Locations** tab.
 - Assign cost centers on the **Cost center** tab.
- OR -

Remove the organizations from **Remove assignments**.

4. Save the changes.

Assign Business Roles

Installed Module: Business Roles Module

You can issue separate invoices according to the different company structures. Assign service items to business roles to do this.

To assign service items to business roles

1. Select the category **IT Shop | Service catalog | Hierarchical view | <service category>**.
- OR -
Select the category **IT Shop | Service catalog | Hierarchical view | Singles**.
2. Select the service item in the result list.
3. Select **Assign business roles** in the task view.
4. Assign business roles in **Add assignments**.
- OR -
Remove business roles from **Remove assignments**.
5. Save the changes.

Assigning Function Areas

You can use the One Identity Manager to assess the risk of assignments. The assessments can be evaluated separately by functional area. Prerequisite is that service items are assigned to functional area. For more information, see the One Identity Manager Risk Assessment Administration Guide.

To assign functional areas to a service item

1. Select the category **IT Shop | Service catalog | Hierarchical view | <service category>**.
- OR -
Select the category **IT Shop | Service catalog | Hierarchical view | Singles**.
2. Select the service item in the result list.
3. Select **Assign functional areas**.
4. Assign functional areas in **Add assignments**.
- OR -
Remove functional areas in **Remove assignments**.
5. Save the changes.

Assigning Extended Properties

Extended properties are meta objects that cannot be mapped directly in the One Identity Manager, for example, operating codes, cost codes or cost accounting areas.

To assign extended properties to a service item

1. Select the category **IT Shop | Service catalog | Hierarchical view | <service category>**.
- OR -
Select the category **IT Shop | Service catalog | Hierarchical view | Singles**.
2. Select the service item in the result list.
3. Select **Assign extended properties** in the task view.
4. Assign extended properties in **Add assignments**.
- OR -
Remove extended properties from **Remove assignments**.
5. Save the changes.

Displaying Websites

You can link product descriptions in internet or intranet with the service item. For this, you enter the URL of a website in **Website** on the master data form.

To open the website in a standard browser

1. Select the category **IT Shop | Service catalog | Hierarchical view | <service category>**.
- OR -
Select the category **IT Shop | Service catalog | Hierarchical view | Singles**.
2. Select the service item in the result list.
3. Select **Visit website** in the task view.

Related Topics

- For more information, see [General Master Data for a Service Item](#) on page 20.

Changing Products

A product can be replaced by another product at a specified time. All employees that have requested this product are notified by an email telling them to request a replacement product.

To replace a product with another one

1. Select the category **IT Shop | Service catalog | Hierarchical view | <service category>**.
- OR -
Select the category **IT Shop | Service catalog | Hierarchical view | Singles**.
2. Select the product's service item to replace in the result list.
3. Select **Change product...** in the task view.
4. Enter the date on which the product will be replaced by another one in **Expiry date**.
5. Enter the service item that can be requested instead in **Alternative product**.
6. Click **OK**.

Related Topics

- [Product Change Notification](#) on page 150

Assigning Tags

Use this task to assign tags to service items and to add new tags.

To assign a tag to a service item

1. Select the category **IT Shop | Service catalog | Hierarchical view | <service category>**.
- OR -
Select the category **IT Shop | Service catalog | Hierarchical view | Singles**.
2. Select the service item in the result list.
3. Select **Assign tag** in the task view.
4. Double-click on the assignment form on the tag to assign to the service item.
5. Save the changes.

To add a tag for a service item

1. Select the category **IT Shop | Service catalog | Hierarchical view | <service category>**.
- OR -
Select the category **IT Shop | Service catalog | Hierarchical view | Singles**.
2. Select the service item in the result list.
3. Select **Assign tag** in the task view.
4. Select **Create tag...** in the task view.
5. Enter the tag and a description for it.
6. Save the changes.

The new tag is shown on the assignment form.

7. Double-click on the tag to assign it to the selected service item.
8. Save the changes.

TIP: You can add more tags. For more information, see [Entering Tags](#) on page 41.

Assigning Object Dependent References

Object dependent references can be assigned to service items. Use object dependent references to configure your Web Portal with the Web Designer. All object dependent references whose type references the table AccProduct can be assigned. For more detailed information, see the One Identity Manager Web Designer Reference Guide.

To assign object dependent references to a service item

1. Select the category **IT Shop | Service catalog | Hierarchical view | <service category>**.
- OR -
Select the category **IT Shop | Service catalog | Hierarchical view | Singles**.
2. Select the service item in the result list.
3. Select **Assign Object Dependent References** in the task view.
4. Assign object dependent references in **Add assignments**.
- OR -
Remove the object dependent references in **Remove assignments**.
5. Save the changes.

Specifying Products Dependencies

You can define dependencies for products. For example, when a printer is requested, a flat-rate installation charge has to be requested at the same time and toner might be requested optionally. Dependencies between requestable products are created using service items. A service item can be a child or parent to another service item.

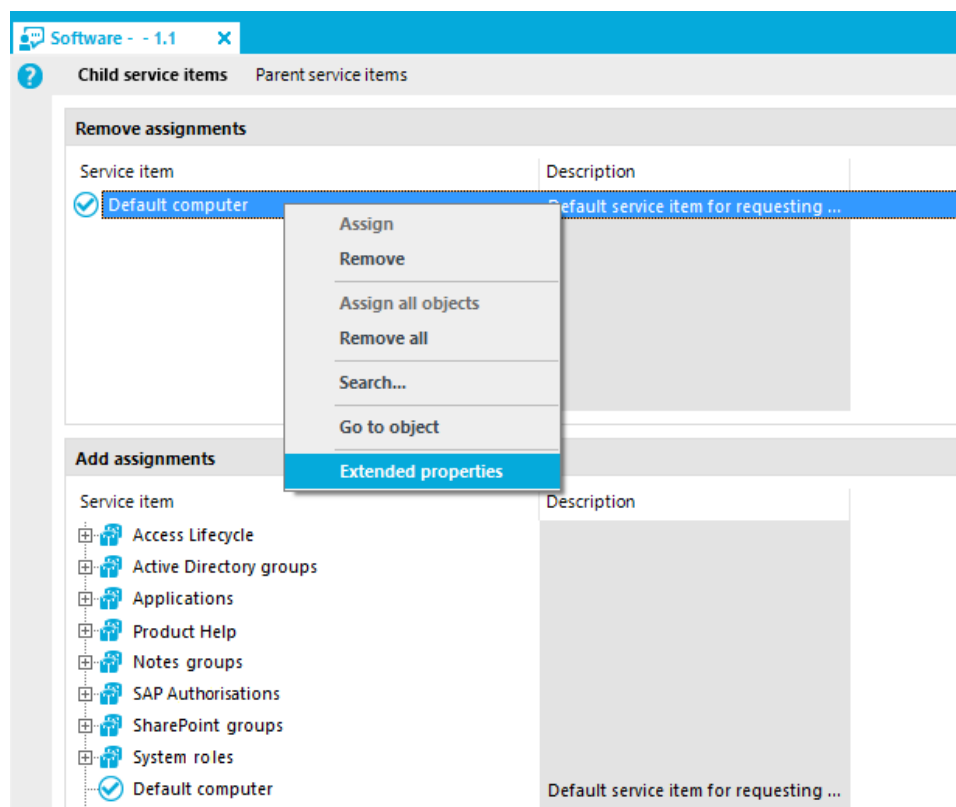
Table 7: Dependent Products

Product Depend- ency	Requested Product	Dependent Products
Child Service items	Selected service item	All assigned child service items
Parent Service items	One of the assigned parent service items	Selected service item

To specify dependencies between products

1. Select the category **IT Shop | Service catalog | Hierarchical view | <service category>**.
- OR -
Select the category **IT Shop | Service catalog | Hierarchical view | Singles**.
2. Select the product's service item you want in the result list.
3. Select **Edit product dependencies for requests** in the task view.
 - Specify the dependent products for the selected service item on the **Child service items** tab.
 - Specify the service item that the selected service item depends on, on the **Parent service item** tab.
4. Save the changes.
5. Open the context menu of the child or parent service item.
6. Select **Extended properties** in the menu.
This opens the details form.
7. Specify the dependency conditions. Select one of the following options:
 - Cannot request service items together
 - i** **NOTE:** This option prevents dependent products from being obtained through the same request. The product can be assign at any time with a separate, direct request.
 - Product must be requested at the same time
 - Product can be optionally requested at the same time
8. Save the changes.

Figure 3: Swap to Assignment Details Form



When a product is requested it is tested for existing dependencies. If this is the case, the appropriate products are automatically added to the request.

Reports about Service Items

One Identity Manager makes various reports available containing information about the selected base object and its relations to other One Identity Manager database objects. The following reports are available for service items.

NOTE: Other sections may be available depending on the which modules are installed.

Table 8: Reports about Service Items

Report	Description
Overview of all Assignments	This report finds all roles containing employees with the selected service item.

Related Topics

- [Overview of all Assignments](#) on page 31


Overview of all Assignments


The report "Overview of all Assignments" is displayed for certain objects, for example, permissions, compliance rules or roles. The report finds all the roles, for example, departments, cost centers, locations, business roles and IT Shop structures in which there are employee who own the selected base object. In this case, direct as well as indirect base object assignments are included.

Example

- If the report is created for a resource, all roles are determined in which there are employees with this resource.
- If the report is created for a group, all roles are determined in which there are employees with this group.
- If the report is created for a compliance rule, all roles are determined in which there are employees with this compliance rule.
- If the report is created for a department, all roles are determined in which employees of the selected department are also members.
- If the report is created for a business role, all roles are determined in which employees of the selected business role are also members.

To display detailed information about assignments

- To display the report, select the base object from the navigation or the result list and select the report **Overview of all assignments**.
- Use the  **Used by button** in the report's toolbar to select the role class (department, location, business role or IT Shop structure) for which you determine if roles exist in which there are employees with the selected base object.

All the roles of the selected role class are shown. The color coding of elements identifies the role in which there are employees with the selected base object. The meaning of the report control elements is explained in a separate legend. In the report's toolbar, click  to open the legend.



- Double-click a control to show all child roles belonging to the selected role.
- By clicking the  button in a role's control, you display all employees in the role with the base object.
- Use the small arrow next to  to start a wizard that allows you to bookmark this list of employee for tracking. This creates a new business role to which the employees are assigned.

Figure 4: Toolbar for Report "Overview of all assignments"

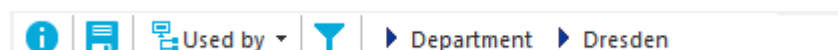






Table 9: Meaning of Icons in the Report Toolbar

Icon	Meaning
	Show the legend with the meaning of the report control elements
	Saves the current report view as a graphic.
	Selects the role class used to generate the report.
	Displays all roles or only the affected roles.

Entering Service Categories

You can group individual service items into service categories to create a service catalog.

To edit service categories

1. Select the category **IT Shop | Basic configuration data | Server**.
- OR -
Select the category **IT Shop | Service catalog**.
2. Select the service category in the result list.
3. Select **Change master data** in the task view.
4. Edit the service category's master data.
5. Save the changes.

Service Category Master Data

Enter the following master data for a service category. If you add a new service category, you must fill out the compulsory fields.

Table 10: General Master Data for a Service Category

Master Data	Meaning
Service category	The service item's name.
Special service category	Specifies whether the service category has a special purpose.
Parent service category	If you want to have service categories in a hierarchical structure, select a parent service category from the list.
Product owners	Assign a Request & Fulfillment IT Shop Product owners application role. Product owners can be used as approvers in a defined approval

Master Data	Meaning
	<p>process within the IT Shop. They can decide on approval of the service item request.</p> <p>To create a new application role, click New. Enter the application role name and assign a parent application role..</p>
Attestors	<p>Assign Request & Fulfillment IT Shop Attestors to an application role.</p> <p>The members of this application role can chosen as attestor in an attestation procedure.</p> <p>To create a new application role, click New. Enter the application role name and assign a parent application role.</p>
Approval policies	Approval policies used to determine the approver when the service item is requested from a service category in the IT Shop.
Request property	Select the group for defining extended properties for a request. These request properties are displayed in the Web Portal depending on the configuration, requester or approver.
Purchase price, sales price, internal price, currency	Enter the required price information for the service category accounting.
Sort order	Customer specific criteria for sorting assigned service items.
Description	Spare text box for additional explanation.
Picture	Picture of this service item in the database. Select the path where the picture is stored.
Spare fields no. 1 - Spare field no. 10	Additional company specific information. Use the Designer to customize display names, formats and templates for the input fields.

Detailed information about this topic

- [Selecting Responsible Approvers](#) on page 85
- [Product owners](#) on page 166
- [Attestors](#) on page 164
- [Determining Effective Approval Policies](#) on page 84
- [Entering Product Specific Request Properties](#) on page 35

Related Topics

- One Identity Manager Attestation Administration Guide.

Default Service Categories

The One Identity Manager provides service categories by default. These service categories make up the default service items in the service catalog.

To edit default service categories

- Select the category **IT Shop | Basic configuration data | Service categories | Predefined**.

Additional Tasks for Managing Service Categories

After you have entered the master data, you can apply different tasks to it. The task view contains different forms with which you can run the following tasks.

Service Category Overview

To obtain an overview of a service category

1. Select the category **IT Shop | Basic configuration data | Server**.
- OR -
Select the category **IT Shop | Service catalog**.
2. Select the service category in the result list.
3. Select **Service category overview** in the task view.

Assigning Service Items

Use this task to assign any number of service items to the service category.

To assign service items to a service category

1. Select the category **IT Shop | Basic configuration data | Server**.
- OR -
Select the category **IT Shop | Service catalog**.
2. Select the service category in the result list.
3. Select **Assign service item** in the task view.
4. Assign service items in **Add assignments**.
- OR -
Remove service items in **Remove assignments**.
5. Save the changes.

Assigning Object Dependent References

Object dependent references can be assigned to service categories. Use object dependent references to configure your Web Portal with the Web Designer. All object dependent references whose type references the table AccProductGroup can be assigned. For more detailed information, see the One Identity Manager Web Designer Reference Guide.

To assign object dependent references to a service category


1. Select the category **IT Shop | Basic configuration data | Server**.
- OR -
Select the category **IT Shop | Service catalog**.
2. Select the service category in the result list.
3. Select **Assign Object Dependent References** in the task view.
4. Assign object dependent references in **Add assignments**.
- OR -
Remove the object dependent references in **Remove assignments**.
5. Save the changes.

Entering Product Specific Request Properties

When products are requested in the Web Portal, product specific request properties can be queried dynamically. These request properties are displayed in the Web Portal depending on the configuration, requester or approver. Request properties are saved as additional information in the shopping cart and in the request procedure.

In order to use product specific request properties, define which properties are permitted for which product. To do this, assign the request properties to service items or service categories. When a product is requested the request properties are displayed for the service item. If there are no extended request properties stored for the service item, the request properties from the service category are used.

To edit request properties

1. Select the category **IT Shop | Basic configuration data | Request properties**.
2. Select the group of request properties to edit in the result list.
- OR -
Click  in the result list toolbar.
3. Select **Change master data** in the task view.
4. Edit the request property's master data.
5. Save the changes.

Request Property Master Data

In Manager, you must define request properties to enter request properties with a request. Request property groups include any number of request properties. In a request property's master data you specify the column in the table `ShoppingCartItem` in which to save the request property when the request is made. If the selected column is a foreign key column, the requester can select permitted values from a list in the Web Portal. The values can be limited by a condition. If the selected column allows free text, the requester must enter the request property as text in the Web Portal.

NOTE: If you want to use custom column to store request properties, add identical columns to the tables `ShoppingCartItem` and `PersonWantsOrg`.

If you add a new request group, you must fill out the compulsory fields.

Table 11: Master Data of Request Property group


Property	Description
Request properties group	Name of the request property group.
Description	Exact description of the request properties. This text is shown with the request in the Web Portal.

To group request properties

- Click **Add**.

Enter the following master data for each request property.

Table 12: Request Property Master Data

Property	Description
Column	Column of the table <code>ShoppingCartItem</code> in which to save the request property when the request is saved.
Display value	Name used to display the request property in the Web Portal. Click  to enter language dependent display values.
Sort order	Sort order in which to display the request properties in the Web Portal.
Mandatory parameter	Specifies whether it is mandatory to enter the request property when a product is requested.
Read-only	Specifies whether the request property should only be viewable in the Web Portal and not editable.
Editable for approver	Specifies whether both requester and approver can edit the request property. If this option is disabled, only the requester can edit this request property.
Condition	Condition limiting a foreign key value list.

Additional Tasks for Managing Request Properties

After you have entered the master data, you can apply different tasks to it. The task view contains different forms with which you can run the following tasks.

Request Properties Overview

To obtain an overview of the request properties

1. Select the category **IT Shop | Basic configuration data | Request properties**.
2. Select a request property group in the result list.
3. Select **Request properties overview** in the task view.

Copy Request Properties

You can copy the select group of request properties.

To copy request properties

1. Select the category **IT Shop | Basic configuration data | Request properties**.
2. Select request property group in the result list.
3. Select **Create copy** in the task view.
4. Confirm the security prompt with **OK**.

A group of request properties is created with the given name. You can edit these request properties afterwards.

Products with a Limited Request Period

Customers retain their requested products until they cancel them themselves. In this way, a membership in a target system group, for example, may only be valid for the period of the project. Products that are intended to have a limited shelf life need to be marked with a validity period.

To enter a validity period for products

To specify a validity period for a product request

1. Select the category **IT Shop | Service catalog | Hierarchical view | <service category>**.
- OR -
Select the category **IT Shop | Service catalog | Hierarchical view | Singles**.
2. Select the service item in the result list.

3. Select **Change master data** in the task view.
4. Enter in **Max. # days** the time period within which the product can be requested.
 - NOTE:** This value has no effect if multi-request resources (QERReuse) are requested.
5. Save the changes.

The One Identity Manager calculates the date that the product is automatically canceled from the current data and validity period at the time of request and approval.

Product Request on Customer or Product Relocation

If a customer requests a product from a shop or shopping center and then changes to another at a later date, you must decide how the existing request should be handled. The same applies if a product is moved to another shelf. One Identity Manager checks whether the request recipient and the product belong to the same shop after relocating.

Table 13: Effects of Relocating

Request Recipient and Product	Effect on Closed Requests	Effect on Pending Requests
In different shops	The request is canceled. The assignment is removed.	The request is canceled.
In the same shop	Behavior is defined by the option Retain service item assignment on relocation in the service item.	

Table 14: Effect of the option "Retain service item assignment on relocation"

Option Value	Effect on Approved Requests	Effect on Pending Requests
Not set	The request is canceled. The assignment is removed.	The request is canceled.
Set	The request remains intact. Shelf and shop are updated in the request procedure. Assignment of requested company resources remains intact.	The request remains intact. Shelf and shop are updated in the request procedure. Approvals already granted, are reset. The request runs through the approval process implemented in the new shop.

NOTE: The request is realized in the shop in which the request recipient is

Option Value	Effect on Approved Requests	Effect on Pending Requests
--------------	-----------------------------	----------------------------

customer and that contains the requested product. If several shelves or shops are found to which the condition applies, One Identity Manager selects one of the shelves or shop, respectively, to relocate.

The complete approval sequence is shown in the approval history.

To obtain a product's requests on relocation

1. Select the category **IT Shop | Service catalog | Hierarchical view | <service category>**.
- OR -
Select the category **IT Shop | Service catalog | Hierarchical view | Singles**.
2. Select the service item in the result list.
3. Select **Change master data** in the task view.
4. Set the option **Retain service item assignment on relocation**.
5. Save the changes.

Non-Requestable Products

Products that have already been requested but can only be requested for a limited period, can be specially labeled for it. Existing request for the product remain intact. However, no new requests may be made for the product.

To label a product as not requestable

1. Select the category **IT Shop | Service catalog | Hierarchical view | <service category>**.
2. Select the product's service item in the result list.
3. Select **Change master data** in the task view.
4. Set the option **Not available**.
5. Save the changes.

Entering Terms of Use

Terms of use that explain conditions of use for a product can be stored for individual service items (for example, application license conditions). When someone requests this product, the requester and request recipient must accept the terms of use before the request can be finalized.

To add or edit terms of use

1. Select the category **IT Shop | Service catalog | Terms of use**.
2. Select the terms of use in the result list. Select **Change master data** in the task view.
– OR –
Click **New** in the result list toolbar.
3. Select **Change master data** in the task view.
4. Edit the terms of use master data.
5. Save the changes.

Enter the following properties for the terms of use.

Table 15: General Master Data for Terms of Use

Property	Meaning
Terms of use	Name of the terms of use.
Description	Spare text box for additional explanation.
Contents	Full text of the terms of use.

In order for the request recipient to accept the terms of use, the request must be assigned to the request recipient in the approval process. Set a workflow for request like this with an approval step "BR" and set the option **No automatic approval**. One Identity Manager provides a default approval procedure and a default approval policy "Terms of Use acknowledgment for third-party orders (sample)" that you can use for this.

Related Topics

- [Approving Requests with Terms of Use](#) on page 127

Additional Tasks for Terms of Use

After you have entered the master data, you can apply different tasks to it. The task view contains different forms with which you can run the following tasks.

The Terms of Use Overview

You can see the most important information about a tag on the overview form.

To obtain an overview of the terms of use

1. Select the category **IT Shop | Service catalog | Terms of use**.
2. Select the terms of use in the result list.

3. Select **Terms of use overview** in the task view.

Assigning Service Items

Specify, the products to which the terms of use apply. Assign service items to the terms of use to do this.

To assign service items to the terms of use

1. Select the category **IT Shop | Service catalog | Terms of use**.
2. Select the terms of use in the result list.
3. Select **Assign service items** in the task view.
4. Double-click on the service item to be assigned to the terms of use in **Add assignment**.
– OR –
Double-click on the service item in **Remove assignments** to remove the assignment.
5. Save the changes.

Entering Tags

Product owners are able to add tags to their products. These tags can be used as search criteria by requests in the Web Portal. There are two ways of adding tags.

To add or edit a tag

1. Select **IT Shop | Basic configuration data | Tags**.
2. Select a tag in the result list. Select **Change master data** in the task view.
– OR –
Click **New** in the result list toolbar.
3. Select **Change master data** in the task view.
4. Edit the tag data.
5. Save the changes.

Enter the following data for a tag.

Table 16: General Master Data for a Tag

Property	Meaning
Tag	Tag

Property	Meaning
Description	Tag description.
Comment	Spare text box for additional explanation.
Parent tag	Tags can be organized hierarchically. Assign a parent tag to do this.

To add a tag directly to a product

1. Select the category **IT Shop | Service catalog | Hierarchical view | <service category>**.
- OR -
Select the category **IT Shop | Service catalog | Hierarchical view | Singles**.
2. Select the service item in the result list.
3. Select **Assign tag** in the task view.
4. Select **Create tag...** in the task view.
5. Enter the tag and a description for it.
6. Click **Ok** to save the tag.
The new tag is shown on the assignment form.
7. Double-click on the tag to assign it to the selected service item.
8. Save the changes.

Additional Tasks for Tags

After you have entered the master data, you can apply different tasks to it. The task view contains different forms with which you can run the following tasks.

Tag Overview

The overview form contains the most important information about a tag.

To get a overview of a tag

1. Select **IT Shop | Basic configuration data | Tags**.
2. Select a tag in the result list.
3. Select **Tag overview** in the task view.

Assigning Service Items

Assign service items a tag so they can be used as search terms in the Web Portal. The Web Portal finds all the service items assigned to a tag.

To assign a tag to a service item

1. Select **IT Shop | Basic configuration data | Tags**.
2. Select a tag in the result list.
3. Select **Assign service items** in the task view.
4. Double-click on the service item in **Add assignments** to assign it to the tag.
– OR –
Double-click on the service item in **Remove assignments** to remove the assignment.
5. Save the changes.

Assigning and Removing Products

Once you have prepared the product to be requested, assign it to a shelf or a shelf template. A shelf has several tasks available for assigning and removing products.

NOTE: These tasks are only displayed if the options **Assignments permitted** or **Direct assignments permitted** are set on the role classes "IT Shop structure" or "IT Shop template".

Table 17: Tasks for Assigning and Removing Requestable Products

Products	Task
Applications	Assign application
Resources	Assign resource
Multi-request resources	Assign resource
Multi-requestable/unsubscribable resources	Assign resource
System roles	Assign system roles
Groups of custom target systems	Assign groups of custom target systems
Active Directory groups	Assign Active Directory groups
SharePoint entitlements	Assign SharePoint groups Assign SharePoint roles
LDAP groups	Assign LDAP groups
IBM Notes groups	Assign Notes groups

Products	Task
SAP R/3 entitlements	Assign BI analysis authorizations
	Assign SAP groups
	Assign SAP profiles
	Assign SAP roles
	Assign structural profiles
E-Business Suite entitlements	Assign E-Business Suite authorizations
Subscribable reports	Assign subscribable reports
Assign resources	Assign resource

Detailed information about this topic

- [Roles Classes](#) on page 163

Assigning a Product

Table 18: Configuration Parameters for Creating Product Nodes

Configuration Parameter	Description
QER\ITShop\LimitOfNodeCheck	Maximum number of product nodes that can be generated by a DBQueue Processor run. Once this number has been exceeded, a task for generating the rest of the nodes is queued in the DBQueue.

There are different tasks available for assigning a single product from a shelf. The following example based on a resource shows you how to assign individual products.

To assign a resources to the "Identity & Access Lifecycle" as a product

1. Select the category **IT Shop | IT Shop | Identity & Access Lifecycle | Shelf: Identity Lifecycle**.
2. Select **Assign resources** in the task view.
3. Assign resources in **Add assignments**.
4. Save the changes.

Products are automatically assigned to shelves at the same time, if:

- Groups are automatically added to the IT Shop
- Rule template are used to set up the IT Shop

Use the DBQueue Processor inheritance mechanism and subsequent post-processing to create a separate product node for each assigned product within the shelf. These product

nodes are displayed with the name of the product's service item. If huge numbers of products are added in the IT Shop by automatic processes, you can specify how many product nodes are created in one DBQueue Processor run in the configuration parameter "QER\ITShop\LimitOfNodeCheck". Once this number has been exceeded, the task is closed and queued again in the DBQueue for generating the rest of the product nodes. By default, 500 objects are processed in one run.

Related Topics

- [Adding Groups Automatically to the IT Shop](#) on page 67
- [Templates for Automatically Filling the IT Shop](#) on page 182

Removing a Product

There are different tasks available for removing a product from a shelf. In the following, we use the example of a resource to show how to remove a product.

To remove a resource from the "Identity Lifecycle" shelf

1. Select the category **IT Shop | IT Shop | Identity & Access Lifecycle | Shelf: Identity Lifecycle**.
2. Select **Assign resources** in the task view.
3. Remove the resource from **Remove assignments**.
4. Save the changes.

When you remove a product from a shelf, pending requests for the product are closed, approved requests are unsubscribed.

To remove a product from all shelves

- Select **Remove from all shelves** in the task view.
You will find the task on the master data form of the respective product, for example, a resource.

The task immediately removes product assignments to manually configured shelves and shelf templates. Then, the DBQueue Processor removes product assignments to shelves, based on a template definition. All assignments are unsubscribed if the product is a part of an assignment request.

 **TIP:** Before you execute this task, check the effects on system performance.

Relocating a Product to another Shelf

A product can be moved to another shelf. If the shelf is in another shop, the system checks whether the request recipient is also a customer in the new shop.

To move a product to another shelf

i | **NOTE:** Standard products cannot be moved.

1. Select the category **IT Shop | IT Shop | <shop> | Shelf: <shelf>**.
2. Select an object in the result list.
3. Select **Move to another shelf....** in the task view.
4. Select the new shelf.
5. Click **OK**.

Detailed information about this topic

- [Product Request on Customer or Product Relocation](#) on page 38

Changing a Product

A product can be replaced by another product at a specified time. All employees that have requested this product are notified by an email telling them to request a replacement product.

To replace a product with another one

1. Select the category **IT Shop | Service catalog | Hierarchical view | <service category>**.
- OR -
Select the category **IT Shop | Service catalog | Hierarchical view | Singles**.
2. Select the product's service item to replace in the result list.
3. Select **Change product...** in the task view.
4. Enter the date on which the product will be replaced by another one in **Expiry date**.
5. Enter the service item that can be requested instead in **Alternative product**.
6. Click **OK**.

Related Topics

- [Product Change Notification](#) on page 150

Preparing the IT Shop for Multi-factor Authentication

Table 19: Multi-factor Authentication Configuration Parameters

Configuration Parameter	Meaning
QER\Person\Defender	This configuration parameter specifies whether Starling Two-Factor Authentication is supported.
QER\Person\Defender\ApiEndpoint	This configuration parameter contains the URL of the Starling 2FA API end point used to register new users.
QER\Person\Defender\ApiKey	This configuration parameter contains your company's subscription key for accessing the Starling Two-Factor Authentication interface.

You can set up additional authentication for particularly security critical resource requests, which requires every requester or approver to enter a security code for the request or request approval. Define which products require this authentication in your service items. Use One Identity Manager One Identity Starling Two-Factor Authentication for multi-factor authentication.

To be able to use multi-factor authentication

1. Register your company in Starling Two-Factor Authentication.
For more detailed information, see the Starling Two-Factor Authentication documentation.
 2. Set the configuration parameter "QER\Person\Defender" in the Designer.
 - Set the configuration parameter "QER\Person\Defender\ApiKey" and enter your company's subscription key as the value for accessing the Starling Two-Factor Authentication interface.
 3. Enable assigning by event for the table PersonHasQERRResource. For more information, see [Editing Table Properties](#) on page 48.
 4. Enable the service item "New Manager token" in the Starling 2FA. For more information, see [Preparing Starling 2FA Token Requests](#) on page 48.
 5. Create service items for the product in the Manager, which can only be requested with multi-factor authentication.
 - Set the option **Approval by multi-factor authentication**. For more information, see [General Master Data for a Service Item](#) on page 20.
- TIP:** Assign terms of use to the service item if the requester is also going to use multi-factor authentication. For more information, see [Using Multi-Factoring for Requests](#) on page 49.

If the user's telephone number has changed, cancel the current Starling 2FA token and request a new one. If the Starling 2FA token is no longer required, cancel it anyway.

- ❗ **IMPORTANT:** An approval is not possible by email, if multi-factor authorization is configured for the requested product. Approval emails for such requests produce an error message.

Related Topics

- [Approval by Mail](#) on page 152

You can find detailed information about

- For requesting Starling 2FA tokens.
- Requesting products requiring multi-factor authentication
- Canceling products

in the One Identity Manager Web Portal User Guide.

Editing Table Properties

- ❗ **NOTE:** If the option "Assign by event" is set, the process "HandleObjectComponent" is queued in the Job queue immediately after a resource is added to or removed from an employee.

To enable assigning by event for a table

1. Select the category **Designer Schema** in the One Identity Manager.
2. Select the table **PersonHasQERResource** and start the Schema Editor from the task **Show table definition**.
3. Select the view **Table properties | Table** and set the option **Assign by event**.
4. Save the changes.

For more information about editing table definitions, see the One Identity Manager Configuration Guide.

Preparing Starling 2FA Token Requests

One Identity Manager users must be registered with Starling Two-Factor Authentication in order to use multi-factor authentication. To register, a user must request the Starling 2FA Token in the Web Portal. Once the request has been granted approval, the user receives a link to the Starling Two-Factor Authentication app and a Starling 2FA user ID. The app generates one-time passwords, which are required for authentication. The Starling 2FA user ID is saved in the user's employee master data.

NOTE: The user's default email address, mobile phone and country must be stored in their master data. This data is required for registering.

To facilitate requesting a Starling 2FA token

1. Select the category **IT Shop | Service catalog | Predefined**.
2. Select **New Starling 2FA token** in the result list.
3. Select **Change master data** in the task view.
4. Disable **Not available**.
5. Save the changes.

The Starling 2FA token request must be granted approval by the request recipient's manager.

Using Multi-Factoring for Requests

Multi-factor authentication can be implemented for requests as well as for request approvals.

Once the option "Approval by multi-factor authentication" is set on a service item, a security code is requested in each approval step of the approval process. This means that every approver that makes approval decisions about this product, must have a Starling 2FA token.

So that requester can also use multi-factor authentication, assign terms of use to the service time as well. The requester must enter the security code when he confirms the terms of use. The request recipient must also enter a security code if the approval workflow is accordingly configured. For more information, see [Approving Requests with Terms of Use](#) on page 127.

Table 20: Variations of Multi-factor Authentication in the IT Shop

Effective Approval Policy	Terms of use	Security code is requested from	
		Requester	Approver
Self-Service	None		
Self-Service	Assigned	x	
No self-service	None		x
No self-service	Assigned	x	x

Related Topics

- [Entering Terms of Use](#) on page 39

Requesting a Security Code

Table 21: Configuration Parameter for Requesting Starling 2FA Security Codes

Configuration parameter	Meaning
QER\Person\Defender\DisableForceParameter	This configuration parameter specifies whether Starling 2FA is forced to send the OTP by SMS or phone call if one of these options is selected for multi-factor authentication. If the configuration parameter is set, Starling 2FA can disallow the request and the user must request the OPT through Starling 2FA.

If the OTP is requested for a request or request approval, the user decides how the OTP is send. The following options are available:

- By Starling 2FA app
- By SMS
- By phone call

By default, Starling 2FA is forced to send the OTP by SMS or by phone call if the user has selected one of these options. However, for security reasons, the user should use the Starling 2FA app to generate the OTP. If the app is installed on the user's mobile phone, Starling 2FA can refuse the SMS or phone demand and the user must generate the OTP using the app.

To use this method

- Set the configuration parameter ""QER\Person\Defender\DisableForceParameter" in the Designer.

Starling 2FA can refuse to transmit the OTP by SMS or phone call if the Starling 2FA app is installed on the phone. Then the OTP must be generated by the app.

If the configuration parameter is not set (default), Starling 2FA is forced to send the OTP by SMS or phone call.

Assignment Requests and Delegating

Table 22: Configuration Parameters for the IT Shop

Configuration parameter	Meaning
QER\ITShop>ShowClosedAssignmentOrders	This configuration parameter specifies whether the Manager of an organization or

Configuration parameter	Meaning
	business role can view completed assignment requests for their organization or business role.
	If this parameter is not set, the manager can only view open assignment requests for their organization or business role.

You can also use One Identity Manager to request hierarchical roles, like departments or business roles, through the IT Shop and assign them to employees, devices and workdesks. This allows any number of assignments to be made through IT Shop requests. The advantage of this method is that any kind of assignments can be authorized using an approval process. Assignment renewals and assignment recall are also subject to an approval process in the same way. The request history makes it possible to follow who, where and why requested, renewed or canceled which assignments.

Managers of hierarchical roles can make assignment requests for their roles.

Delegation is a special type of assignment request. This allows an employee to pass on a role assignment to another person for a limited period of time. Delegations are also subject to a fixed approval process.

Hierarchical role managers can view the role assignment requests they manage in the Web Portal. Use the configuration parameter "QER\ITShop\ShowClosedAssignmentOrders" to specify whether all request assignments are displayed or only open ones. By default, open as well as closed request assignments are displayed.

To only display a manager's open request assignments in the Web Portal

- Disable the configuration parameter "QER\ITShop\ShowClosedAssignmentOrders" in the Designer.

Standard Products for Assignment Requests and Delegation

You require special resources for assignment requests and delegation, so called assignment resources. Assignment resources are linked to service items and can thus be made available as products in the IT Shop.

One Identity Manager provides standard products for assignment requests and delegation. These are used to:

- Request membership in business roles or organizations for which the logged in One Identity Manager user is responsible.
- Order assignments of system entitlements or other company resources to business roles or organizations for which the logged in One Identity Manager user is

responsible.

- Delegate responsibilities or memberships in hierarchical roles.

Table 23: Standard Products for Assignment Requests and Delegation

Assignment resource	Service item	Shop Shelf	Request
Members in roles	Members in roles		Memberships in business roles and organizations
Role entitlement assignments	Role entitlement assignments	Identity & Access Lifecycle Identity Lifecycle	Assignment of company resources to business roles and organizations
Delegation	Delegation		Delegations

All active One Identity Manager database employees in the default installation are customers of the shop, "Identity & Access Lifecycle". This allows all enabled employees to request assignments or delegate roles. Assignment requests with default products are automatically approved through self-service and delegation.

You can add default products for assignment requests and delegations to your own IT Shop.

Assignments can only be requested from and for customers of this shop. This means, the manager of the hierarchical roles as well as the employees that are also members of these roles, must be customers in the shop. The same applies to delegation.

TIP: Assignment requests can also be made for custom assignment tables (many-to-many tables), if they have an XOrigin column. The properties for this column must correspond to the column definition for XOrigin columns in the One Identity Manager data model.

Example for an Assignment Request

Clara Harris is the project X project leader. A business role "Project X" is added in the Manager to ensure that all the project staff obtain the necessary entitlements. Clara Harris is assigned as manager of this business role. All project staff have a user account in the Active Directory domain "domain P".

Clara Harris can request memberships in the business role "Project X" in Web Portal because she is a manager. Clara Harris requests memberships for herself and all project staff.

Furthermore, Clara Harris wants all project staff to obtain their entitlements in Active Directory through the Active Directory group "Project X AD permissions". To this, she request permission "Project X AD permissions" in the Web Portal for the business role "Project X".

The user accounts of all project staff become members in the Active Directory group "Project X AD permissions" through internal inheritance processes.

Detailed information about this topic

- One Identity Manager Web Portal User Guide
- [Preparing for Delegation](#) on page 55

Related Topics

- [Example of Request Results](#) on page 218

Requesting Single Business Roles

Installed Module: Business Roles Module

You have the option to limit assignment request to single business roles. To do this, an assignment resource is created for a fixed requestable business role. The business role is automatically part of the request in an assignment resource request.

Furthermore, you have the option to define an approval process for requestable business roles of this type. The service items connected with the assignment resources are assigned separate approval policies in order to do this.

To limit assignment requests to single business roles

1. Select the category **Business roles | <Role class>**.
2. Select the business role in the result list.
3. Select **Create assignment resource...** in the task view.

This starts a wizard, which takes you through adding an assignment resource.

- a. Enter a description and allocate a resource type.

This adds a new assignment resource with the user defined properties

Table = "ORG" and path = "<business role UID>".

- b. Enter the service item properties to allocate to the assignment resource.

Assign a service category in order to request the assignment resource Web Portal in the through the service category.

A new service item is added and linked to the assignment resource.

4. Assign the assignment resource to an IT Shop shelf as a product.
5. Assign an approval policy to the shelf or the assignment resource's service item.
6. You can post-process the assignment resource master data if required.
7. You can post-process the service item master data if required.

The assignment resource can be requested in the Web Portal like any other company resource. After the request has been successfully assigned, the employee, for whom it was requested, becomes a member of the associated business role through internal inheritance processes.

Related Topics

- [Add Assignment Resources to IT Shop](#) on page 61
- [General Master Data for a Service Item](#) on page 20
- [Assigning Requestable Products to a Shelf](#) on page 175
- [Setting up Assignment Resources](#) on page 59
- [Entering Service Items](#) on page 19
- [One Identity Manager Web Portal User Guide](#)

Customizing Assignment Requests

Assign requests with standard products are automatically approved through self-service. If assignment requests should be approved by an approval supervisor, assign a suitable approval policy to the default assignment resource. This means assignment requests also go through the defined approval process.


To approve assignment requests through an approver

- Assign separate approval policies to the default assignment resources service positions.
- OR -
- Assign any approval policy to the shelf "Identity Lifecycle".

Sometimes, assignment requests should be subject to various approval process depending on the object requested. For example, a department manager should approve department assignment but department membership should be approved by the employee's manager. You can define assignment resources to do this. You can assign these assignment resources to any shelf in your IT Shop.

i **NOTE:** To use these assignment resources you must make more modifications to the Web Designer configuration.

To configure custom assignment requests

1. Create a new assignment resource.
 - a. Select the category **Entitlements | Assignment resource for IT Shop**.
 - b. Click  in the result list toolbar.
 - c. Select **Change master data** in the task view.
 - d. Enter the assignment resource name.
 - e. Assign a new service item.
 - f. Save the changes.

2. Assign the assignment resource to an IT Shop shelf as a product.
 - a. Select **Add to IT Shop** in the task view.
 - b. Assign a shelf in **Add assignments**.
 - c. Save the changes.
3. Assign an approval policy to the shelf or the assignment resource's service item.
4. Configure usage of the assignment resource in Web Designer.

Detailed information about this topic

- [General Master Data for an Assignment Resource](#) on page 59
- [Add Assignment Resources to IT Shop](#) on page 61
- [General Master Data for a Service Item](#) on page 20
- [Assigning Requestable Products to a Shelf](#) on page 175
- [Assigning Approval Policies](#) on page 175
- One Identity Manager Web Designer Reference Guide

Related Topics

- [Approval Processes for IT Shop Requests](#) on page 71

Preparing for Delegation

Table 24: Configuration Parameter for Delegation

Configuration parameter	Meaning
QER\ITShop\Delegation	Preprocessor relevant configuration parameter for controlling model components for delegation and role membership. Changes to the parameter require recompiling the database. If the parameter is set, delegation components are available.

Delegation is a special type of assignment request. It allows an employee to temporarily pass on responsibilities or a role assignment to another person.

To run delegation in One Identity Manager

- Set the configuration parameter "QER\ITShop\Delegation" in the Designer.

Delegations are also subject to a fixed approval process. For delegations, you need a separate "delegation" assignment resource. This already exists in the standard installation as a product in the shop "Identity Lifecycle" on the shelf "Identity Lifecycle".

The following objects in the standard installation can be delegated.

Membership in:	Business roles Application roles
Responsibilities for:	Departments Cost centers Locations Business roles Employee IT Shop structures (owners)

TIP: Specify the role classes associated to business roles for which memberships can be delegated. This option is available when the Business Roles Module is installed.

Delegation only takes effect if the delegated membership or responsibility does not yet exist.

Example:

Jenny Basset is member of the business role "Project X". She delegates this membership to Jan Bloggs. Jan Bloggs is also a member of this business role. The delegation is saved but is not yet in effect. After Jan Bloggs loses his membership in the business role, delegation takes effect. This way Jan Bloggs remains a member in the business role. After delegation is canceled, Jan Bloggs is removed from the business role.

To permit delegation of a role class

1. Select the category **Business roles | Basic configuration data | Role classes**.
2. Select the role class in the result list.
3. Select **Change master data** in the task view.
4. Set **Delegable**.
5. Save the changes.

Use Web Portal to delegate roles or responsibilities.

Detailed information about this topic

- One Identity Manager Business Roles Administration Guide
- One Identity Manager Web Portal User Guide

Notifying Delegates

A delegator can, if required, receive notifications if the recipient of the delegation has made an approval decision in the IT Shop. Notification is sent once an employee has been determined as an approver due to delegation and has made an approval decision for the request.

Delegations are taken into account in the following default approval procedures.

Table 25: Delegation Relevant Default Approval Procedures

Delegation of	Approval Procedures
Department responsibilities	D0, D1, D2, DM, DP
Cost center responsibilities	P0, P1, P2, PM, PP
Location responsibilities	None
Business role responsibilities	OM
Employee responsibilities	CM
IT Shop structure responsibilities	H0, H1, H2
Memberships in business roles	OR
Memberships in application roles	DI, DR, ID, IL, IO, IP, OA, OC, OH, PI, PR, RD, RL, RO, RP, TO

Example

Jon Blogs is responsible for the business role R1. He delegates his responsibility for the business role to Clara Harris. Clara Harris is herself responsible for business role R2.

A member of the business role R1 orders a product in IT Shop. Jon Blogs is established as approver through the approval procedure "OM - Manager of a specific role" in the approval process. The request is assigned to Clara Harris for approval through delegation. Jon Blogs is notified as soon as Clara Harris has made her approval decision.

A member of the business role R2 orders a product in the IT Shop. Clara Harris is established as approver through the approval procedure "OM - Manager of a specific role" in the approval process. No notification is sent because Clara Harris does not make the approval decision due to delegation.

Bulk delegation

You have the option to delegate all your responsibilities to one person in the Web Portal. If you have a lot of responsibilities, it is possible that not all the delegations are carried out. A delegators can send a notification to themselves if an error occurs.

Detailed information about this topic

- [Request Approval through Additional Approvers](#) on page 149
- [Bulk Delegation Notifications](#) on page 151

Related Topics

- [Default Approval Procedures](#) on page 86

Canceling Assignments and Delegations

Assignments and delegations can, like all other products, be canceled through the Web Portal. You should limit the delegation time period when you make the request. These requests are automatically canceled when the validity period expires.

Detailed information about this topic

- One Identity Manager Web Portal User Guide
- [Requests with Limited Validity Period](#) on page 135

Removing a Customer from a Shop

If a customer has requested assignments through a shop or has delegated role memberships and is removed from the shop at a later date, the assignment request is closed and the assignments revoked or delegation ended. In this case however, assignments to roles should be retained if required.

To prevent the assignment being revoked

1. Select the category **Entitlements | Assignment resource for IT Shop**.
2. Select the assignment resource in the result list.
3. Select **Change master data** in the task view.
4. Set **Keeps requested assignment resource**.
5. Save the changes.

If this option is set, requested role assignments are converted into direct assignments if the request recipient is removed from the customer node. The direct assignment can be deleted in the Web Portal by the role manager.

This option is set by default on the default assignment resource "Role entitlement assignments".


- i** **NOTE:** This option does not influence membership requests in roles or delegation. Membership assignments are not removed, if the requester is removed from the customer node. They are removed when the recipient of the assignment request is deleted from the customer node.
- Delegations are ended when the delegate is deleted from the customer node.

Related Topics

- [General Master Data for an Assignment Resource](#) on page 59

Setting up Assignment Resources

To edit default assignment resources

1. Select the category **Entitlements | Assignment resource for IT Shop**.
2. Select the assignment resource in the result list. Select **Change master data** in the task view.
- OR -
Click  in the result list toolbar.
3. Edit the assignment resource's master data.
4. Save the changes.

General Master Data for an Assignment Resource

Enter the following master data for an assignment resource.

Table 26: Master Data for an Assignment Resource

Property	Description
Assignment resource	Name for the assignment resource.
Resource type	Resource type for grouping assignment resources. For more detailed information, see the One Identity Manager Identity Management Base Module Administration Guide.
Service item	Service item through which you can request the assignment resource in the IT Shop. Assign an existing service item or add a new one. For more information, see Entering Service Items on page 19.
Risk index	Value for evaluating the risk of assignment resource assignments to employees. Enter a value between 0 and 1. This property is only visible when the configuration parameter QER\CalculateRiskIndex is set. For more detailed information, see the One Identity Manager Risk Assessment Administration Guide.
IT Shop	Specifies whether the assignment resource can be requested through the IT Shop. The assignment resource can be ordered by an employee over the Web Portal and distributed using a defined approval process. This option cannot be disabled.

Property	Description
Only for use in IT Shop	Specifies whether the assignment resource can only be requested through the IT Shop. The can be ordered by an employee over the Web Portal and distributed using a defined approval process. This means, the assignment resource cannot be directly assigned to roles outside the IT Shop. This option cannot be disabled.
Requested assignments remain intact.	If this option is set, requested role assignments are converted into direct assignments if the request recipient is removed from the customer node of the associate shops. The option can only be edited as long as there is a request has not been assigned with this assignment resource. For more information, see Removing a Customer from a Shop on page 58.
Description	Spare text box for additional explanation.
Spare fields no. 01.....spare field no. 10	Additional company specific information. Use the Designer to customize display names, formats and templates for the input fields.

Default Assignment Resources

One Identity Manager provides standard products for assignment requests and delegation. To do this, assignment resource are provided by default. These are assigned as standard products in the shop "Identity & Access Lifecycle".

To edit default assignment resources

- Select the category **Entitlements | Assignment resource for IT Shop | Predefined.**

Additional Tasks for Managing Assignment Resources

After you have entered the master data, you can apply different tasks to it. The task view contains different forms with which you can run the following tasks.

Assignment Resource Overview

Use this task to obtain an overview of the most important information about an assignment resource. For this you need to take into account the affiliation of the assignment resource

to IT Shop structures.

To obtain an overview of a service item

1. Select the category **Entitlements | Assignment resource for IT Shop**.
2. Select the assignment resource in the result list.
3. Select **Assignment resource overview** in the task view.

Add Assignment Resources to IT Shop

An assignment resource can be requested by shop customers when it is assigned to an IT Shop shelf.

To add a resource assignment to the IT Shop

1. Select the category **Entitlements | Assignment resource for IT Shop**.
2. Select the assignment resource in the result list.
3. Select **Add to IT Shop** in the task view.
4. Assign the assignment resource to the IT Shop shelf in **Add assignments**.
5. Save the changes.

To remove an assignment resource from all IT Shop shelves.

1. Select the category **Entitlements | Assignment resource for IT Shop**.
2. Select the assignment resource in the result list.
3. Select **Add to IT Shop** in the task view.
4. Remove the assignment resource to the IT Shop shelf from **Remove assignments**.
5. Save the changes.

To remove an assignment resource from all IT Shop shelves.

1. Select the category **Entitlements | Assignment resource for IT Shop**.
2. Select the assignment resource in the result list.
3. Select **Remove from all shelves (IT Shop)** in the task view.
4. Confirm the security prompt with **Yes**.
5. Click **OK**.

The assignment resource is removed from all shelves by the One Identity Manager Service. All assignment requests with this assignment resource are canceled in the process.

Creating IT Shop Requests from Existing User Accounts, Assignments and Role Memberships

You can create IT Shop requests for existing user accounts, membership in system entitlements, assignments to employees and hierarchical roles when One Identity Manager goes into operation. One Identity Manager provides several methods to implement this. Using these methods, requests are created that are completed and approved. These request can therefore be canceled at a later date. In addition to the initial request data, you can run a custom script from each method that sets other custom properties for a request.

Table 27: Methods for Transforming Direct Assignments into Requests

Method	Description
CreateITShopOrder (string CustomScriptName)	Creates a request from a direct assignment. This method can be applied to all tables used to find a UID_Person.
CreateITShopOrder (string uidOrgProduct, string uidPersonOrdered, string CustomScriptName)	Creates an assignment request from an assignment or membership. This method can be applied to all tables which cannot be used to find a UID_Person.
CreateITShopOrder (string uidOrgProduct, string uidWorkdeskOrdered, string uidPersonOrdered, string CustomScriptName)	Creates an assignment request from an assignment or membership and, in addition, saves a UID_WorkdeskOrdered with the request procedure.
CreateITShopWorkdeskOrder (string uidPerson, string CustomScriptName)	Creates a request for a workdesk from a direct assignment. This method can be applied to the tables WorkDeskHasApp, WorkDeskHasESet and WorkDeskHasDriver.

To run the methods

1. Create a script in the Designer with the Script Editor to call the desired method.
You can find an example script for calling a Customizer method in VB syntax on the One Identity Manager installation medium in directory `..\Modules\QBM\AddOn\SDK\ScriptSamples\03 Using database objects\11 Call database object methods.vb`. You can use this example script as a template to create a script for call the methods described here.
2. Run the script.
You can use the script test from the Script Editor to do this.

For more information about creating scripts, see the One Identity Manager Configuration Guide.

Creating Requests for Employees

You can create requests for employees or memberships in system entitlements with the method `CreateITShopOrder (string CustomScriptName)`. Prepare the IT Shop correspondingly in order to create the requests.

To create requests from direct assignments to employees or memberships in system entitlements

1. Prepare the company resources or system entitlements for use in the IT Shop.
2. Assign the company resources or system entitlements to a shelf in the IT Shop.
3. Link each user account for whose memberships requests are to be created, with an employee.
4. Add employee as customers to shops to which the company resources or system entitlements are assigned as products.
5. *Optional*: Create a script that populates other properties of the requests.
 - Pass the script name as a parameter to the method `CustomScriptName`.
6. Create a script to run the method `CreateITShopOrder (string CustomScriptName)` for the affected tables.

To create One Identity Manager requests from direct assignments to employees

1. Determine employees and their assigned company resources.
2. Determine shops assigned to company resources and employees.
3. Create the requests with initial data.
4. Execute custom scripts.
5. Save the requests (entry in table `PersonWantsOrg`).
6. Assign employees to the product structure (entry in table `PersonInITShopOrg`).
7. Transform direct company resource assignments into indirect assignments to employees (for example, in the table `PersonHasQERRResource`).

This is how the One Identity Manager creates requests for system entitlements memberships:

1. Establish the user accounts and their memberships.
2. Determine the affected employees.
3. Determine the shops to which employees and the system entitlements are assigned.
4. Create the requests with initial data.
5. Execute custom scripts.
6. Save the requests (entry in table `PersonWantsOrg`).

7. Assign employees to the product structure (entry in table PersonInITShopOrg).
8. Transform direct company memberships into indirect memberships for affected user accounts (for example, in the table ADSAccountInADSGroup).

Related Topics

- [Preparing Products for Requesting](#) on page 18

Creating User Account Requests

To assign user accounts to employees, use One Identity Manager account definitions. You can request matching account definitions for existing user accounts linked to the employees through the IT Shop. To create these requests, you can use the method `CreateITShopOrder` (string `CustomScriptName`). This method can be used for all user account tables (for example, `ADSAccount` or `SAPUser`) and for the tables `ADSDContact`, `EX0MailBox`, `EX0MailContact` and `EX0MailUser`.

Prepare the IT Shop correspondingly in order to create the requests.

To create requests for user accounts

1. Create an account definition for the target system. Assign the account definition to the target system.
2. Prepare the account definition for use in the IT Shop.
3. Assign the account definition to a shelf in the IT Shop.
4. Link the user account to an employee.
5. Add employee as customers to shops to which the account definition is assigned as product.
6. *Optional*: Create a script that populates other properties of the requests.
 - Pass the script name as a parameter to the method `CustomScriptName`.
7. Create a script, which runs the method for the tables affected.

To create One Identity Manager request for user accounts

1. Determine the valid account definition.
2. Determine the affected employees.
3. Determine the shops to which employees and the account definition are assigned.
4. Create the requests with initial data.
5. Execute custom scripts.
6. Save the requests (entry in table `PersonWantsOrg`).

7. Assign employees to the product structure (entry in table `PersonInITShopOrg`).
8. Transform any possible direct account definition assignments to indirect assignments (entry in table `PersonHasTSBAccountDef`).

Related Topics

- [Preparing Products for Requesting](#) on page 18

Creating Requests for Workdesks

Requests for workdesks are created with the method `CreateITShopWorkdeskOrder` (string `uidPerson`, string `CustomScriptName`). Prepare the IT Shop correspondingly in order to create the requests.

To create requests from assignments to workdesks

1. Prepare the company resources (application, system role or driver) for use in the IT Shop.
2. Assign the company resources to a shelf in the IT Shop.
3. Select an employee as requester for the assignment to workdesks.
 - Pass the employee's `UID_Person` as the parameter `uidPerson` to the method.
4. Add the selected employee as a customer to the shops to which the company resources are assigned as products.
5. *Optional*: Create a script that populates other properties of the requests.
 - Pass the script name as a parameter to the method `CustomScriptName`.
6. Create a script to run the method `CreateITShopWorkdeskOrder` (string `uidPerson`, string `CustomScriptName`) for the affected tables.

How One Identity Manager creates requests for workdesks from existing assignments

1. Determine workdesks and their assigned company resources.
2. Determine requester from the parameter `uidPerson`.
3. Determine shops assigned to company resources and requester.
4. Create the requests with initial data.
5. Execute custom scripts.
6. Save the requests (entry in table `PersonWantsOrg`).
7. Assign employees to the product structure (entry in table `PersonInITShopOrg`).
8. Transform direct company resource assignments into indirect assignments to workdesks (for example, in the table `WorkDeskHasApp`).

Related Topics

- [Preparing Products for Requesting](#) on page 18

Creating Assignment Requests

You can create assignment requests for existing company resource assignments to hierarchical roles and for memberships of employees, devices or workdesks in hierarchical roles. The following methods are available.

Table 28: Methods for Transforming Direct Assignments into Assignment Requests

Method	Description
CreateITShopOrder (string uidOrgProduct, string uidPersonOrdered, string CustomScriptName)	Creates an assignment request from an assignment or membership. This method can be applied to all tables which cannot be used to find a UID_Person.
CreateITShopOrder (string uidOrgProduct, string uidWorkdeskOrdered, string uidPersonOrdered, string CustomScriptName)	Creates an assignment request from an assignment or membership and, in addition, saves a UID_WorkdeskOrdered with the request procedure.

Prepare the IT Shop correspondingly in order to create the requests.

To create assignment requests from direct assignment to hierarchical roles and role memberships

1. Select an assignment resource from the shelf **IT Shop | Identity & Access Lifecycle | Shelf: Identity Lifecycle**.
 - Pass the product's UID_ITShopOrg as the parameter uidOrgProduct to the method.
2. Select an employee from the shop's customer node **IT Shop | Identity & Access Lifecycle** as requester for the assignment request.
 - Pass the product's UID_ITShopOrg as the parameter uidPersonOrdered to the method.
3. *Optional:* Create a script that populates other properties of the requests.
 - Pass the script name as a parameter to the method CustomScriptName.
4. Create a script to run the method CreateITShopOrder (string uidOrgProduct, string uidPersonOrdered, string CustomScriptName) for the affected tables.

TIP: You can also create your own assignment resource and assign it to a shelf in any shop. Select an employee as requester for the assignment request from this shop's customer node. For more information, see [Customizing Assignment Requests](#) on page 54.

To create One Identity Manager assignment requests from existing assignments to hierarchical roles

1. Determine the hierarchical roles and their assigned company resources and employees (employees, devices or workdesks).
2. Determine the requester from the parameter uidPersonOrdered.
3. Determine the assignment resource from the parameter uidOrgProduct.
4. Determine shops assigned to the assignment resource and requester.
5. Create the requests with initial data.
6. Execute custom scripts.
7. Save the requests (entry in table PersonWantsOrg).
8. Transform direct company resource assignments to hierarchical roles into indirect assignments to workdesks (for example, in the table DepartmentHasQERRResource). Transform direct company memberships to hierarchical roles into indirect memberships (for example, in the table PersonInDepartment).

If the assignment request is to be created for a workdesk, pass the method the workdesk's UID_WorkDesk as parameter uidWorkdeskOrdered. The method saves this UID as UID_WorkdeskOrdered in the request (table PersonWantsOrg).

Detailed information about this topic

- [Standard Products for Assignment Requests and Delegation](#) on page 51

Related Topics

- [Preparing Products for Requesting](#) on page 18

Adding Groups Automatically to the IT Shop

Table 29: Configuration Parameter for Automatically Add Groups in the IT Shop

Configuration parameter	Description	Applies in Module
QER\ITShop\GroupAutoPublish	Preprocessor relevant configuration parameter for automatically adding groups to the IT Shop. This configuration parameter specifies whether all Active Directory and SharePoint target system	SharePoint Module Active Directory

Configuration parameter	Description	Applies in Module
	groups are automatically added to the IT Shop. Changes to the parameter require recompiling the database.	ry Module Active Roles Module
QER\ITShop\GroupAutoPublish\ADSGroupExcludeList	This configuration parameter contains a list of all Active Directory groups for which automatic IT Shop assignment should not take place. Names given in a pipe () delimited list that is handled as a regular search pattern. Example: .*Administrator.* Exchange.* .*Admins .*Operators IIS_IUSRS	Active Directory Module Active Roles Module
TargetSystem\ADS\ARS_SSM	Preprocessor relevant configuration parameter for controlling the database model components for Active Roles Self-Service Management in the One Identity Manager IT Shop. If the parameter is set, Self-Service Management components are available. Changes to the parameter require recompiling the database.	Active Roles Module

To add groups automatically to the IT Shop

1. Set the configuration parameter for automatically adding groups to the IT Shop in the Designer depending on existing modules.
2. Compile the database.

The groups are added automatically to the IT Shop from now on.

- Synchronization ensures that the groups are added to the IT Shop. If necessary, you can manually start synchronization with the Synchronization Editor.
- New groups created in One Identity Manager are added to the IT Shop.

The following steps are run to add a group to the IT Shop.

1. A service item is determined for the group.

The service item is tested and modified for each group as required. The service item name corresponds to the name of the group. The service item is assigned to one of the default service categories.

- The service item is modified for groups with service items.
 - Groups without service items are allocated new service items.
2. An application role for product owners is determined and the service item is assigned. Product owners can approve requests for membership in these groups. By default, the group's account manager/owner is established as the product owner.

NOTE: The application role for product owners must be below the application role **Request & Fulfillment | IT Shop | Product owners**.

- If the group's account manager/owner is already a member of an application role for product owners, then this application role is assigned to the service item.
 - If the group's account manager/owner is not a member of a product owner application role, a new application role is added. The name of the application role corresponds to the name of the account manager/owner.
 - If the account manager/owner is a user account, the user account's employee is added to the application role.
 - If you are dealing with a group of account managers/owners, the employees of all user accounts in this group are added to the application role.
 - If the group does not have an account manager/owner, the default application role **Request & Fulfillment | IT Shop | Product owner | without owner in AD/SharePoint** is used.
3. The group is labeled with the option **IT Shop** and assigned to the IT Shop shelf "Active Directory groups" or "SharePoint groups" in the shop "Identity & Access Lifecycle" respectively.

Then product owners for shop customers group memberships can make requests through the Web Portal.

NOTE: When a One Identity Manager group is irrevocably deleted from the database, the associated service item is deleted.

Related Topics

- [Entering Service Items](#) on page 19
- [Deleting Unused Application Roles](#) on page 70
- [Product owners](#) on page 166
- [Requesting Groups Memberships](#) on page 207

Deleting Unused Application Roles

The list of product owner application roles can quickly become confusing when groups are automatically added to the IT Shop. This is because an application role is added for each account manager. These application roles are no longer required when a groups are deleted.

Redundant application roles for product owners can be deleted through a scheduled process task. This deletes all the application role from the database for which the following applies:

- The parent application role is **Request & Fulfillment | IT Shop | Product owner**.
- The application role is not assigned to a service item.
- The application role is not assigned to a service category.
- The application role does not have members.

To delete application roles automatically

- Configure and enable the schedule "Cleans up application role "Request & Fulfillment\IT Shop\Product owners"" in the Designer.

Related Topics

- [Adding Groups Automatically to the IT Shop](#) on page 67
- [Product owners](#) on page 166

Approval Processes for IT Shop Requests

All IT Shop requests are subject to a defined approval process. During this approval process, authorized employees grant or deny approval for the product assignments. You can configure this approval process in various ways and therefore customize it to meet your company policies.

You define approval policies and approval workflows for approval processes. Specify which approval workflows are going to be used for the request in the approval policies. Use approval workflows to specify which employee is authorized to grant or deny approval for the request at the time it was placed. An approval workflow can contain a number of approval levels and this can in turn contain several approval steps, for example, when several management hierarchy layers need to give approval for a request. A special approval procedure is used to determine the approvers in each approval procedure.

In the default installation, several approval policies are assigned to the "Identity Lifecycle". Therefore, requests from this shop are run through predefined approval processes. Assign an approval policy to the shop, the shelf or the service item of the "Identity & Access Lifecycle" shelf if requests from this shop should go through customized approval process.


Detailed information about this topic

- [Editing Approval Policies](#) on page 71
- [Approval Workflows](#) on page 75
- [Editing Approval Levels](#) on page 78
- [Default Approval Procedures](#) on page 86

Editing Approval Policies

One Identity Manager uses approval policies to determine the approver for each request process.



To edit an approval policy

1. Select the category **IT Shop | Basic configuration data | Approval policies**.
2. Select an approval policy from the result list. Select **Change master data** in the task view.
– OR –
Click  in the result list toolbar.
3. Edit the approval policy master data.
4. Save the changes.

General Master Data for Approval Policies

Enter the following master data for an approval policy. If you add a new approval step, you must fill out the compulsory fields.

Table 30: General Master Data for Approval Policies

Master Data	Meaning
Approval policies	Approval step name.
Role type	Use role types to fix inheritance of approval policies within an IT Shop solution. For more information, see Determining Effective Approval Policies on page 84. Add the required role types in IT Shop Basic configuration data Roles types . For more information, see Role Types on page 162.
Priority	An integral number with a maximum of one digit. A priority is used to decided which approval policy should be used if several approval policies are found to be valid following the given rules. The highest priority has the largest number.
Approval workflow	Workflow for determining approvers when a product is requested. Select any approval workflow from the menu or click  to set up a new workflow. For more information, see Setting Up Approval Workflows on page 77.
Renewal workflow	Approval workflow for determining approvers when a product is renewed. Select any approval workflow from the menu or click  to set up a new workflow. For more information, see Setting Up Approval Workflows on page 77. The request workflow is used (UID_SubMethodOrderProduct) if no renewal workflow is given when a request is renewed.
Cancellation	Approval workflow for determining approvers when a requested product is

Master Data	Meaning
workflow	<p>canceled.</p> <p>Select any approval workflow from the menu or click to set up a new workflow. For more information, see Setting Up Approval Workflows on page 77.</p>
Mail templates	<p>Mail template used for email notifications for granting or denying approval for a request and expired or canceled requests.</p> <p>For more information, see Notifications in the Request Process on page 141.</p>
Description	Spare text box for additional explanation.

Default Approval Policies

One Identity Manager supplies service items by default. These approval policies are used in the "Identity & Access Lifecycle" shop approval processes. You can store mail templates with default approval policies for sending notifications during the request process and specifying a priority.

To edit default approval policies

- Select the category **IT Shop | Basic configuration data | Approval policies | Predefined**.

Additional Tasks for Approval Policies

After you have entered the master data, you can apply different tasks to it. The task view contains different forms with which you can run the following tasks.

Add to IT Shop

You can assign approval policies to shops, shopping centers or shelves. The approval policy is applied to the request from the respective IT Shop nodes if there are no approval policies assigned to child IT Shop nodes. For more information, see [Determining Effective Approval Policies](#) on page 84.

To assign an approval policy to shops, shopping centers or shelves

1. Select the category **IT Shop | Basic configuration data | Approval policies**.
2. Select the approval policy from the result list.

3. Select **Add to IT Shop** in the task view.
4. Assign the shops, shopping centers or shelves in **Add assignments**.
 - OR -
 - Remove the shops, shopping centers or shelves in **Remove assignments**.
5. Save the changes.

Validity Check

Once you have edited an approval policy you need to test it. This checks whether the approval steps can be used in the approval workflows in this combination. Non-valid approval steps are displayed in the error window.

To test an approval policy

1. Select the category **IT Shop | Basic configuration data | Approval policies**.
2. Select the approval policy in the result list.
3. Select **Validity check** in the task view.

Editing Approval Workflows

You can edit approval workflows, which are assigned an approval policy here.

To edit approval workflow properties

1. Select the category **IT Shop | Basic configuration data | Approval policies**.
2. Select the approval policy from the result list.
3. Select the task **1. Edit approval workflow**.
 - OR -
 - Select the task **2. Edit approval workflow**.
 - OR -
 - Select the task **3. Edit approval workflow**.

This opens the Workflow Editor.


Detailed information about this topic

- [Working with the Workflow Editor](#) on page 75

Approval Workflows

You need to allocate an approval workflow to the approval policies in order to find the approvers. In an approval workflow, you specify the approval procedures, the number of approvers and a condition for selecting the approvers. Use the workflow editor to create and edit approval workflows.

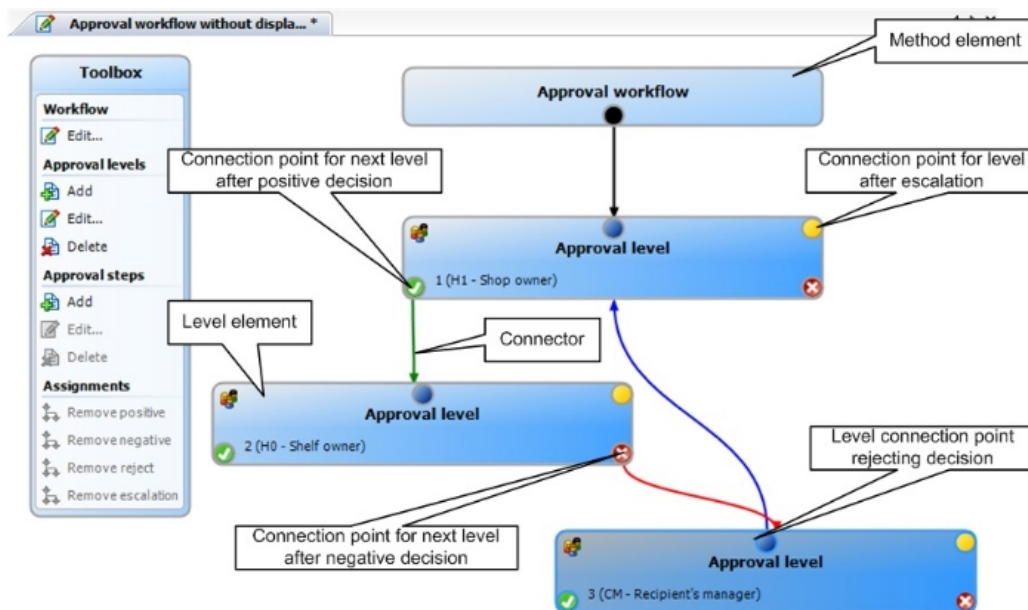
To edit an approval workflow

1. Select the category **IT Shop | Basic configuration data | Approval workflows**.
2. Select the approval workflow in the result list. Select **Change master data** in the task view.
- OR -
Click  in the result list toolbar.
This opens the Workflow Editor.
3. Edit the approval workflow master data.
4. Save the changes.

Working with the Workflow Editor

Use the workflow editor to create and edit approval workflows. The workflow editor allows approval levels to be linked together. Multi-step approval processes are clearly displayed in a graphical form.

Figure 5: Workflow Editor



Approval levels and approval steps belonging to the approval workflow are edited in the workflow editor using special control elements. The workflow editor contains a toolbox. The toolbox methods are activated or deactivated depending on how they apply to the control element. You can move the layout position of the control elements in the workflow editor with the mouse.

Each of the elements has a properties window for editing the approval workflow, level or step data. Use **Toolbox | <Element> | Edit...** to open the properties window.

To delete a control, mark it and run **Toolbox | <Element> | Edit...**

Individual elements are linked to each other with a connector. Activate the connection points with the mouse. The mouse cursor changes into an arrow icon for this. Hold down the left mouse button and pull a connector from one connection point to the next.

Figure 6: Approval Workflow Connectors

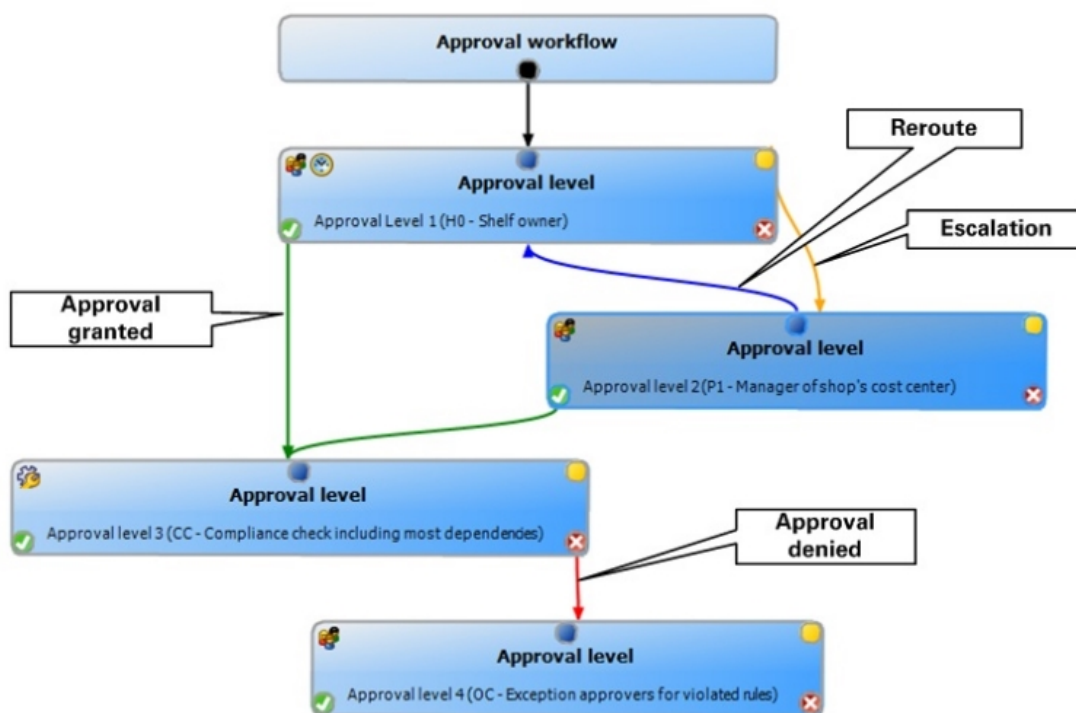


Table 31: Approval Workflow Connectors





Connector	Meaning
Approval	Link to next approval level if the current approval level was granted approval.
Deny	Link to next approval level if the current approval level was not granted approval.
Reroute	Link to another approval level to by-pass the current approval.
Escalation	Connection to another approval level when the current approval level is escalated after timing out.

By default, a connection between workflow elements and level elements is created immediately when a new element is added. If you want to change the level hierarchy, drag a new connector to another level element.

Alternatively, you can release connectors between level elements using **Toolbox | Assignments**. To do this, mark the level element where the connector starts. Then add a new connector.

Different icons are displayed on the level elements depending on the configuration of the approval steps.

Table 32: Icons on the Level Elements

Icon	Meaning
	The approval decision is made by the system.
	The approval decision is made manually.
	The approval step contains a reminder function.
	The approval step contains a timeout.

Changes to individual elements in the workflow do not take place until the entire approval workflow is saved. The layout position in the workflow editor is saved in addition to the approval policies.

Setting Up Approval Workflows

An approval workflow consists of one or more approval levels. An approval level can contain one approval step or several parallel approval steps. All the approval steps in the approval process for one approval level have to be executed before the next approval level can be called upon. Use connectors to set up the sequence of approval levels in the approval workflow.

When you add a new approval workflow, the first thing to be created is a new workflow element.

To edit approval level properties

1. Open the Workflow Editor.
2. Select **Toolbox | Workflow | Edit....**
3. Edit the workflow properties.
4. Click **OK**.

Table 33: Approval Workflow Properties

Property	Meaning
Name	Approval workflow name.

Property	Meaning
System abort (days)	Number of days to elapse after which the approval workflow, and therefore the system automatically ends the entire approval process.
Description	Spare text box for additional explanation.

Detailed information about this topic

- [Abort Request on Timeout](#) on page 124

Editing Approval Levels

An approval level provides a method of grouping individual approval steps. All the approval steps in one approval level are executed in parallel. All the approval steps for different approval levels are executed one after the other. You use the connectors to specify the order of execution.

Specify the individual approval steps in the approval levels. At least one approval step is required per level. Enter the approval steps first before you add an approval level.

To add an approval level

1. Select **Toolbox | Approval levels | Add...**
This opens the properties dialog for the first approval step.
2. Enter the approval step properties.
3. Save the changes.

For more information, see [Setting up an Approval Step](#) on page 79.

You can edit the properties of an approval level as soon as you have added an approval level with at least one approval step.

To edit approval level properties

1. Select the approval level.
2. Select **Toolbox | Approval levels | Add...**
3. Enter a display name for the approval level.
4. Save the changes.

NOTE: You can define more than one approval step for each approval level. In this case, the approvers of an approval level can make a decision about a request in parallel rather than sequentially. The request cannot be presented to the approvers at the next approval level until all approval steps in one approval level have been completed in the approval process.

To add more approval steps to an approval level

1. Select the approval level.
2. Select **Toolbox | Approval levels | Add....**
3. Enter the approval step properties.
4. Save the changes.

To edit approval level properties

1. Select the approval step.
2. Select **Toolbox | Approval levels | Add....**
3. Edit the approval step properties.
4. Save the changes.

Setting up an Approval Step


The following data is required for an approval step. If you add a new approval step, you must fill out the compulsory fields.

Table 34: Setting up an Approval Step

Property	Meaning
Single step	Approval step name.
Approval Procedure	Procedure to use for determining approvers.
Processing status	Processing status of the success or failure case of the approval step. The processing status for the request is set corresponding to the decision and whether it has been made positively or negatively.
Mail templates	Mail template that is used for email notifications for granting or denying approval, escalation, abort, rejection or delegation of a request as well as a reminder.
Relevance for compliance	Specifies whether the approver is notified when a rule violation is caused by a request. The following values are permitted:

Table 35: Permitted Values for Relevance

Value	Description
Not relevant	Information about rule violations is not relevant for approvers of this approval step. No additional information is displayed for the approver in the approval process.

Property	Meaning						
	<table border="1"> <thead> <tr> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Information</td> <td>Approvers for this approval step receive information in this approval process when a compliance rule violation occurs. The approvers decided whether to grant or deny the request.</td> </tr> <tr> <td>Necessary Action</td> <td>Approvers for this approval step receive information in this approval process when a compliance rule violation occurs. The request is automatically denied.</td> </tr> </tbody> </table>	Value	Description	Information	Approvers for this approval step receive information in this approval process when a compliance rule violation occurs. The approvers decided whether to grant or deny the request.	Necessary Action	Approvers for this approval step receive information in this approval process when a compliance rule violation occurs. The request is automatically denied.
Value	Description						
Information	Approvers for this approval step receive information in this approval process when a compliance rule violation occurs. The approvers decided whether to grant or deny the request.						
Necessary Action	Approvers for this approval step receive information in this approval process when a compliance rule violation occurs. The request is automatically denied.						
Condition	Condition for calculating approval with approval procedures CD, EX or WC. Comparison value for the risk index in the approval procedure RI. Enter a number in the range 0.1 to 1.0. You can use ',' or '.' as a decimal point						
Role	Hierarchical roles for determining the approver with default approval procedures "OM" and "OR".						
Number of approvers	<p>Number of approval required to approve a request. Use this number to further restrict the maximum number of approvers of the implemented approval procedure.</p> <p>If there are several people allocated as approvers, then this number specifies how many people from this group have to approve a request. A request can only be passed up to next level when this has been done.</p> <p>If not enough approvers can be found, the approval step is presented to the fallback approvers. The approval step is considered approved the moment one fallback approver has approved the request.</p> <p>Enter the value -1 if approval decisions should be made for all the employees found using the applied approval procedure, for example all members of a role (default approval procedure "OR"). This overrides the maximum number of approvers defined in the approval procedure.</p> <p>The number of approvers defined in an approval step is not taken into account in the approval procedures CD, EX or WC.</p>						
Description	Spare text box for additional explanation.						
Fallback approver	<p>Applications role whose members are authorized to approve requests if an approver cannot be determined through the approval procedure. Assign an application from the menu.</p> <p>To create a new application role, click . Enter the application role name and assign a parent application role. For more information, see the One Identity Manager Application Roles Administration Guide.</p> <p>NOTE: The number of approvers is not applied to the fallback approvers. The approval step is considered approved the moment one fallback approver has approved the request.</p>						

Property	Meaning
Reminder interval (hours)	<p>Number of working hours to elapse after which the approver is notified by mail that there are still pending requests for approval.</p> <p>i NOTE: Ensure that a state and/or county is entered into the employee's master data for determining the correct working hours.</p>
TimeOut (working hours)	<p>Number of working hours to elapse after which the approval step is automatically granted or denied approval.</p> <p>The approvers work time applies to the time calculation.</p> <p>i NOTE: Ensure that a state and/or county is entered into the employee's master data for determining the correct working hours.</p>
Timeout behavior	Action, which is executed if the timeout expires.

Table 36: Possible Timeout Behavior

Method	Description
Approval	The request is granted approval in this approval step. The next approval step is called.
Deny	The request is denied approval in this approval step. The next approval step is called.
Escalation	The request process is escalated. The escalation approval step is called.
Abort	The approval, and therefore the entire approval process for the request, is aborted.

Additional approver possible	<p>Specifies whether a current approver is allowed to instruct another employee to be an approver. This additional approver is authorized to make approvals for the current request in parallel. The approval is not passed on to the next approval level until both approvers have made a decision.</p> <p>This option can only be set for approval levels with a single, manual approval step.</p>
Approval can be delegated	<p>Specifies whether the current request approval approver can delegate to another employee. This employee is added to the current approval step as approver. The employee makes the approval decision instead of the approver who made the delegation.</p> <p>This option can only be set for approval levels with a single, manual approval step.</p>
Do not show in approval	Specifies whether the approval history is visible or not. This behavior can be applied to approval steps with approval procedure "CD - calculated approval", for example, steps are only used for branching in the approval

Property	Meaning
history	workflow. This makes it easier to follow the approval history.
No automatic approval	Specifies whether the approval step approval is decided manually. Automatic approval of multiple steps is no longer carried out.

Detailed information about this topic

- [Request Risk Analysis](#) on page 107
- [Notifications in the Request Process](#) on page 141
- [Processing status](#) on page 162
- [Remind Approver](#) on page 143
- [Setting up an Approval Step](#) on page 121
- [Automatic Approval on Timeout](#) on page 124
- [Abort Request on Timeout](#) on page 124
- [Automatic Request Approval](#) on page 118
- [Using a Specific Role to find Approvers](#) on page 90
- [Deferred Request Approval](#) on page 95
- [Making External Approvals](#) on page 99
- [Calculated approval](#) on page 97

Related Topics

- [Selecting Responsible Approvers](#) on page 85
- [Approvers cannot be Established](#) on page 123
- [Approval through Chief Approval Team](#) on page 126

Connecting Approval Levels

When you set up an approval workflow with several approval levels, you have to connect each level with another. You may create the following links:

Table 37: Links to Approval Levels

Link	Description
Approval	Link to next approval level if the current approval level was granted approval.
Deny	Link to next approval level if the current approval level was not granted approval.

Link	Description
Reroute	<p>Link to another approval level to by-pass the current approval.</p> <p>Approvers can pass the approval decision through another approval level, for example, if approval is required by a manager in an individual case. To do this, create a connection to the approval level to which the approval can be rerouted. This way approvals can also be rerouted to a previous approval level, for example, if an approval decision is considered not to be well founded.</p> <p>It is not possible to reroute approval steps with the approval methods "OC", "OH", "EX", "CR", "CD", "SB" or "WC".</p>
Escalation	Link to another approval level when the current approval level is escalated after timing out.

If there are no further approval levels after the current one, then the request is considered approved if the approval decision was to grant approval. If the approval is not granted, the request is finally denied. The approval method is closed in both cases.

Additional Tasks for Approval Workflows

After you have entered the master data, you can apply different tasks to it. The task view contains different forms with which you can run the following tasks.

The Approval Workflow Overview

To obtain an overview of an approval workflow

1. Select the category **IT Shop | Basic configuration data | Approval workflows**.
2. Select the approval workflow in the result list.
3. Select **Approval workflow overview** in the task view.

Copying Approval Workflows

For example, you can copy default approval workflows in order to customize them.


To copy an approval workflow

1. Select the category **IT Shop | Basic configuration data | Approval workflows**.
2. Select an approval workflow in the result list. Select **Change master data** in the task view.
3. Select **Copy workflow...** in the task view.

4. Enter a name for the copy.
5. Click **OK** to start the copy actions.
 - OR -
 - Click **Cancel** to cancel the copy action.

Deleting Approval Workflows

To delete an approval workflow

1. Remove all assignments to approval policies.
 - a. Check to which approval policies the approval workflow is assigned.
 - b. Go to the approval policy master data form and assigned another approval workflow.
2. Select the category **IT Shop | Basic configuration data | Approval workflows**.
3. Select an approval workflow in the result list.
4. Click .
5. Confirm the security prompt with **Yes**.

Detailed information about this topic

- [The Approval Workflow Overview](#) on page 83
- [General Master Data for Approval Policies](#) on page 72

Default Approval Workflows

One Identity Manager provides approval workflows by default. These approval workflows are used in the "Identity & Access Lifecycle" shop approval processes. Each default approval workflow is linked to a default approval policy. You can edit different properties of the approval step, for example, to configure notifications in the request process.

To edit default approval workflows

- Select the category **IT Shop | Basic configuration data | Approval workflows | Predefined**.

Determining Effective Approval Policies

You can apply approval policies to different IT Shop structures and service items. If you have several approval policies within your IT Shop, which policy is to be used is based on

the rules that are specified.

Effective approval policies are defined in the following way:

1. The effective approval policy is the one assigned to the requested service item.
2. If there is no approval policy assigned to the service item, the approval policy from the service category is used.
3. If there is no approval policy assigned to the service item, the approval policy assigned to the requested product's shelf is used.
4. If there is no approval policy assigned to the shelf, one of the approval policies assigned to the shop is used.
5. If there is no approval policy assigned to the shop, one of the approval policies assigned to the shopping center is used.

An approval policy found by one of these methods is applied under the following conditions:

- The approval policy is not assigned a role type.
- OR -
- The assigned role type corresponds to the shelf role type.

If more several effective approval policies are identified by the rules, the effective approval policy is determined by the following criteria (in the given order).

1. The approval policy has the highest priority (alphanumeric sequence).
2. The approval policy has the lowest number of approval steps.
3. The first approval policy found is taken.

If no approval policy can be found, a request cannot be started. If no approver can be determined for one level of an approval policy, the request can be neither approved nor denied. Open requests are rejected and closed. Canceled products remain assigned. Products for renewal remain assigned until the **valid until** date is reached.

Selecting Responsible Approvers

One Identity Manager can make approvals automatically in an approval process or through approvers. An approver is an employee or a group of employees who can grant or deny approval for a request (renewal or cancellation) within an approval process. It takes several approval procedures to grant or deny approval. You specify in the approval step which approval procedure should be used.

If there are several people are determined as approvers by an approval procedure, the number given in the approval step specifies how many people must approve the step. The request can only be passed onto approvers in next level when this has been done. If an approver cannot be found for an approval step, the request is aborted.

One Identity Manager provides approval procedures by default. You can also define your own approval procedures.

The DBQueue Processor calculates which person has the authority to grant approval at which level. Take into account the special cases for each approval procedure when setting up the approval workflows to determine those authorized to grant approval.

Default Approval Procedures

The following approval procedures are defined to select the responsible approvers by default.

Table 38: Approval Procedures for IT Shop Requests

Approval Procedure	Approval Procedure Name	Responsible Approvers
BR	Back to recipient	Employee to receive the request
BS	Back to requester	Employee who made the request
CD	Calculated approval	-
CM	Recipient's manager	Managers
CR	Compliance risk analysis	-
D0	Manager of shelf's department	Manager and deputy manager
D1	Manager of shop's department	Manager and deputy manager
D2	Manager of shopping center's department	Manager and deputy manager
DI	Named IT approvers of department provided in request	All members of the assigned application role
DM	Manager of recipient's department	Manager and deputy manager
DP	Manager of department provided in request	Manager and deputy manager
DR	Named approvers of department provided in request	All members of the assigned application role
EX	Making External Approvals	-
H0	Shelf owner	Owner and deputy

Approval Procedure	Approval Procedure Name	Responsible Approvers
H1	Shop owner	Owner and deputy
H2	Shopping center owner	Owner and deputy
ID	Named IT approvers of recipient's department	All members of the assigned application role
IL	Named IT approvers of recipient's location	All members of the assigned application role
IO	named IT approvers of recipient's primary role	All members of the assigned application role
IP	Named IT approvers of recipient's cost center	All members of the assigned application role
MS	Manager of the requested business role or organization	Manager and deputy of the business role, department, cost center or location requested by request assignment.
OA	Product owners	All members of the assigned application role
OC	Exception approvers for violated rules	All members of the assigned application role
OH	Exception approver for worst rule violation	All members of the assigned application role
OM	Specific role Manager	Manager of the role selected in the approval workflow.
OR	Members of a certain role	All employees that are assigned to a secondary business role.
P0	Manager of shelf's cost center	Manager and deputy manager
P1	Manager of shop's cost center	Manager and deputy manager
P2	Manager of shopping center's cost center	Manager and deputy manager
PA	Additional owner of Active Directory group	All employee to be found through the additional owner of the requested Active Directory group.
PI	Named IT approvers of cost center provided in request	All members of the assigned application role
PM	Manager of recipient's cost center	Manager and deputy manager

Approval Procedure	Approval Procedure Name	Responsible Approvers
PP	Manager of cost center provided in request	Manager and deputy manager
PR	Named approvers of cost center provided in request	All members of the assigned application role
RD	Named approvers of cost center provided in request	All members of the assigned application role
RI	Employee's risk index	-
RL	Named approvers of recipient's location	All members of the assigned application role
RO	Named approvers of recipient's primary role	All members of the assigned application role
RP	Named approvers of recipient's cost center	All members of the assigned application role
SB	Self-Service	-
TO	Target system manager of the requested system entitlement	All members of the assigned application role
WC	Waiting for further approval	-

Self-Service

Use the approval procedure "SB" (self-service) to approve requests automatically. You do not have to specify approvers for this approval procedure. A self-service request is always granted approval. Always define an approval workflow with the approval procedure "SB" as a one-step workflow. That means, you cannot set up more approval steps in addition to a self-service approval step.

The approval workflow and the approval policy are available by default and assigned to the shop "Identity & Access Lifecycle".

Using IT Shop Structures to Find Approvers

Use the following approval procedures to establish an IT Shop structure owner, an IT Shop structure department manager or an IT Shop structure cost center manager as approver.

Table 39: Approval Procedures for Determining Approvers for IT Shop Structures

Approval Procedure	Approver
The IT Shop structure from which the request comes is assigned an owner or a deputy.	
H0	Owner and deputy of the shelf
H1	Owner and deputy of the shop
H2	Owner and deputy of the shopping center
A department is assigned to the IT Shop structure from which the request is made. The department is assigned a manager or a deputy manager.	
D0	Manager and deputy manager of the department's shelf
D1	Manager and deputy manager of the department's shop
D2	Manager and deputy manager of the department's shopping center
A cost center is assigned to the IT Shop structure from which the request is made. The cost center is assigned a manager or a deputy manager.	
P0	Manager and deputy manager of the cost center's shelf
P1	Manager and deputy manager of the cost center's shop
P2	Manager and deputy manager of the cost center's shopping center

Using the Request Recipient to find Approvers

Use the following approval procedure if you want to determine the manager of the request recipient to be approver.

Table 40: Approval Procedures for Determining Approvers for Request Recipients

Approval procedure	Approver
The request recipient is assigned a manager.	
CM	Request recipient's manager
The request recipient is assigned to a department. The department is assigned a manager or a deputy manager.	
DM	Manager and deputy manager of the request recipient's department.
The request recipient is assigned a cost center. The cost center is assigned a manager or a deputy manager.	

Approval procedure	Approver
--------------------	----------

PM	Manager and deputy manager of the request recipient's cost center.
----	--

Using a Specific Role to find Approvers

If members of a specific role are to be determined as approvers, use the approval procedure "OR" or "OM". Specify the role in the approval step to be used to find the approver. The approval procedures determine the approvers listed below. If there is an "IT Shop deputy" entered in the master data for these employees, they are also authorized as approver.

Table 41: Approval Procedures for Determining Approvers for a Specific Role

Selectable Roles	Approver
OM	
Departments (Department)	Manager and deputy manager of the hierarchical role specified in the approval step.
Cost centers (ProfitCenter)	
Locations (Locality)	
Business roles (Org)	
OR	
Departments (Department)	All secondary members of the hierarchical role specified in the approval step.
Cost centers (ProfitCenter)	
Locations (Locality)	
Business roles (Org)	
Application roles (AERole)	

Using the Requested Product to Find Approvers

If the owner of the requested product is to be determined as an approver, use the following approval procedures:

OA - Product Owner

Assign an application role to the product's service item in the **Product owner** input field to make it possible to find owners of a product as approvers. In this case, all the employees assigned to the application role through secondary assignment are recognized as approvers.

PA - Additional owner of the Active Directory group

Installed Module: Active Roles Module

If an Active Directory group is requested, the approvers can be found through the additional owner of this Active Directory group. All employees are found that are:

- A member in the assigned Active Directory group through their Active Directory user account
- Linked to the assigned Active Directory user account

NOTE: Only use the approval procedure if the configuration parameter "TargetSystem\ADS\ARS_SSM" is set.
The column **Additional owner** is only available in this case.

TO - Target system manager of the requested system entitlement

Installed Module: Target System Base Module
Other target system modules

If a system entitlement is requested, the target system managers can be found as approvers using this approval procedure. Assign the synchronization base object of the target system to the target system manager (for example Active Directory domain, SAP client, target system type in the Unified Namespace). This finds, as approvers, all employees assigned to the application role assigned here and all members of the parent application roles.

This finds all target system managers of the system entitlement that is stored as final product with the request (column PersonWantsOrg.UID_ITShopOrgFinal).

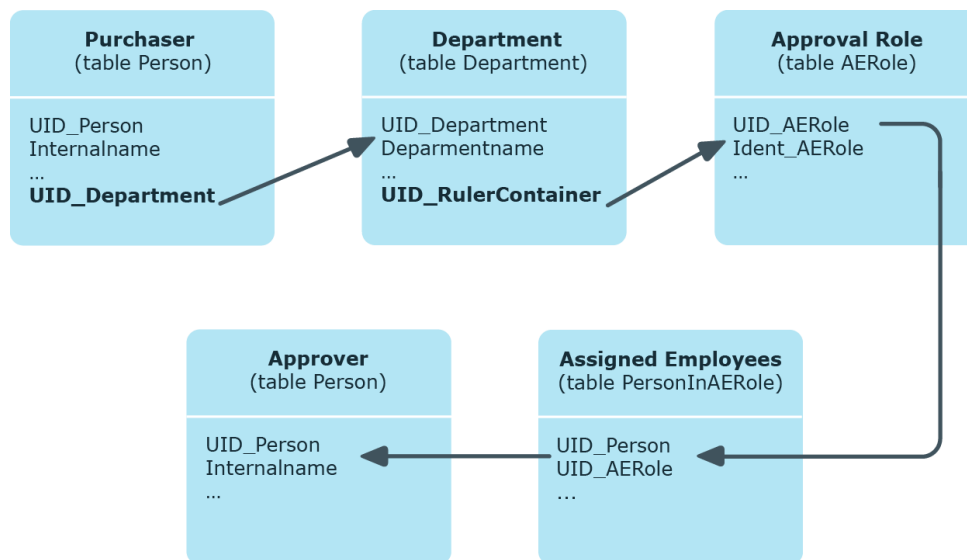
Using an Approval Role to Find Approvers

Use the following approval procedure if you want to establish the approver of a hierarchical role to be approver.

Table 42: Approval Procedures to Determine Approvers through an Approval Role

Approval Procedure	Approver
RD	<p>The request recipient is assigned a primary department. The department is assigned an application role in the Role approver menu.</p> <p>all secondarily assigned employees of this application role are determined to be approvers,</p>
RL	<p>The request recipient is assigned a primary location. The location is assigned an application role in the Role approver menu.</p> <p>all secondarily assigned employees of this application role are determined to be approvers,</p>
RO	<p>Installed Modules: Business Roles Module</p> <p>The request recipient is assigned a primary business role. The business role is assigned an application role in the Role approver menu.</p> <p>all secondarily assigned employees of this application role are determined to be approvers,</p>
RP	<p>The request recipient is assigned a primary cost center. The cost center is assigned an application role in the Role approver menu.</p> <p>all secondarily assigned employees of this application role are determined to be approvers,</p>

Figure 7: Determining Approvers through a Department's Role Approver



Approval Procedure Approver

ID	The request recipient is assigned a primary department. The department is assigned an application role in the Role approver (IT) menu. all secondarily assigned employees of this application role are determined to be approvers,
IL	The request recipient is assigned a primary location. The location is assigned an application role in the Approver (IT) menu. all secondarily assigned employees of this application role are determined to be approvers,
IO	Installed Modules: Business Roles Module The request recipient is assigned a primary business role. The business role is assigned an application role in the Role approver (IT) menu. all secondarily assigned employees of this application role are determined to be approvers,
IP	The request recipient is assigned a primary cost center. The cost center is assigned an application role in the Role approver (IT) menu. all secondarily assigned employees of this application role are determined to be approvers,

Determining the approver using the example of an approval role for the request's recipient primary department (approval procedure "RD"):

1. Determine the requester's primary department (UID_Department).
2. The application role (UID_AERole) is determined through the department's role approver (UID_RulerContainer).
3. Determine the secondary employees assigned to this application role. These can issue approval.
4. If there is no approval role given for the primary department, the approval role is determined for the parent department.
5. The request cannot be approved if no approval role is found by drilling up to the top department.
6. If there are no employees assigned to the application role then an approval decision cannot be made for the request.

NOTE: When approvers are found using the approval procedure "RO" or "IO", and inheritance for business roles is defined "Bottom-up", note the following:

If no role approver is given for the primary business role, the role approver is determined from the child business role.

Using a Cost Center to Find Approvers

Use the following procedure to determine the approver through a cost center given in the request.

Table 43: Approval Procedures for Determining Approvers for a Cost Center

Approval procedure	Approver
PP	<p>A cost center is entered in the request. The cost center is assigned a manager.</p> <p>The manager of the given cost center is established as approver.</p>
PR	<p>A cost center is entered in the request. The cost center is assigned an application role in the Role approver menu.</p> <p>all secondarily assigned employees of this application role are determined to be approvers,</p> <p>Approvers are determined following the same method as described in Using an Approval Role to Find Approvers.</p>
PI	<p>A cost center is entered in the request. The cost center is assigned an application role in the Role approver (IT) menu.</p> <p>all secondarily assigned employees of this application role are determined to be approvers,</p> <p>Approvers are determined following the same method as described in Using an Approval Role to Find Approvers.</p>

Using a Department to Find Approvers

Use the following procedure to determine the approver through a department given in the request.

Table 44: Approval Procedures for Determining Approvers for a Department

Approval procedure	Approver
DP	<p>A department is entered in the request. The department is assigned a manager.</p> <p>The manager of the given department is established as approver.</p>
DR	<p>A department is entered in the request. The department is assigned an application role in the Role approver menu.</p> <p>all secondarily assigned employees of this application role are determined</p>

Approval procedure	Approver
	<p>to be approvers,</p> <p>Approvers are determined following the same method as described in Using an Approval Role to Find Approvers.</p>
DI	<p>A department is entered in the request. The department is assigned an application role in the Role approver (IT) menu.</p> <p>all secondarily assigned employees of this application role are determined to be approvers,</p> <p>Approvers are determined following the same method as described in Using an Approval Role to Find Approvers.</p>

Using a Requested Role to find Approvers

If membership in or assignment to a hierarchical role is requested and the manager of the requested role should be the approver, use the approval procedure "MS". Then the manager and deputy of the requested department, cost center, business role or location are determined as the approvers. This approval procedure can only be used for assignment requests.

Deferred Request Approval

NOTE: Only one approval step can be defined with the approval procedure "WC" per approval level.

You can use deferred approval (approval procedure "WC") within an approval process, to ensure that a defined prerequisite is fulfilled before the request is approved. Therefore the approval of a permissions group request should only take place if the corresponding user account exists. Deferred approval is useful when a request should be tested with respect to rule conformity. If the user account does not exist when the requested permissions groups are tested, any rule violations that may occur due to the request will not be logged.

You can specify which prerequisites have to be fulfilled so that a request can be presented for approval by defining an appropriate condition. The condition is evaluated as a function call. The function must accept the request UID as parameter (PersonWantsOrg.UID_PersonWantsOrg). It must define three return values as integer. One of the following actions is carried out depending on the function's return value:

Table 45: Return Value for Deferred Approval

Return value	Action
Return value > 0	The condition is fulfilled. Deferred approval has completed successfully. The next approval step (in case of success) is carried out.
Return value = 0	The condition is not yet fulfilled. Approval is rolled back and is retested the next time DBQueue Processor runs.
Return value < 0	The condition is not fulfilled. Deferred approval has failed. The next approval step (in case of failure) is carried out.

To use an approval procedure

1. Create a database function, which tests the condition for the request.
2. Create an approval step with the approval procedure "CW". Enter the function call in **Condition**.

Table 46: Syntax for the function call

SQL Server:	dbo.<function name>
Oracle Database:	<database schema name>.<function name>

3. Specify an approval step in the case of success. Use the approval procedure with which One Identity Manager can determine the approvers.
4. Specify an approval step in the case of failure.

Example

To check whether the necessary user account exists when the permissions group is requested, you can use the function TSB_FGIPWODecisionForGroup which is supplied.

Table 47: Example of an Approval Step with Deferred Approval

Single step:	Waiting Condition
Approval procedures:	WC - Waiting for further approval
Condition:	dbo.TSB_FGIPWODecisionForGroup
Number of approvers:	1

Table 48: Return Value for Deferred Approval Decisions in the Function TSB_FGIPWODecisionForGroup

Return value	Action
> 0	The user account exists, thus fulfilling the condition. The delayed approval is decided positively. The request is passed onto the next approval step. Now an approval step must follow which can establish the approvers for the request.
= 0	The condition is not fulfilled. There is an open request for a user account or the employee has an account definition with which a user account could be created. Approval is, therefore, deferred and tested again on the next DBQueue Processor run.
< 0	The condition is not fulfilled. There is no request for a user account and the employee does not have an account definition with which a user account could be created. The delayed approval is decided negatively. The request is passed onto the next approval step.

Calculated approval

NOTE: Only one approval step can be defined with the approval procedure "CD" per approval level.

It is possible to determine who should be presented with the request for approval on the basis of a defined condition. For example, if the price of the request is below a defined limit then the department manager can grant approval. If this limit is exceeded, the request has to be presented to the cost center manager. In another case, requests from members of department "XY" can be granted immediate approval as long as the request does not exceed the defined price limit. If the limit is exceeded or if the employee belongs to another department, the approval has to be granted by the department manager.

Enter a condition when you set up the approval step if approval should be calculated (approval procedure "CD"). If the condition returns a result, the approval step is approved through the One Identity Manager. If the condition does not return a result, the approval step is denied by the One Identity Manager. If there are no subsequent steps to be carried out, the request is finally granted or denied approval. The condition is defined as a valid where clause for database queries. You can enter the SQL query directly or with a wizard. The condition is always checked for the current request and requester.

NOTE: If there is reference to the current request in the condition, use one of the following variables. The variable must be in quotes.

SQL Server syntax: '@UID_PersonWantsOrg'

Oracle Database syntax: 'v_uid_personwantsorg'

Example for calculated approval

Requests with a price of under 1000 euros can be approved by the customer's department manager. Requests over 1000 euros must be presented to the cost center manager.

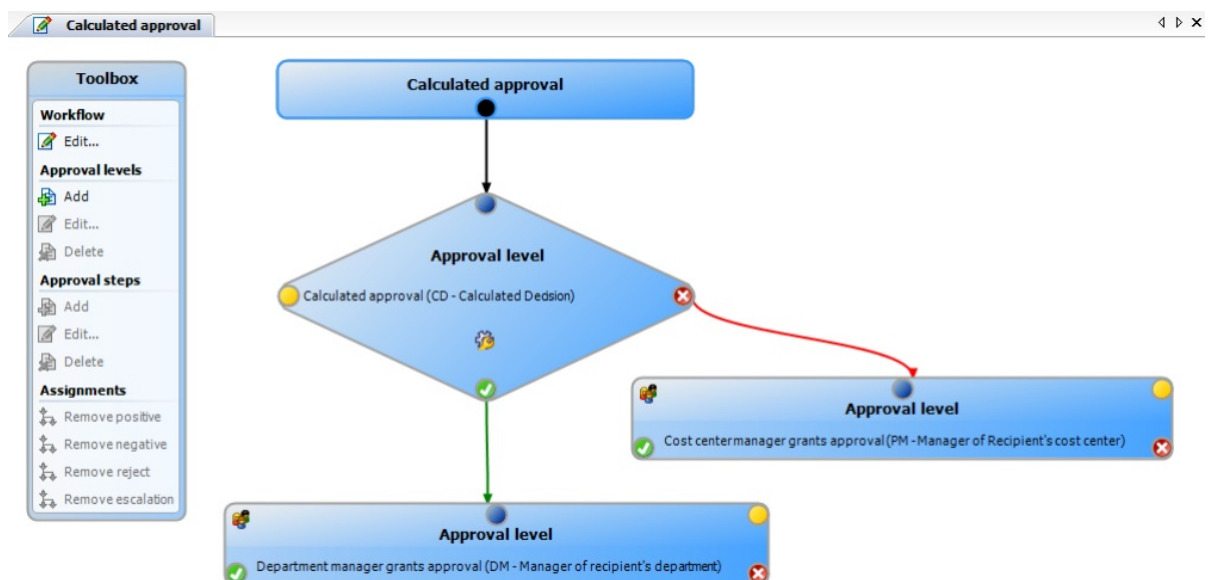
Table 49: Approval Step with Calculated Approval

Single step:	Calculated approval
Approval procedures:	CD - calculated approval
Condition:	<pre>isnull(UID_Org, '') in (Select UID_ITShopOrg From ITShopOrg Where isnull(UID_AccProduct, '') In (Select UID_AccProduct From AccProduct Where isnull (PurchasePrice, 0) < 1000))</pre>
Number of approvers:	1

Then the query is composed as:

```
select 1 from PersonWantsOrg
where (isnull(UID_Org, '') in
    (Select UID_ITShopOrg From ITShopOrg Where isnull(UID_AccProduct, '') In
      (Select UID_AccProduct From AccProduct Where isnull(PurchasePrice,
        0) < 1000)))
and UID_PersonWantsOrg = '@UID_PersonWantsOrg'
```

Figure 8: Approval Workflow Showing Calculated Approval



Making External Approvals

Use external approvals (approval procedure "EX") if a request needs to be approved once a defined event from outside the One Identity Manager takes place. You can also use this procedure to allow requests from users with no access to the One Identity Manager to be approved.

Specify an event in the approval step that triggers an external approval. A process is started by the event that initiates the external approval for the request and evaluates the result of the approval decision. The approval process waits for the external decision to be passed to One Identity Manager. Define the subsequent approval steps depending on the result of the external approval.

To use an approval procedure

1. Define your own processes that:
 - Trigger an external approval
 - Analyze the results of the external approval
 - Subsequently grant or deny approval for the external approval step in One Identity Manager
2. Define an event, which starts the process for external approval. Enter the result in **Result** in the approval step.

If the external event occurs, the approval step status in One Identity Manager has to be changed. Use the process task `CallMethod` with the method `MakeDecision` for this. Pass the following parameters to the process task:

MethodName: Value = "MakeDecision"

ObjectType: Value = "PersonWantsOrg"

Param1: Value = "sa"

Param2: Value = <approval> ("true" = granted; "false" = denied)

Param3: Value = <reason for approval decision>

Param4: Value = <standard reason>

Param5: Value = <number approval steps> (PWODecisionStep.SubLevelNumber)

WhereClause: Value = "UID_PersonWantsOrg = '& \$UID_PersonWantsOrg\$ &'"

Use these parameters to specify which request is approved by external approval (whereClause). Parameter param 1 specifies the approver. Approver is always the system user "sa". Parameter param 2 is passed to the approval. If the request was granted approval the value must be "true". If the request was denied approval the value must be "false". Use parameter Param3 to pass a reason text fro the approval decision; use Param4 to pass a predefined standard reason. If more than one external approval steps have been defined in an approval level, use Param5 to pass the approval step count. This ensures the approval is aligned with the correct approval step.

Use the Process Editor to define and edit processes.

Example

All approved requests should be entered into an external ticketing system and started. If a request is completed in an external ticketing system, it must also be completed in the One Identity Manager. Use this approval procedure to make external approvals and define:

- A process "P1" that creates a ticket with the information about the requested product in the external system and passes the ticket number to the One Identity Manager in the request instance.
- An event "E1" that starts the process "P1".
- A process "P2" which checks whether the ticket status is "closed" and calls the function `Call Method` with the task `MakeDecision` in the One Identity Manager.
- An event "E2" that starts the process "P2".
- A schedule that starts the events "E2" on a regular basis.

Enter "E1" in the approval step **Event** box as trigger for the external decision.

Pass the product and customer data that the product is being requested for in the process "P1" to the external ticket system. In another parameter, pass the ticket number from the external ticketing system to the One Identity Manager.

Use the ticket number to check the ticket status in process "P2". If the ticket is closed, call the task `MakeDecision` and pass the ticket status from the external system to the One Identity Manager in a parameter (`Param2`). In another parameter, specify the system user that changes the approval step status in the One Identity Manager (`Param1`). Pass "sa" as value for this parameter. Pass the reason for the approval decision in the parameter `Param3`.

Detailed information about this topic

- [Setting up an Approval Step](#) on page 79

For more detailed information about defining processes, see [One Identity Manager Configuration Guide](#).

Finding Requesters


Use the approval procedures "BS" and "BR" to return the approval to the requester or request recipient. The approval procedure "BS" finds the request requester, the approval procedure "BR" finds the request recipient. The requester and the request recipient can therefore, have further influence on the approval. Their approval can be viewed in the approval history. The approval workflow can be continued from any approval level.

The requesters are also found if the configuration parameters "QER\ITShop\PersonInsertedNoDecide" or "QER\ITShop\PersonOrderedNoDecide" are set. For more information, see [Approving Requests from an Approver](#) on page 116.

Setting up Approval Procedures

You can create your own approval procedures if the default approval procedures for finding approvers do not meet your requirements. The condition through which the approvers are determined, is formulated as a database query. Several queries may be combined into one condition.

To set up an approval procedure

1. Select the category **IT Shop | Basic configuration data | Approval procedures**.
2. Select an approval procedure in the result list. Select **Change master data** in the task view.
– OR –
Click  in the result list toolbar.
3. Edit the approval procedure master data.
4. Save the changes.

To edit the condition

1. Select the category **IT Shop | Basic configuration data | Approval procedures**.
2. Select an approval procedure from the result list.
3. Select **Change queries for approver selection** in the task view.

Detailed information about this topic

- [General Master Data for an Approval Procedure](#) on page 101
- [Queries for Finding Approvers](#) on page 102

General Master Data for an Approval Procedure

Enter the following master data for an approval procedure.

Table 50: General Master Data for an Approval Procedure

Property	Description
Approval Procedure	Descriptor for the approval procedure (maximum two characters).
Description	Approval procedure identifier.
DBQueue Processor	Approvals can either be made automatically through a DBQueue Processor calculation task or by specified approvers. Assign a custom DBQueue

Property	Description
task	Processor task if the approval procedure should make an automatic approval decision. You cannot assign a DBQueue Processor task if a query is entered for determining the approvers.
Max. number approvers	Maximum number of approvers to be determined by the approval procedure. Specify how many employees must really make approval decisions in the approval steps used by this approval procedure.
Sort order	Value for sorting approval procedures in the menu. Specify the value 10 to display this approval procedure at the top of the menu when you set up an approval step.

Related Topics

- [Setting up an Approval Step](#) on page 79

Queries for Finding Approvers

The condition through which the approvers are determined, is formulated as a database query. Several queries may be combined into one condition. This adds all employees to the group of approvers who have been determined through single queries.

To edit the condition

1. Select the category **IT Shop | Basic configuration data | Approval procedures**.
2. Select an approval procedure from the result list.
3. Select **Change queries for approver selection** in the task view.

To create single queries

1. Click **Add**.
This inserts a new row in the table.
2. Mark this row. Enter the query properties.
3. Add more queries if required.
4. Save the changes.

To edit a single query

1. Select the query you want to edit in the table. Edit the query's properties.
2. Save the changes.

To remove single queries

1. Select the query you want to remove in the table.
2. Click **Delete**.
3. Save the changes.

Table 51: Query Properties

Approver selection	Query identifier, which determines the approvers.
Query	<p>Database query for determining approvers.</p> <p>The database query must be formulated as a select statement. The column selected by the database query must return a UID_Person. The query returns one or more employees that are presented to the request for approval. If the query does not return a result, the request is aborted.</p> <p>NOTE:</p> <ul style="list-style-type: none">• A query contains exactly one select statement. To combine several select statements, create several queries.• You cannot enter a query to determine approvers if a DBQueue Processor task is assigned.

You can, for example, determine predefined approvers with the query (example 1). The approver can also be found dynamically depending on the request to approve. To do this you access the request waiting approval in the database query over the variable @UID_PersonWantsOrg (SQL) or v_uid_personwantsorg (Oracle) (example 2). Every query must return a value for UID_PWORulerOrigin.

Example 1

The request should be approved by a specified approver.

Query: `select UID_Person, null as UID_PWORulerOrigin from Person where InternalName='Knight, Dr. Rudiger von'`

Example 2

Approval for requests should be granted or denied through the requester's parent department. The approver is the cost center manager that is assigned to the requester's primary department. The requester is the employee that started the request (UID_PersonInserted, for example, when placing requests for employees).

Query: `select pc.UID_PersonHead as UID_Person, null as UID_PWORulerOrigin from`

```

PersonWantsOrg pwo
join Person p on pwo.UID_PersonInserted = p.UID_Person
join Department d on p.UID_Department = d.UID_Department
join ProfitCenter pc on d.UID_ProfitCenter = pc.UID_ProfitCenter
where pwo.UID_PersonWantsOrg = @UID_PersonWantsOrg

```

Notes for Experts

To take delegation into account when determining approvers

1. Use the table HelperHeadOrg to find the approvers if managers of hierarchical role are to approve. This table groups all hierarchical role managers, their deputy manager and employees delegated to the manager.
2. Determine the delegated UID_PWORulerOrigin to make it clear in the Web Portal whether the approver was originally delegated.
 - Determine the delegated UID_PersonWantsOrg and add this value to the query as UID_PWORulerOrigin. Use the table function dbo.QER_FGIPWORulerOrigin to do this.

```
select dbo.QER_FGIPWORulerOrigin(hho.XObjectkey) as UID_PWORulerOrigin
```

Modified query from example 2:

```

select pc.UID_PersonHead as UID_Person, dbo.QER_FGIPWORulerOrigin
(hho.XObjectkey) as UID_PWORulerOrigin from PersonWantsOrg pwo

    join Person p on pwo.UID_PersonInserted = p.UID_Person
    join Department d on p.UID_Department = d.UID_Department
    join ProfitCenter pc on d.UID_ProfitCenter = pc.UID_ProfitCenter
    join HelperHeadOrg hho on hho.UID_Org = pc.UID_ProfitCenter


where pwo.UID_PersonWantsOrg = @UID_PersonWantsOrg

```

Deleting Approval Procedures

To delete an approval procedure

1. Remove all assignments to approval steps.
 - a. Check on the approval procedure overview form, which approval steps are assigned to the approval procedure.
 - b. Switch to the approval workflow and assign another approval procedure to the approval step.

2. Select the category **IT Shop | Basic configuration data | Custom defined | Approval procedures**.
3. Select an approval procedure from the result list.
4. Click .
5. Confirm the security prompt with **Yes**.

Determining Approvers

Table 52: Configuration Parameters for Recalculating Approvers and

Configuration parameter	Description
QER\ITShop\ReducedApproverCalculation	This configuration parameter specifies, which approval steps are recalculated if the IT Shop approver must be recalculated.

The DBQueue Processor calculates, which employee is authorized as approver in which approval level. Once a request is triggered, the approvers are determined for every approval step of the approval workflow to be processed. Changes to responsibilities may lead to an employee no longer being authorized as approver for a request that is not yet finally approved. In this case, approvers must be recalculated. The following changes can trigger recalculation of pending requests:

- Approval policy, workflow, step or procedure changes.
- An authorized approver loses their responsibility in the One Identity Manager, for example, if a department manager, the product owner or the target system manager is changed.
- An employee obtains responsibilities in One Identity Manager and therefore is authorized as an approver, for example the request recipient's manager.

Once an employee's responsibilities have change in the One Identity Manager, an approver recalculation task is queued in the DBQueue. By default, all approval steps of the pending approval procedures are recalculated at the same time. Approval steps that have already been approved, remain approved, even if their approver has changed. Recalculating approvers may take a long time depending on the configuration of the system environment and the amount of data that has changed. To optimize this processing time, you can specify which approval steps the approvers are recalculated for.

To configure recalculation of approvers

- Set the configuration parameter "QER\ITShop\ReducedApproverCalculation" in the Designer and select one of the following options as a value.

Table 53: Options for Recalculating Approvers

Option	Description
No	<p>All approval steps are recalculated. This behavior also applies if the configuration parameter is not set.</p> <p>Advantage: All valid approvers are displayed in the approval sequence. The rest of the approval sequence is transparent.</p> <p>Disadvantage: Recalculating approvers can take a long time.</p>
CurrentLevel	<p>Only approvers for the approval level currently being processed are recalculated. Once an approval level has been approved, the approvers are determined for the next approval level.</p> <p>Advantage: The number of approval levels to calculate is lower. Calculating approves is probably faster.</p> <p>TIP: Use this option if performance problems within your system have occurred in connection with recalculating approvers.</p> <p>Disadvantage: In the approval sequence, the originally calculated approvers are displayed for the subsequent approval steps although they may no longer be authorized. The rest of the approval sequence is not correctly represented.</p>
NoRecalc	<p>Approvers are not recalculated. The previous approvers remain authorized to approve the current approval levels. Once an approval level has been approved, the approvers are determined for the next approval level.</p> <p>Advantage: The number of approval levels to calculate is lower. Calculating approves is probably faster.</p> <p>TIP: Use this option if performance problems within your system have occurred in connection with recalculating approvers, although the "CurrentLevel" option is used.</p> <p>Disadvantage: In the approval sequence, the originally calculated approvers are displayed for the subsequent approval steps although they may no longer be authorized. The rest of the approval sequence is not correctly represented. Employees that are no longer authorized can approve the current approval level.</p> <p>In the best case, only approvers are found that do not have access to the One Identity Manager, for example because they have left the company. The approval level cannot be approved.</p> <p>To see approval steps of this type through</p> <ul style="list-style-type: none">• Define a timeout and timeout behavior when you set up the approval workflows on the approval steps.

Option	Description
	- OR -
	<ul style="list-style-type: none"> Assign members to the chief approval team when you set up the IT Shop. These can always intervene in pending approval processes.

Detailed information about this topic

- [Setting up an Approval Step](#) on page 79
- [Chief approval team](#) on page 167

Request Risk Analysis

Everyone with IT system authorization in a company represents a security risk for that company. For example, a employee editing financial data in an SAP system carries a higher risk than a employee who can edit their own personal data. To quantify the risk, you can enter a risk value for every company resource in the One Identity Manager. A risk index is calculated from this value for every employee who is assigned this company resource, directly or indirectly. Company resources include target system entitlements (for example, Active Directory groups or SAP profiles), subscribable reports, applications and resources. In this way, all employees representing a particular risk to the company can be found.

Every time a company resource with a specified risk index is assigned, the employee's risk index might exceed a permitted level. You can check the risk index of company resources if they are requested through the IT Shop. If the risk index is higher than the specified value, the request is denied.

To set up risk assessment for requests

- Create an approval workflow.
 1. Add an approval step with the approval procedure "RI".
 2. Enter the comparison value for the risk index in the **Condition** box. Enter a number in the range 0.1 to 1.0.
 3. Add more approval levels as required.

The approval step is granted approval by One Identity Manager if the risk index of the requested company resource is lower than the comparison value. If the risk index is higher or equal to the comparison value, the approval step is not granted approval.

Risk assessment of requests works for both direct company resource request and assignment requests. Only imputed risk indexes are examined for the decision; calculated risk indexes are not taken into account. Therefore, risk assessment of requests only works if the product's original table or one of the member tables of a requested assignment has a RiskIndex column. If the table only has the column RiskIndexCalculated, the request is

automatically approved. If both member tables of an assignment request have a RiskIndex column, the highest of the two risk indexes is used as the basis for the approval.

If the company resource request or an assignment has been granted approval, the employee's risk index is recalculated the next time the scheduled calculation task is run.

For more detailed information about risk assessment, see the One Identity Manager Risk Assessment Administration Guide.

Related Topics

- [Setting up an Approval Step](#) on page 79

Testing Requests for Rule Compliance

Installed Module: Compliance Rules Module

You can integrate rule conformity testing for IT Shop requests within an approval workflow. A separate approval procedure is supplied for this. This approval procedure checks whether the request's recipient will violate compliance rule if the requests are granted approval. The result of the test is logged in the request's approval sequence and approval history.

Table 54: Approval Procedures for Compliance Checking

Approval procedure	Description
CR (compliance risk analysis)	Checks the current request for possible rule violations. It takes into account the requested product and all the company resources already assigned to the request recipient.

Prerequisites for Request Validation

- Compliance rules are defined.
For more detailed information, see the One Identity Manager Compliance Rules Administration Guide.
- The approval workflow contains an approval step with the approval procedure "CR".
For more information, see [Compliance Checking Requests](#) on page 108.

Compliance Checking Requests

To retain an overview of potential rule violations, you can run a simplified compliance check. Use the approval procedure "CR" to test requests for possible rule violations before finally approving them.

The following data of a recipient's request is taken into account by the compliance check:

- All pending requests
- All company resources already assigned to the recipient
- All the recipient's user accounts
- All entitlement in the target system (for example Active Directory groups or SAP roles) the recipient has obtained through these user accounts

Auxiliary tables for object assignments are regularly evaluated for the compliance check. Auxiliary tables are calculated on a scheduled basis. Furthermore, the approval procedure only takes into account compliance rules that are created using the simplified definition.

Rule checking does not completely check the requests with this. It is possible that under the following conditions, rule checking does not identify a rule violation.

- Customer permissions change after the auxiliary table have been calculated.
- A rule is not violated by the requested product but by an object inherited through the requested product. Inheritance is calculated after request approval and can therefore not be identified until after the auxiliary table is calculated again.
- The customer does not belong to the rule's employee group effected until the request is made.
- The rule condition was created in expert node or as an SQL query.

TIP: A complete check of assignments is achieved with cyclical testing of compliance rule using schedules. This finds all the rule violations that result from the request.

It is possible that under the following conditions, rule checking identifies a rule violation where there isn't one.

- Two products violate one rule when they are assigned at the same time. The product requests are, however, for a limited period. The validity periods does not overlap. Still a potential rule violation is identified.

TIP: These requests can be approved after checking by exception approver in so far as permitted by the definition of the violation rule.

The compliance check is not only useful for specifying which rule is violated by a request, it can also find out, which product in the request caused the rule violation. This makes a detailed analysis possible of the rule violation. The request can still be approved by exception approval, the definition of compliance rules permitting. Additional approval steps are added in approval workflows to deal with exception approval.

Conditions for Compliance Checking Requests

- You can add only one approval step per approval policy with the "CR" approval procedure.
- The rule conditions were created in the simple definition.
- The IT Shop properties that are specified for each rule are taken into account in the rule testing. Identification of a rule violation depends on the setting of the property **Rule violation identified**.

- The compliance check should be added as the last approval level in the approval workflow. The subsequent approval levels only get one approval step to determine the exception approver if approval is denied.

Compliance Check Sequence

1. If an approval step for compliance checking using the "CR" approval procedure is found in the request's approval procedure, all products in pending requests are assigned to the customer. It is assumed that all pending request will be approved and therefore the customer will obtain all the products. The current request is then analyzed with respect to potential violations against the defined rules.
2. If no rule violations are found, the approval step is automatically granted approval and the request is passed onto the approver at the next approval level above.
3. If a rule violation is detected the request is automatically not granted approval. The request can still be approved by exception approval, the definition of rule violations permitting.

Detailed information about this topic

- [Identifying a Rule Violation](#) on page 110
- [Finding an Exception Approver](#) on page 111

For more detailed information about compliance checking, see the One Identity Manager Compliance Rules Administration Guide.

Identifying a Rule Violation

Table 55: Configuration Parameter for IT Shop Relevant Properties

Configuration Parameter	Meaning if Set
QER\ComplianceCheck\EnableITSettingsForRule	IT Shop properties for the compliance rule are visible and can be edited.

If the configuration parameter "QER\ComplianceCheck\EnableITSettingsForRule" is set, properties can be added to compliance rules that are taken into account when rule checking requests.

Specify which violation should be logged for the rule by using the IT Shop property **Rule violation identified**.

Table 56: Permitted Value

Value	Description
New rule violation due to a request	Only rule violations that are added through approval of the current request are logged.

Value	Description
Unapproved exception	Rule violations that are added through approval of the current request are logged. Already known rule violations that have not yet been granted an exception are also logged.
Any compliance violation	All rule violations are logged, independent of whether an exception approval has already been granted or not. This value is automatically set when the option Explicit exception approval is enabled.

If the configuration parameter "QER\ComplianceCheck\EnableITSettingsForRule" is disabled, new rule violations are logged through the current request.

For more detailed information, see the One Identity Manager Compliance Rules Administration Guide.

Finding an Exception Approver

Requests that would cause a rule violation can still be approved by exception approval.

To allow exception approval for request with rule violations

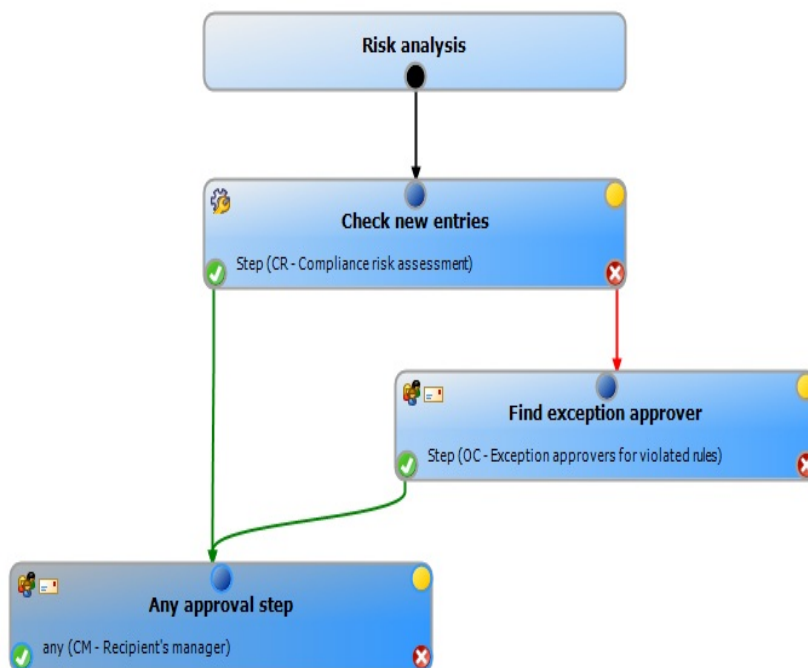
1. Set the option **Exception approval allowed** and assign an exception approver.
For more information, see the One Identity Manager Compliance Rules Administration Guide.
2. Enter an approval step in the approval workflow with the procedure "OC" or "OH". Connect this approval level with the compliance checking approval level at the connection point for denying this approval decision.
 - ① **NOTE:** Only apply this approval procedure after an approval level with the approval procedure "CR".
 - ① **NOTE:** You can define **only one** approval step with the approval procedure "OC" or "OH".
3. If the configuration parameter "QER\ComplianceCheck\EnableITSettingsForRule" is set, you can use the rule properties IT Shop to configure which rule violations are presented to an exception approver. Set or unset the option **Explicit exception approval** to do this.

For more information, see [Explicit Exception Approval](#) on page 114.

Table 57: Approval Procedures for Exception Approval

Approval procedure	Description
OC (Exception approvers for violated rules)	The approval decision is agreed by the exception approvers of the violated rule. As it may be possible that several rule are broken with one request, the request is presented to all the exception approvers in parallel. If one of the exception approvers rejects the exception, it results in the request being rejected.
OH (exception approver for worst rule violation)	<p>The approval decision is agreed by the rule's exception approver which poses the highest threat. In this way, the exception approval procedure can be shortened for a request that violates several rules.</p> <p>Ensure the following apply for this approval procedure:</p> <ul style="list-style-type: none"> • The severity level is set in the assessment criteria for all compliance rules. • The exception approver for the worst rule violation in all affected rules is one of the exception approvers.

Figure 9: Example of an Approval Workflow with Compliance Checking and Exception Approval



Sequence of compliance checking with exception approval

1. If a rule violation is detected during compliance checking, the request is automatically not granted approval. The request is passed on to the approver of the

next approval level for approval.

2. Exception approvers are found according to the given approval procedure.
3. If exception approval is granted, the request is approved and assigned.
4. If exception approval is not granted, the request is denied.

NOTE:

- As opposed to the manager/deputy principle normally in place, an exception approver's deputy is **not** permitted to grant exception approval alone.
- You cannot determine fallback approvers for exception approvers, The request is aborted if no exception approver can be established.
- The chief approval team cannot grant exception approvals.

Limitation for Exception Approvers

Table 58: Configuration Parameter for Approving Requests with Rule Violations

Configuration parameter	Meaning
QER\ITShop\ PersonInsertedNoDecideCompliance	This configuration parameter specifies whether the employee that initiated the request can also approve it in cases of compliance violation.
QER\ITShop\ PersonOrderedNoDecideCompliance	This configuration parameter specifies whether the employee for whom a request has been initiated, can also approve it in cases of compliance violation.
QER\ComplianceCheck\ DisableSelfExceptionGranting	Excludes rule violators from becoming exception approvers. If this parameter is set, no one can approve their own rule violations.

You must to decide whether exception approvers are allowed to approve their own requests. Specify the desired behavior with the configuration parameter "QER\ITShop\PersonOrderedNoDecideCompliance" and "QER\ITShop\PersonInsertedNoDecideCompliance". This prevents the requester's main identity (or the request's recipient) and its sub-identities being granted approval exception.

To prevent exception approvers from approving their own requests

- Set the configuration parameter "QER\ITShop\PersonOrderedNoDecideCompliance" in the Designer.

This configuration parameter effects requests made by exception approvers for themselves and all requests other employees have made for them. If this configuration parameter is not set, exception approvers are also authorized to approve their own requests. Their requests are presented for approval.

To prevent exception approvers from approving requests they initiated for themselves or for other customers

- Set the configuration parameter "QER\ITShop\PersonInsertedNoDecideCompliance" in the Designer.

If the configuration parameter is not set, exception approvers can also approve these requests.

You must also decide whether exception approvers are allowed to approve their own rule violations. By default, an employee who violates a rule is determined to be the exception approver for this rule if they are a member of the application role **Exception approvers** for the rule. This means they can approve their own rule violations.

To prevent an employee from granting themselves exception approval

- Set the configuration parameter "QER\ComplianceCheck\DisableSelfExceptionGranting" in the Designer.

Employees that violate a rule, are not determined to be exception approvers for this rule violation.

Explicit Exception Approval

Table 59: Configuration Parameter for IT Shop Relevant Properties

Configuration Parameter	Meaning if Set
QER\ComplianceCheck\EnableITSettingsForRule	IT Shop properties for the compliance rule are visible and can be edited.

If the configuration parameter "QER\ComplianceCheck\EnableITSettingsForRule" is set, properties can be added to compliance rules that are taken into account when rule checking requests.

Use the IT Shop property **Explicit exception approval** to specify whether the reoccurring rule violation should be presented for exception approval or whether an existing exception approval can be reused.

Table 60: Permitted Value

Option is	Description
Enabled	A known rule violation must always be presented for exception approval, even if there is an exception approval from a previous violation of the rule.
Disabled	A known rule violation is not presented again for exception approval, if there is an exception approval from a previous violation of the rule. This exception approval is reused and the known rule violation is automatically granted exception.

If several rules are violated by a request and **Explicit exception approval** is set for one of the rules, the request is presented for approval to **all** exception approvers for this rule.

Rules that have the option **Explicit exception approval** set, result in a renewed exception approval if:

- A rule check is carried out within the approval process for the current request
 - AND -
 - a. the rule is violated by the current request
 - OR -
 - b. the IT Shop customer has already violated the rule.

In case a) the request for the IT Shop customer is presented to the exception approver. If the request is approved, case b) applies to the next request. In case b), every request for the IT Shop customer must be decided by the violation approver, even when the request itself does not result in a violation. The result you achieve is that assignments for employees that have been granted an exception, are verified and reapproved for every new request.

For more detailed information about exception approvals, see the One Identity Manager Compliance Rules Administration Guide.

Checking the Request with Self-Service

Self-service (approval procedure "SB") is always defined as a one-step procedure. That means, you cannot set up more approval steps in addition to a self-service approval step.

To realize compliance checking for requests with self-service

- Create an approval workflow with a single approval level. The approval workflow contains an approval step with the approval procedure "CR". For more information, see [Compliance Checking Requests](#) on page 108.

If the rule check is successful, the request is granted approval and self-service is accomplished implicitly.

To make exception approval possible for rule violations, add an approval level with the approval procedure "OC" or "OH". For more information, see [Finding an Exception Approver](#) on page 111.

Approving Requests from an Approver

Table 61: Configuration Parameter for Approving an Approver's Requests

Configuration parameter	Meaning
QER\ITShop\PersonInsertedNoDecide	The configuration parameter specifies whether the employee that trigger the request may approve it.
QER\ITShop\PersonOrderedNoDecide	This configuration parameter specifies whether the employee that the request was triggered for, may approve it.
QER\ITShop\PersonInsertedNoDecideCompliance	This configuration parameter specifies whether the employee that initiated the request can also approve it in cases of compliance violation.
QER\ITShop\PersonOrderedNoDecideCompliance	This configuration parameter specifies whether the employee for whom a request has been initiated, can also approve it in cases of compliance violation.

It is possible that the requester or recipient of a request is also determined as the approver for the request. In such cases, you must establish whether the approver is entitled to approve his or hers own requests. Specify the desired behavior using the configuration parameter.

NOTE:

- The configuration parameter setting also applies for fallback approvers; it does not apply to the chief approval team.
- This configuration parameter does not influence the approval procedures "BS" and "BR". These approval procedures also find the requester and the request recipient if the configuration parameter is not set. For more information, see [Finding Requesters](#) on page 100.

To prevent approvers from approving their own requests

- Set the configuration parameter "QER\ITShop\PersonOrderedNoDecide" in the Designer.

This configuration parameter affects all requests in which the recipient is also determined to be the approver through the assigned approval procedures. Whilst determining which approvers are responsible, the following employees are removed from the group of approvers:

- Request recipient
- Recipient's main identity
- All sub-identities of these main identities

If the configuration parameter is not set, approvers of requests they received themselves, can also grant approval.

To prevent exception approvers from approving requests they initiated for themselves or for other customers

- Set the configuration parameter "QER\ITShop\PersonInsertedNoDecide" in the Designer.

This configuration parameter affects all requests in which the requester is also determined to be the approver through the assigned approval procedures. Whilst determining which approvers are responsible, the following employees are removed from the group of approvers:

- The requester (employee that started, renewed or canceled the request)
- Requester's main identity
- All sub-identities of these main identities

If the configuration parameter is not set, approvers of requests they requested themselves, can also grant approval.

Example

A department manager places a request for his or her deputy. Both employees are found as approvers by the approval procedure. To prevent the department manager from approving the request, set the parameter "QER\ITShop\PersonInsertedNoDecide". To prevent the deputy from approving the request, set the parameter "QER\ITShop\PersonOrderedNoDecide".

Approving requests from an exception approver

Similarly, you specify whether exception approvers are allowed to approve their own requests if compliance rules are violated by a request. This prevents the requester's main identity (or the request's recipient) and its sub-identities being granted approval exception.

To prevent exception approvers from approving their own requests

- Set the configuration parameter "QER\ITShop\PersonOrderedNoDecideCompliance" in the Designer.

This configuration parameter affects all requests in which the recipient is also determined to be the exception approver. If the configuration parameter is not set, exception approvers of requests they received themselves, can also grant approval.

To prevent exception approvers from approving requests they initiated for themselves or for other customers

- Set the configuration parameter "QER\ITShop\PersonInsertedNoDecideCompliance" in the Designer.

If the configuration parameter is not set, exception approvers can also approve these requests.

This configuration parameter affects all requests in which the requester is also determined to be the exception approver. If the configuration parameter is not set, exception approvers of requests they requested themselves, can also grant approval.

Related Topics

- [Testing Requests for Rule Compliance](#) on page 108

Automatic Request Approval

Table 62: Configuration Parameters for Automatic Request Approval

Configuration parameter	Meaning
QER\ITShop\AutoDecision	This configuration parameter controls automatic approval of IT Shop request over several approval levels.
QER\ITShop\DecisionOnInsert	This configuration parameter controls approval of a request the moment is it added.
QER\ITShop\ReuseDecision	This configuration parameter specifies whether the approval decision of an approver should be applied to all approval steps in the procedure which are made by him or her.

Approvers may be involved in an approval procedure more than once, for example, if they are also requesters or determined as approvers in various approval steps. In such cases, the approval process can be speeded up with automatic approval.

NOTE: Automatic approvals apply to all fallback approvers but not for the chief approval team.

Use configuration parameters to specify when automatic approvals are used. You can specify exceptions from default behavior for individual approval steps.

To prevent automatic approvals for particular approval steps

- Set the option **No automatic approval** in the approval step.
The configuration parameter "QER\ITShop\DecisionOnInsert", "QER\ITShop\ReuseDecision" and "QER\ITShop\AutoDecision" are not taken into

account in this approval step. Requests are be presented to the approver of this approval step. For more information, see [Setting up an Approval Step](#) on page 79.

Case 1: Requester is approver

Approvers can start requests for themselves and for other customers. If a requester is determined to be approver for the request, their approval steps are immediated granted approval.

To prevent automatic approval for an approver's requests

- Disable the configuration parameter "QER\ITShop\DecisionOnInsert" in the Designer.

If a requester is determined to be the approver of an approval step, the request is presented to the requester to be approved.

To prevent approvers from making decisions about request they have placed themselves, use the configuration parameters "QER\ITShop\PersonInsertedNoDecide". For more information, see [Approving Requests from an Approver](#) on page 116.

The configuration parameter "QER\ITShop\DecisionOnInsert" is set by default.

Case 2: An approver can grant or deny approval in several approval steps.

It may be the case that an approver is authorized to approve several levels of an approval workflows. By default, the request is presented to the approver in each approval step. You can allow automatic approval so that the approver is not presented with a request more than once.

To allow an approver's approval decisions to be met automatically in several sequential approval levels

- Set the configuration parameter "QER\ITShop\AutoDecision" in the Designer.

The approval decision of the first approval levels is applied to subsequent approval levels for which the approver is authorized.

To attain automatic acceptance for an approver's approval decisions for non-sequential approval levels

- Set the configuration parameter "QER\ITShop\ReuseDecision" in the Designer.

Approval is taken from a previous approval step for which the approver was also authorized.

- **IMPORTANT:** If approvers can also grant exceptions for rule violations, requests that violate compliance rules will also be automatically approved without being presented for exception approval.

Related Topics

- [Approval through Chief Approval Team](#) on page 126
- [Approvers cannot be Established](#) on page 123

Obtaining Other Information about Requests by an Approver

An approver has the possibility to gather further information about a request. This ability does not, however, replace granting or denying approval for a request. There is no additional approval step required in the approval workflow to obtain the information.

Approvers can request information in form of a question from anybody. The request is placed on hold for the period of the inquiry. Once the person in question has supplied the necessary information and the approver has made an approval decision, the request is taken off hold. The approver can recall a pending inquiry at any time. The request is taken off hold. The approver's request and the person's answer are recorded in the approval flow and are therefore available to the approver.

NOTE: If the approver who made the enquiry, is dropped, hold status is revoked. The queried person must not answer. The request procedure continues.

Detailed information about this topic

- [Notifications with Questions](#) on page 148
- One Identity Manager Web Portal User Guide

Appointing Other Approvers

Once an approval level in the approval workflow has been reached, approvers at this level can appoint another employee to deal with the approval. To do this, you have the options described below. The required behavior is configured in the approval workflow.

- Reroute approval
The approver appoints another approval level for approving. To do this, create a connection to the approval level to which the approval can be rerouted.
- Appoint additional approvers
The approver appoints another employee with the approval. This adds another approval step to the current approval level. The new approver must make an approval decision in addition to the known approvers.

The additional approver can reject the approval and return the request to the original approver. The original approver is informed about this by email. The original approvers can appoint another additional approver.

- **Delegate approval**

The approver appoints another employee with approval. This employee is added to the current approval step as approver. The employee makes the approval decision instead of the approver who made the delegation.

The current approver can reject the approval and return the request to the original approver. The original approvers can accept the refusal and delegate a different employee, for example, if another approver is not available.

Email notification can be sent to the original approver and the others.

Detailed information about this topic

- For more information, see [Connecting Approval Levels](#) on page 82.
- For more information, see [Editing Approval Levels](#) on page 78.
- One Identity Manager Web Portal User Guide

Related Topics

- [Self-Service](#) on page 147
- [Approval Rejection](#) on page 147
- [Request Approval through Additional Approvers](#) on page 149

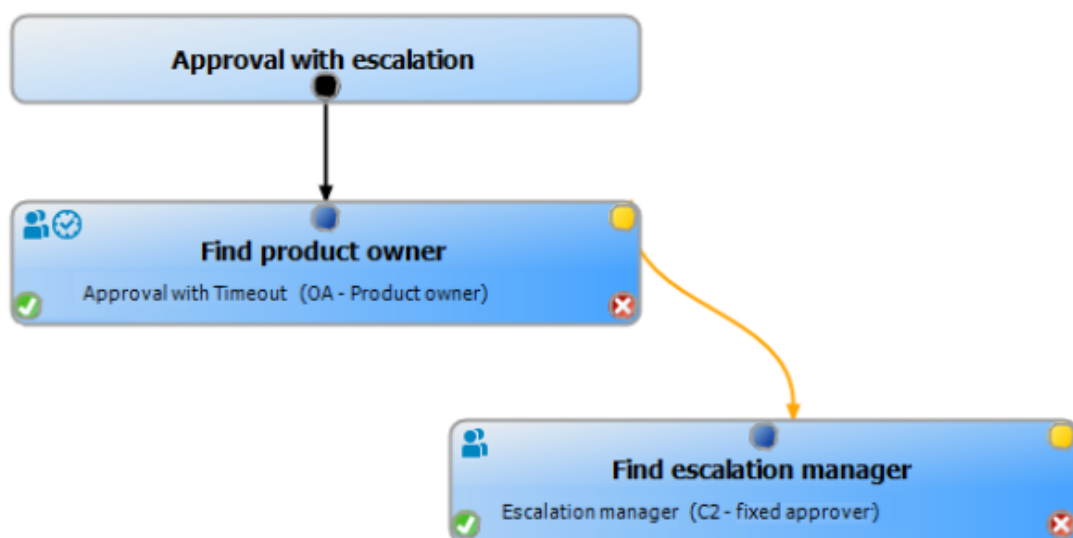
Setting up an Approval Step

Approval steps can be automatically escalated once the specified timeout is exceeded. The request is presented to another approval body. The request can subsequently be processed again in the normal workflow.

To configure escalation of an approval step

1. Open the approval workflow in the Workflow Editor.
2. Add an additional approval level with one approval step for escalation.
3. Connect the approval step that is going to be escalated when the time period is exceeded with the new approval step. Use the connection point for escalation to do this.

Figure 10: Example of an Approval Workflow with Escalation



4. Configure the behavior for the approval step to be escalated when it times out.

Table 63: Approval Step Properties for Abort on Timeout

Eigenschaft	Bedeutung
Timeout (working hours)	<p>Number of working hours to elapse after which the approval step is automatically granted or denied approval.</p> <p>The approvers work time applies to the time calculation.</p> <p>i NOTE: Ensure that a state and/or county is entered into the employee's master data for determining the correct working hours.</p>
Timeout behavior	Action to be taken if the timeout expires.

Table 64: Possible Methods for Escalation on Timeout

Method	Description
Escalation	The request process is escalated. The escalation approval step is called.

Emails can be sent to the new approvers and requesters on escalation.

Related Topics

- [Demands for Approval](#) on page 142
- [Escalating a Request](#) on page 146

Approvers cannot be Established

You can specify a fallback approver if requests cannot be approved due to lack of approver. A request is always returned to the fallback approver for approval if the approval step in a specified approval procedure, cannot determine an approver.

To specify fallback approvers, define application roles and assign these to an approval step. Different approver groups in the approval steps may require different fallback approvers. Specify different application role for this, to which you can assign employees who can be determined as fallback approvers in the approval process. For more information, see the One Identity Manager Application Roles Administration Guide.

To specify fallback approvers for an approval step

1. Select the category **IT Shop | Basic configuration data | Approval workflows**.
2. Select a workflow in the result list. Select **Change master data** in the task view.
3. Mark the approval step in the workflow editor.
4. Select **Toolbox | Approval levels | Add...**
5. Assign an application in **Fallback approver** or create a new application role.
6. Save the changes.

Request sequence with fallback approvers

1. An approver cannot be established for an approval step in an approval process. The request is assigned to all members of the fallback approver application role.
2. Once a fallback approver has made an approval decision, the request is passed onto the approvers of the next approval level.

NOTE: Specify in the approval step, how many approvers must approve this approval step. This limit is **not** valid for the chief approval team. The approval step is considered approved the moment **one** fallback approver has approved the request.

3. The request is aborted if no fallback approver can be established.

Fallback approvers can approve requests for all manual approval steps. The fallback approvals are not permitted for approval steps with the approval procedures CR, SB, CD, EX and WC as well as OC and OH.

Related Topics

- [Editing Approval Levels](#) on page 78
- [Selecting Responsible Approvers](#) on page 85
- [Approval through Chief Approval Team](#) on page 126

Automatic Approval on Timeout

Requests can be automatically approved once a specified time period has been exceeded.

To configure automatic approval if the timeout expires

- Enter the following data for the approval step.

Table 65: Properties for Automatic Approval on Timeout

Property	Meaning
TimeOut (working hours)	<p>Number of working hours to elapse after which the approval step is automatically granted or denied approval.</p> <p>The approvers work time applies to the time calculation.</p> <p>i NOTE: Ensure that a state and/or county is entered into the employee's master data for determining the correct working hours.</p>
Timeout behavior	Action, which is executed if the timeout expires.

Table 66: Possible Methods for Escalation on Timeout

Method	Description
Approve	The request is granted approval in this approval step. The next approval step is called.
Deny	The request is denied approval in this approval step. The next approval step is called.

If a request is decided automatically, the requester can be notified by email.

Related Topics

- [Request Granting or Denying Approval](#) on page 145
- [Editing Approval Levels](#) on page 78

Abort Request on Timeout

Requests can be automatically aborted once a specified time period has been exceeded. The abort takes place when either a single approval step or the entire approval process has exceeded the timeout.

To configure an abort after the timeout of a single approval step has been exceeded

- Enter the following data for the approval step.

Table 67: Approval Step Properties for Abort on Timeout

Property	Meaning
Timeout (working hours) Timeout behavior	<p>Number of working hours to elapse after which the approval step is automatically granted or denied approval. The approvers work time applies to the time calculation.</p> <p>NOTE: Ensure that a state and/or county is entered into the employee's master data for determining the correct working hours.</p>
Action to be taken if the timeout expires.	Action, which is executed if the timeout expires.

Table 68: Method for Abort on Timeout

Method	Description
Abort	The approval, and therefore the entire approval process for the request, is aborted.

To configure abort on timeout for the entire approval process

- Enter the following data for the approval workflow.

Table 69: Approval Step Properties for Abort on Timeout

Property	Meaning
System abort (days)	Number of days to elapse after which the approval workflow, and therefore the system automatically ends the entire approval process.

If a request is aborted, the requester can be notified by email.

Related Topics

- [Request Abort](#) on page 146
- [Editing Approval Levels](#) on page 78
- [Setting Up Approval Workflows](#) on page 77

Approval through Chief Approval Team

Sometimes, approval decisions cannot be made for requests because the approver is not available or does not have access to One Identity Manager tools. To complete the request, however, you can define a chief approval team whose members are authorized to intervene in the approval process at any time.

The chief approval team is authorized to approve, deny, abort requests in special cases or to authorize other approvers.

i IMPORTANT:

- The four-eye principle can be broken like this because chief approval team members can make approval decisions for requests at any time! Specify, on a custom basis, in which special cases the chief approval team may intervene in the approval process.
- The chief approval team members may always approval their own requests. The configuration parameter settings "QER\ITShop\PersonInsertedNoDecide" and "QER\ITShop\PersonOrderedNoDecide" do not apply to the chief approval team.
- Specify in the approval step, how many approvers must approve this approval step. This limit is not valid for the chief approval team. The approval step is considered approved once **one** member of the chief approval team has granted or denied approval for the request.

The chief approval team can approve requests for all manual approval steps. The chief approvals are not permitted for approval steps with the approval procedures CR, SB, CD, EX and WC as well as OC and OH. If a member of the chief approval team is identified as a regular approver for an approval step, he or she can only make an approval decision for this step as a regular approver.

To add members to the chief approval team

1. Select the category **IT Shop | Basic configuration data | Chief approval team**.
2. Select **Assign employees** in the task view.
3. Assign employee authorized to approve requests in **Add assignments**.
- OR -
Remove the assignments of employee to chief approval team in **Remove assignments**.
4. Save the changes.

Related Topics

- [Chief approval team](#) on page 167

Approving Requests with Terms of Use

Terms of use that explain conditions of use for a product can be stored for individual service items (for example, application license conditions). When someone requests this product, the requester and request recipient must accept the terms of use before the request can be finalized.

In order for the request recipient to accept the terms of use, the request must be assigned to the request recipient in the approval process. Set a workflow for request like this with an approval step "BR" and set the option **No automatic approval**. One Identity Manager provides a default approval procedure and a default approval policy "Terms of Use acknowledgment for third-party orders (sample)" that you can use for this. Using the default approval workflow as a basis, create your own approval workflow, which returns the request to the request recipient and determines the approver after the terms of use have been accepted. Use the approval procedure "BR" to do this.

To create an approval workflow for requests with terms of use

1. Select the category **IT Shop | Basic configuration data | Approval workflows | Predefined**.
2. Select the approval workflow "Terms of Use acknowledgement for third-party orders (sample)" in the result list. Select **Change master data** in the task view.
3. Select **Copy workflow...** in the task view.
4. Enter the name of the copy. Click **OK**.
5. Edit the copy. Modify the approval workflow to suit your requirements.
6. Create an approval policy and assign it to the approval workflow.
7. Assign service items to the approval policy, which are assigned terms of use.

Detailed information about this topic

- [Setting Up Approval Workflows](#) on page 77
- [Editing Approval Policies](#) on page 71
- [General Master Data for a Service Item](#) on page 20
- [Add to IT Shop](#) on page 73

Using Default Approval Processes

By default, the One Identity Manager supplies approval policies and approval workflows. These are used in the approval processes of the shop "Identity & Access Lifecycle".

Table 70: Default Approval Policies and Workflows in the Shop "Identity & Access Lifecycle"

Approval policy/workflow	Description	Shelf/product
Compliance checking simplified	Compliance checking and exception approval for all products on the shelf, which do not have their own approval policy assigned to them. For more information, see Testing Requests for Rule Compliance on page 108.	Identity Lifecycle
Self-Service	Assignment requests and delegations are automatically approved by default. For more information, see Standard Products for Assignment Requests and Delegation on page 51.	Identity Lifecycle\Delegation Identity Lifecycle\Business role entitlement assignment Identity Lifecycle\Business role membership
Self-Service	Automatic approval for all products on the shelf, which do not have their own approval policy assigned to them. For more information, see Self-Service on page 88.	Group Lifecycle
Terms of Use acknowledgment for third-party orders (sample)	Copy template for requests with terms of use. For more information, see Approving Requests with Terms of Use on page 127.	
Challenge loss of role membership	Limited period assignment requests for role memberships are automatically granted approval. For more information, see Requests with Limited Validity Period for Challenged Role Memberships on page 156.	Identity Lifecycle\Challenge loss of role membership
New manager assignment	Requesting a change of manager must be approved by the new manager. For more information, see Request Change of Manager for an Employee on page 139.	Identity Lifecycle\New manager assignment
Approval of Active Directory group create requests	A new Active Directory group requests must be approved by the target system manager. The groups are added in One Identity Manager and published in the target system. For more information, see Adding an Active Directory group on page 205.	Group Lifecycle\New Active Directory security group Group Lifecycle\New

Approval policy/workflow	Description	Shelf/product
Approval of Active Directory group change requests	Changes to group type and range of Active Directory groups, must be approved by the target system manager. For more information, see Modifying an Active Directory group on page 206.	Active Directory distribution group Group Lifecycle\Modify Active Directory group
Approval of Active Directory group deletion requests	Deleting an Active Directory group, must be approved by the target system manager. For more information, see Deleting an Active Directory group on page 206.	Group Lifecycle\Delete Active Directory group
Approval of SharePoint group create requests	A new SharePoint group requests must be approved by the target system manager. The groups are added in One Identity Manager and published in the target system. For more information, see Adding a SharePoint group on page 204.	Group Lifecycle\New SharePoint group
Approval of Active Directory group membership requests	Product owners and target system managers can request members for groups in these shelves. For more information, see Requesting Groups Memberships on page 207.	Active Directory groups
Approval of Active Directory group membership requests II		Active Directory groups
Approval of group membership requests		SharePoint groups

Request Sequence

Shop customers can request, renew and unsubscribe products as soon as an IT Shop solution is set up. Use the Web Portal to do this. Furthermore, requests and cancellations are approved in the Web Portal. You can make an overview of pending and closed requests for yourself. You can also find an overview of pending and closed requests in the Manager

Requests can have a limited time period, which means the requested product assignment is only valid with the validity period.

General Request Sequence

1. A customer requests
 - a. a product in the Web Portal.
- OR -
 - b. Membership in a hierarchical role.
- OR -
 - c. Assignment of a company resource to a hierarchical role.
2. The request goes through the assigned approval process.
3. If the request has been granted approval and the **Valid from** date has been reached:
 - a. The product is assigned to the customer. The company resource connected with the product is indirectly assigned to the customer
- OR -
 - b. The customer becomes secondary member in the hierarchical role.
- OR -
 - c. The company resource is assigned to the hierarchical role.

The request contains the status "Assigned" (PersonWantsOrg.OrderState = 'Assigned').

The product/membership/assignment remains until it is canceled.

Requests and the resulting assignments are displayed in the following table:

Requests

PersonWantsOrg

Product assignments	PersonInITShopOrg
Company resource assignments	For example: PersonHasQERRResource ADSAccountInADSGroup
Hierarchical role assignments	For example, PersonInDepartment
Hierarchical role assignments	For example, DepartmentHasADSGroup

General Cancellation Sequence

1. A customer cancels a product/membership/assignment in the Web Portal.
- OR -
A requested product/requested membership/requested assignment is automatically unsubscribed.
2. The cancellation goes through the assigned approval process.
3. If cancellation was granted approval and the expiry date has been reached:
 - a. The product's assignment is removed. The product's assigned to the associated company resource is also removed.
- OR -
 - b. The customer's membership in the hierarchical role is removed.
- OR -
 - c. The company resource's assignment to the hierarchical role is removed.

The request contains the status "Unsubscribed" (PersonWantsOrg.OrderState = 'Unsubscribed').

If a customer is removed from a shop, existing requests for this are closed. The products are unsubscribed and assignments are removed. If the customer changes to another shop, the product requests can be retained under certain circumstances. If the request is an assignment request, it can also be retained under certain circumstances.

Related Topics

- [Example of Request Results](#) on page 218
- [Requests with Limited Validity Period](#) on page 135
- [Relocating a Customer or Product to another Shop](#) on page 138
- [Removing a Customer from a Shop](#) on page 58
- [Determining Approvers](#) on page 105

For more detailed information about requesting products, see the One Identity Manager Web Portal User Guide.

Requests Overview

To obtain an overview of all pending and closed requests

1. Select the category **IT Shop | Requests | <filter>**.
2. Select a request procedure in the result list.
3. Select **Request overview** in the task view.

Request Details

To obtain detailed information about a request

1. Select the category **IT Shop | Requests | <filter>**.
2. Select a request procedure in the result list.
3. Select **Request details** in the task view.

You see the general request data and the current status of the request.

Approval Sequence

You obtain the current status of the approval process for pending requests. The approval sequence is shown as soon as the DBQueue Processor has determined the approver for the approval step. You can view the approval sequence, the result of each approval step and the approver that has been found, in the approval workflow. If the approval procedure could not find an approver, the request is closed by the system.

To display the approval sequence of a pending request

1. Select the category **IT Shop | Requests | Pending requests | <Filter>**.
2. Select the request procedure in the result list.
3. Select **Approval sequence**.

Each approval level of an approval workflow is represented by a special control. The approvers responsible for an approval step are shown in a tooltip. Pending attestation questions are also shown in tooltips. These elements are colored. The color code reflects the current status of the approval level.

Table 71: Meaning of the Colors in an Approval Sequence (in order of decreasing importance)

Color	Meaning
Blue	This approval level is currently being processed.
Green	This approval level has been granted approval.
Red	This approval level has been denied approval.
Yellow	This approval level has been deferred due to a question.
Gray	This approval level has not (yet) been reached.

Approval History

The approval history displays each step of the request process. Here you can follow all the approvals in the approval process in a chronological sequence. The approval history is displayed for both pending and closed requests.

To view the approval history for a request

1. Select the category **IT Shop | Requests | <filter>**.
2. Select a request procedure in the result list.
3. Select **Approval history** in the task view.

These elements are colored. The color code reflects the status of the approval steps.

Table 72: Meaning of Colors in the Approval History

Color	Meaning
Yellow	Request triggered.
Green	Approver has granted approval.
Red	Approver has denied approval. Request has been escalated. Approver has recalled the approval decision.
Gray	Product has been canceled. Request is aborted. Request has been assigned to an additional approver. Additional attestor has withdrawn approval decision. Approval has been delegated New attestor has withdrawn the delegation.

Color	Meaning
Purple	Request renewed
Orange	Approver has a query The query has been answered Query was aborted due to change of approver
Blue	Approver has rerouted approval. The attestation step has been reset automatically.

Multiple Requests for one Product

IT Shop products can only be requested once as a rule. If a product is assigned to a customer, then it cannot be requested a second time. Furthermore, an employee might need several of one type of company resources, for example, consumables. Such company resources can be stored as multi request resources in One Identity Manager.

Request Sequence of Multi-Request Resources

1. A customer requests a multi-request resource in the Web Portal.
2. The request goes through the appropriate approval process and is approved.
The request is only saved in the table PersonWantsOrg. **No** entry is added to the table PersonInITShopOrg.
3. The resource can be canceled immediately. The request contains the status "Unsubscribed" (PersonWantsOrg.OrderState = 'Unsubscribed').
The resource cannot be canceled by the customer.

Request Sequence of Multi-Requestable/Unsubscribable Resources

1. A customer requests a multi-requestable/unsubscribable resource in the Web Portal.
2. The request goes through the appropriate approval process and is approved.
The request is only saved in the table PersonWantsOrg. **No** entry is added to the table PersonInITShopOrg.
3. The request contains the status "Assigned" (PersonWantsOrg.OrderState = 'Assigned').
The resource can be unsubscribed through the Web Portal.

TIP: A customer specific implementation of a process with the root object PersonWantsOrg for the result OrderGranted can be made in order to start a specified action when a multiple product is approved. For more detailed information about defining processes, see One Identity Manager Configuration Guide.

Related Topics

- [Multi-request resources](#) on page 17
- [Example of Request Results](#) on page 218

Requests with Limited Validity Period

Customers keep their requested products on the shelf until they unsubscribe them themselves. In this way, a membership in a target system group, for example, may only be valid for the period of the project. Products that are intended have a limited shelf-life need to be labeled with the validity period. For more information, see [Products with a Limited Request Period](#) on page 37.

One Identity Manager calculates the date and time of requests for products with limited time periods (request's **Valid until**/expiry date) from the current date and the validity period stored with the service item. This deadline can be adjusted when the request is made.

As soon as a request is approved by all approvers, the expiry date is recalculated from the actual date and the validity period. This ensures that the validity period is valid from the day of assignment.

A **valid from** date can also be entered at the time of request. This specifies the point the an assignment starts to apply. If this date is given, the expiry date is calculated from the **Valid from** date and the validity period. If the validity period has already expired when approval is granted, the request can no longer be approved. The request is canceled and an error message is displayed.

Cancellations can include a validity period, which means a deadline for the cancellation is set for unlimited requests. The expiry date for requests with a validity period can, therefore, be changed in this way; the validity period of the product then becomes invalid. Once the cancellation has been granted approval, the cancellation's validity period is taken as the new expiry date of the request.

The request recipient receives a message before reaching the expiry data and has the possibility to extend the period. For more information, see [Limited Period Request Sequence](#) on page 145. The request is aborted once the expiry date has been reached.

The customer has the option to renew a request. If the customer uses this option the extension (as in the original request) needs to approved through an approval process. If the extension is denied, the original request runs out at the given date. You can also limit renewals in the same way.

A limited request could follow a sequence like this:

Service item	Validity period: 90 days
Requested on: 1/2/2017	Valid until: 4/1/2017 11:59 PM
Approved on: 1/5/2017	Valid until: 4/5/2017 11:59 PM

Renewed until: 3/31/2017 Renewal valid until: 4/30/2017 12:00 PM

Approved on: 4/2/2017 Valid until: 4/30/2017 12:00 PM

Canceled on: 4/10/2017 Canceled from: 4/14/2017

Approved on: 4/11/2017 Valid until: 4/11/2017 11:59 PM

DBQueue Processor checks whether the request's expiry date has passed using a scheduled One Identity Manager task, which compares it against to the current UTC time. If the expiry date has passed, the request is aborted; the resulting assignments removed.

NOTE: Ensure that times in the One Identity Manager tools, for example the Web Portal, are in the user's local time.

If a customer has requested a product with a limited validity period, the validity period must be tested for validity in subsequent requests for this product for the same customer. If the validity period is not in effect, the request is not permitted. By default, new requests are permitted if they fall in a time period that is not covered by another pending request. However, the validity periods of different requests may not overlap. You can define the desired behavior for the validity period over configuration parameters. For more information, see [Checking Request Validity Periods](#) on page 136.

Checking Request Validity Periods

Table 73: Configuration Parameters for Resetting Approval Processes

Configuration parameter	Meaning
QER\ITShop\GapBehavior	Defines behavior when checking the validity period of new requests.
QER\ITShop\GapBehavior\GapDefinition	This configuration parameter specifies which requests are checked.
QER\ITShop\GapBehavior\GapFitting	This configuration parameter specifies whether validity periods of two or more pending requests can overlap.

If a customer has requested a product with a limited validity period, the validity period must be tested for validity in subsequent requests for this product for the same customer. If the validity period is not in effect, the request is not permitted. By default, new requests are permitted if they fall in a time period that is not covered by another pending request. However, the validity periods of different requests may not overlap. You can define the desired behavior for the validity period over configuration parameters. The configuration parameters are set by default. In this check, all requests of the same product for the same request recipient are taken into account even if the product can from different shelves.

To define differing behavior

- Set the desired option for the configuration parameters "QER\ITShop\GapBehavior\GapDefinition" and "QER\ITShop\GapBehavior\GapFitting" in the Designer.

Table 74: Effect of Configuration Parameter "QER\ITShop\GapBehavior\GapDefinition"

Option	Description
0	Only pending requests are taken into account by the check. (default)
1	Only approved requests are taken into account by the check.
2	Only assigned requests are taken into account by the check.

Table 75: Effect of Configuration Parameter "QER\ITShop\GapBehavior\GapDefinition"

Option	Description
0	Validity periods can overlap. (Default) A new request is accepted if its validity period fits into at least one free time slot between between two existing requests.
1	Validity periods cannot overlap. A new request is accepted if its validity period fits exactly into a free time slot between between two existing requests.
2	The validity period is not checked. A request is accepted even if there is already a request for the same validity period.

If the configuration parameters are disabled, One Identity Manager behaves as in option 0.

Figure 11: Example of Possible Validity Period for GapDefinition = 0 and GapFitting = 0

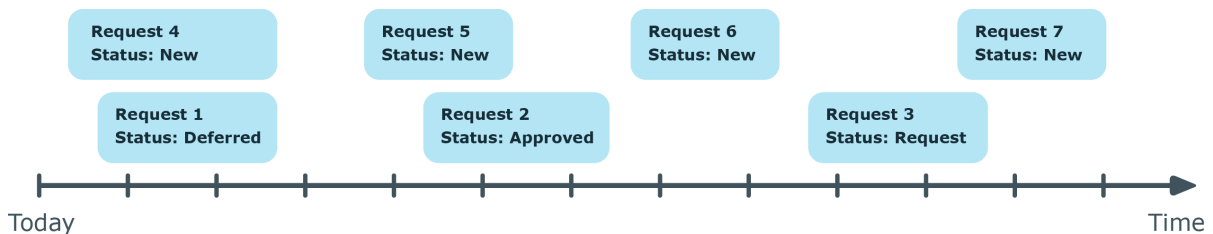
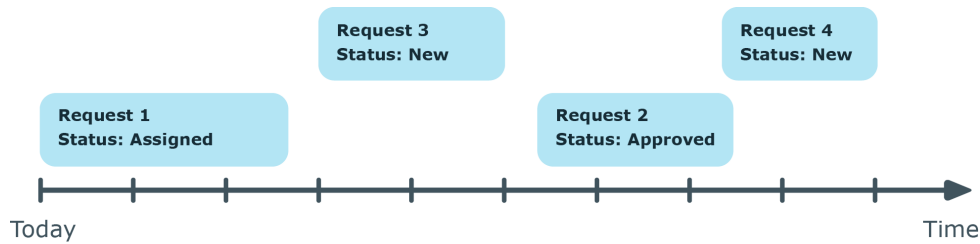


Figure 12: Example of Possible Validity Period for GapDefinition = 1 and GapFitting = 1



Related Topics

- [Request Statuses](#) on page 217

Relocating a Customer or Product to another Shop

If a customer requests a product from a shop or shopping center and then changes to another at a later date, the product request is closed and the product is canceled. The same applies if a requested product is moved to another shelf.

You can label product service items with the option **Retain service item assignment on relocation** to retain their requests when they relocate. All open or approved requests in the shop being left, are transferred to any shop in which the employee is a customer and which contains the requested products. In connection with this, open requests are reset, that means the request have to go through the approval process from the beginning again.

Detailed information about this topic

- [Product Request on Customer or Product Relocation](#) on page 38

Requests for Employees

In the Web Portal default installation approvers can request and cancel products for other users. Approvers can only request products for users of shops they manage and where the user is an customer. Furthermore, department managers and their deputies may edit the data for employees belonging to their department.

The responsibilities are evaluated through the following database view (View).

QER_VEditEmployee	This view displays the department manager, his or her deputies and employees whose data can be edited.
-------------------	--

Request Change of Manager for an Employee

Managers can edit master data for their employees in the Web Portal. In the same context, it is possible to define a new manager for an employee. To do this, the previous manager requests assignment of another manager. If the other manager agrees to the assignment, they are assigned to the employee as manager.

There are some prerequisites required for changing managers using the Web Portal.

- The following objects, made available by default, are in the One Identity Manager database:

Table 76: Default Objects for Changing Manager

Objects	Description
Resource "New manager assignment"	Used to request another manager in the IT Shop. The product is canceled the moment the new manager has been assigned. The service item "New manager assignment" is assigned.
Service item "New manager assignment"	Product requested when another manager is assigned The approval policy "New manager assignment".
IT Shop structure "Identity & Access Lifecycle\Identity Lifecycle"	This service item is assigned by default to the shelf "Identity Lifecycle" in the shop, "Identity & Access Lifecycle".
Approval policy "New manager assignment"	Specifies the approval workflow used to approve the change of manager. It is assigned to the approval workflow, "New manager assignment".
Approval workflow "New manager assignment"	Establishes other managers as approvers. If this is denied, the request is returned to the previous manager.
Process VI_ESS_PersonWantsOrg_Set_New_Person.Manager	Assigns the other manager as new manager to the employee if the change of manager is approved and the request time period is valid.

Changing Manager Sequence

1. The previous manager edits the master data of the employee the other manager is going to take on. He or she selects an employee as manager and specifies a date from which the changes take effect.

Table 77: Requested Changes

Property	Description
New manager	Employee to act as manager.
Effective date	Date from which changes take effect.
Changes to run after approval	Changes, which should be run after approval has been granted and the new manager has been assigned, for example, deleting user accounts or removing memberships in system entitlements. The previous manager can decide which of the changes should be run.

2. A request is triggered with the following properties:

Table 78: Properties for Requesting a Change of Manager

Property	Description
Requester	Previous manager.
Recipient	Employee.
Additional request data	New manager.
Approver	New manager.
Valid from	Date from which changes take effect.
Additional information	Additional changes to be made.

3. The request is assigned to the new manager for approval who can also specify which other changes should be made after the manager has been replaced.
 - a. If the manager denies approval, the request is returned to the previous manager.

This manager can select another manager and approve the request. The request is assigned to this other manager for approval.

The previous manager can deny request approval. The change of manager is closed. The employee's manager is not changed.
 - b. If the new manager grants approval to the request, he or she is assigned as manager to the employee as from the validity date of the request. All additional changes selected are also executed as from the validity date.

4. Product is unsubscribed. The request is closed.

For more detailed information about assigning a new manager, see the One Identity Manager Web Portal User Guide.

Canceling a Request

Request recipients, requesters and the members of the chief approval team can cancel request that have not already be approved in the Web Portal. The approval process is canceled immediately. The request is given the status "Canceled".

For more detailed information about canceling processes in the Web Portal, see the One Identity Manager Web Portal User Guide.

To cancel a request in the Manager

1. Select the category **IT Shop | Requests | Pending requests | <filter> | <request>**.
2. Select a request procedure in the result list.
3. Click **Cancel request**.
4. Confirm the security prompt with **Yes**.
5. Click **OK**.

Notifications in the Request Process

Table 79: Configuration Parameter for Notifications

Configuration parameter	Meaning
QER\ITShop\DefaultSenderAddress	This configuration parameter contains the sender email address for automatically generated messages within the IT Shop.

Different email notifications can be sent to requester and approver within a request process. The notification procedure uses mail templates to create notifications. The mail text in a mail template is defined in several languages. This ensures that the language of the recipient is taken into account when the email is generated. Mail templates are supplied in the default installation with which you can configure the notification procedure.

Messages are not sent to the chief approval team by default. Fallback approvers are only notified if not enough approvers could be found for an approval step.

To use notification in the request process

1. Ensure that the email notification system is configured in One Identity Manager. For more detailed information, see the One Identity Manager Configuration Guide.
2. Set the configuration parameter "QER\ITShop\DefaultSenderAddress" in the Designer and enter the sender address with which the email notifications are sent.
3. Ensure that all employees have a default email address. Notifications are sent to this address. For more detailed information, see the One Identity Manager Identity Management Base Module Administration Guide.
4. Ensure that a language culture can be determined for all employees. Only then can they receive email notifications in their own language. For more detailed information, see the One Identity Manager Identity Management Base Module Administration Guide.
5. Configure the notification procedure.

Related Topics

- [Creating Custom Mail Templates for Notifications](#) on page 193

Demands for Approval

When a customer requests a product, the approver is notified that new approvals are pending.

Prerequisite

- The configuration parameter "QER\ITShop\MailTemplateIdents\RequestApproverByCollection" is not set.

To set up the notification procedure

- Enter the following data for the approval step.

Table 80: Approval Step Properties for Notification

Property	Meaning
Mail template for demand	Select the template "IT Shop request - demand for approval (by mail)". TIP: If you allow approval by email, select the mail template "IT Shop request - demand for approval (by mail)".

- NOTE:** You can schedule demands for approval to send a general notification if there are requests pending. This replaces single demands for approval at each approval step.

Related Topics

- [Scheduled Approval Demands](#) on page 144
- [Approval by Mail](#) on page 152

Remind Approver

If an approver has not made a decision by the time the reminder timeout expires, notification can be sent by email as a reminder. The approvers work time applies to the time calculation.

Prerequisite

- The configuration parameter "QER\ITShop\MailTemplateIdents\RequestApproverByCollection" is not set.

To set up the notification procedure

- Enter the following data for the approval step.

Table 81: Approval Step Properties for Notification

Property	Meaning
Reminder interval (hours)	Number of working hours to elapse after which the approver is notified by mail that there are still pending requests for approval. i NOTE: Ensure that a state and/or county is entered into the employee's master data for determining the correct working hours.
Mail template reminder	Select the mail template "IT Shop request- remind approver". i TIP: If you permit approval by email, select the mail template "IT Shop request - remind approver (by mail)".

- i** **NOTE:** You can schedule demands for approval to send a general notification if there are requests pending. This replaces single demands for approval at each approval step.

Related Topics

- [Scheduled Approval Demands](#) on page 144
- [Approval by Mail](#) on page 152

Scheduled Approval Demands

Table 82: Configuration Parameter for Scheduled Notifications

Configuration parameter	Meaning
QER\ITShop\MailTemplateIdents\RequestApproverByCollection	This mail template is used for generating an email when there are pending requests for an approver. If this configuration parameter is not set, a "Mail template demand" or "Mail template reminder" for single approval steps can be entered to send an email for each request. If this configuration parameter is set, single mails are not sent.

Approvers can be regularly notified of requests that are pending. Regular notifications replace single demands and approval reminders, configured in the approval step.

To send notifications about pending requests on a regular basis

1. Set the configuration parameter "QER\ITShop\MailTemplateIdents\RequestApproverByCollection" in the Designer. Notification with the mail template "IT Shop request - pending requests for approver" is sent by default.

TIP: To use something other than the default mail template for these notifications, change the value of the configuration parameter.

2. Configure and enable the schedule "Inform approver about pending requests" in the Designer.

For more detailed information, see the One Identity Manager Configuration Guide.

Limited Period Request Sequence

Table 83: Configuration Parameters for Reminding Approvers

Configuration parameter	Meaning
QER\ITShop\ValidityWarning	Warning period for expiring requests given in days. If the number of days has elapsed, the customer is informed that the request has expired.

A recipient keeps a product on the shelf up to a specific point in time when they unsubscribe the products again. Sometimes, however, products are only required for a certain length of time and can be canceled automatically. For more information, see [Requests with Limited Validity Period](#) on page 135.

The recipient is notified by email before the expiry date is reached and has the option to renew the request.

To set up the notification procedure

1. Set the configuration parameter "QER\ITShop\ValidityWarning" in the Designer and enter the warning period (in days) for expiring requests.
2. Configure and set the schedule "Reminder for Designer requests that expire soon" in the IT Shop.
3. Enter the following data for the approval policy:

Table 84: Approval Policy Properties for Notification

Property	Meaning
Mail template expired	Select the mail template for sending the email message. The mail templates "IT Shop request - product expires" and "IT Shop request - expired" are available for this in the default installation.

4. Save the changes.

Request Granting or Denying Approval

When a request is granted approval or denied, the request recipient is notified by email. Notification may occur after approval or denial of a single approval step or once the entire approval process is complete. Requests can be automatically granted or denied approval once a specified time period has expired. The recipient is notified in the same way in this case.

To set up the notification procedure

- Enter the following data in the approval step when notification should immediately follow the approval decision of a single approval step:

Table 85: Approval Step Properties for Notification

Property	Meaning
Mail template approval	Select the mail template "IT Shop request - approval granted to approval step".
Mail template on denied	Select the mail template "IT Shop request - approval not granted to approval step".

- Enter the following data in the approval policy when notification should immediately follow the approval decision of the entire approval process:

Table 86: Approval Policy Properties for Notification

Property	Meaning
Mail template on approval	Select the mail template "IT Shop request - granted approval".
Mail template on denied	Select the mail template "IT Shop request - not granted approval".

Request Abort

Requests can be automatically aborted for various reasons, for example, when a specified time period has expired or if no approver can be found. The request recipient is notified.

To set up the notification procedure

- Enter the following data for the approval policy:

Table 87: Approval Policy Properties for Notification

Property	Meaning
Mail template Abort	Select the mail template "IT Shop request - Abort".

Escalating a Request

Requests can be escalated if a specified time period has expired. If a request is escalated, the requester can be notified by email.

To set up the notification procedure

- Enter the following data for the approval policy:

Table 88: Properties of an Approval Step for Notifying Escalation

Property	Meaning
Mail template Escalation	Select the mail template "IT Shop request - escalation".

Self-Service

If, in an approval step, other approvers can be authorized to make the approval decision, the additional approvers can be prompted to approve by email. The same applies, if the approval can be delegated.

To set up the notification procedure

- Enter the following data for the approval step.

Table 89: Approval Step Properties for Notification on Delegation

Property	Meaning
Mail template for delegation	Select the mail template "IT Shop request-delegated/additional approval". i TIP: To allow approval by email, select the mail template "IT Shop request - delegated/additional approval (by mail)".

Related Topics

- [Approval by Mail](#) on page 152

Approval Rejection

If an additional approver or an employee refuses delegation of an approval, the original approver must be notified.

To set up the notification procedure

- Enter the following data for the approval step.

Table 90: Approval Step Properties for Notification on Rejection

Property	Meaning
Mail template for rejection	Select the mail template "IT Shop request - rejected approval".

TIP: If you allow approval by email, select the mail template "IT Shop request - reject approval (by mail)".

Related Topics

- [Approval by Mail](#) on page 152

Notifications with Questions

Table 91: Configuration Parameter for Notification of Approver Questions

Configuration Parameter	Meaning
QER\ITShop\MailTemplateIdents\QueryFromApprover	This mail template is used to send a notification with a question from an approver to an employee.
QER\ITShop\MailTemplateIdents\AnswerToApprover	This mail template is used to send a notification with an answer to a question from an approver.

Employees can be notified when a question about request is asked. The approver can also be notified the moment the question is answered.

To notify an employee when an approver asks a question

- Set the configuration parameter "QER\ITShop\MailTemplateIdents\QueryFromApprover" in the Designer.
Notification with the mail template "IT Shop request - question" is sent by default.

To notify an approver when an employee answers the question

- Set the configuration parameter "QER\ITShop\MailTemplateIdents\AnswerToApprover" in the Designer.
Notification with the mail template "IT Shop request - answer" is sent by default.

TIP: Change the value of the configuration parameter in order to use custom mail templates for these mails.

Request Approval through Additional Approvers

Table 92: Configuration Parameters for Notifying Approvers

Configuration Parameter	Meaning
QER\ITShop\MailTemplateIdents\InformAddingPerson	This mail template is used to notify approvers if the additional approver has met an approval decision.
QER\ITShop\MailTemplateIdents\InformDelegatingPerson	This mail template is used to notify approvers if an approval decision has been made about their delegated step.

The original approver can be notified when an additional approver or employee who has been delegated an approval, has granted or denied the request. This mail is sent the moment the approval step has been decided.

To send notification when the additional approver approves or denies the request

- Set the configuration parameter "QER\ITShop\MailTemplateIdents\InformAddingPerson" in the Designer.
By default, notification is sent using the template "IT Shop request - approval of added step".

To send notification when the employee who was delegated an approval approves or denies the request

- Set the configuration parameter "QER\ITShop\MailTemplateIdents\InformDelegatingPerson" in the Designer.
By default, notification is sent using the template "IT Shop request- approval of delegated step".

TIP: Change the value of the configuration parameter in order to use custom mail templates for these mails.

Unsubscribing an Approved Request

Table 93: Configuration Parameters for Notifying on Unsubscribe

Configuration parameter	Meaning
QER\ITShop\MailTemplateIdents\InformRecipientAboutUnsubscribe	Mail template, which is used to notify a request recipient that a request was unsubscribed by another person.

Request recipients can be notified if a request is unsubscribed by another employee. The email is sent immediately after approval has been granted for unsubscribing.

To send notification if a request was unsubscribed

- Set the configuration parameter "QER\ITShop\MailTemplateIdents\InformRecipientAboutUnsubscribe" in the Designer.

Notification with the mail template "IT Shop request - unsubscribe" is sent by default.

- TIP:** To use something other than the default mail template for these notifications, change the value of the configuration parameter.

Product Change Notification

Employees can be notified when a product is replaced by another product on a fixed date. Email notification is automatically sent to the request recipient if notification procedures are in place and the task **Change product...** is run.

TIP:

To use different mail template that the default for this notification

1. Open the process VI_ESS_PersonWantsOrg Send Mail Product Expires Soon in the Designer.
2. Change the process properties in the pre-script for generating the UID_RichMail.
3. Save the changes to the database using **Database | Commit to database....**
4. Save the changes.

Detailed information about this topic

- [Notifications in the Request Process](#) on page 141

Default Mail Templates

One Identity Manager supplies mail templates by default. These mail templates are available in English and German. If you require the mail body in other languages, you can add mail definitions for these languages to the default mail template.

To edit a default mail template

- Select the category **IT Shop | Basic configuration data | Mail templates | Predefined**.

Related Topics

- [Creating Custom Mail Templates for Notifications](#) on page 193

Bulk Delegation Notifications

Table 94: Configuration Parameters for Notifying Delegates

Configuration parameter	Meaning
QER\ITShop\MailTemplateIdents\InformRequestorAboutMassDelegationErrors	This mail template is used to send a notification to a delegate if bulk delegation fails.

You have the option to delegate all your responsibilities to one person in the Web Portal. If you have a lot of responsibilities, it is possible that not all the delegations are carried out. A delegators can send a notification to themselves if an error occurs.

To send a notification if bulk delegation fails

- Set the configuration parameter "QER\ITShop\MailTemplateIdents\InformRequestorAboutMassDelegationErrors" in the Designer.
Notification with the mail template "Delegation - bulk delegation failed" is sent by default.

TIP: To use something other than the default mail template for these notifications, change the value of the configuration parameter.

Related Topics

- [Bulk Delegation Failure](#) on page 208

Approval by Mail

Table 95: Configuration Parameters for Approval by Mail

Configuration Parameter	Meaning
QER\ITShop\MailApproval\Inbox	This Microsoft Exchange mailbox is used for "Approval by mail" processes.
QER\ITShop\MailApproval\Account	Name of user account for authentication of "Approval by mail" mailbox.
QER\ITShop\MailApproval\Domain	Domain of user account for authentication of "Approval by mail" mailbox.
QER\ITShop\MailApproval>Password	Password of user account for authentication of "Approval by mail" mailbox.
QER\ITShop\MailTemplateIdents\ITShopApproval	Mail template used for requests made through "Approval by mail".
QER\ITShop\MailApproval>DeleteMode	Specifies the way emails are deleted from the inbox.

You can set up approval by mail to provide an option for approvers, who are temporarily unable to access One Identity Manager tools, to make request decisions. In this way, approvers are notified by email when a request is pending approval. Approvers can use the links in the email to make approval decisions without having to connect to the Web Portal. This generates an email that contains the approval decision and in which approvers can state the reasons for their approval decision. This email is sent to a central Microsoft Exchange mailbox. The One Identity Manager checks this mailbox regularly, evaluates the incoming emails and updates the status of the request procedure correspondingly.

- ❗ **IMPORTANT:** An approval is not possible by email, if multi-factor authorization is configured for the requested product. Approval emails for such requests produce an error message.

Prerequisites

1. The Microsoft Exchange system is configured with
 - Microsoft Exchange Client Access Server version 2007, Service Pack 1 or later
 - Microsoft Exchange Web Service .NET API Version 1.2.1, 32 Bit
2. The user account used by One Identity Manager to register with Microsoft Exchange requires full access to the mailbox given in the configuration parameter "QER\ITShop\MailApprovalInbox".
3. The configuration parameter "QER\ITShop\MailTemplateIdents\RequestApproverByCollection" is not set.

To set up approval by email

1. Set the configuration parameter "QER\ITShop\MailApprovalInbox" in the Designer and enter the mailbox to which to send the approval mails.
2. Set up mailbox access.
 - a. By default, One Identity Manager uses the One Identity Manager Service user account to register with Microsoft Exchange and to access the mailbox.
– OR –
 - b. You enter a separate user account for registering on the Microsoft Exchange Server for mailbox access. Enabled the following configuration parameters to do this.

Table 96: Configuration Parameters for Logging onto a Microsoft Exchange Server

Configuration Parameter	Meaning
QER\ITShop\MailApproval\Account	Name of the user account.
QER\ITShop\MailApproval\Domain	User account's domain.
QER\ITShop\MailApproval>Password	User account's password.

3. Set the configuration parameter "QER\ITShop\MailTemplateIdents\ITShopApproval" in the Designer.

The mail template used to send the approval mail is stored with this configuration parameter. You can use the default mail template or add a custom mail template.

TIP: Change the value of the configuration parameter in order to use custom mail templates for approval mails. Customize the script VI_MailApproval_ProcessMail in this case, as well.

- Assign the following mail templates to the approval steps:

Table 97: Mail Template for Approval by Mail

Property	Main Template
Mail template for demand	IT Shop request - approval required (by mail)
Mail template reminder	IT Shop request - remind approver (by mail)
Mail template for delegation	IT Shop request -delegated/additional approval (by mail)
Mail template for rejection	IT Shop request - reject approval (by mail)

- Enable the schedule "Processes IT Shop mail approvals" in the Designer.

Based on this schedule, the One Identity Manager regularly checks the mailbox after each for new approval mail. Based on this schedule, the regularly checks the mailbox every 15 minutes. You can change how frequently it checks, by altering the interval in the schedule as required.

To clean up a mail box

- Set the configuration parameter "QER\ITShop\MailApproval>DeleteMode in the Designer and select the following values.

Table 98: Cleaning up a Mailbox

Value	Method
HardDelete	Processed emails are deleted immediately
MoveToDeletedItems	Processed emails are moved to the "Deleted objects" folder in the mailbox.
SoftDelete	Processed emails are moved to the Active Directory trash but can be restored if necessary.

NOTE: If you apply the method `MoveToDeletedItems` or `SoftDelete` you should empty the folder "Deleted objects" or the Active Directory trash at regular intervals.

Related Topics

- [Modifying an Approval Mail](#) on page 155
- [Creating Custom Mail Templates for Notifications](#) on page 193
- [Demands for Approval](#) on page 142
- [Remind Approver](#) on page 143
- [Self-Service](#) on page 147

- [Approval Rejection](#) on page 147
- [Preparing the IT Shop for Multi-factor Authentication](#) on page 47

Modifying an Approval Mail

Table 99: Configuration Parameters for Approval by Mail

Configuration Parameter	Meaning
QER\ITShop\MailApproval\ExchangeURI	Specifies the Exchange Web Service URL. AutoDiscover mode is used to find the URL if it is not given.

The schedule "Processes IT Shop mail approvals" starts the process VI_ITShop_ProcessApproval_Inbox. This process runs the script VI_MailApproval_ProcessInBox, which searches the mailbox for new approval mails and updates the request procedures in the One Identity Manager database. Then the contents of the approval mail are processed.

NOTE: The validity of the email certificate is checked with the script VID_ValidateCertificate. You can customize this script to suit your security requirements. Take into account that this script is also used for attestations by mail.

If an self-signed root certification authority is used, the user account under which the One Identity Manager Service is running, must trust the root certificate.

TIP: The script VI_MailApproval_ProcessInBox finds the Exchange Web Service URL which uses AutoDiscover through the given mailbox as default. This assumes that the AutoDiscover service is running.

If this is not possible, enter the URL in the configuration parameter "QER\ITShop\MailApproval\ExchangeURI".

Approval mails are processed with the script VI_MailApproval_ProcessMail. The script finds the matching approval, sets the option **Approved** and stores the reason for the approval decision with the request procedure. The approver is found through the sender address. Then the approval mail is removed from the mailbox depending on the selected clean up method.

NOTE: If you use a custom mail template for an approval mail, check the script and modify it as required. Take into account that this script is also used for IT Shop request approvals by mail.

Requests with Limited Validity Period for Challenged Role Memberships

Table 100: Configuration Parameter for Temporary Requests of Challenged Role Memberships

Configuration parameter	Meaning
QER\ITShop\ChallengeRoleRemoval	General configuration parameter for dealing with role assignments that are modified by data import. Removal of role memberships can be challenged with the help of temporary requests.
QER\ITShop\ChallengeRoleRemoval\DaysOfValidity	This configuration parameter contains the validity period (in days) of temporary requests for challenged role memberships.
QER\ITShop\ChallengeRoleRemoval\ITShopOrg	This configuration contains product node, which is assigned to assignment resource to be requested.
QER\ITShop\ChallengeRoleRemoval\Department	Temporary requests of department memberships are supported.
QER\ITShop\ChallengeRoleRemoval\Department\Primary	Temporary membership of the previous department is requested if changes are made to the primary membership in departments.
QER\ITShop\ChallengeRoleRemoval\Locality	Temporary requests of location memberships are supported.
QER\ITShop\ChallengeRoleRemoval\ Locality\ Primary	Temporary membership of the previous location is requested if changes are made to the primary membership in locations.
QER\ITShop\ChallengeRoleRemoval\Org	Temporary requests of business role memberships

Configuration parameter	Meaning
	are supported.
QER\ITShop\ChallengeRoleRemoval\Org\Primary	Temporary membership of the previous business role is requested if changes are made to the primary membership in business roles.
QER\ITShop\ChallengeRoleRemoval\ProfitCenter	Temporary requests of cost center memberships are supported.
QER\ITShop\ChallengeRoleRemoval\ProfitCenter\Primary	Temporary membership of the previous cost center is requested if changes are made to the primary membership in cost centers.

If an employee changes their primary department (business role, cost center or location), they lose all company resources and system entitlements inherited through it. However, it may be necessary for the employee to retain these company resources and system entitlements for a certain period. Use temporary requests to retain the state of the employee's current memberships. Inherited assignments are not removed until after the validity period for this request has expired. The employee can renew the request with the validity period.

Prerequisites

- Employee master data is modified by import.
- The import sets the session variable FullSync=TRUE.

To configure automatic requests for removal of role memberships

1. Set the configuration parameter "QER\ITShop\ChallengeRoleRemoval" in the Designer.
2. Set the configuration parameter "QER\ITShop\ChallengeRoleRemoval\DaysOfValidity" in the Designer and enter the validity period of the request.
3. Set the configuration parameters under "QER\ITShop\ChallengeRoleRemoval" in the Designer for roles whose primary memberships need to remain intact when modified.
4. Commit the changes to the database.

NOTE: The configuration parameters are set by default. The validity period is set to 7 days.

If employee master data is modified by importing, One Identity Manager checks whether a primary role (for example Person.UID_Department) was modified or deleted on saving. If this is the case, the script VI_CreateRequestForLostRoleMembership is executed. The script

create a temporary assignment request for this role, which is granted approval automatically. Thus, the employee remains a members of the role and retains their company resources and system entitlements. The request is automatically canceled when the validity period expires.

The request can be renewed during the validity period. The request renewal must be approved by the role manager. The request becomes permanent if approval is granted. Role membership stays the same until the assignment is canceled.

TIP: The configuration parameter "QER\ITShop\ChallengeRoleRemoval\ITShopOrg" specifies which product nodes to use for a limited validity period request of modified role memberships. The product "Challenge loss of role membership" is provided by default on the "Identity & Access Lifecycle\Identity Lifecycle" shelf. You can also add this product to your own IT Shop solution.

To use the product "Challenge loss of role membership" in your own IT Shop solution

1. Assign the assignment resource "Challenge loss of role membership" to your own shelf.
2. Edit the configuration parameter "QER\ITShop\ChallengeRoleRemoval\ITShopOrg" in the Designer.
 - Enter the full name or the UID of the new product node.

Requests from Permanently Disabled Employees

Table 101: Configuration Parameter for Deleting Closed Requests

Configuration parameter	Effect
QER\ITShop\AutoCloseInactivePerson	The configuration parameter defines, whether employees are removed from all customer nodes, when they are permanently disabled.

By default permanently disabled employees remain members in all the customer nodes. This ensures that all pending request and resulting assignments are retained. One Identity Manager can be configured such that employees are automatically removed from all custom nodes once they are permanently disabled. This means that all pending requests are aborted and remaining assignments are removed.

To remove employees from all customer nodes if they are permanently disabled

- Set the configuration parameter "QER\ITShop\AutoCloseInactivePerson" in the Designer.

Deleting Requests

Table 102: Configuration Parameter for Deleting Closed Requests

Configuration parameter	Effect
Common\ProcessState\PropertyLog	When this configuration parameter is set, changes to individual values are logged and shown in the process view.
QER\ITShop\DeleteClosed	This configuration parameter specifies whether closed requests are deleted.
QER\ITShop\DeleteClosed\Aborted	This configuration parameter specifies the maximum retention time (in days) of aborted requests.
QER\ITShop\DeleteClosed\Dismissed	This configuration parameter specifies the maximum retention time (in days) of denied requests.
QER\ITShop\DeleteClosed\Unsubscribed	This configuration parameter specifies the maximum retention time (in days) of canceled requests.

To limit request procedures in the One Identity Manager database, you can remove closed request procedures from the database. The request procedure properties are logged in the approval history at the same time. The requests are subsequently deleted. Only closed request with unexpired retention periods are kept in the database.

To delete attestation cases automatically

1. Set the configuration parameter "QER\ITShop\DeleteClosed" in the Designer.
 - a. To delete aborted requests, set the configuration parameter ""QER\ITShop\DeleteClosed\Aborted" and set the retention period in days.
 - b. To delete denied requests, set the configuration parameter ""QER\ITShop\DeleteClosed\Dismissed" and set the retention period in days.
 - c. To delete unsubscribed requests, set the configuration parameter ""QER\ITShop\DeleteClosed\Unsubscribed " and set the retention period in days.
2. Set the configuration parameter "Common\ProcessState\PropertyLog" in the Designer.

This activates logging for deleted request procedures and their approval history. For more detailed information about logging data changes tags, see the One Identity Manager Configuration Guide.

NOTE: Ensure that the logged request procedures are archived for audit reasons. For more detailed information about the archiving process, see the One Identity Manager Data Archiving Administration Guide.

Closed requests are deleted by the DBQueue Processor once the request's retention period has expired. The time at which the request was last changed, is used as the basis for calculating the retention period. The DBQueue Processor determines the requests to be deleted in the context of daily maintenance tasks. All request procedure properties are logged in the approval history.

Managing an IT Shop

Table 103: Configuration Parameter for Setting Up an IT Shop

Configuration parameter	Meaning
QER\ITShop	<p>Preprocessor relevant configuration parameter to control the component parts for the IT Shop. Changes to the parameter require recompiling the database.</p> <p>If the parameter is set, the IT Shop components are available.</p>

You can use the supplied default shop "Identity & Access Lifecycle" depending on your company structure and extend it or set up your own IT Shop solution. Set up different IT Shop structures for your custom IT Shop solution. Specify which employees are authorized to make request in the shops.

To set up an IT Shop solution with the help of the IT Shop Wizard.

- Select the category **My One Identity Manager | IT Shop wizards | Create shop**.

The wizard includes the most important configuration stages for setting up an IT Shop. After the wizard has concluded, more configuration stages are required.

IT Shop structures such as shopping centers, shops and shelves are mapped in the category **IT Shop | IT Shop**. An IT Shop solution is displayed hierarchically.

The following sections describe the procedure for manually setting up an IT Shop.

IT Shop Base Data

Various base data is required to construct an IT Shop:

Role types: [Role Types](#) on page 162

Approval policies: [Editing Approval Policies](#) on page 71


Approval workflows:	Approval Workflows on page 75
Approval procedures:	Setting up Approval Procedures on page 101
Processing status:	Processing status on page 162
Attestors:	Attestors on page 164
Product owners:	Product owners on page 166
Mail templates:	Creating Custom Mail Templates for Notifications on page 193
Business partners:	Business Partners on page 168
Functional areas:	Functional areas on page 169
Service categories:	Entering Service Categories on page 32
Request properties:	Entering Product Specific Request Properties on page 35
Tags:	Entering Tags on page 41
Roles classes:	Roles Classes on page 163
Reasons:	Standard Reasons on page 170

Role Types

Create role types in order to classify roles. You can use role types to specify inheritance of approval policies within an IT Shop. To do this, assign role types to shelves and approval policies. For more information, see [Determining Effective Approval Policies](#) on page 84.

You can also assign role types if you want to apply further criteria to distinguish between shops. However, role types that are assigned to shops have no influence over the inheritance of approval policies.

To edit a role type


1. Select the category **IT Shop | Basic configuration data | Role types**.
2. Select the role type in the result list. Select **Change master data** in the task view.
- OR -
Click  in the result list toolbar.
3. Enter a name and detailed description for the role type.
4. Save the changes.

Processing status

After a resource has been assigned, further manual processing may be necessary. You can define processing statuses in the One Identity Manager that reflect the status of each

manual processing step. The appropriate processing status is set for the request depending on whether the approval decision was negative or positive. The appropriate processing status is set for the request depending on the result of the approval decision.

To edit processing statuses

1. Select the category **IT Shop | Basic configuration data | Processing status**.
2. Select a processing status in the result list. Select **Change master data** in the task view.
– OR –
Click  in the result list toolbar.
3. Edit the processing status's master data.
4. Save the changes.

Enter the following properties for a processing status.

Table 104: General Master Data for a Processing Status

Property	Description
Processing status	Name of the processing status.
Success	The processing status marks the success of the processing step.
Closed	The processing status marks whether processing is complete.
Sort order	Order in which processing status can be set.
Description	Spare text box for additional explanation.

Default Processing Status

The One Identity Manager provides the processing status by default. This processing status is used in the approval steps of the default approval workflow.

To display the default processing status

- Select the category **IT Shop | Basic configuration data | Processing status | Predefined**.

Roles Classes

Role classes form the basis for mapping One Identity Manager structures in the IT Shop. The following role classes are available by default in the One Identity Manager:

- IT Shop structure
- IT Shop template

Use role classes to specify which company resources can be requested through the IT Shop. At the same time, you decide which company resources may be assigned as products to shelves and IT Shop templates.

The following options define which company resources may be assigned to IT Shop structures and IT Shop templates:

- **Assignment permitted**
This option specifies whether assignments of respective company resources are allowed in general.
- **Direct assignment permitted**
This option specifies whether respective company resources can be directly assigned.

NOTE: Company resources are always assigned directly to shelves and IT Shop templates. Therefore, always enable and disable both options.

To configure assignment to IT Shop structures and IT Shop templates

1. Select the category **IT Shop | Basic configuration data | Role classes**.
2. Select the role class in the result list.
3. Select the task **Configure role assignments**.
4. Use the column **Allow assignments** to specify whether an assignment is generally allowed.
- AND -
Use the column **Allow direct assignments** to specify whether a direct assignment is allowed.

NOTE: You can only disable the options if there are no assignments of the respective objects to IT Shop structures or IT Shop templates.

5. Save the changes.

Attestors

Installed Module: Attestation Module

In One Identity Manager you can assign employees to IT Shop structures (shelves, shops, shopping centers, service items, service categories and shelf templates) who can be brought in as attestors in attestation cases when the approval workflow is set up appropriately. To do this, assign the IT Shop structures to application roles for attestors. Assign employees to this application role that are authorized to attest requests or other data stored in the One Identity Manager.

A default application role for attestors is available in One Identity Manager. You may create other application roles as required. For more information about application roles, see One Identity Manager Application Roles Administration Guide.

Table 105: Default Application Roles for Attestors

User	Task
Attestors for IT Shop	<p>Attestors must be assigned to the application role Request & Fulfillment IT Shop Attestors.</p> <p>Users with this application role:</p> <ul style="list-style-type: none"> • Attest correct assignment of company resource to IT Shop structures for which they are responsible. • Can view master data for these IT Shop structures but not edit them. <p>i NOTE: This application role is available if the module Attestation Module is installed.</p>

To edit attestors

1. Select the category **IT Shop | Basic configuration data | Attestors**.
2. Select **Change master data** in the task view.
 - OR -

Select an application role in the result list. Select **Change master data** in the task view.

 - OR -


Click  in the result list toolbar.
3. Edit the application role's master data.

Table 106: Required Application Role Properties

Property	Value
Parent application role	Assign the application role Request & Fulfillment IT Shop Attestor or a child application role.

4. Save the changes.
5. Select the task **Assign employees**, to add members to the application role.
6. Assign employees in **Add assignments**.
 - OR -

Remove employees from **Remove assignments**.
7. Save the changes.

Product owners

Employees that are approvers in approval processes for requesting service items can be assigned to these service items. To do this, assign a service item or a service category to an application for **Product owners**. Assign this application role to employees who are authorized to approve requests in the IT Shop and to edit service item or service category data.

A default application role for product owners is available in One Identity Manager. You may create other application roles as required. For more information about application roles, see the One Identity Manager Application Roles Administration Guide.

Table 107: Default Application Roles for Product Owners

User	Task
Product owners	<p>The product owners must be assigned to the application roles Request & Fulfillment IT Shop Product owners or an application role below that.</p> <p>Users with this application role:</p> <ul style="list-style-type: none">• Approve through requests.• Edit service items and service categories under their management.

To edit product owners


1. Select the category **IT Shop | Basic configuration data | Product owner**.
2. Select **Change master data** in the task view.
- OR -
Select an application role in the result list. Select **Change master data** in the task view.
- OR -
Click  in the result list toolbar.
3. Edit the application role's master data.

Table 108: Required Application Role Properties

Property	Description
Parent application role	Assign the application role Request & Fulfillment IT Shop Product owner or a child application role.

4. Save the changes.
5. Select the task **Assign employees**, to add members to the application role.
6. Assign employees in **Add assignments**.
- OR -

- Remove employees from **Remove assignments**.
- 7. Save the changes.

Related Topics

- [Deleting Unused Application Roles](#) on page 70

Chief approval team

Sometimes, approval decisions cannot be made for requests because the approver is not available or does not have access to One Identity Manager tools. To complete the request, however, you can define a chief approval team whose members are authorized to intervene in the approval process at any time.

There is a default application role in One Identity Manager for the chief approval team. Assign this application role to all employees who are authorized to approve, deny, abort requests in special cases or to authorize other approvers. For more information about application roles, see One Identity Manager Application Roles Administration Guide.

Table 109: Default Application Role for Chief Approval Team

User	Task
Chief approval team	<p>The chief approver must be assigned to the application Request & Fulfillment IT Shop Chief approval team</p> <p>Users with this application role:</p> <ul style="list-style-type: none"> • Approve through requests. • Assign requests to other approvers.

To add members to the chief approval team

1. Select the category **IT Shop | Basic configuration data | Chief approval team**.
2. Select **Assign employees** in the task view.
3. Assign employee authorized to approve requests in **Add assignments**.
- OR -
Remove the assignments of employee to chief approval team in **Remove assignments**.
4. Save the changes.


Detailed information about this topic

- [Approval through Chief Approval Team](#) on page 126

Business Partners

In One Identity Manager, you can enter the data for external businesses that could be act as manufacturers, suppliers or partners. You assign a manufacturer to a service item.

To edit business partners

1. Select the category **IT Shop | Basic configuration data | Business partners**.
2. Select the business partners in the result list. Select **Change master data** in the task view.
- OR -
Click  in the result list toolbar.
3. Edit the business partner's master data.
4. Save the changes.

Enter the following data for a company:

Table 110: General Master Data for a Company

Property	Description
Company	Short description of the company for the views in One Identity Manager tools.
Name	Full company name.
Surname prefix	Additional company name.
Short name	Company's short name.
Contact	Contact person for the company.
Partner	Specifies whether this is a partner company.
Customer number	Customer number at the partner company.
Supplier	Specifies whether this is a supplier.
Customer number	Customers number at supplier.
Leasing partner	Specifies whether this is a leasing provider or rental firm.
Manufacturer	Specifies whether this is a manufacturer.
Remarks	Spare text box for additional explanation.

Table 111: Company address

Property	Description
Street	Street or road.
Building	Building
Zip code	Zip code.
Town	City.
State	State.
Country	Country.
Phone	Company's telephone number.
Fax	Company's fax number.
Email address	Company's email address.
Web page	Company's website.

Use the **Browse** button to open the website in the default web browser.

Functional areas


To analyze rule checks for different areas of your company in the context of identity audit, you can set up functional areas. Functional areas can be assigned to hierarchical roles and service items. You can enter criteria that provide information about risks from rule violations for functional areas and hierarchical roles. To do this, you specify how many rule violations are permitted in a functional area or a role. You can enter separate assessment criteria for each role, such as a risk index or transparency index.

Example for using Functional Areas

The risk of rule violation should be analyzed for service items. Proceed as follows:


1. Set up functional areas.
2. Assign service items to the functional areas.
3. Define assessment criteria for the functional areas.
4. Assign compliance rules required for the analysis to the functional area.
5. Use the One Identity Manager report function to create a report that prepares the result of rule checking for the functional area by any criteria.

To edit functional areas

1. Select the category **IT Shop | Basic configuration data | Functional areas**.
2. Select the functional area in the result list. Select **Change master data** in the task view.
- OR -
Click  in the result list toolbar.
3. Edit the function area master data.
4. Save the changes.

Enter the following data for a functional area.

Table 112: Functional Area Properties


Property	Description
Functional area	Description of the functional area
Parent Functional area	Parent functional area in a hierarchy. Select a parent functional area from the list in order to organize your functional areas hierarchically.
Max. number of rule violations	List of rule violation valid for this functional area. This value can be evaluated during the rule check.  NOTE: This input field is available if the Compliance Rules Module exists.
Description	Spare text box for additional explanation.

Standard Reasons

In the Web Portal, you can enter reasons, which provide explanations for the sequence of a request and individual approval decisions of the requests or request approvals. You can freely formulate this text. You also have the option to predefine reasons. The approver selects the most suitable text from these standards reasons in the Web Portal and stores it with the request.

Standard reasons are display in the approval history and in the request details.

To edit standard reasons

1. Select the category **IT Shop | Basic configuration data | Standard reasons**.
2. Select a standard reason in the result list. Select **Change master data** in the task view.
- OR -
Click  in the result list toolbar.

3. Edit the master data for a standard reason.
4. Save the changes.

Enter the following properties for the standard reason.

Table 113: General Master Data for a Standard Reason

Property	Description
Standard reason	Reason text as displayed in the Web Portal and in the approval history.
Description	Spare text box for additional explanation.
Automatic Approval	Specifies whether the reason text is entered automatically by One Identity Manager into the request. Do not set this option if the you want to select the standard reason in the Web Portal.
Additional text required	Specifies whether an additional reason should be entered in freely formatted text for the approval.

Predefined Standard Reasons

One Identity Manager provides predefined standard reasons. These standard reasons are entered into the request by automatic approval through One Identity Manager.

To display predefined standard reasons

- Select the category **IT Shop | Basic configuration data | Standard reasons | Predefined.**

Setting up IT Shop Structures

Depending on the company structure, you can optionally define shopping centers for your IT Shop solution where several shops can be bought together under one roof. Always add the shopping center to the top level of the IT Shop. Shopping centers may not be hierarchical.


Each shop contains a number of shelves that the customer can request products from. You can add a shop to the top level of the IT Shop or under a shopping center. Shops may not be hierarchical.

There are various products available for request on shelves. Shelves are set up under each shop.

IMPORTANT: If a shop contains a large number of customer, the calculations in the IT Shop can cause a heavy load on the DBQueue Processor and therefore on the database server as well.

Structure the IT Shop such that no more than 30 000 customers can make requests in each shop! If necessary, set up your own shopping center with several shops and customer nodes.

To set up a shopping center, a shop or a shelf

1. Select the category **IT Shop | IT Shop**.
2. Click  in the result list toolbar.
3. Edit the shopping center, shop or shelf's master data.
4. Save the changes.

General Master Data for an IT Shop Structure

Enter the following master data for a shopping center, a shop or a shelf:

Table 114: General Master Data for an IT Shop Structure

Property	Description						
IT Shop Nodes	IT Shop structure name.						
Internal name	Internal IT Shop structure name.						
IT Shop information	Labels the type of IT Shop structure. The IT Shop structure is regulated by this data. Select "Shopping center", "Shop" or "Shelf" from the menu. The menu is only displayed when a new IT Shop structure is added.						
Role type	<table><tbody><tr><td>Shopping center</td><td>Not relevant</td></tr><tr><td>Shop</td><td>You can use role types to classify shops further. Role types assigned to shops have no influence over the inheritance of approval policies. Add the required role types in IT Shop Basic configuration data Roles types. For more information, see Role Types on page 162.</td></tr><tr><td>Shelf</td><td>You can use role types to specify inheritance of approval</td></tr></tbody></table>	Shopping center	Not relevant	Shop	You can use role types to classify shops further. Role types assigned to shops have no influence over the inheritance of approval policies. Add the required role types in IT Shop Basic configuration data Roles types . For more information, see Role Types on page 162.	Shelf	You can use role types to specify inheritance of approval
Shopping center	Not relevant						
Shop	You can use role types to classify shops further. Role types assigned to shops have no influence over the inheritance of approval policies. Add the required role types in IT Shop Basic configuration data Roles types . For more information, see Role Types on page 162.						
Shelf	You can use role types to specify inheritance of approval						

Property	Description
	<p>policies within an IT Shop. For more information, see Determining Effective Approval Policies on page 84.</p> <p>Add the required role types in IT Shop Basic configuration data Roles types. For more information, see Role Types on page 162.</p>
Shelf template	<p>You can use shelf templates to fill shops automatically. For more information, see Templates for Automatically Filling the IT Shop on page 182.</p> <p>Shopping center: Select a shopping center template for a shopping center. A shopping center template can not be assigned until the shopping center has been saved in the database .</p> <p>Shop not relevant</p> <p>Shelf A shelf template cross reference is entered for shelves generated when shops are filled automatically. Shelf templates are not assigned automatically.</p>
Parent IT Shop node	<p>A parent IT Shop node is necessary for the hierarchical design of the IT Shop.</p> <p>Shopping center Leave this field empty. Shopping centers always form the root node of an IT Shop.</p> <p>Shop If the shop is at the top level of an IT Shop, this field stays empty. If the shop is in a shopping center, select the respective shopping center. You can use this input field to add shops to shopping centers later.</p> <p>Shelf Select the shop to which the shelf will be added.</p>
Full name	Full name of the IT Shop structure.
Location	Assign a location. You can use this input when creating approval policies for making requests from this shopping center/shop/shelf.
Department	Assign a department. You can use this input when creating approval policies for making requests from this shopping center/shop/shelf.
Cost center	Assign a cost center. You can use this input when creating approval policies for making requests from this shopping center/shop/shelf.
Owner	Specify the employee responsible for the IT Shop structure. You can use this input when creating approval policies for making requests from this shopping center/shop/shelf.

Property	Description
Deputy	Specify a deputy owner. You can use this input when creating approval policies for making requests from this shopping center/shop/shelf.
Attestors	<p>Applications role whose members are authorized to approve attestation cases for this IT Shop structure.</p> <p>To create a new application role, click Add. Enter the application role name and assign a parent application role. For more information, see Attestors on page 164.</p> <p>NOTE: This property is available if the Attestation Module is installed.</p>
Description	Spare text box for additional explanation.
Certification status	<p>Certification status of the IT Shop structure. You can select the following certification statuses:</p> <ul style="list-style-type: none"> • New – The IT Shop structure was newly added to the One Identity Manager database. • Certified – The IT Shop structure master data was granted approval by the manager. • Denied – The IT Shop structure master data was denied approval by the manager.

User Defined Data for an IT Shop Structure

Additional company specific information. Use the Designer to customize display names, formats and templates for the input fields.

Additional Tasks for IT Shop Structures

After you have entered the master data, you can apply different tasks to it. The task view contains different forms with which you can run the following tasks.

Overview of IT Shop Structures

To obtain an overview of a shopping center

1. Select the category **IT Shop | IT Shop**.
2. Select the shopping center template in the result list.
3. Select **Shopping center overview** in the task view.

To obtain an overview of a shop

1. Select the category **IT Shop | IT Shop** or **IT Shop | IT Shop | <shopping center>**.
2. Select the shop in the result list.
3. Select **Shop overview** in the task view.

To obtain an overview of a shelf

1. Select the category **IT Shop | IT Shop | <shop>** or **IT Shop | IT Shop | <shopping center> | <shop>**.
2. Select the shelf in the result list.
3. Select **Shelf overview** in the task view.

Assigning Approval Policies

You can assign approval policies to a shopping center, shops and shelves. These are applied to all request from this IT Shop structure if a child IT Shop structure or the requested service items are not assigned to approval policies. For more information, see [Approval Processes for IT Shop Requests](#) on page 71. The approval policy that takes effect on the IT Shop structure is shown in the overview.

To assign an IT Shop structure to an approval policy.

1. Select the category **IT Shop | IT Shop** or **IT Shop | IT Shop | <IT Shop structure>**.
2. Select the IT Shop structure in the result list.
3. Select **Assign approval policies** in the task view.
4. Assign the approval policies in **Add assignments**.
- OR -
Remove the approval policies in **Remove assignments**.
5. Save the changes.

Assigning Requestable Products to a Shelf

Assign a shelf those company resources that the shop customers are permitted request as products. These company resources are added as product nodes below the shelf. You can only select those company resources that are labeled with the option **IT Shop** and are assigned a service item.

To assign company resource, select one of the tasks in the task view. The tasks are only shown if the option **Assignments permitted** and **Direct assignments permitted** are set on the role class "IT Shop structure".

To assign company resources as products to a shelf

1. Select the category **IT Shop | IT Shop | <shop>** or **IT Shop | IT Shop | <shopping center> | <shop>**.
2. Select the shelf in the result list.
3. Select **Assign <company resource>**.
4. Assign company resources in **Add assignments**.
- OR -
Remove company resource in **Remove assignments**.
5. Save the changes.

NOTE: It is possible to assign a service item to different company resources. If these company resources are assigned to one and the same shelf, the product cannot be uniquely identified. Then a randomly select product is given in the request.
If you groups several company resources under one service item, assign the company resources to different shelves. In the Web Portal, the requester can select from which shelf he wants to request the product.

Related Topics

- [Preparing Products for Requesting](#) on page 18
- [Assigning and Removing Products](#) on page 43
- [Roles Classes](#) on page 163


Setting Up a Customer Node

Set up just one customer node for each shop to facilitate customer administration. Add the employees to this customer node that are permitted to request products from this shop.

IMPORTANT: If a shop contains a large number of customer, the calculations in the IT Shop can cause a heavy load on the DBQueue Processor and therefore on the database server as well.

Ensure that no more than 30 000 employees are members in a customer node! If necessary, set up your own shopping center with several shops and customer nodes.

To set up a customer node

1. Select the category **IT Shop | IT Shop | <shop>** or **IT Shop | IT Shop | <shopping center> | <shop>**.
2. Click  in the result list toolbar.
3. Edit the customer node's master data.
4. Save the changes.

General Master Data for a Customer Node

Enter the following master data for a customer node:

Table 115: General Master Data for a Customer Node

Property	Description
IT Shop node	IT Shop structure name.
Internal name	Internal IT Shop structure name.
IT Shop information	Labels the IT Shop structure as customer node. Select "Customer" from the menu. The menu is only displayed when a new IT Shop structure is added.
Role type	Irrelevant.
Shelf template	Irrelevant.
Parent IT Shop node	A parent IT Shop node is necessary for the hierarchical design of the IT Shop. Select the shop to which the customer node will be added. Only one customer node is allowed per shop.
Full name	Full identifier of the customer node.
Location	Irrelevant.
Department	Irrelevant.
Cost center	Irrelevant.
Owner	Irrelevant.
Deputy	Irrelevant.
Attestors	Irrelevant.
Description	Spare text box for additional explanation.
Certification status	Certification status of the customer node. You can select the following certification statuses: <ul style="list-style-type: none">• New – The customer node was newly added to the One Identity Manager database.• Certified – The customer node master data was granted approval by the manager.• Denied – The customer node master data was denied approval by the manager.

Property	Description
Dynamic roles not allowed	Specifies whether a dynamic role can be created for the customer node.

Related Topics

- [Creating Dynamic Roles](#) on page 179

General Master Data for a Customer Node

Additional company specific information. Use the Designer to customize display names, formats and templates for the input fields.

Additional Tasks for Customer Nodes

After you have entered the master data, you can apply different tasks to it. The task view contains different forms with which you can run the following tasks.

Overview of Entitled Customers

To obtain an overview of a customer node

1. Select the category **IT Shop | IT Shop | <shop> | Customers or IT Shop | IT Shop | <shopping center> | <shop> | Customers.**
2. Select **Entitled customers overview** in the task view.

Assign Employees

Add the employee to the customer node who is authorized to make requests for the shop. You have two possible ways of doing this. Employee can be assigned to a customer node either directly or through a dynamic role.

IMPORTANT: If a shop contains a large number of customer, the calculations in the IT Shop can cause a heavy load on the DBQueue Processor and therefore on the database server as well.

Never assign more than 30 000 employees to a customer node!

To assign employees directly to a < custom node

1. Select the category **IT Shop | IT Shop | <shop> | Customers** or **IT Shop | IT Shop | <shopping center> | <shop> | Customers**.
2. Select **Assign employees** in the task view.
3. Assign the employees authorized to make requests in **Add assignments**.
- OR -
Remove employees from **Remove assignments**.
4. Save the changes.

If an employee is removed from a customer node, all pending requests for this employee are aborted.

Creating Dynamic Roles

Add the employee to the customer node who is authorized to make requests for the shop. You have two possible ways of doing this. Employee can be assigned to a customer node either directly or through a dynamic role.

- 1 **NOTE:** The task **Create dynamic role** is only available for customer nodes which do not have the option **Dynamic roles not allowed** set.
- 1 **IMPORTANT:** If a shop contains a large number of customer, the calculations in the IT Shop can cause a heavy load on the DBQueue Processor and therefore on the database server as well.
Formulate the condition for the dynamic role so that no more than 30 00 employees are found.

To create a dynamic role

1. Select the category **IT Shop | IT Shop | <shop> | Customers** or **IT Shop | IT Shop | <shopping center> | <shop> | Customers**.
2. Select **Create dynamic role** in the task view.
3. Enter the required master data.
4. Save the changes.

To edit a dynamic role

1. Select the category **IT Shop | IT Shop | <shop> | Customers** or **IT Shop | IT Shop | <shopping center> | <shop> | Customers**.
2. Select **Entitled customers overview** in the task view.
3. Select the form element **Dynamic roles** and click on the dynamic role.
4. Select **Change master data** in the task view.


5. Edit the dynamic role's master data.
6. Save the changes.

For more detailed information about dynamic roles, see the One Identity Manager Identity Management Base Module Administration Guide. The following features apply to dynamic roles for customer nodes:

Table 116: Properties of a Customer Node Dynamic Role

Property	Description
IT Shop Nodes	This data is initialized with selected customer nodes. If the employee objects meet the dynamic role conditions, they are added to this customer node.
Object class	Employee
Dynamic role	The dynamic role name is made up of the object class and the full name of the IT Shop node, by default.
Calculation schedule	Schedule for calculating dynamic roles. Employees with request permissions for the shop are determined regularly at the times specified in the schedule. The task "default schedule dynamic role check" is already defined in the standard version of the One Identity Manager. All dynamic role memberships are checked using this schedule and recalculation requests are sent to the DBQueue Processor if necessary. Use the Designer to customize schedules or set up new ones to meet your requirements. For more information, see the One Identity Manager Configuration Guide.

To delete a dynamic role


1. Select the category **IT Shop | IT Shop | <shop> | Customers** or **IT Shop | IT Shop | <shopping center> | <shop> | Customers**.
2. Select **Entitled customers overview** in the task view.
3. Select the form element **Dynamic roles** and click on the dynamic role.
4. Click  in the Manager's toolbar.
5. Confirm the security prompt with **Yes**.

Deleting IT Shop Structures

In order to delete IT Shop structures you have to remove all the child IT Shop structures. This applies to manually added IT Shop structures in the same way as it does for shelves and products created from shelf templates.

Deleting Customer Nodes


To delete a customer node

1. Select the category **IT Shop | IT Shop | <shop>** or **IT Shop | IT Shop | <shopping center> | <shop>**.
2. Select the customer node in the result list.
3. Remove all assigned employees. If the customer node was filled using a dynamic role, delete the dynamic role first.
For more information, see [Additional Tasks for Customer Nodes](#) on page 178.
4. Click  in the result list toolbar.
5. Confirm the security prompt with **Yes**.

Deleting Shelves

If a shelf is going to be completely dissolved, you need to remove all the product assignments from the shelf first.

To delete a shelf

1. Select the category **IT Shop | IT Shop | <shop>** or **IT Shop | IT Shop | <shopping center> | <shop>**.
2. Select the shelf in the result list.
3. Remove all product assignments to the shelf.
The next time the DBQueue Processor runs, all pending requests for the products are closed and approved requests are canceled. For more information, see [Removing a Product](#) on page 45. Then you can delete the shelf.
4. Click  in the result list toolbar.
5. Confirm the security prompt with **Yes**.

To delete a shelf that resulted from a special shelf template

1. Cancel approved requests from this shelf.
2. Cancel pending request.
3. Remove shelf template assignments to the shop.


For more information, see [Assigning Shelf Templates to Shops and Shopping Center Templates](#) on page 190.

NOTE: Shelves that have been created from a global shelf template or a shopping center template cannot be deleted.

Deleting Shops

If you want to delete a shop, delete the customer node and existing shelves beforehand.


To delete a shop

1. Select the category **IT Shop | IT Shop** or **IT Shop | IT Shop | <shopping center>**.
2. Select the shop in the result list.
3. Delete the customer node.
For more information, see [Deleting Customer Nodes](#) on page 181.
4. Delete all shelves.
For more information, see [Deleting Shelves](#) on page 181.
5. Click  in the result list toolbar.
6. Confirm the security prompt with **Yes**.

Deleting Shopping Centers

If you want to delete a shopping center, delete all shops beforehand.

To delete a shopping center

1. Select the category **IT Shop | IT Shop**.
2. Select the shopping center template in the result list.
3. Delete all shops.
For more information, see [Deleting Shops](#) on page 182.
4. Click  in the result list toolbar.
5. Confirm the security prompt with **Yes**.

Templates for Automatically Filling the IT Shop

Table 117: Configuration Parameters for Templates in the IT Shop

Configuration parameter	Meaning
QER\ITShop\Templates	Preprocessor relevant configuration parameter for controlling

Configuration parameter	Meaning
	the database model components for the Shelf Filling Wizard. Changes to the parameter require recompiling the database. Shelf templates can be used. Changes to the parameter require recompiling the database.

You can create templates for setting up shelves automatically. Use templates when you want to set up shelves in several shops or shopping centers with the same products.

Table 118: Templates Overview

Template	Description
Global shelf templates	<p>A global shelf template is automatically distributed to all shops within the IT Shop solution. The global shelf templates are reproduced in every shop. A corresponding shelf with products is created in each shop. If a new shop is created with the IT Shop solution, the global shelf template is also duplicated in this shop.</p> <p>NOTE: Global shelf templates are not distributed to default shops.</p>
Special shelf templates	<p>A special shelf template is manually assigned to one or more shops. The special shelf template is copied to these shops and a corresponding shelf with products is added. A special template can be distributed additionally to shopping center templates.</p>
Shopping center templates	<p>A shopping center template is linked to one or more shopping centers that it should be reproduced in. You can only assign shopping center template to shopping center. By assigning a special shelf template to a shopping center template you create a shelf from a template within that shopping center template. This shelf is subsequently set up in all the shops belonging to this shopping center.</p>

In order to simplify understanding, these templates are given the umbrella term "shelf templates" in the following.

To use shelf templates

- Set the configuration parameter "QER\ITShop\Templates" in the Designer.

The following is valid for all shelf templates:

- If a template is modified, the changes are passed onto all shelves created from this shelf template.
- If a shelf template is deleted, all the shelves that originated from it are deleted from the shop. Outstanding requests are completed.
- Shelf templates can only be deleted when their assigned products and approval policies have been removed.

The following diagram illustrates the shelf templates that can be set up, their assignments and the resulting IT Shop solution.


Implementing Shelf Templates in an IT Shop Solution

To create different shelf templates and implements in an IT Shop solution, do the following:

Global Shelf Templates

1. Create a global shelf template.
For more information, see [Editing Shelf Templates](#) on page 187.
2. Assign products and approval policies to global shelf template.
For more information, see [Additional Tasks for Shelf Templates](#) on page 189.

The global shelf template is automatically reproduced in all shops in the IT Shop. The shelves that created are linked to the global shelf template from which they originate. The products are transferred from the template to the shelf that is created from the template.

 **NOTE:** Global shelf templates are not distributed to default shops.

Special Shelf Template

1. Create a special shelf template.
For more information, see [Editing Shelf Templates](#) on page 187.
2. Assign products and approval policies to the special shelf template.
For more information, see [Additional Tasks for Shelf Templates](#) on page 189.
3. Assign the special shelf template to one or more shops.
For more information, see [Assigning Shelf Templates to Shops and Shopping Center Templates](#) on page 190.

The special shelf template is automatically copied to all shops in the IT Shop. The shelves that created are linked to the special shelf template from which they originate. The products are transferred from the template to the shelf that is created from the template.

Shopping Center Template

1. Create a shopping center template.
For more information, see [Editing Shelf Templates](#) on page 187.
2. Create a special shelf template.
For more information, see [Editing Shelf Templates](#) on page 187.
3. Assign products and approval policies to the special shelf template.
For more information, see [Additional Tasks for Shelf Templates](#) on page 189.

4. Assign the special shelf template to the shop center template.
For more information, see [Assigning Shelf Templates to Shops and Shopping Center Templates](#) on page 190.
5. Assign the shopping center template to the desired shopping centers.
For more information, see [General Master Data for an IT Shop Structure](#) on page 172.


The special shelf template is automatically copied to the shopping center template. Subsequently, the shelf created from the shopping center template is distributed to all the shops in the shopping center. The shelves that are created obtain a link to the shelf that they originated from.

Editing Shelf Templates

Table 119: Parameters for using with Shelf Templates

Configuration parameter	Meaning
QER\ITShop\Templates	Preprocessor relevant configuration parameter for controlling the database model components for the IT Shop Shelf Filling Wizard. Changes to the parameter require recompiling the database. If the parameter is set, the Shelf Filling Wizard components are available.

To edit a shelf template

1. Select the category **IT Shop | Shelf templates**.
2. Select a shelf template in the result list. Select **Change master data** in the task view.
- OR -
Click  in the result list toolbar.
3. Edit the shelf template's master data.
4. Save the changes.

General Master Data for a Shelf Template

Enter the following properties for a shelf template:

Table 120: General Master Data for a Shelf Template

Property	Description
IT Shop Nodes	Identifier of the IT Shop structure for creating the shelf template.
Internal name	Internal name of the shelf template.
IT Shop information	Type of shelf template. Select the "Shopping center template", "Global shelf template" or "Shelf template" in the list.
Role type	<p>You can use role types to specify inheritance of approval policies within an IT Shop. For more information, see Determining Effective Approval Policies on page 84.</p> <p>Add the required role types in IT Shop Basic configuration data Roles types. For more information, see Role Types on page 162.</p> <p>The role type is applied to the new shelf.</p>
Location	Assign a location. You can use this data in approval workflows for determining the approver responsible for requests from the shelves that have been created.
Department	Assign a department. You can use this data in approval workflows for determining the approver responsible for requests from the shelves that have been created.
Cost center	Assign a cost center. You can use this data in approval workflows for determining the approver responsible for requests from the shelves that have been created.
Owner	Specify the employee responsible for the shelves that have been created. You can use this data in approval workflows for determining the approver responsible for requests from the shelves that have been created.
Deputy	Specify a deputy owner. You can use this data in approval workflows for determining the approver responsible for requests from the shelves that have been created.
Attestors	<p>Applications role whose members are authorized to approve attestation cases for this business role.</p> <p>To create a new application role, click Add. Enter the application role name and assign a parent application role. For more information, see Attestors on page 164.</p> <p>NOTE: This property is available if the Attestation Module is installed.</p>
Description	Spare text box for additional explanation.
Certification status	The shelf template's certification status. You can select the following certification statuses:

Property	Description
	<ul style="list-style-type: none"> • New – The shelf template was newly added to the One Identity Manager database. • Certified – The shelf template master data was granted approval by the manager. • Denied – The shelf template master data was denied approval by the manager.

User Defined Master Data for a Shelf Template

Additional company specific information. Use the Designer to customize display names, formats and templates for the input fields.

Additional Tasks for Shelf Templates

After you have entered the master data, you can apply different tasks to it. The task view contains different forms with which you can run the following tasks.

Assigning Approval Policies

You can assign approval policies to global and special templates. These approval policies are passed on to every new shelf. For more information, see [Approval Processes for Requests](#).

To assign a shelf template to an approval policy

1. Select the category **IT Shop | Shelf templates**.
2. Select the rule template in the result list.
3. Select **Assign approval policies** in the task view.
4. Assign the approval policies in **Add assignments**.
- OR -
Remove the approval policies in **Remove assignments**.
5. Save the changes.

Assigning Requestable Products to a Shelf

Assign global and special shelf templates to company resources. These company resources are added as product nodes to all the shelves that are created. You can only select those company resources that are labeled with the option **IT Shop** and are assigned a service item.

Select one of the tasks in the task view to assign company resources. The tasks are only shown if the options **Assignments permitted** and **Direct assignments permitted** are set on the role class "IT Shop template".

To assign company resources as products to a shelf

1. Select the category **IT Shop | Shelf templates**.
2. Select the rule template in the result list.
3. Select **Assign <company resource>**.
4. Assign company resources in **Add assignments**.
- OR -
Remove company resource in **Remove assignments**.
5. Save the changes.

Related Topics

- [Preparing Products for Requesting](#) on page 18
- [Assigning and Removing Products](#) on page 43
- [Roles Classes](#) on page 163

Shelf Filling Wizard

Use this task to assign special shelf templates to shops and shopping centers. For more information, see [Assigning Shelf Templates to Shops and Shopping Center Templates](#) on page 190.

Assigning Shelf Templates to Shops and Shopping Center Templates

Global shelf templates are immediately distributed to all shops. Assign special shelf templates manually to shops and shopping center templates. You also need to assign shopping center templates to the desired shopping center. This assignment takes place in the shopping center. For more information, see [General Master Data for an IT Shop Structure](#) on page 172.

To assign a special shelf template to shops and shopping center templates

1. Select the category **IT Shop | Shelf templates**.
2. Select a shelf template in the result list.
3. Select the task **Shelf Filling Wizard**.
4. Select the tab **Create/remove shelves**.
5. Select a special shelf template in **Shelf template**.

6. Enable the shops and shopping center template to which to assign this shelf template.
- OR -
Disable the shops and shopping center template whose assignment you want to remove.
7. Click **Apply**.

Table 121: Shelf Filling Wizard

Property	Description
Tab Create/re-move shelves	This shows shops and shopping centers to which shelf templates can be assigned and removed again.
Shelf template	This list displays all available special shelf templates. By default, the shelf template list is preset with the name of shelf template from which the wizard is started.
Filter	<p>This limits the number of shops and shopping center templates displayed. All the entries are displayed that are entered in the character string given in the filter condition. Upper and lower case is not taken into account. The filter takes effect after the shelf template has been reselected in the Shelf templates list.</p> <p>The filter also affects the view on the tab Assignment via shopping center templates.</p>
List of Shops and Shopping Center Templates	<ul style="list-style-type: none"> • To assign a shelf template, check the box next to the desired shop or shopping center template. • Use the button Assign all to assign a template to all shops and shopping center templates. • In order to remove the assignments from all shops, click the button Remove all. • You can select several entry at one time (CTRL + left mouse button or SHIFT + left mouse button) and change the assignments using the button Invert selection. • Click Apply to save the changes.
Tab Assignment via shopping center templates	<p>Once the DBQueue Processor has calculated the assignments, the shops in which a shelf was created from a shopping center template, are displayed on this tab. This only provides an overview. You cannot edit the assignments.</p> <p>The shops displayed are limited through the filter.</p>


Deleting Shelf Templates

Table 122: Configuration Parameter for deleting Shelf Templates

Configuration parameter	Meaning
QER\ITShop\Templates\DeleteRecursive	This configuration parameter specifies whether the recursive deletion is allowed from shelf templates. The configuration parameters is disabled by default.

The configuration parameter "QER\ITShop\Templates\DeleteRecursive" is taken into account on deletion. If the configuration parameter is set, you can delete a shelf template without requiring any further steps. When this shelf template is deleted, the shelves and products connected with this template are also deleted from the shops. Pending requests from these shelves are closed, approved request are canceled. If the parameter is not set, templates cannot be deleted as long as shelves reference it.

To delete shelf templates recursively

1. Set the configuration parameter "QER\ITShop\DeleteRecursive" in the Designer.
2. Select the category **IT Shop | Shelf templates** in the Manager.
3. Select a shelf template in the result list.
4. Click  in the result list toolbar.

The next time the DBQueue Processor runs, the shelves and products connected with this template are also deleted from the shops. Pending requests from these shelves are closed, approved request are canceled.

If the configuration parameter is not set, proceed as follows to delete the shelf template:

To delete a global shelf template

1. Select the category **IT Shop | Shelf templates**.
2. Select the global shelf template in the result list.
3. Remove all assigned products.

For more information, see [Assigning Requestable Products to a Shelf](#) on page 189.


4. Save the changes.

All assignments of these products to shelves are removed when the DBQueue Processor runs the next time. Then, the shelf template can be deleted.


5. Click  in the result list toolbar.

All shelves based on this template are deleted when the DBQueue Processor runs the next time.

To delete a special shelf template

1. Select the category **IT Shop | Shelf templates**.
2. Select the special shelf template in the result list.
3. Remove all assigned products.
For more information, see [Assigning Requestable Products to a Shelf](#) on page 189.
4. Save the changes.
All assignments of these products to shelves are removed when the DBQueue Processor runs the next time.
5. Remove all assignments of the shelf template to shops and shopping center templates.
For more information, see [Assigning Shelf Templates to Shops and Shopping Center Templates](#) on page 190.
All shelves based on this template are deleted when the DBQueue Processor runs the next time.
6. Click  in the result list toolbar.

To delete a shopping center template

1. Select the category **IT Shop | Shelf templates**.
2. Select the shopping center template in the result list.
3. Delete all shopping center assignments.
For more information, see [General Master Data for an IT Shop Structure](#) on page 172.
All shelves based on this template are deleted when the DBQueue Processor runs the next time.
4. Delete all special shelf template assignments to the shopping center template.
For more information, see [Assigning Shelf Templates to Shops and Shopping Center Templates](#) on page 190.
5. Click  in the result list toolbar.


Creating Custom Mail Templates for Notifications

Mail templates are used to send email messages to requesters and approvers. For more information, see [Notifications in the Request Process](#) on page 141.

A mail template consists of general master data such as target format, important or mail notification confidentiality and one or more mail definitions. Mail text is defined in several languages in the mail template. This ensures that the language of the recipient is taken into account when the email is generated.

There is a One Identity Manager in the Mail Template Editor to simplify writing notifications. You can use the Mail Template Editor to create and edit mail text in WYSIWYG mode.

To edit mail templates

1. Select the category **IT Shop | Basic configuration data | Mail templates**.
This shows all the mail templates that can be used for requests in the result list. IT Shop
2. Select the mail template in the result list. Select **Change master data** in the task view.
– OR –
Click  in the result list toolbar.
This opens the mail template editor.
3. Edit the mail template.
4. Save the changes.


To copy a mail template

1. Select the category **IT Shop | Basic configuration data | Mail templates**.
2. Select the mail template you want to copy from the result list. Select **Change master data** in the task view.
3. Select **Copy mail template...** in the task view.
4. Enter the name of the new mail template in **Name of copy**.
5. Click **OK**.

To display a mail template preview

1. Select the category **IT Shop | Basic configuration data | Mail templates**.
2. Select the template in the result list. Select **Change master data** in the task view.
3. Select **Preview...** in the task view.
4. Select the base object.
5. Click **OK**.



To delete a mail template

1. Select the category **IT Shop | Basic configuration data | Mail templates**.
2. Select the template in the result list.
3. Click  in the result list toolbar.
4. Confirm the security prompt with **Yes**.

General Properties of a Mail Template

The following general properties are displayed for a mail template:

Table 123: Mail Template Properties

Property	Meaning								
Mail template	Name of the mail template. This name will be used to display the mail templates in the administration tools and in the Web Portal. Translate the given text using the  button.								
Base object	Mail template base object. A base object only needs to be entered if the mail definition properties of the base object are referenced. Use the base object PersonWantsOrg or PW0He1perPW0 for notifications in the IT Shop.								
Report (parameter set)	Report, made available through the mail template.								
Description	Mail template description. Translate the given text using the  button.								
Target format	Format in which to generate email notification. Permitted values are: <table border="1" data-bbox="419 1043 1394 1272"> <thead> <tr> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>HTML</td> <td>The email notification is formatted in HTML format. HTML format can contain formatting.</td> </tr> <tr> <td>TXT</td> <td>The email notification is formatted in text format. Text format cannot contain any formatting.</td> </tr> </tbody> </table>	Value	Description	HTML	The email notification is formatted in HTML format. HTML format can contain formatting.	TXT	The email notification is formatted in text format. Text format cannot contain any formatting.		
Value	Description								
HTML	The email notification is formatted in HTML format. HTML format can contain formatting.								
TXT	The email notification is formatted in text format. Text format cannot contain any formatting.								
Design type	Design in which to generate the email notification. Permitted values are: <table border="1" data-bbox="419 1368 1394 1742"> <thead> <tr> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Mail template</td> <td>The generated email notification contains mail text corresponding to the mail definition.</td> </tr> <tr> <td>Report</td> <td>The email notification is generated with the report contained under Report (parameter set) as mail body.</td> </tr> <tr> <td>Mail template, report as attachment</td> <td>The generated email notification contains mail text corresponding to the mail definition. The report entered in the Report (parameter set) field is attached to the mail as PDF file.</td> </tr> </tbody> </table>	Value	Description	Mail template	The generated email notification contains mail text corresponding to the mail definition.	Report	The email notification is generated with the report contained under Report (parameter set) as mail body.	Mail template, report as attachment	The generated email notification contains mail text corresponding to the mail definition. The report entered in the Report (parameter set) field is attached to the mail as PDF file.
Value	Description								
Mail template	The generated email notification contains mail text corresponding to the mail definition.								
Report	The email notification is generated with the report contained under Report (parameter set) as mail body.								
Mail template, report as attachment	The generated email notification contains mail text corresponding to the mail definition. The report entered in the Report (parameter set) field is attached to the mail as PDF file.								
Importance	Importance for the email notification. Permitted values are "low", "normal" and "high".								

Property	Meaning
Confidentiality	Confidentiality for the email notification. Permitted values are "normal", "personal", "private" and "confidential".
Can unsubscribe	Specifies whether the recipient can unsubscribe email notification. If this option is set, the emails can be unsubscribed through the Web Portal.
Disabled	Specifies whether this mail template is disabled.
Mail definitions	Unique name for the mail definition.
Language culture	Language which applies to the mail template.
Subject	Subject of the email message
Mail body	Content of the email message.

Creating and Editing an Email Definition

Mail texts can be defined in these different languages in a mail template. This ensures that the language of the recipient is taken into account when the email is generated.

To create a new mail definition

1. Open the mail template in Mail Template Editor.
2. Click the  button next to the **Mail definition** list.
3. Select the language culture you want the mail definition to apply to from the **Language culture** menu.
All active language cultures are shown in the list. To use other languages, enable the corresponding countries in the Designer. For more information, see the One Identity Manager Configuration Guide.
4. Enter the subject in the **Subject** field.
5. Edit the mail text in the **Mail definition** view with the help of the Mail Text Editor.
6. Save the changes.

To edit an existing mail definition

1. Open the mail template in Mail Template Editor.
2. Select the language in the **Mail definition** list.
3. Edit the mail subject line and the body text.
4. Save the changes.

Using Base Object Properties

You can use all the properties of the object entered under **Base object** in the subject line and in the mail body. You can also use the object properties that are referenced by foreign key relation.

To access properties use dollar notation. For more information, see the One Identity Manager Configuration Guide.

Example

An IT Shop requester should receive email notification about the status of the request.

Table 124: Email Notification Properties

Property	Value
Base object	PersonWantsOrg
Subject	"\$DisplayOrg[D]\$" status change
Mail body	Dear \$FK(UID_PersonOrdered).Salutation[D]\$ \$FK(UID_PersonOrdered).FirstName\$ \$FK(UID_PersonOrdered).LastName\$, The status was changed on the following request on \$DateHead:Date\$. Requested by: \$DisplayPersonInserted\$ Requested by: \$DisplayPersonInserted\$ Reason: \$OrderReason\$ Current status of your request: Approval: granted Approver: \$DisplayPersonHead[D]\$. Reason: \$ReasonHead[D]\$.

The generated email notification could look like the following, for example, once it has been formatted:

Subject: "Service Notebook" status change

Dear Ms Monica Fletcher,

The status was changed on the following request on 03/08/2011 11:14:53.

Product: Service Notebook
Requested by: Fletcher, Monica
Reason: For on-site processing

Current status for your request:

Approval: granted
Approver: Rippington, Rudiger
Reason: approved

Use of Hyperlinks in the Web Portal

Table 125: Configuration Parameters for the Web Portal URL

Configuration parameter	Active Meaning
QER\WebPortal\BaseURL	Web Portal URL This address is used in mail templates to add hyperlinks to the Web Portal.

You can insert hyperlinks to the Web Portal in the mail body. If the recipient clicks on the hyperlink in the email, the Web Portal is opened on that web page and further actions can be carried out. In the default version, this method is implemented for IT Shop requests.

Prerequisites for using this method

- The configuration parameter "QER\WebPortal\BaseURL" is set and contains the Web Portal URL.

`http://<Server>/<App>`

with:

`<Server>` = Server name

`<App>` = Web Portal installation directory path

To add a hyperlink to the Web Portal into the mail text

1. Click in the mail body at the point where you want to add the hyperlink.
2. Open the context menu and select **Hyper Link...**
3. Enter the hyperlink in **Display text**.
4. Set the option **File or website**.
5. Enter the address of the page to be opened in the Web Portal in **Address**.
Use the default functions.
6. To accept the input, click **OK**.

Default Functions for Creating Hyperlinks

Several default functions are available to help you create hyperlinks. You can use these functions to directly insert a hyperlink in a mail body or into processes.

Direct Function Input

A function is referenced in the **Address** field when a hyperlink is inserted:

`$Script(<Function>)$`

Example:

`$Script(VI_BuildITShopLink_Show_for_Requester)$`

Default Functions for IT Shop Requests

The script `VI_BuildITShopLinks` contains a collection of default functions for composing hyperlinks to directly grant or deny approval of IT Shop requests from email notifications.

Table 126: Functions of the Script "VI_BuildITShopLinks"

Function	Usage
<code>VI_BuildITShopLink_Show_for_Approver</code>	Opens the overview page for request approval in the Web Portal.
<code>VI_BuildITShopLink_Show_for_Requester</code>	Opens the overview page for requests in the Web Portal.
<code>VI_BuildITShopLink_Approve</code>	Approves a request and opens the approvals page in the Web Portal.
<code>VI_BuildITShopLink_Deny</code>	Denies a request and opens the approvals page in the Web Portal.
<code>VI_BuildITShopLink_Unsubscribe</code>	Opens the email notification configuration page in the Web Portal. This function is used in processes for unsubscribing email notifications.
<code>VI_BuildITShopLink_AnswerQuestion</code>	Opens the page for answering a question in the Web Portal.
<code>VI_BuildITShopLink_Reject</code>	Opens the page with denied requests in the Web Portal.
<code>VI_BuildAttestationLink_Pending</code>	Opens the page with pending requests in the Web Portal.
<code>VI_BuildITShopLink_Unsubscribe</code>	Creates the link for canceling email notification.

Customizing Email Signatures

Configure the email signature for mail templates using the following configuration parameter.

Table 127: Configuration Parameters for Email Signatures

Configuration Parameter	Description
<code>Common\MailNotification\Signature</code>	Data for the signature in email automatically generated from mail templates.
<code>Common\MailNotification\Signature\Caption</code>	Signature under the salutation.

Configuration Parameter	Description
Common\MailNotification\Signature\Company	Company name.
Common\MailNotification\Signature\Link	Link to company website.

The script `VI_GetRichMailSignature` combines the components of an email signature according to the configuration parameters for use in mail templates.

Custom Notification Processes

Set up customized processes to send more email notifications within a request. For more detailed information, see the [One Identity Manager Configuration Guide](#).

You can use following events for generating processes.

Table 128: Events on Object PWOHe1perPWO

Event	Triggered by
DecisionRequired	Creating a new request.
Remind	Sequence of reminder intervals.

request templates

Table 129: Configuration Parameters for Using Request Templates

Configuration parameter	Meaning
QER\ITShop\ShoppingCartPattern	This configuration parameter specifies whether request templates can be used in the IT Shop.

If you wish to request products in the Web Portal, select the products you want from a service catalog and place them in the cart. The products remain in the cart until you send the request. You can save all the products in your cart or just individual ones in a request template so that you can reuse the products in the cart for future requests. You can add or delete products to request templates at anytime.


To use a request template

- Set the configuration parameter "QER\ITShop\ShoppingCartPattern" in the Designer.

Request templates can be created in the Web Portal and the Manager. In the following you will find out how to set up request templates with the Manager. For more information, see the [One Identity Manager Web Portal User Guide](#).

Editing Request Templates

To edit a request template

1. Select the category **IT Shop | Request templates**.
2. Select a request template in the result list. Select **Change master data** in the task view.
- OR -
Click  in the result list toolbar.
3. Edit the request template's master data.
4. Save the changes.

General Master Data for a Request Template

Table 130: Configuration Parameters for Using Request Templates

Configuration parameter	Meaning
QER\ITShop\ShoppingCartPattern\AutoQualified	This configuration parameter specifies whether public request templates are automatically labeled as "shared" or whether they have to be manually shared by a manager.

Enter the following properties on the **General** tab:

Table 131: General Master Data for a Request Template

Property	Description
Request template	Name of the request template.
Name	A freely chosen additional name for the request template.
Short name	Short name for the request template.
Voucher number	A combination of any characters to uniquely identify the request template. If you leave this field empty, the One Identity Manager automatically allocates a number.
Owner	The employee that set up the template is automatically entered as the owner. This value can be changed at any time.
Description	Spare text box for additional explanation.

Property	Description
Public template	Specifies whether the request template is available to all One Identity Manager users.
Shared	<p>Specifies whether the request template is can be used by all One Identity Manager users. This option can only be changed in Manager through the user with the application role Request & Fulfillment IT Shop Administrators.</p> <p>If the option Public template is not set on a shared template, the option Shared is also disabled.</p>

Request templates can be automatically share once the option **Public template** has been set.

To automatically share request templates

- Set the configuration parameter "QER\ITShop\ShoppingCartPattern\AutoQualified" in the Designer.



Cart Items

Use the **Cart items** tab to assign the product.

To add a new request item to the request template


- Click  .
The data fields for entering properties are shown.

Table 132: Cart Items

Property	Description
Product	<p>Products that can be requested with this request template. All service items are shown in the menu, whose products are assigned to at least one shelf in the IT Shop.</p> <ul style="list-style-type: none"> • To add more products to the request template, click  . • To delete a request item, click .
Quantity	<p>Number of products to request.</p> <p>You need to customize your Web Portal in order to use these values. For more detailed information, see the One Identity Manager Web Designer Reference Guide.</p>
Additional request data	Additional information is required for the request.

Deleting Request Templates

To delete a request template

1. Select the category **IT Shop | Request templates**.
2. Select a request template in the result list.
3. Click  in the result list toolbar.

i **NOTE:** Every owner can delete his own request templates in the Web Portal. One Identity Manager users with the application role **Request & Fulfillment | IT Shop | Administrators** can delete the request templates of all administrators.

Default Solution for Requesting System Entitlements

In One Identity Manager, default products and default approval workflows are available for requesting Active Directory groups and SharePoint groups, as well as membership in these groups, through the IT Shop. Entitlements in this target system are therefore issued by defined approval process. Product owners and target system managers can edit these system entitlement properties and request changes in the Web Portal.

For more detailed information, see the One Identity Manager Web Portal User Guide.

NOTE: In order to publish the requested changes in the target system, you have to set up synchronization with the target system environment. Provisioning processes and workflows must be configured.

For more detailed information about setting up synchronization, see the One Identity Manager Administration Guide for Connecting to Active Directory and the One Identity Manager Administration Guide for Connecting to SharePoint.

Detailed information about this topic

- [Adding a SharePoint group](#) on page 204
- [Adding an Active Directory group](#) on page 205
- [Modifying an Active Directory group](#) on page 206
- [Deleting an Active Directory group](#) on page 206
- [Requesting Groups Memberships](#) on page 207

Adding a SharePoint group

Installed Module: SharePoint Module

Table 133: Default Product for Requesting a SharePoint Group

Product	Adding an SharePoint group
Service category	SharePoint groups
Shelf	Identity & Access Lifecycle Group Lifecycle
Approval policies/approval workflows	Approval of SharePoint group create requests

New SharePoint groups can be added in SharePoint using these default products. The requester provides information about the name and site collection, if known, of the request. Based on this information, the target system manager specifies the container, in which the group will be added and grants approval for the request. The group is added One Identity Managerin and published in the target system.

Prerequisite

- Employees are assigned to the application role **Target systems | SharePoint**.

If the configuration parameter "QER\ITShop\GroupAutoPublish" is set, the group is added to the IT Shop and the assigned to the shelf "Identity & Access Lifecycle\SharePoint groups". The group is assigned to the existing service category.

Adding an Active Directory group

Installed Module: Active Directory Module

Table 134: Default Product for Requesting an Active Directory Group

Products	Adding an Active Directory security group Adding an Active Directory distribution group
Service categories	Active Directory groups
Shelf	Identity & Access Lifecycle Group Lifecycle
Approval policies/approval workflows	Approval of Active Directory group create requests

By requesting this default product, you can add new security groups or distribution groups in the Active Directory. The requester provides information about the name, container and domain, if known, of the request. Based on this information, the target system manager specifies the container, in which the group will be added and grants approval for the request. The group is added in One Identity Manager and published in the target system.

Prerequisite

- Employees are assigned to the application role **Target systems | Active Directory**.

If the configuration parameter "QER\ITShop\GroupAutoPublish" is set, the group is added to the IT Shop and the assigned to the shelf "Identity & Access Lifecycle\Active Directory groups". The group is assigned to the service category "Security group" or "Distribution group" respectively.

Modifying an Active Directory group

Installed Module: Active Directory Module

Table 135: Default Product for Modifying an Active Directory Group

Product	Modifying an Active Directory group
Service category	Not assigned
Shelf	Identity & Access Lifecycle Group Lifecycle
Approval policies/approval workflows	Approval of Active Directory group change requests

Product owners and target system managers can request modifications to the group type and group scope of Web Portal groups in the Active Directory. The target system manager must grant approval for these changes. The changes are published in the target system.

Prerequisites

- The group can be requested in the IT Shop.
- Employees are assigned to the application role **Target systems | Active Directory**.

Deleting an Active Directory group

Installed Module: Active Directory Module

Table 136: Default Product for Deleting an Active Directory Group

Product	Deleting an Active Directory group
Service category	Not assigned

Shelf	Identity & Access Lifecycle Group Lifecycle
Approval policies/approval workflows	Approval of Active Directory group deletion requests

Product owners and target system managers can request deletion of an Web Portal group in the Active Directory. The product owner or target system manager must grant deletion approval. The group is deleted in One Identity Manager and the change is published.

Prerequisites

- The group can be requested in the IT Shop.
- Employees are assigned to the application role **Target systems | Active Directory**.

Requesting Groups Memberships

Installed Module: Active Directory Module
SharePoint Module

Table 137: Default Objects for Requesting Group Memberships

Shelves:	Identity & Access Lifecycle\Active Directory groups "Identity & Access Lifecycle\SharePoint groups
Approval policies/approval workflows	Approval of Active Directory group membership requests Approval of Active Directory group membership II requests (if Active Roles Module is installed) Approval of group membership requests

Product owners and target system managers can request members for groups in these shelves in the Web Portal. The respective product owner or target system manager must grant approval for this modification. The changes are published in the target system.

Related Topics

- [Adding Groups Automatically to the IT Shop](#) on page 67
- [Adding an Active Directory group](#) on page 205

Troubleshooting

Timeout on Saving Requests

If new requests are saved in bulk in the database a timeout may occur, after importing data, for example.

Probable reason

By default, the approvers responsible are determined during saving. This delays the saving process. No more actions can take place in One Identity Manager until all requests are saved and therefore, all approvers have been found. Depending on the system configuration, this may cause a timeout to occur when large amounts of data are being processed.

Solution

- Disable the configuration parameter "QER\ITShop\DecisionOnInsert" in the Designer.

Effect

- The requests are saved and a calculation task for determining approvers is queued in the DBQueue. Approvers responsible are determined outside the save process.
- If the requester is also the approver, the approval step is not automatically granted approval. Approvers must explicitly approve their own requests. For more information, see [Automatic Request Approval](#) on page 118.
- Automatic approval decisions are also met if necessary, but delayed. This affects requests with self-service, for example.

Bulk Delegation Failure

You have the option to delegate all your responsibilities to one person in the Web Portal. If you have a lot of responsibilities, it is possible that not all the delegations are carried out. A

delegators can send a notification to themselves if an error occurs.

Probable reason

An error occurred processing delegations. The process VI_ITShop_Person Mass Delegate was aborted, although only a proportion of the delegations has been applied.

Solution

1. Configure the notification procedure.
For more information, see [Bulk Delegation Notifications](#) on page 151.
2. Run all remaining delegations again in the Web Portal.

Configuration parameters for IT Shop

Additional configuration parameters for the IT Shop are available in the One Identity Manager. Some general configuration parameters are also relevant for the IT Shop. The following table contains a summary of all applicable configuration parameters for IT Shop.

Table 138: Overview of Configuration Parameters

Configuration parameter	Description
QER\ITShop	Preprocessor relevant configuration parameter to control the component parts for the IT Shop. If the parameter is set, the IT Shop components are available. Changes to the parameter require recompiling the database.
QER\ITShop\AutoDecision	This configuration parameter controls automatic approval of IT Shop request over several approval levels.
QER\ITShop\ChallengeRoleRemoval	General configuration parameter for dealing with role assignments that are modified by data import. Removal of role memberships can be challenged with the help of temporary requests.
QER\ITShop\ChallengeRoleRemoval\DaysOfValidity	This configuration parameter contains the validity period (in days) of temporary requests for challenged role memberships.
QER\ITShop\ChallengeRoleRemoval\Department	Temporary requests of department memberships are supported.
QER\ITShop\ChallengeRoleRemoval\Department\Primary	Temporary membership of the previous department is requested if changes are made to the primary membership in departments.
QER\ITShop\ChallengeRoleRemoval\ITShopOrg	This configuration contains product node, which is assigned to assignment resource to be requested.
QER\ITShop\ChallengeRoleRemoval\Locality	Temporary requests of location memberships are supported.

Configuration parameter	Description
QER\ITShop\ChallengeRoleRemoval\Locality\Primary	Temporary membership of the previous location is requested if changes are made to the primary membership in locations.
QER\ITShop\ChallengeRoleRemoval\Org	Temporary requests of business role memberships are supported.
QER\ITShop\ChallengeRoleRemoval\Org\Primary	Temporary membership of the previous business role is requested if changes are made to the primary membership in business roles.
QER\ITShop\ChallengeRoleRemoval\ProfitCenter	Temporary requests of cost center memberships are supported.
QER\ITShop\ChallengeRoleRemoval\ProfitCenter\Primary	Temporary membership of the previous cost center is requested if changes are made to the primary membership in cost centers.
QER\ITShop\DecisionOnInsert	This configuration parameter controls approval of a request the moment it is added.
QER\ITShop\DefaultSenderAddress	This configuration parameter contains the sender email address for automatically generated messages within the IT Shop.
QER\ITShop\Delegation	Preprocessor relevant configuration parameter for controlling model components for delegation and role membership. Changes to the parameter require recompiling the database. If the parameter is set, delegation components are available.
QER\ITShop>DeleteClosed	This configuration parameter specifies whether closed requests are deleted.
QER\ITShop>DeleteClosed\Aborted	This configuration parameter specifies the maximum retention time (in days) of aborted requests.
QER\ITShop>DeleteClosed\Dismissed	This configuration parameter specifies the maximum retention time (in days) of denied requests.
QER\ITShop>DeleteClosed\Unsubscribed	This configuration parameter specifies the maximum retention time (in days) of

Configuration parameter	Description
	canceled requests.
QER\ITShop\GapBehavior	Defines behavior when checking the validity period of new requests.
QER\ITShop\GapBehavior\GapDefinition	This configuration parameter specifies which requests are checked.
QER\ITShop\GapBehavior\GapFitting	This configuration parameter specifies whether validity periods of two or more pending requests can overlap.
QER\ITShop\GroupAutoPublish	Preprocessor relevant configuration parameter for automatically adding groups to the IT Shop. This configuration parameter specifies whether all Active Directory and SharePoint target system groups are automatically added to the IT Shop. Changes to the parameter require recompiling the database.
QER\ITShop\LimitOfNodeCheck	Maximum number of product nodes that can be generated by a DBQueue Processor run. Once this number has been exceeded, a task for generating the rest of the nodes is queued in the DBQueue.
QER\ITShop\MailApproval\Inbox	Microsoft Exchange mailbox used for "Approval by mail" processes.
QER\ITShop\MailApproval\Account	Name of user account for authentication of "Approval by mail" mailbox.
QER\ITShop\MailApproval\DeleteMode	Specifies the way emails are deleted from the inbox.
QER\ITShop\MailApproval\Domain	Domain of user account for authentication of "Approval by mail" mailbox.
QER\ITShop\MailApproval\ExchangeURI	Specifies the Exchange Web Service URL. AutoDiscover mode is used to find the URL if it is not given.
QER\ITShop\MailApproval>Password	Password of user account for authentication of "Approval by mail" mailbox.
QER\ITShop\MailTemplateIdents\AnswerToApprover	This mail template is used to send a notification with an answer to a question from an approver.

Configuration parameter	Description
QER\ITShop\MailTemplateIdents\InformAddingPerson	This mail template is used to notify approvers that an approval decision has been made for the step they added.
QER\ITShop\MailTemplateIdents\InformDelegatingPerson	This mail template is used to notify approvers that an approval decision has been made for the step they delegated.
QER\ITShop\MailTemplateIdents\InformRecipientAboutUnsubscribe	Mail template, which is used to notify a request recipient that a request was unsubscribed by another person.
QER\ITShop\MailTemplateIdents\ITShopApproval	Mail template used for requests made through "Approval by mail".
QER\ITShop\MailTemplateIdents\QueryFromApprover	This mail template is used to send a notification with a question from an approver to an employee.
QER\ITShop\MailTemplateIdents\RequestApproverByCollection	This mail template is used for generating an email when there are pending requests for an approver. If this configuration parameter is not set, a "Mail template demand" or "Mail template reminder" for single approval steps can be entered to send an email for each request. If this configuration parameter is set, single mails are not sent.
QER\ITShop\PersonInsertedNoDecide	The configuration parameter specifies whether the employee that trigger the request may approve it.
QER\ITShop\PersonOrderedNoDecide	This configuration parameter specifies whether the employee that the request was triggered for, may approve it.
QER\ITShop\PersonInsertedNoDecideCompliance	This configuration parameter specifies whether the employee that initiated the request can also approve it in cases of compliance violation.
QER\ITShop\PersonOrderedNoDecideCompliance	This configuration parameter specifies whether the employee for whom a request has been initiated, can also approve it in cases of compliance violation.
QER\ITShop\ReducedApproverCalculation	This configuration parameter specifies,

Configuration parameter	Description
	which approval steps are recalculated if the IT Shop approver must be recalculated.
QER\ITShop\ReuseDecision	This configuration parameter specifies whether the approval decision of an approver should be applied to all approval steps in the procedure which are made by him or her.
QER\ITShop\ShoppingCartPattern	This configuration parameter specifies whether request templates can be used in IT Shop.
QER\ITShop\ShoppingCartPattern\AutoQualified	This configuration parameter specifies whether public request templates are automatically labeled as "shared" or whether they have to be manually shared by a manager.
QER\ITShop\ShowClosedAssignmentOrders	<p>This configuration parameter specifies whether the Manager of an organization or business role can view completed assignment requests for their organization or business role.</p> <p>If this parameter is not set, the manager can only view open assignment requests for their organization or business role.</p>
QER\ITShop\Templates	Preprocessor relevant configuration parameter for controlling the database model components for the Shelf Filling Wizard. Changes to the parameter require recompiling the database. Shelf templates can be used. Changes to the parameter require recompiling the database.
QER\ITShop\Templates>DeleteRecursive	This configuration parameter specifies whether the recursive deletion is allowed from shelf templates. The configuration parameters is disabled by default.
Common\MailNotification\Signature	Data for the signature in email automatically generated from mail templates.
Common\MailNotification\Signature\Caption	Signature under the salutation.

Configuration parameter	Description
Common\MailNotification\Signature\Company	Company name.
Common\MailNotification\Signature\Link	Link to company website.
QER\ComplianceCheck\DisableSelfExceptionGranting	Excludes rule violators from becoming exception approvers. If this parameter is set, no one can approve their own rule violations.
QER\ComplianceCheck\EnableITSettingsForRule	IT Shop properties for the compliance rule are visible and can be edited.
QER\Person\Defender	This configuration parameter specifies whether Starling Two-Factor Authentication is supported.
QER\Person\Defender\ApiEndpoint	This configuration parameter contains the URL of the Starling 2FA API end point used to register new users.
QER\Person\Defender\ApiKey	This configuration parameter contains your company's subscription key for accessing the Starling Two-Factor Authentication interface.
QER\Person\Defender\DisableForceParameter	This configuration parameter specifies whether Starling 2FA is forced to send the OTP by SMS or phone call if one of these options is selected for multi-factor authentication. If the configuration parameter is set, Starling 2FA can disallow the request and the user must request the OPT through Starling 2FA.
QER\WebPortal	General configuration parameter for Web Portal settings.
QER\WebPortal\BaseURL	Web Portal URL This address is used in mail templates to add hyperlinks to the Web Portal.
QER\WebPortal\DisplayName	This configuration parameter contains the Web Portal display name. This name is used in mail templates.
QER\WebPortal\PersonChangeWorkdesk	This configuration parameter specifies whether Web Portal users can change their default workdesk. If the configuration

Configuration parameter**Description**

QER\WebPortal\ShowProductImages

parameter is set, users can relocate their workdesk through the Web Portal.

This configuration parameter specifies whether picture of products are displayed in the Web Portal.

Request Statuses

The following table gives an overview of all statuses a request can have.

Table 139: Request Statuses

Status	Description
New	A product was requested. The request was added in the database.
Request	The request is currently in the approval process. An approval decision has not yet been reached.
Approved	The approval process is complete. The request is granted approval.
Pending	The request is granted approval. A valid from date was given in the request. This date has not been reached yet.
Assigned	The request was granted approval and assigned.
Renewal	The request with limited validity was assigned. A renewal has been applied for and is in the approval process. An approval decision has not yet been reached.
Canceled	This product was canceled. The cancellation is currently in the approval process. An approval decision has not yet been reached.
Unsubscribed	The approval process is complete. The cancellation was granted approval.
Denied	The approval process is complete. The request was denied approval.
Aborted	The request was aborted by a user or for technical reasons.

Pending requests: Requests with the status new, request, approved, pending, assigned, renewal, canceled.

Approved requests: Requests with the status approved, pending, assigned, renewal, canceled.

Assigned requests: Requests with the status assigned, renewal, canceled.

Closed requests: Requested with the status unsubscribed, denied, aborted.

Example of Request Results

Request results differ depending on whether a simple or multiple request resource, or an assignment is requested. The following graphics clarify the differences:

Figure 14: Request for a single request resource

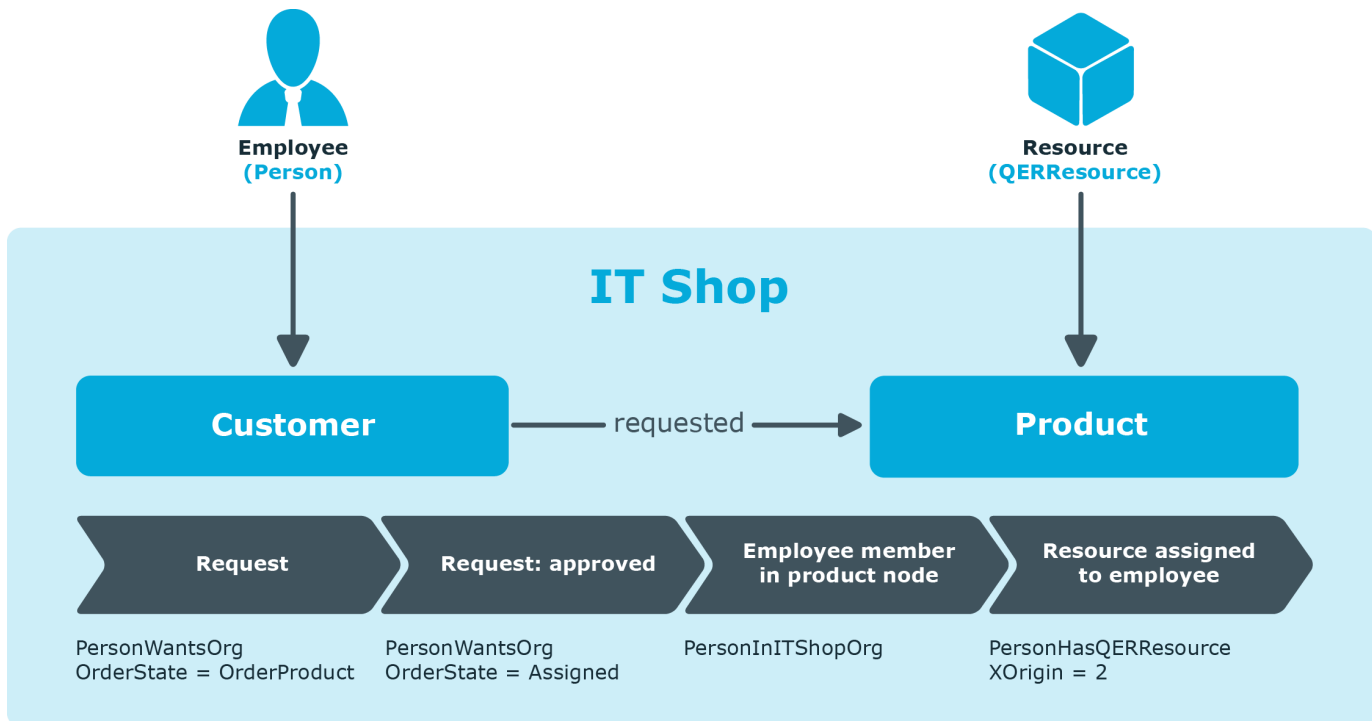


Figure 15: Request for a multi request resource

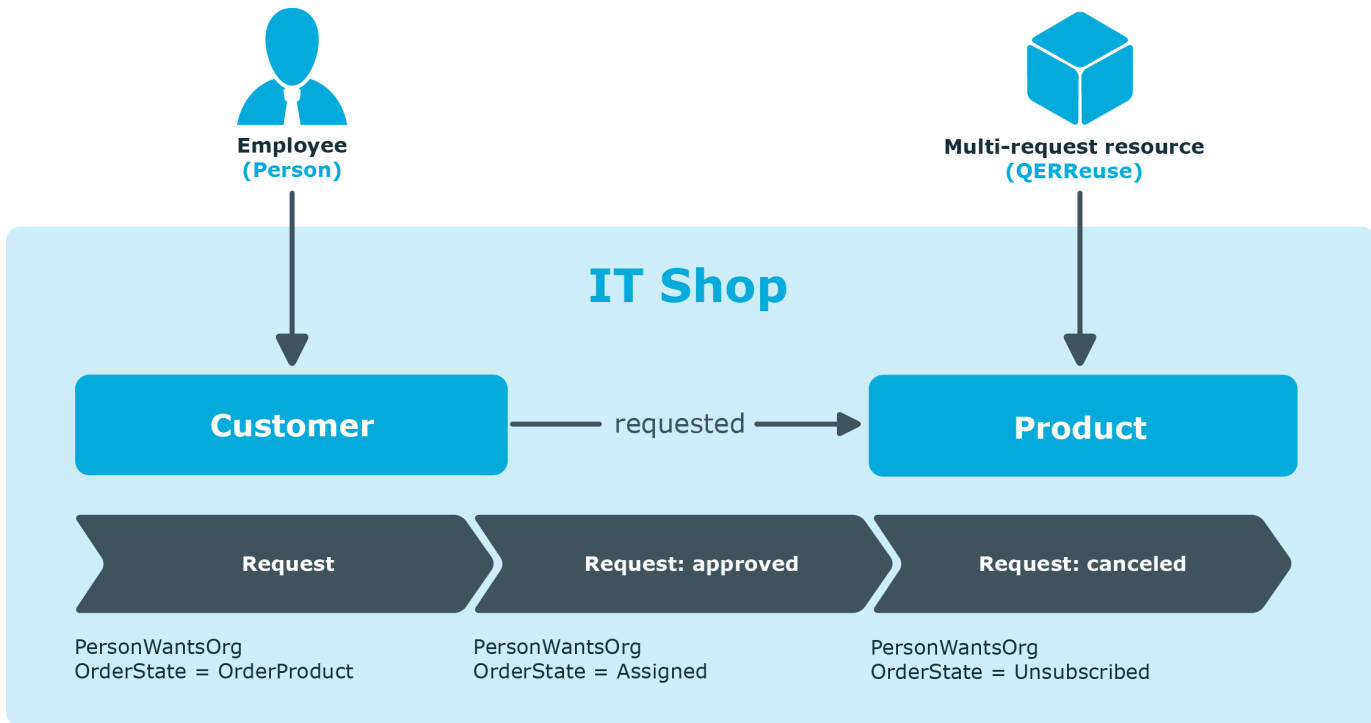


Figure 16: Request for a requestable/unsubscribable resource

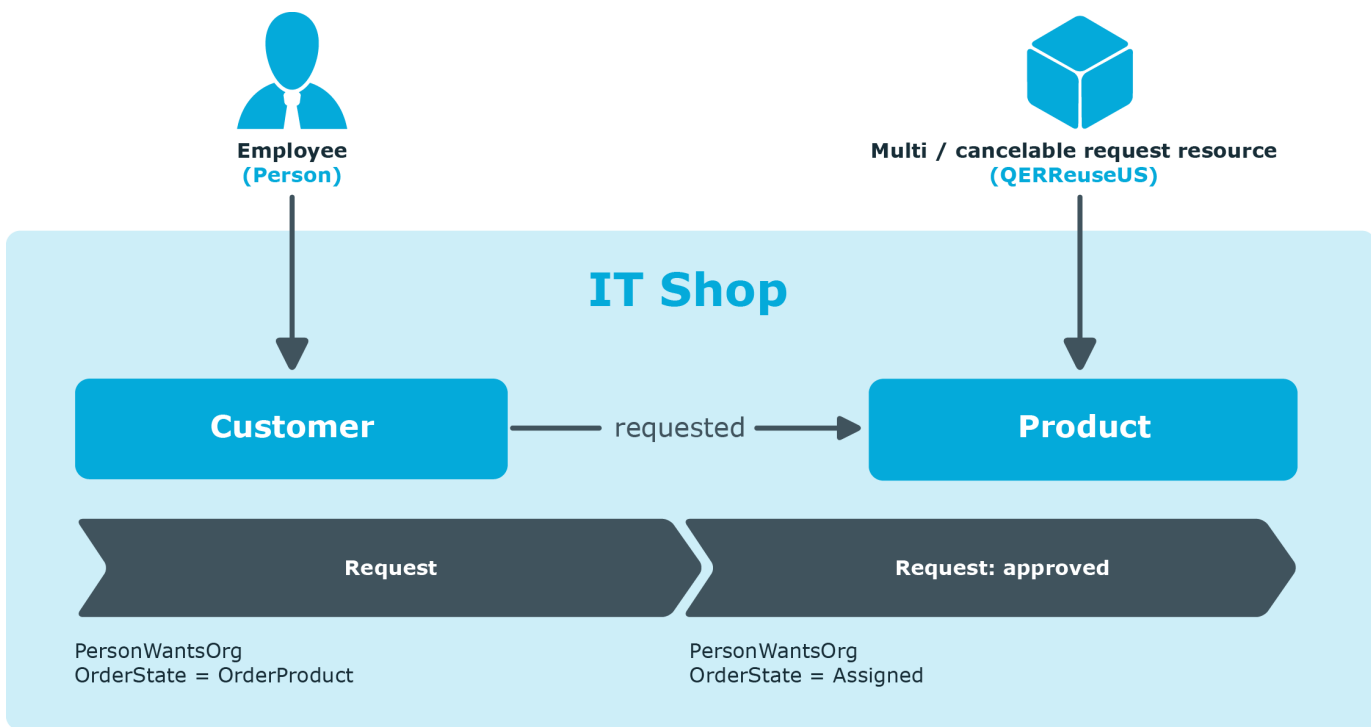


Figure 17: Request for a department membership

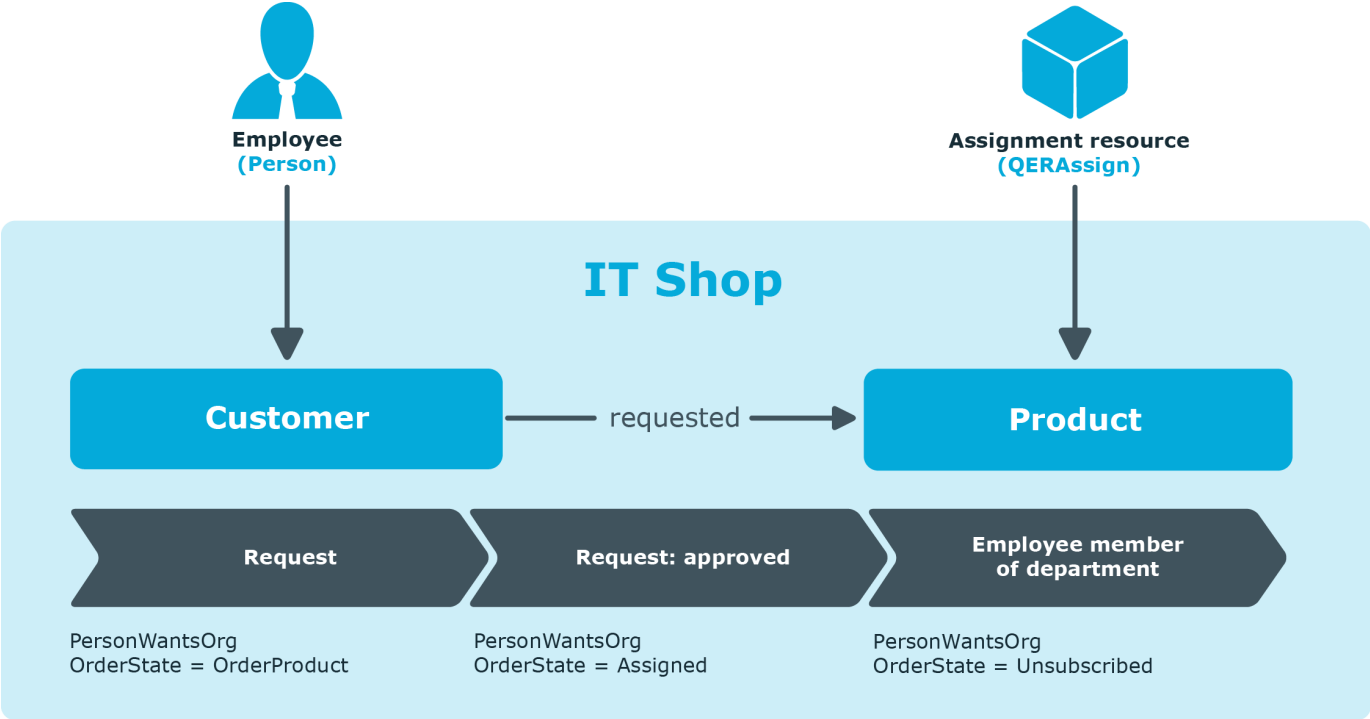
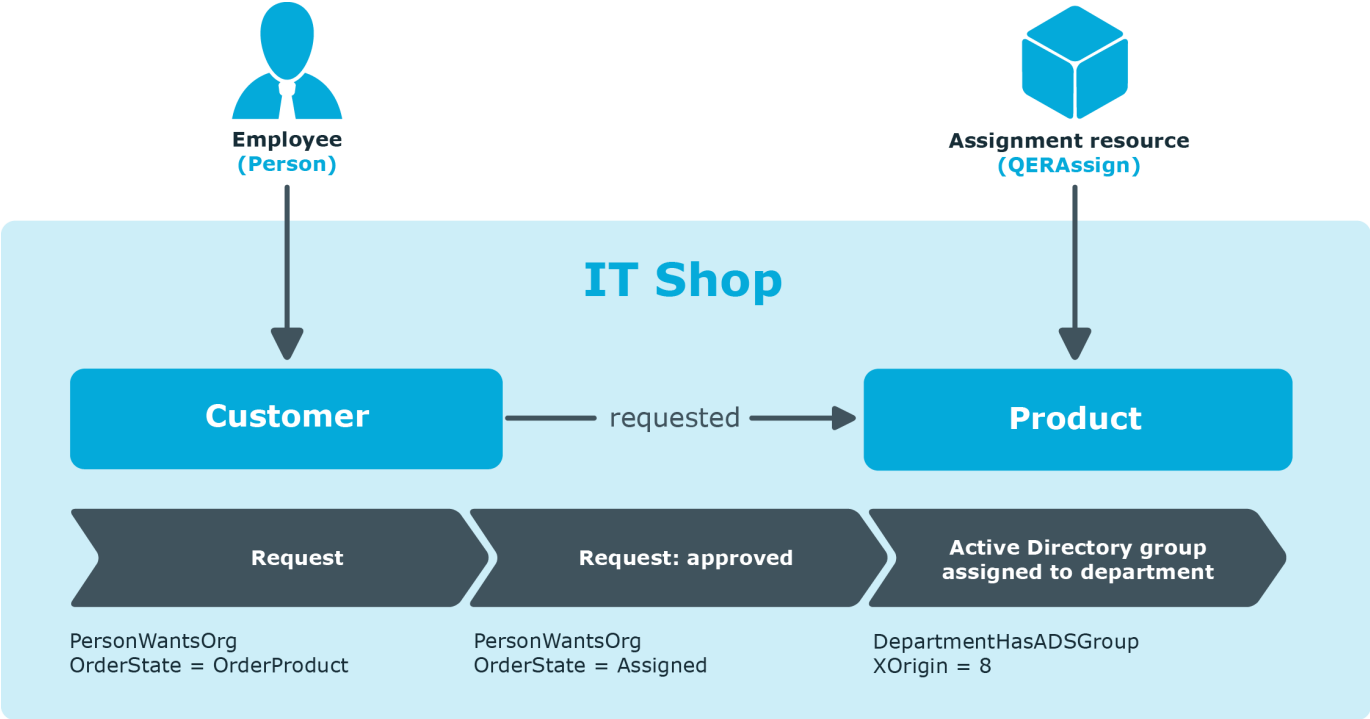


Figure 18: Request for assignment of an Active Directory group to a department



One Identity solutions eliminate the complexities and time-consuming processes often required to govern identities, manage privileged accounts and control access. Our solutions enhance business agility while addressing your IAM challenges with on-premises, cloud and hybrid environments.

Contacting us

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Technical support resources

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The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. The Support Portal enables you to:

- Submit and manage a Service Request
- View Knowledge Base articles
- Sign up for product notifications
- Download software and technical documentation
- View how-to videos at www.YouTube.com/OneIdentity
- Engage in community discussions
- Chat with support engineers online
- View services to assist you with your product

A

- administrator 11
- application role
 - administrator 11
 - attestors 164
 - chief approval team 105, 167
 - clean up 70
 - delete 70
 - delete obsolete product owner 70
 - product owners 11, 166
- approval 82
- approval level
 - connect 82
 - edit 78
- approval policies
 - approval workflow 72-73
 - assign 175, 189
 - cancellation workflow 72
 - create 71
 - determine 84
 - effective 84
 - mail template 72
 - priority 72
 - renewal workflow 72
 - role type 72
 - validity check 73
 - verify 74
- approval procedure 78, 85
 - add 101
 - approvals made externally 99
 - calculated approval 97
 - Complianceprüfung (vereinfacht) 108
 - condition 102
 - custom 101
 - delete 104
 - escalation 121
 - exception approver for worst rule violation 111
 - manager of cost center provided in request 94
 - manager of department in request 94
 - manager of recipient's cost center 89
 - manager of recipient's department 89
 - manager of shelf's cost center 88
 - manager of shelf's department 88
 - manager of shop's cost center 88
 - manager of shop's department 88
 - manager of shopping center's cost center 88
 - manager of shopping center's department 88
 - manager of the requested business role or organization 95
 - named approvers of cost center provided in request 91, 94
 - named approvers of department provided in request 94
 - named approvers of recipient's cost center 91
 - named approvers of recipient's location 91
 - named approvers of recipient's primary role 91
 - named IT approvers of cost center

- provided in request 94
- named IT approvers of department
 - provided in request 94
- named IT approvers of recipient's
 - cost center 91
- named IT approvers of recipient's
 - department 91
- named IT approvers of recipient's
 - location 91
- named IT approvers of recipient's
 - primary role 91
- product owners 91
- query 102
- recipient's manager 89
- self-service 88
- shelf owner 88
- shop owner 88
- shopping center owner 88
- violation rule exception approver 111
- waiting for further approval 95

approval process 71, 73, 84

approval reason 170

approval step 79

- approval procedure 78
- edit 78
- escalation 121
- mail template 78
- relevance for compliance 78
- reminder interval 78
- rule check 78
- timeout behavior 78
- timeout interval 78

approval workflow

- copy 83
- delete 84
- overview form 83

- set up 75
- system abort 77
- timeout interval 77

approver

- approval by email 152
- approving own request 116
- notification 143-144, 147-149
- recalculate 105
- restrictions 116
- select 85

assignment request 50

- approver 54
- grant approval 54
- obtain 59
- prepare 51
- service item 51
- unsubscribe 58

assignment resource 51

- add 54
- assign shelf 61
- for a business role 53
- overview form 60
- resource type 59
- risk index 59
- service item 59

B

- business partner 168
- business role
 - assign service item 25

C

- cart item 202
- change of manager 139

- chief approval team 105, 167
- comparison value 107
- connector
 - on approval 82
 - on escalation 82
 - on rejection 82
 - on reroute 82
- cost center
 - assign service item 24-25
- create product nodes 44
- currency 22
- customer
 - delete 181
 - dynamic assignments 179
 - relocate 38, 138
- customer node
 - delete 181
 - direct employee assignment 178
 - overview form 178
 - set up 176

D

- default approval policy 73
- default approval workflow 84
- default assignment resources 60
- default mail template 151
- default service category 34
- default service item 23
- delegation 50
 - approval notification 56
 - assignment resource 55
 - error 151
 - notification 149, 151
 - prepare 55
- deny 82

- department
 - assign service item 24-25
- dynamic role
 - customer node 179

E

- email notification
 - set up 141
- employee
 - assign to customer node 178
 - transform existing assignment in request 63
- escalation 82
- exception approver 111
 - on self-service 115
- expiry date 135, 145
- extended property
 - assign service item 26

F

- fallback approver 123
- functional area 169
 - assign service item 25

G

- going live with an IT Shop 13
- group
 - add to IT Shop (automatic) 67
 - change 204, 206-207
 - delete 206
 - request 204-205, 207

I

Identity Lifecycle 13

IT Shop

approval process 71

edit 161

IT Shop structure 171

L

location

assign service item 24-25

M

mail template

approval policies 72

approval step 78

base object 195, 197

confidentiality 195

design type 195

edit 193

hyperlink 198

importance 195

language 196

mail definition 196

report 195

target format 195

unsubscribe 195

manufacturer 168

Multi-factor authentication 47

N

notification

abort 146

approval 145, 149

default mail template 151

delegation 149

demand 142, 147

deny 145, 149

deny approval 147

escalation 146

expiry 145

mail template 141

on delegation 56

product change 150

query 148

recipient 141

refuse approval 147

reject approval 147

reminder 143

sender 141

unsubscribe 150

P

price 22

processing status 162

default processing status 163

product 15

assign 44, 175

assign to template 189

change 26, 46

dependent 28

documentation 23

move 45

multi-requestable 17

prepare 18

relocate 38, 45, 138

remove 45

replace 26, 46

- report 30
- service item 18-19
- terms of use 39
- validity period 37
- product owners 11, 67
 - change group 206
 - clean up 70
 - delete 70
 - delete group 206
 - delete unused application role 70
 - request group 204-205

R

- reason 170
- request
 - abort 45, 124
 - approval by mail 152
 - approval history 133
 - approval sequence 132
 - approve automatically 118, 124
 - assignment request 50
 - unsubscribe 58
 - authorizations 204, 207
 - by approver 116
 - cancel 141, 158
 - closed 159
 - copy existing assignment 62
 - delegation 50
 - delete 159
 - details 132
 - escalate 121
 - expiry date 135, 145
 - for employees 138
 - group membership 207
 - groups 204-205

- multi-request 134
- new manager 139
- notification 141, 144
- overview 132
- query 120
- relocate 138
- role 50, 156
- sequence 130
- status 217
- timeout 121, 124
- validity period 135-136
- withdraw 141
- request procedure
 - archiving 159
 - record 159
- request property
 - column 36
 - display value 36
 - log 35
 - sort order 36
- request recipient
 - accept terms of use 127
 - notification 150
- request status 217
- request template 200
 - administrator 201
 - cart item 202
 - create 201
 - delete 203
 - product 202
 - public template 201
 - share 201
- reroute 82
- resource
 - multi-requestable 17

- risk assessment 107
 - functional area 169
- risk index 59, 107
- role
 - request membership
 - automatically 156
 - transform existing assignment in request 66
- role classes 163
- role type 162, 172, 187
- rule check 108
 - Complianceprüfung (vereinfacht) 108
 - find exception approver 111
 - on self-service 115

S

- security code 47
 - demand
 - by app 50
 - by call 50
 - by text 50
- service catalog 23, 32, 34
- service category
 - approval policies 32
 - attestors 32
 - log 32
 - object dependent xref 35
 - process information 32
 - product owners 32
 - request property 32
- service item
 - approval policies 20
 - assign 23
 - assign business role 25
 - assign cost center 24-25
 - assign department 24-25
 - assign extended properties 26
 - assign function area 25
 - assign hierarchical role 24
 - assign location 24-25
 - assign tag 27
 - attestors 20
 - cost center 20
 - dependent 28
 - documentation 23
 - enter tag 41
 - extended property 23
 - image 23
 - log 19
 - manufacturer 20
 - multi-request 20
 - object dependent xref 28
 - open site 26
 - overview form 24
 - overview of all assignments 31
 - product description 26
 - product owners 20
 - relocate 20, 38
 - replace 26
 - report 30
 - request property 20
 - risk assessment 24
 - terms of use 39
 - validity 20
 - validity period 37
- shelf
 - administrator 172
 - approval policies 175, 189
 - assign product 175
 - attestors 172

- cost center 172
- delete 181
- department 172
- deputy 172
- location 172
- overview form 174
- role type 172
- set up 171
- shelf filling wizard 190
- shelf template
 - administrator 187
 - assign 172, 190
 - assign product 189
 - attestors 187
 - cost center 187
 - create 186-187
 - delete 192
 - delete shelf 181
 - department 187
 - deputy 187
 - global 182, 186
 - location 187
 - role type 187
 - special 182, 186
- shop
 - administrator 172
 - approval policies 175
 - attestors 172
 - cost center 172
 - delete 182
 - department 172
 - deputy 172
 - location 172
 - overview form 174
 - set up 171
- shopping center
 - administrator 172
 - approval policies 175
 - attestors 172
 - cost center 172
 - delete 182
 - department 172
 - deputy 172
 - location 172
 - overview form 174
 - set up 171
 - shelf template 172
- shopping center template 182
 - assign 190
 - create 186
 - delete 192
- standard reason 170
- Starling 2FA 47-48
- Starling 2FA security code
 - demand 50
- Starling Two-Factor Authentication 47
- status
 - request 217

T

- tag 41
 - assign service item 27, 42
 - create 27
 - overview form 42
- template
 - request template 200
 - shelf template 182
- terms of use 39
 - accept 127
 - assign service item 41

overview form 40
token 48

U

user account
 transform existing assignment in
 request 64

V

valid from date 135
valid until date 135
validity period
 verify 136

W

workdesk
 transform existing assignment in
 request 65
Workflow Editor 75