

ASC System Configuration

Import of user data



Administration manual

for system providers and tenants

5/20/2019

Product line neo, version 6.x

The described functions can be used with the following ASC products:

EVOIPneo

EVOLUTIONneo / XXL / eco

EVOflex (country-specific)

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1 Introduction

This manual describes how user data which has been stored and is administered outside the system can be imported into the recording system. This import takes place in the Configuration Import module of the application System Configuration.



User data can be migrated from version 10 recording systems. For information about migration data and requirements refer to the administration manual *Migration*.

To map the external data to the data structures of the *neo* system, you need XSLT files in any case. Via the XSLT Management module, you can load XSLT files into the *neo* system, edit them, and map them to the different data types.



For information about the XSLT Management module refer to the administration manual *XSLT management*.

2 Supported import formats

In general, the following data can be imported:

Import object types	Possible import sources						
	User	XML	CSV	LDAP	Web Service Client Teleopti	SFTP	Ext. DB
Employees of Tnt	Tnt	X	X	X	X	-	-
Employees of SP	SP	X	X	X	-	-	-
Organization structures	Tnt	X	X	X	-	-	-
Agent skills	Tnt	-	-	-	X	-	-
Evaluation templates	Tnt	X	-	-	-	-	-
Evaluations	Tnt	X	-	-	-	-	-
Call Director customer surveys	Tnt	X	-	-	-	-	-
Phones	SP	X	X	-	-	-	-

Import object types	Possible import sources						
	User	XML	CSV	LDAP	Web Service Client Teleopti	SFTP	Ext. DB
Recording Check Mechanism	SP	-	-	-	-	X	X

The import function for user data supports the following import formats:

- CSV
- XML
- LDAP
- Web Service

The import is basically the same for any format: First, the data to be imported is converted into a standardized neo XML format and every object type receives the attribute ImportKey to be able to unambiguously map them. In an LDAP import, the LDAP-UUID can always be mapped to the ImportKey.



When importing data from sources outside the system, make sure that the ImportKey is mapped to an unambiguous identifier. While in an LDAP import the LDAP UUID can be used, the LDAP DN does not guarantee an unambiguous identification since it may change in some cases.

As an alternative to the attribute ImportKey, you can use a combination of attributes which clearly identifies the employee.

If you would like to import the data of the same system users from an LDAP source as well as from another system, e. g. as an XML file, it is imperative that the XML files contain the LDAP UUID.

To map the external data to the data structures of the neo system, you need individual XSLT files. For some import object types, ASC provides default XSLT files, see chapter "Default XSLT files", p. 29. Upon your request, ASC can customize the XSLT files according to your requirements.

3

Main view

1. Select the menu item *More > Configuration Import* in the navigation bar.

When importing configuration data, you have to differentiate between import sources and their corresponding import configurations (import jobs). Therefore, the main view is organized in a tree structure.

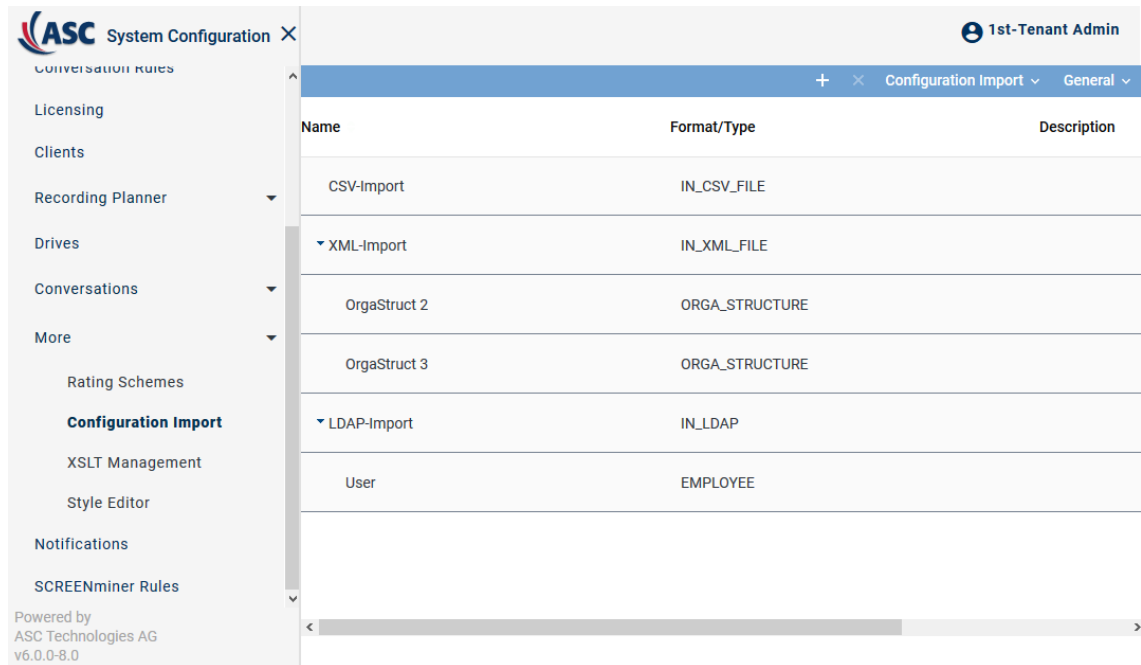


Fig. 1: Configuration import - main view

The following information is displayed in the main view:

Name	Name of the import source or import job.
Format/Type	Shows the format or type of the imported configuration data.
Description	Shows the description of the import source or import job.



By clicking on the icons ▶ or ▼ in front of an import source, you can show or hide the import jobs which have been created for this import source.



3.1

Toolbar Configuration Import model

The toolbar offers the following functions.



Fig. 2: Configuration import - toolbar

	Create	Create a new element. The following possibilities are available: <ul style="list-style-type: none"> • CSV • XML • LDAP • SFTP for Recording Check feature • External database for Recording Check feature
	Delete	Deletes the selected element upon confirming the security prompt.

Configuration Im- port

<i>Create New Import Configuration</i>	Creates a new import configuration for the selected import source.
<i>Start Job</i>	Starts the selected import job.

General

<i>General Help</i>	By clicking on the menu item General Help, a description of the application you are currently viewing is opened.
<i>Module Help</i>	By clicking on the menu item Module Help, a description of the module you are currently viewing is opened.



For detailed information on default functions such as *Print*, *Adjust table*, or *Help* refer to the user manual for administrators *System Configuration - General Information*.

4

Detail view


All settings for the selected import source or import job are displayed in the detail view. The content of the detail view depends on whether you edit an import source or an import job.

The following import functions are described in this manual:

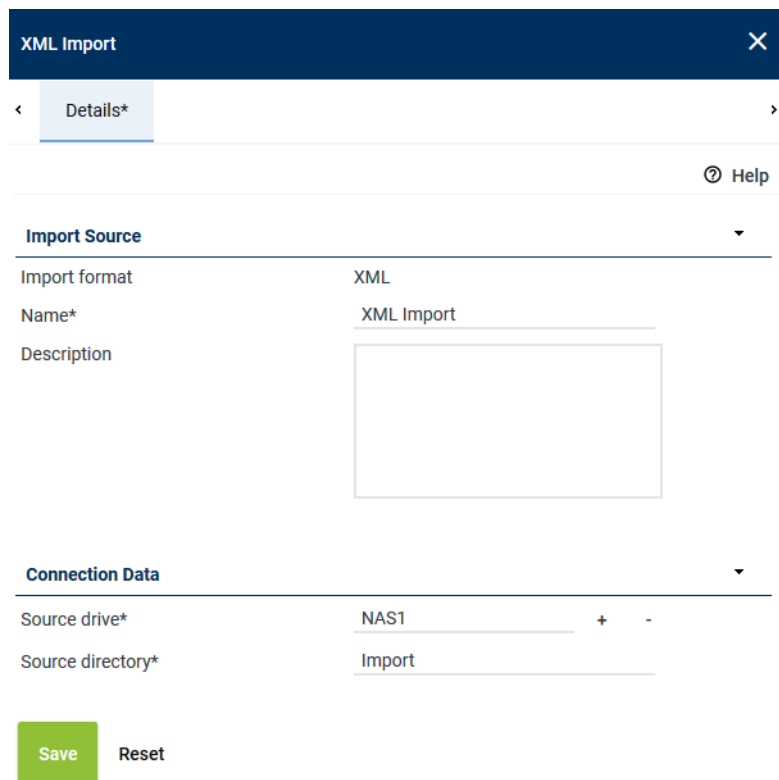
- *Recording Check Mechanism*
 - *Cisco CDR data via SFTP*
see Recording Check Mechanism for Cisco
 - *SfB session data from external database*
see Recording Check Mechanism for SfB
- *Agent skills*
see Import agent skills
- *Evaluation templates*
see Import evaluation templates
- *Evaluations*
see Import evaluations
- *Call Director customer surveys*
see Call Director customer surveys

4.1

Create import source

1. Click on the icon  (*Create*) in the toolbar.
2. From the context menu, select the format of the import source, in the example *XML*.

In the detail view of the import source, you can configure the connection data.



The screenshot shows a configuration window titled "XML Import" with a close button (X) in the top right corner. Below the title bar is a tab labeled "Details*". On the right side of the tab bar is a "Help" icon and label. The main content area is divided into two sections: "Import Source" and "Connection Data".

Import Source

Import format	XML
Name*	XML Import
Description	<div></div>

Connection Data

Source drive*	NAS1	+	-
Source directory*	Import		

At the bottom of the window are two buttons: "Save" (green) and "Reset" (grey).

Fig. 3: Detail view Configure import source (example)

4.1.1

Tab Details

Here, you can display and edit the settings for the selected import source.

It depends on the selected import format, which group fields are available in the tab *Details*.

4.1.1.1 Group field Import Source



Fig. 4: Group field Import Source (example)

<i>Import format</i>	Shows the selected import format. NOTICE! The import format is defined when creating the import source and cannot be changed afterwards.
<i>Name</i>	Enter a name for the import source.
<i>Description</i>	Enter an optional description of the import source.
<i>Web service type</i>	Type of the source for the web service. Select the type from the drop-down list.

4.1.1.2 Group field Connection Data



This group field is only available for the import formats *XML* and *CSV*.

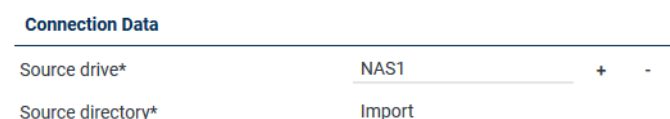


Fig. 5: Group field Connection Data

<i>Source drive</i>	Select the drive from which the data is supposed to be imported. See chapter "Assign drive", p. 10 .
<i>Source directory</i>	Enter the path to the directory from which the data is supposed to be imported.



For the import format *LDAP*, the **LDAP** connection data is transferred from the Tenants module. For information about the configuration and activation of the **LDAP** connection data in the Tenants module refer to the administration manual *System Configuration - User Management (for system providers)*.

4.1.1.2.1 Assign drive

1. Click on the button **+** on the right of the entry field.
2. Select a drive from the list.

Drives				
Device Type ↕	Name ↕	Path ↕	Free Disk Space ↕	Server ↕
Internal harddisk	Internal harddisk	C:\	<div><div></div></div>	WIN-PP28N16CIDB
Internal harddisk	Internal harddisk	E:\	<div><div></div></div>	WIN-PP28N16CIDB

Zeilen pro Seite 20 0 - 0 von 0

Hinzufügen Abbrechen

Fig. 6: Add drive

- To apply the selection, click on the button *Add*.
To discard the selection and close the window, click on the button *Cancel*.

4.2

Create import configuration

Import configurations allow creating and editing import jobs for different import sources.

Details*
Import Options
Schedule

Help

Basic Information

Name*

User

Description

Import object type*

Employee

XSLT*

XML-Import

Fig. 7: Detail view Import Configuration (example)

The detail view of the import configuration consists of the following tabs:

- Details**
 Here, you can display and edit the basic information of the import job.
 See [chapter "Tab Details", p. 12](#).
- Import Options**
 Here, you can define according to which criteria objects are supposed to be created and deleted. In addition, you can define stop criteria for the import job.
 See [chapter "Tab Import Options", p. 12](#).
- Schedule**
 Here, you can display and edit the settings of the schedule.
 See [chapter "Tab Schedule", p. 14](#).

- *LDAP*

Here, you can configure the filter settings for the import of the [LDAP](#) data to refine the selection of the data to be imported.

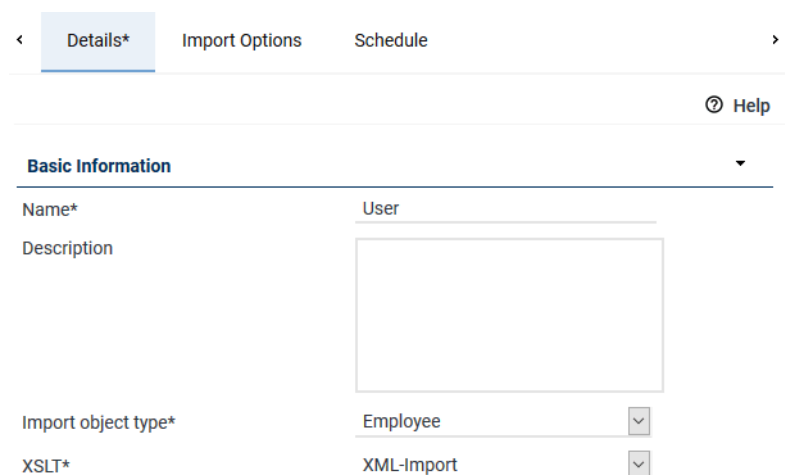
This tab is only available for import jobs in [LDAP](#) format.

See [chapter "Tap LDAP", p. 18](#).

4.2.1

Tab Details

Here, you can display and edit the basic information of the import job.



The screenshot shows the 'Details' tab of an import configuration interface. It includes a navigation bar with 'Details*' (selected), 'Import Options', and 'Schedule'. A 'Help' icon is in the top right. The 'Basic Information' section contains the following fields:

- Name***: A text input field.
- User**: A text input field.
- Description**: A large text area.
- Import object type***: A dropdown menu currently showing 'Employee'.
- XSLT***: A dropdown menu currently showing 'XML-Import'.

Fig. 8: Import configuration - tab Details

<i>Name</i>	Enter the name of the import job.
<i>Description</i>	Enter an optional description of the import job.
<i>Import object type</i>	<p>Select which type of configuration data you would like to import. The drop-down list displays all object types which are available for the import format.</p> <p>Select the import object type from the drop-down list.</p>
<i>XSLT</i>	<p>Select which XSLT mapping is supposed to be used for the import.</p> <p>Select the appropriate XSLT mapping for the import from the drop-down list.</p> <p>NOTICE! The XSLT mapping must have been created previously in the XSLT Management module, see administration manual <i>System Configuration - XSLT management</i>.</p>

4.2.2

Tab Import Options

Here, you can define according to which criteria objects are supposed to be created and deleted. In addition, you can define stop criteria for the import.

Unify Phones
×

Details*
Import Options
Schedule

Create and Delete Objects

Create object with unknown import key ☒
Delete object from previous imports ☒
Update phones without import key if the names of the phones are the same. ☒

Stop Criteria

Maximum number of allowed errors ☐ 0
Maximum number of allowed delete processes ☐ 0

Save
Reset

Fig. 9: Import configuration - tab Import Options



Which of the following options are available depends on the *import object type* you have selected in the tab *Details*.

4.2.2.1

Group field Create and Delete Objects

Create and Delete Objects

Create object with unknown import key ☒
Delete object from previous imports ☒
Update system user without if login data are the same ☒

Fig. 10: Group field Create and Delete Objects

<i>Create object with unknown import key</i>	<p>Select whether new sets of data can be imported and created or whether only existing sets of data are supposed to be refreshed. For the unambiguous identification of already imported data sets, the import key from the deployed XSLT file is compared.</p> <p><input checked="" type="checkbox"/> = New sets of data can be created. <input type="checkbox"/> = No new sets of data.</p>
<i>Delete objects from previous imports</i>	<p>Select whether existing sets of data which have been imported with other import jobs are supposed to be deleted if they are not contained in the current import file.</p> <p><input checked="" type="checkbox"/> = Sets of data from other imports are deleted. <input type="checkbox"/> = Sets of data from other imports are not deleted.</p> <p>NOTICE! In the event of an error during the import, the function is deactivated automatically, i. e. no sets of data are deleted. NOTICE! Manually created sets of data are not deleted.</p>
<i>Update system user if login data are the same</i>	<p>Select whether existing user data can be imported and updated if it does not have an import key but the user name is known.</p>

- ☒ = User data can be updated.
☐ = User data cannot be updated.

4.2.2.2 Group field Stop Criteria

Stop Criteria		
Maximum number of allowed errors	<input checked="" type="checkbox"/>	0
Maximum number of allowed delete processes	<input checked="" type="checkbox"/>	0

Fig. 11: Import configuration - group field Stop Criteria

<i>Maximum number of allowed errors</i>	<p>Select whether the import job is supposed to be canceled when an error occurs. Possible errors are failing to assign a PBX, not being able to find a role or organization unit or a user missing essentially required attributes.</p> <p><input checked="" type="checkbox"/> = Import job is canceled when the number of errors entered here is exceeded. <input type="checkbox"/> = Import job is not canceled.</p>
<i>Maximum number of allowed delete processes</i>	<p>Select whether the deletion process is supposed to be canceled if automatic deletion processes occurs.</p> <p>If the option <i>Delete objects from previous imports</i> has been selected in the group field <i>Create and Delete Objects</i>, then this option here allows selecting the maximum number of data sets which can be deleted before the deletion process is canceled. If the entered number is exceeded, no data sets are deleted.</p> <p><input checked="" type="checkbox"/> = Deletion process is canceled when the number of deletion processes entered here is exceeded. <input type="checkbox"/> = Deletion process is not canceled.</p>

4.2.3 Tab Schedule

In the tab *Schedule*, you can display and edit the settings of the schedule.

User

×

<

Details*

Import Options

Schedule

LDAP*

>

Execution

☐ Once
 ☒ Interval
 ☐ Series

Period of Time

▼

Start

☒ Immediately
 ☐ 01/21/2019 01:48:54

End

☒ Never
 ☐ 01/21/2019 01:48:54

Interval

▼

0 Month(s)

0 Day(s)

0 Hour(s)

5 Minute(s)

Series

▶

Save

Reset

Fig. 12: Tab Schedule

Define in the general section whether the job is executed only once or periodically.

<i>Execution</i>	<ul style="list-style-type: none"> • <i>Once</i> The job is executed exactly once and started on the date which has been defined in the section <i>Period of Time</i>. • <i>Interval</i> The job is repeated in intervals as defined in the group field <i>Interval</i>. • <i>Series</i> The job is repeated on serial dates as defined in the group field <i>Series</i>.
------------------	--

If an import job fails, you are informed about this at the following locations in the system:

- In the application Portal, you receive a respective notification if the generation of such a notification has been activated in the Notifications module of the application System Configuration, see administration manual *System Configuration Notifications module*.



In the application System Monitoring, you receive information about the job status in the Jobs module, see *User manual System Monitoring*.

If the failed job is a job of the execution type *Once*, you have to initiate the job manually once again, after eliminating the underlying cause for the failure. Otherwise the job is not executed again.

4.2.3.1 Group field Period of Time



Define the period of time in which the job is supposed to be executed.

Period of Time ▼

Start ☒ Immediately
☐ 11/16/2018 08:10:46

End ☒ Never
☐ 11/16/2018 08:10:46

Fig. 13: Schedule - Period of Time

Start	<ul style="list-style-type: none"> • <i>Immediately</i> The job is started immediately. • Entered date The start is defined by the entered date. You can enter the date directly in both entry fields via the keyboard or via the icon .
End	<ul style="list-style-type: none"> • <i>Never</i> The job never ends. • Entered date The end is defined by the entered date. You can enter the date directly in both entry fields via the keyboard or via the icon .

4.2.3.2 Group field Interval



This group field is only active if the option type *Interval* has been selected as execution type.

Define the interval in which the job is supposed to be repeated.

Interval ▼

Month(s) Day(s) Hour(s)
 Minute(s)

Fig. 14: Schedule - Interval

You can define the interval arbitrarily. Enter the values directly into the entry fields via the keyboard.

4.2.3.3 Group field Series



This group field is only active if the option type *Series* has been selected as execution type.

Define at which points in time the job is supposed to be repeated.

Series ▼

Repeat

☐ Daily
☐ Weekly
☐ Monday
☐ Tuesday
☐ Wednesday
☐ Thursday
☐ Friday
☐ Saturday
☐ Sunday
☒ Monthly
☒ + -
☐ First Monday

Fig. 15: Schedule - Series

Repeat	Days on which the job is supposed to be executed.
	<ul style="list-style-type: none"> • Daily The job is repeated daily. • Weekly The job is repeated on the selected days. You can select one or several weekdays. • Monthly The job is repeated on the selected days. You can either select particular dates or certain days. See chapter "Configure monthly repetition on fixed dates", p. 17 and chapter "Configure monthly repetition on fixed days", p. 18.

4.2.3.3.1 Configure monthly repetition on fixed dates

1. Select the upper option:

☒ Monthly
☒ + -
☐ First Monday

Fig. 16: Configure fixed dates

2. Click on the button + to select dates in a calendar.

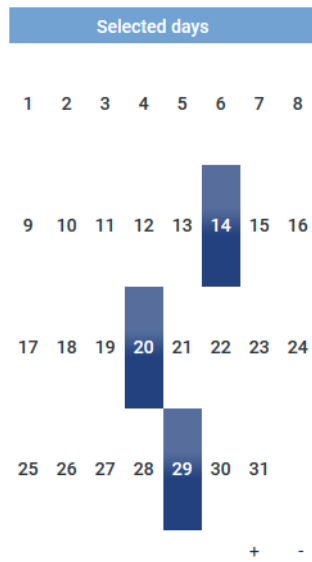


Fig. 17: Select dates

3. Click on all dates on which the job is supposed to be executed.
To revoke a selection, click on the selected date once again. The selection is deleted.
⇒ The selected dates are inserted automatically into the entry field.
4. Click on a spot outside the calendar to apply the selected dates and close the calendar.
5. If you would like to correct the selection of the dates, you can open the calendar again by clicking on the button + .
Adjust the dates according to the description.
6. If you would like to delete all selected dates, click on the button - .
⇒ All dates in the entry field are deleted.

4.2.3.3.2 Configure monthly repetition on fixed days

1. Select the lower option:

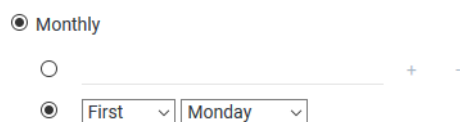


Fig. 18: Configure fixed days

2. In the two drop-down lists, select the day of every month on which the job is supposed to be executed.

4.2.4 Tap LDAP



This tab is only available for import jobs in [LDAP](#) format.

Here, you can specify the selection of the [LDAP](#) data to be imported. Only the [LDAP](#) data which meets the criteria of the configured filter is imported.

User

Details*

Import Options

Schedule

LDAP*

LDAP Filter Settings

Root node*

CN_users.dc=example2,OU=Groups,(

Recursive search

☒

Search page by page

☐

Object class

User

Other filters

(max. 9000 characters)

Save

Reset

Fig. 19: Import configuration - tab LDAP

Root node	Enter the DN of the node in the LDAP which is supposed to be used as root node for the filtering.
Recursive search	Select whether the search for the respective data is supposed to be executed in simple mode or in recursive mode. <input checked="" type="checkbox"/> = recursive search mode <input type="checkbox"/> = simple search mode
Search page by page	Select whether the search for the respective data is supposed to be executed in several small steps. When this option is activated, the LDAP data are read out page by page. Select this option if you LDAP Active Directory supports reading out search results page by page and if it contains more than 1000 entries. <input checked="" type="checkbox"/> = LDAP data are read out page by page. <input type="checkbox"/> = LDAP data are read out in one search query.
Object class	Enter the name of the LDAP object class that the data in the LDAP which is supposed to be imported belong to.
Other filters	Here, you can configure additional import filters according to the LDAP syntax.

5 Before the import

In the Configuration Import module, you can define import sources and import jobs which allows you to import user data into the recording system. To be able to create an import job, the following conditions must be given:

- An import source matching the data's format must have been created.
 - If users are supposed to be imported by means of [LDAP](#), make sure that a working [LDAP](#) connection has been set up in the Tenants module.
 - If users are supposed to be imported from a [CSV](#) or [XML](#) file, make sure that a [NAS](#) drive has been created, configured, and assigned to the tenant. The corresponding [CSV](#) or the [XML](#) file with the user data, must have been stored in a subfolder (e. g. import data) of this [NAS](#) drive (e. g. NAS\Importdaten\user.csv). **NOTICE! This subfolder (in the example import data) must have been released.**
- An XSLT mapping matching the data's format must have been created.
For information about [XSLT](#) files can be found under [chapter "XSLT - Purpose and structure"](#), p. 27 in the administration manual *System Configuration - XSLT management*.
- [PBX](#) assignment:
If a [PBX](#) is supposed to be assigned to the users during the import, make sure that the [PBX](#) has been set up in the System Configuration. In multi-tenant systems, the respective extensions or the [PBX Agent IDs](#) must be shared.

Configuration of user import

Creating an import job is a two-step process:

1. **Create import source:**

The import source defines where the user data comes from, e. g. from an [LDAP](#) or a [CSV](#) file. If a [CSV](#) or an [XML](#) file is used, the previously configured [NAS](#) drive must be selected as source drive (in the example [NAS](#)) and the contained subfolder where the [CSV](#) or [XML](#) file has been saved as source directory (in the example *import data*).

2. **Create import configuration:**

By creating the import configuration, the import job is defined. Depending on the selected source, configuration possibilities may differ.

The following steps describe the options to configure the import and to set up a schedule. After that, you find configuration tips on compiling an [LDAP](#) file

Setting the import options

1. Configure the following options in the group field *Create and Delete Objects*:

- *Create object with unknown import key*

This option defines whether new users are created with the import or whether previously imported users are updated. For the unambiguous identification of already imported users, the import key from the deployed [XSLT](#) file is compared. Select this option if you would like to allow the import of new user with an unknown import key as well as if you would like to update existing users. If you do not want to import new users with unknown import keys but only update existing users, deactivate this option.

- *Delete objects from previous imports:*

If this option has been activated, all previously imported users who have not been created or updated with the latest import will be deleted from the system. This applies to imported users only. Users who have been created in the system manually are not deleted.

- *Update system user if login data are the same:*

This option allows you to update manually created users by means of an import. The *user name* of the existing employee is compared with the name of the imported user.

2. Configure the following options in the group field *Stop Criteria*:

- *Maximum number of allowed errors*

This option defines how many errors there may be during the import before the process is stopped. Possible errors are failing to assign a [PBX](#), not being able to find a role or organization unit or a user missing essentially required attributes.

- *Maximum number of allowed delete processes*

If the option *Delete objects from previous imports* has been selected, then this option here allows you to select the maximum number of users which can be deleted at once before the deletion process is canceled.

Example: *When entering the value 10, a maximum of 10 existing users will be deleted upon a new import. If there are 11 previously existing users who would be deleted with a new import, then no users would be deleted at all.*



As a precaution, the deletion process is canceled as soon as one error occurs during the import. Once just one error occurs during the import of a user, no existing users are deleted despite a respective configuration. Previously existing sets of data remain unchanged.



For further information see [chapter "Tab Import Options", p. 12.](#)

Set up a schedule

1. In the tab *Schedule*, configure when and how often a job is supposed to be executed, e. g. *once*, *daily*, *weekly* or *at what time*.



For further information see [chapter "Tab Schedule"](#), p. 14.



Note that any job must always be activated by clicking on *Start job* regardless of the selected start time, so that it is registered correctly and can later be started at the configured time.

Configure LDAP filter settings

The following filter settings can be configured when creating an [LDAP](#) import job:

Root node:

Enter the path within the [LDAP](#) structure leading to the user data. It must have a valid [LDAP](#) path structure.

Example: `OU=Groups,OU=AGENTS,DC=asc-sb,DC=lan`

When picturing [LDAP](#) as a file system comparable to the Windows Explorer, this would equal: `lan/asc-sb/agents/groups`

In this example, the job would only search for users in the [LDAP](#) structure under OU (organization unit) *Groups*. Users outside this OU will not be read out.

Recursive search

This option allows searching for users in all subordinated directories in addition to the indicated root node.

Example: `OU=AGENTS,DC=asc-sb,DC=lan`

If the option *Recursive search* has been activated, not only the OU *Agents* is searched but the OU *Groups* located below, too.

If the option *Recursive search* has not been activated, only the OU *Agents* is searched.

In most cases, it is advisable to activate the option *Recursive search*.

Search page by page

Some [LDAP](#) systems (e. g. LDAP AD) only issue a limited amount of data for each search query, e. g. 1000. As a result, the import would not read out more than 1000 users from the LDAP AD, even though there may be additional user data. To read out all data, the option *Search page by page* must be activated. That way, search queries are continued to be sent to the LDAP AD until the system does not deliver any corresponding data anymore.

Object class:

Here, you can select which objects are supposed to be imported from the [LDAP](#) system.

Example: The LDAP AD contains users of the object type *user*, i. e. *user* must be entered here.

Other filters:

You can enter additional filters to refine the search query. It is important to enter filters that the [LDAP](#) system can process. Defining an additional filter makes sense if the indicated root node contains substantially more data than users are required. If an LDAP-OU contains 10,000 users but only 20 agents are required, it does not make sense to request all 10,000 users and subsequently sort them out.

Example for a simple attribute filter:

`memberof=CN=PhoneAgents,OU=Groups,OU=AGENTS,DC=asc-sb,DC=lan`

This filter ensures that only those users or objects are requested from the [LDAP](#) that have the value `CN=PhoneAgents,OU=Groups,OU=AGENTS,DC=asc-sb,DC=lan` as [LDAP](#) attribute *memberof*. Only users are requested who are member of the [LDAP](#) group *PhoneAgents*.

Example for a more complex "or" filter:

`|(memberof=CN=PhoneAgents,OU=Groups,OU=AGENTS,DC=asc-sb,DC=lan)(memberof=CN=VideoAgents,OU=Groups,OU=AGENTS,DC=asc-sb,DC=lan)`

[LDAP](#) interprets this as a filter to only deliver users or objects that are either members of the [LDAP](#) group *PhoneAgents* or of the group *VideoAgents* or both.



The [LDAP](#) connection data are configured and activated in the Tenants module, see administration manual *System Configuration - User management*.

6.1

Create import source

You have to create an import source for each import format that you would like to use.



An import source is always created for a certain import format which cannot be changed any more later on.

1. Click on the icon  (*Create New Import Source*) in the main view.

⇒ The available formats appear in the context menu.

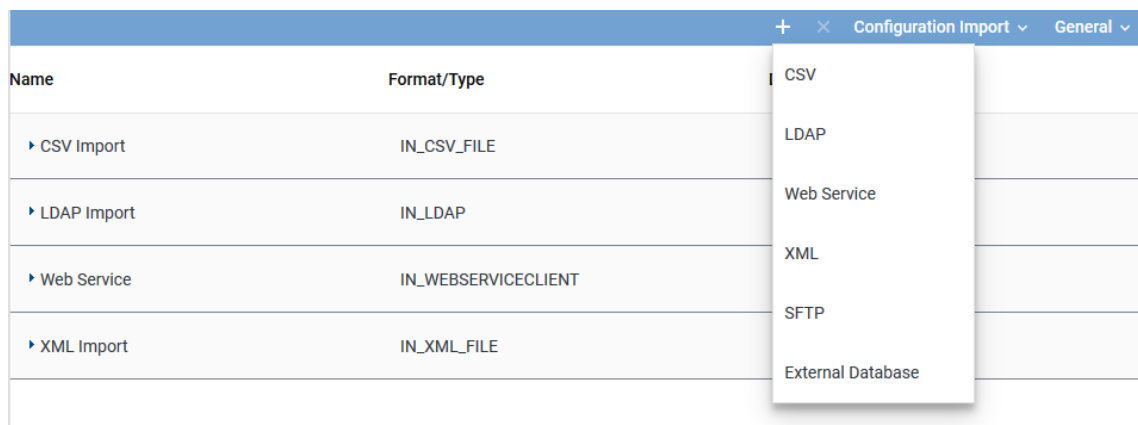


Fig. 20: Create import source

The following import formats are available for the import of user data:

- **XML**
For these import sources, the drive from which you would like to import the configuration data must have been configured in the recording system. The drive is set up by your system provider. If no appropriate drive is available, contact your system provider.
- **CSV**
For these import sources, the drive from which you would like to import the configuration data must have been configured in the recording system. The drive is set up by your system provider. If no appropriate drive is available, contact your system provider.
- **LDAP**
For this import source, the [LDAP](#) connection data in the Tenants module must have been configured and activated, see administration manual *User management*.
- **Web Service**
For this import source, the function *Web Service* must have been activated by the system provider. If the format is not available, contact your system provider.
For the import from the Web Service Client Teleopti, the Teleopti interface must have been configured and activated, see administration manual for tenants *Configuration Teleopti interface*.

6.2

Edit import source

1. In the main view, select the import source you would like to edit.
⇒ All settings for the selected import source are displayed in the detail view.
2. Adjust all necessary settings in the detail view, see [chapter "Create import source"](#), p. 9.

3. To save the settings, click on the button *Save*.
To reset all settings or changes in the tab, click on the button *Reset*.
To cancel the editing of the import source, click on the main view and confirm the security prompt.

6.3 Create import job

- ✓ An import source exists for the format of the data to be imported.
 - ✓ An XSLT file exists for the format of the data to be imported.
1. In the main view, select the import source from which you would like to import the data.
 2. Click on the menu item *Configuration Import > Create New Import Configuration* in the toolbar of the main view.
⇒ In the detail view, you can enter the data for the new import job.
 3. Adjust all necessary settings in the tabs, see [chapter "Create import configuration", p. 11](#).
You can change tabs without buffering. The settings are not lost.
 4. To save the settings, click on the button *Save*.
To reset all settings or changes in all tabs, click on the button *Reset*.
To cancel the editing of the job configuration, click on the main view and confirm the security prompt.
- ⇒ Upon saving the settings, the import job is displayed within the tree structure of the main view below the selected import source.

See also

- 📖 Create import configuration [► 11]

6.4 Edit import job



You can edit the configuration of an import job anytime you like. The change takes effect as soon as the job is started again. When changing a job configuration while the job is active, the job is completed according to the earlier configuration.



For information about the status of a job refer to the Jobs module in the application System Monitoring, see user manual *Usage System Monitoring*.

1. In the main view, select the import job you would like to edit.
⇒ All settings for the selected import job are displayed in the detail view.
2. Adjust all necessary settings in the tabs of the detail view, see [chapter "Create import configuration", p. 11](#).
You can change tabs without buffering. The settings are not lost.
3. To save the settings, click on the button *Save*.
To reset all settings or changes in all tabs, click on the button *Reset*.
To cancel the editing of the job configuration, click on the main view and confirm the security prompt.

6.5 Start and stop import job

Every import job is started automatically at the point in time defined in the schedule, see [chapter "Tab Schedule", p. 14](#).

You also have the possibility to start an import job manually, if it has already been stopped or if it is paused (for the option *interval* or *series*). To start an import job manually, proceed as follows:

1. Select the import job in the main view.

2. Click on the menu item Configuration Import in the toolbar.
 3. Click on the menu item *Start Job* in the context menu.
- ⇒ The import job is started immediately.

While an import job is active, the recording system checks whether new files are available in the import source. If new files are available, they are imported directly.

An import job ends automatically when all respective data has been imported or when a stop criterion is reached (see [chapter "Group field Stop Criteria", p. 14](#)). You cannot finish or cancel an import job manually.

If an import job fails, you are informed about this at the following locations in the system:

- In the application Portal, you receive a respective notification if the generation of such a notification has been activated in the Notifications module of the application System Configuration, see administration manual *System Configuration Notifications module*.



In the application System Monitoring, you receive information about the job status in the Jobs module, see *User manual System Monitoring*.

If the failed job is a job of the execution type *Once*, you have to initiate the job manually once again, after eliminating the underlying cause for the failure. Otherwise the job is not executed again.

7 Following the job execution

Once the import job has been executed, check the current status.

✓ The import job has been configured and started successfully.

1. Start the application System Monitoring.
2. Click on the module *Jobs*.
3. In the tab *Execution*, click on the button *History*.
⇒ The window *Executions* appears.
4. In the table column *Status Report* check whether data has been imported and whether the number is correct or whether there have been errors during the execution of the job.



For further information see [chapter "Known problems and solutions", p. 32](#).



Basic information about using the application System Monitoring can be found in the user manual for administrators *System Monitoring*.

8 XSLT - Purpose and structure

8.1 What is the XSLT file required for?

The **XSLT** file serves as an interface between an external data source and *neo*. By using this technique, data with almost any structure can be converted into a format which can be processed by *neo* if certain basic conditions are given. Internally, the **XSLT** file is used to build a structure from the information delivered by the data source (e.g. **LDAP**, **CSV** or **XML** that complies with the *neo* data model. As data sources and the individual requirements may differ, the **XSLT** file must be adjusted correspondingly for each import. A default **XSLT** file would fall short of the requirements.

8.2 Management of the XSLT file

System Configuration offers the module *XSLT Editor* to manage all **XSLT** files deployed in the system. New **XSLT** files can be created there and existing ones can be imported. Only **XSLT** files displayed in this module are available to the current tenant. **XSLT** files which have already mapped to import configuration cannot be changed.



For further information about the *XSLT Editor* refer to the administration manual *System Configuration - XSLT management*.

8.3 Structure of the XSLT file

In general, **XSLT** files are a compilation of attributes and conditions. What is supposed to be mapped to whom. The column *FirstName* in the **CSV** file, for instance, corresponds to the attribute *LastName* in *neo*. This is depicted in the **XSLT** file as follows:

```
<LastName><xsl:value-of select="Zuname"/></LastName>
```

The value behind *value-of select=...* exactly corresponds to the required column name in the **CSV** file, i. e. the name of the attribute in the **LDAP**. The tag `<LastName>...</LastName>` corresponds to the attribute mapped in *neo*. The list of tags supported by *neo* has been predefined and cannot be changed. They are case-sensitive



In the **LDAP**, attribute names are assessed lower case; i. e. even if *memberOf* is displayed in an **LDAP** AD browser, the **XSLT** file must say *memberof*.

This scheme always remains the same but can be extended and refined as required by adding any number of conditions and functions.

8.3.1 Import key

The import key, i. e. the tag `<ImportKey>`, is an attribute that must be mapped unconditionally when importing users. As the data stems from an external source, a value must be defined that identifies it unambiguously so that the data set can be updated during a subsequent import, for example. As a consequence, the import key must be unambiguous for every data set to be imported.

The collection of attributes and conditions is embedded in a framework of the following scheme:

```
<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
  <xsl:output method="xml" indent="yes" encoding="UTF-8"/>
  <xsl:template match="/">
    <Employees>
```

```
<xsl:apply-templates/>
```

```
</Employees>
```

```
</xsl:template>
```

Caution! For LDAP: `<xsl:template match="LDAPENTRY">`

Caution! For CSV/XML files: `<xsl:template match="Employee">`

```
<Employee>
```

... (the actual content of the XSLT file) ...

```
</Employee>
```

```
</xsl:template>
```

```
</xsl:stylesheet>
```

8.3.2 Enter, delete or ignore attributes

There are three possibilities how attributes can be treated during an import. Depending on how they have been integrated in the [XSLT](#) file, they are either entered, i. e. updated, deleted or ignored.

- If a value has been entered in the tag, the value is applied for the attribute, i. e. either entered as new or updated.

Example: <Role>Agent</Role>

- If no value has been entered in the tag, a value which may already exist for the employee is deleted.

Example: <Role></Role>

- If the tag does not exist in the [XSLT](#) file, the attribute is ignored. The existing value of the attribute remains the same for the agents as it was before the import.

8.4 Example for conditions and functions in an XSLT file

To list all possible examples would go beyond the scope of this document. The most common conditions and functions are listed in the following:

1. If, then:

```
<Roles>
```

```
<xsl:if test="memberof='Agentunit'">
```

```
<Role>Agent</Role>
```

```
</xsl:if>
```

```
<xsl:if test="memberof='Supervisorunit'">
```

```
<Role>Supervisor</Role>
```

```
</xsl:if>
```

```
</Roles>
```

In this case, the system checks whether the data set (user) has the value *Agentunit* or *Supervisorunit* in the column (or in the [LDAP](#) attribute) *memberof*. If this is the case, the user is assigned the role *agent* or *supervisor* in *neo*.



The value that is supposed to be assigned in this example, is not read out from the data source dynamically with *value-of select* but firmly set to *agent* or *supervisor*.

2. Either or:

```
<xsl:choose>
```

```
<xsl:when test="telephonenumber != ''">
```

```

<PBX>Demo</PBX>
<Extension><xsl:value-of select="telephonenumber"/></ Extension>
</xsl:when>
<xsl:otherwise>
<PBX></PBX>
<Extension></Extension>
</xsl:otherwise>
</xsl:choose>

```

This case applies, if the user is only supposed to be assigned a **PBX** (here always the fixed value *Demo*) and extension if the data set contains a value in the column (or **LDAP** attribute) *telephonenumber*. If the column is empty, the user is assigned neither a **PBX** nor an extension.

3. Only the last 4 digits of the phone number ...

```

<Extension><xsl:value-of select="substring(telephonenumber, 4)"/></
Extension>

```

In this case, only the last 4 digits from the content of the column (or **LDAP** attribute) *telephonenumber* are entered as extension in *neo*. The rest of the phone number is discarded.

4. Yes/No:

```

< ReplayAllowed >TRUE</ ReplayAllowed >

```

Attributes which have been configured in *neo* by means of check boxes (Yes/No) are displayed in the **XSLT** file by the value *TRUE* (check mark) or *FALSE* (no check mark).

8.5

Default XSLT files

To map external data to the data structures of the *neo* system, you need **XSLT** files.

ASC provides different default **XSLT** files some of which you can use directly or otherwise as a template. These **XSLT** files can be found in the following directory:

- *C:\Program Files (x86)\ASC\ASC Product Suite\scripts\resources\XSLT*

XSLT files for the migration

- *AgentV10ToNeoXSLT.xslt*
Can be used for the import object type: *employees*
Purpose of use: import of agent data from a recording server version 10
- *UserV10ToNeoXSLT.xslt*
Can be used for the import object type: *employees*
Purpose of use: import of employee data from a recording server version 10

XSLT files for the import of phone configurations

NOTICE! These XSLT files serve as an example only. They have to be adapted to the individual structure of the respective import file.

- *PhoneCloneRegProb.xslt*
Can be used for the import object type: *phone*
Purpose of use: import of phone configurations from an XML file which only contains the mandatory fields for a phone configuration.
- *PhoneSimple.xslt*
Can be used for the import object type: *phone*

Purpose of use: import of phone configurations from an CSV file which only contains the mandatory fields for a phone configuration.

- *IPPhoneWithPhoneNumberInsteadOfExtension.xslt*

Can be used for the import object type: *phone*

Purpose of use: import of phone configurations from an XML file which in addition to the mandatory fields for a phone configuration contains information for the IP phones.

Additional XSLT files

- *Identity.xslt*

Can be used for all import object types

Purpose of use: import of data which do not require a conversion

- *Call_Director_CUSTOMCP01.xslt*

Can be used for the import object type: *Call Director customer survey*

Purpose of use: import of results of Call Director customer surveys

NOTICE! This XSLT file serves as a template example only. It has to be adjusted individually for each Call Director customer survey, see Call Director customer surveys.

- *XSLTForLDAP_ActiveDirectory.xslt*

Can be used for the import object type: *employees*

Purpose of use: import of employee data from an Active Directory via LDAP

NOTICE! This XSLT file serves as a template example only. It has to be adjusted to meet the customer-specific structure of the Active Directory.

- *XSLTForLDAP_ActiveDirectory_Orga_Unit.xslt*

Can be used for the import object type: *organization structures*

Purpose of use: import of organization structures from an Active Directory via [LDAP](#)

NOTICE! This XSLT file serves as a template example only. It has to be adjusted to meet the customer-specific structure of the Active Directory.

XSLT files for the import with the Web Service client of Teleopti

- *XSLT_For_Employee_Import_Teleopti.xslt*

Can be used for the import object type: *employees*

Purpose of use: importing employees and their agent data

- *XSLT_For_Skill_Import_Teleopti.xslt*

Can be used for the import object type: *agent skills*

Purpose of use: importing the skills of agents of the provider Teleopti

XSLT files for the import for the Recording Check Mechanism

- *Cisco.xslt*

Can be used for the import object type: *Cisco CDR data*

Purpose: Import of Cisco CDR log files to compare the conducted conversations with the saved recordings.

- *SfB.xslt*

Can be used for the import object type: *SfB session data*

Purpose: Import of SfB session data to compare the conducted conversations with the saved recordings.



Upon request, ASC provides you with support in adjusting the [XSLT](#) templates or with additional [XSLT](#) files appropriate for your individual data structures.



For information about the XSLT Management module refer to the administration manual *XSLT management*.

9 Known problems and solutions

The following chapter describes common problems and questions and offers approaches for solutions.

9.1 The import job has been started but nothing happens.

- Check whether the job has actually been executed. In System Monitoring in the module *Jobs*, you can view the status of the respective job.
- In case of an [CSV/XML](#) import, check whether the source file could be read. If the source file could be read, it has been removed from the subdirectory in which it had been saved. If the source file remains in this subfolder, check whether the directory has been released for the service *Fileman*.
- In case of an [LDAP](#) import, check whether the [LDAP](#) connection that has been saved for the tenant is valid and whether it has access to the required data in the [LDAP](#).

9.2 The import job starts but the status report shows an error message.

- In this case, it is possible that there are problems with the data source or the deployed [XSLT](#) file. Check the [XSLT](#) file for structural errors. Open the [XSLT](#) file in the browser *Firefox*. It clearly displays general structural errors. If the structure is correct, Firefox displays the [XSLT](#) file in a tree structure.

9.3 The import has been carried out but does not render the expected results.

Check the deployed [XSLT](#) file and if required the data source:

- Do the values in the [XSLT](#) file coincide with the [LDAP](#) attributes?
- Are there orthographic mistakes (case-sensitive)?
- Do the conditions make sense?
- Are expected fields missing?
- Is an unambiguous import key assigned?

9.4 The LDAP import has been carried out but no users or not all users have been imported.

This can have several causes:

- Go to System Monitoring to check the *execution report* of the import job. Have errors occurred due to missing mandatory fields or because no [PBX](#) has been configured?
- If no relevant data is available in the [LDAP](#) root node indicated in the import configuration, check the root node in the [LDAP](#) system.
- Check whether the [LDAP](#) account which is used for the [LDAP](#) connection in the application System Configuration in the *Tenants module* has access to the required data in the [LDAP](#) system.
- Check the [LDAP](#) connection in the tab *LDAP Connection Data* in the *Tenants module* of the application System Configuration.
- If you are using *other filters* for the import, check whether these filters are used correctly.

9.5 The LDAP import has been carried out but took very long and imported too much data.

- To reduce the amount of data, lower the root node in the tab *LDAP* or define a filter under *Other filters* which narrows down the amount of data to be imported.

10 Overview of the available neo tags for XSLT files

As the amount of user attributes can change from version to version, the following list may differ from the current status in *neo*.

10.1 Tags for mandatory fields

<ImportKey> Serves for the unambiguous identification of the employee and must thus be unique.

<LastName> Last name of the employee.

<FirstName> First name of the employee.

10.2 Tags for general employee attributes

<StaffNumber> Employee number.

<HireDate> Date when the employee was hired (format: yyyy-dd-MM).

<DateOfBirth> Date of birth of the employee (format: yyyy-dd-MM).

<EMailAddress> E-mail address of the employee.

<Comment> Additional free text.

<ReplayViaPhoneAddress> *Replay via phone address* of the employee.

<timeZoneID> Time zone of the employee (must coincide with the value from the *Time zone drop-down menu* in *neo*).

<Address> Aggregative tag for all address attributes.

<ZipCode> ZIP code of the employee.

<Street> Street of the employee.

<Country> Country of the employee.

<City> City of the employee.

</Address> The *Address* tag must be closed behind the four address information.

<TeleoptiEmployeeId> Special application for Teleopti systems.

10.3 Tags for the assignment of organization units and roles

<OrgaUnits> Aggregative Tag for the assignment of organization units to employees.

<IsMember> Aggregative tag for the members of an organization unit.

<OrgaUnitImportKey> Either the import key of the organization unit.

<OrgaUnitImportKey> Can appear several time.

<OrgaUnitName> Or the name of the organization unit.

<OrgaUnitName> Can appear several times.

</IsMember>

<IsSupervisor> Aggregative tag for the superiors in organization units.

<OrgaUnitImportKey> Either the import key of the organization unit.

<OrgaUnitImportKey> Can appear several time.

<OrgaUnitName> Or the name of the organization unit.

<OrgaUnitName> Can appear several times.

</IsSupervisor>

</OrgaUnits>

<Roles> Aggregative tag for roles.

<Role>Name of the role which is supposed to be assigned to the employee.
</Roles>

10.4 Tags for the agent data of employees

<PBX> Name of the [PBX](#) which is supposed to be assigned to the employee.
<Extensions> Aggregative tag for the extensions of the employee.
<Extension> Extension of the agent.
<Extension> Can appear several times.
</Extensions>
<PBXAgentIDs> Aggregative tag for the [PBX Agent IDs](#).
<PBXAgentID> The [PBX Agent ID](#) of the employee.
<PBXAgentID> Can appear several times.
</PBXAgentIDs>
<ChatPBX> The chat [PBX](#) of the employee.
<ChatIDs> Aggregative tag for the chat IDs of the employee.
<ChatID> Chat ID of the employee.
<ChatID> Can appear several times.
</ChatIDs>
<PCName> Name of the employee's computer.
<PCLogin> Login name of the employee.

10.5 Tags for the employee's account

<LoginName> The login name of the employee must be unambiguous.
<AuthenticationViaLDAP> TRUE if the agent may login via [LDAP](#).
<AuthenticationLDAPDN> The [LDAP](#)-DN (distinguished name) of the employee.
<Password> Password of the employee. If no password is entered, a random password is generated and sent to the employee if they have entered a valid e-mail address.
<ChangePassword> TRUE if the users password is supposed to be changed upon the next login.
<PasswordNeverExpires> TRUE if the users password is never supposed to expire.
<PasswordNoRules> TRUE if the user may ignore the password rules.
<LockAccount> TRUE if the user's account is supposed to be locked.

10.6 Tags for the employees' general settings

<Superuser> TRUE if the user is supposed to be a superuser.
<HasAccessToData> TRUE if the user is supposed to have access to all data of the tenant.
<ReplayAllowed> TRUE if the user may replay recordings.
<DeleteAllowed> TRUE if the user may delete conversations.
<CoachingAdvisor> TRUE if the user is supposed to be coaching advisor.

10.7 Tags for the logging settings of employees

<AccessControl> TRUE if logging of access control is supposed to be active for the user.
<SearchActivitiesControl> TRUE if logging of search activities is supposed to be active for the user.

<ReplayActivities> TRUE if logging of the replay activities is supposed to be active for the user.

<ConfigActivities> TRUE if logging of the configuration activities is supposed to be active for the user.

<CallNotification> TRUE if call notification is supposed to be active for the user

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Glossary

CSV

Comma-separated values is a file format which stores tabular data in plain text form.

DN

Distinguished Name; an unambiguous identifier of objects within a hierarchically structured directory which involves the objects located hierarchically above the object it is supposed to identify.

LDAP

Lightweight Directory Access Protocol

NAS

Network Attached Storage is a file-level computer data storage server connected to a computer network providing data access to other devices on the network. NAS is usually used to provide independent storage capacity in a computer network without major effort. (Source: Wikipedia 4th May 2017)

PBX

Private Branch Exchange

PBX Agent ID

ID which has been deposited in the PBX for the agent.

UUID

Universally Unique Identifier is an identifier standard which makes it possible to unambiguously identify information in distributed systems without central coordination.

XML

Extensible Markup Language is a human-readable and machine-readable language which defines a set of rules for encoding documents.

XSLT

XSL Transformation, short XSLT, is a programming language to transform XML documents. XSLT is based on the logical tree structure of an XML document and serves to define transformation rules. XSLT programs, so-called XSLT style sheets, are designed according to the XML standard rules. (Source: Wikipedia 22nd March 2017) The style sheets are read in by dedicated software, the XSLT processors, which transform one or several XML documents into the respective output format based on these instructions.

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