

# EVOIPneo active for SIP



## Administration manual for system providers

10/16/2020

### Product line neo, version 6.x

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

EVOIPneo

EVOLUTIONneo / XXL / eco

EVOflex (country-specific)

Please note that you can always find the most up-to-date technical documentation and product updates in the partner area on our website at <http://www.asctechnologies.com>.

Copyright © 2019 ASC Technologies AG. All rights reserved.

Windows is a registered trademark of Microsoft Corporation. VMware® is a registered trademark of VMware, Inc. All other marks and names mentioned herein may be trademarks of their respective companies.



## Contents

<b>1</b>	<b>General information .....</b>	<b>5</b>
<b>2</b>	<b>Introduction .....</b>	<b>6</b>
<b>3</b>	<b>System requirements.....</b>	<b>7</b>
3.1	Hardware components .....	7
3.1.1	Recorder .....	7
3.2	Software components .....	7
3.3	External components .....	7
3.3.1	Supported PBXs and end devices .....	7
<b>4</b>	<b>Installation requirements .....</b>	<b>9</b>
4.1	Licenses .....	9
4.2	Information .....	9
<b>5</b>	<b>Overview install and configure product.....</b>	<b>10</b>
<b>6</b>	<b>Installation .....</b>	<b>11</b>
6.1	Install OpenScape Contact Center SDK-Runtime (optional).....	11
6.1.1	Basic setup.....	11
6.1.2	General patch.....	11
6.2	Install certificate for TLS encryption.....	11
6.2.1	Import certificate to recording server.....	11
6.2.1.1	Import customer-specific certificate to the recording server.....	12
6.2.1.2	Import PBX certificate to recording server .....	13
6.2.2	Import certificate to SIP client .....	14
6.2.2.1	Export TLS certificate from recording server.....	14
6.2.2.2	Import TLS certificate to SIP client.....	15
<b>7</b>	<b>Configuration.....</b>	<b>16</b>
7.1	System Configuration.....	16
7.1.1	Start application .....	16
7.1.2	Configure recording solution .....	17
7.1.2.1	Configure recording solution All-in-one Basic .....	17
7.1.2.2	Configure recording solution All-in-one Failover .....	72
7.1.2.3	Configure recording solution All-in-one Parallel Recording.....	128
7.1.2.4	Configure recording solution Multi-Server Recording .....	185
7.1.2.5	Configure recording solution Multi-Server Failover .....	241
7.1.2.6	Configure recording solution Multi-Server Parallel Recording .....	299
7.1.2.7	Synchronization options .....	355
7.1.2.8	Duplicates in parallel recording architectures .....	359
7.1.2.9	Standby management for failover architectures.....	363
7.1.3	Adjust neo configuration file.....	366
7.1.3.1	Adjust Recording Module for RTCP .....	366
7.1.3.2	Configure recording announcement.....	367

7.1.4	Configure recording announcement.....	370
7.2	Configure CTIconnect add-on .....	372
7.2.1	Configure OpenScape Contact Center (optional) .....	372
7.2.1.1	Create user for CTIconnect.....	372
7.2.2	Configure Genesys T-Server (optional) .....	373
7.2.2.1	Configure IP address and port of the Genesys T-Server .....	373
7.2.2.2	Configure IP address and port of the Genesys Configuration Server .....	374
7.2.2.3	Configure switch instance in the Genesys Configuration Server .....	375
7.2.2.4	Create users for the Genesys Configuration Server .....	376
<b>8</b>	<b>Troubleshooting.....</b>	<b>377</b>
	<b>List of figures .....</b>	<b>378</b>
	<b>List of tables .....</b>	<b>389</b>
	<b>Glossary .....</b>	<b>392</b>

**General information**

In the context of this document ASC represents ASC Technologies AG, its subsidiaries, branch offices, and distributors. An up-to-date overview of the aforementioned entities can be found at <https://www.asctechnologies.com>

ASC assumes no guarantee for the actuality, correctness, integrity or quality of the information provided in the manuals.

ASC regularly checks the content of the released manuals for consistency with the described hardware and software. Nevertheless, deviations cannot be excluded. Necessary revisions are included in subsequent editions.

Some aspects of the ASC technology are described in general terms to protect the ownership and the confidential information or trade secrets of ASC.

The software programs and the manuals of ASC are protected by copyright law. All rights on the manuals are reserved including the rights of reproduction and multiplication of any kind, be it photo mechanical, typographical or on digital data media. This also applies to translations. Copying the manuals, completely or in parts, is only allowed with written authorization of ASC.

Representative, if not defined otherwise, is the technical status at the time of the delivery of the software, the devices and the manuals of ASC. Technical changes without specified announcements are reserved. Previous manuals lose their validity.

The general conditions of sales and delivery of ASC in their latest version apply.

## 2 Introduction

This manual describes the installation and configuration of the recording solution in the application System Configuration.



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

The recording solution EVOIP<sub>neo</sub> active for SIP provides the functionality which is necessary for an active IP recording of unencrypted and encrypted conversations in a SIP environment.

To record conversations, the recording server is added to the conference as participant. This can be done automatically if configured that way on the phone or on the PBX or initiated manually by another participant via the key control of the phone.

The recording server receives the conversation data which is supposed to be recorded as a mixed RTP data stream. The additional data is extracted from the SIP signaling.

Since the recording is started by a conference call, the recording server does not receive the phone numbers of the other communication participants. To obtain this information nonetheless, different SIP headers can be configured as information source.

Based on the criteria configured in the Recording Planner, the Recording Control service makes a recording decision. The EVOIP<sub>neo</sub> recording service records the corresponding conversation data and saves them on the recording server.

### EVOIP<sub>neo</sub> active for SIP

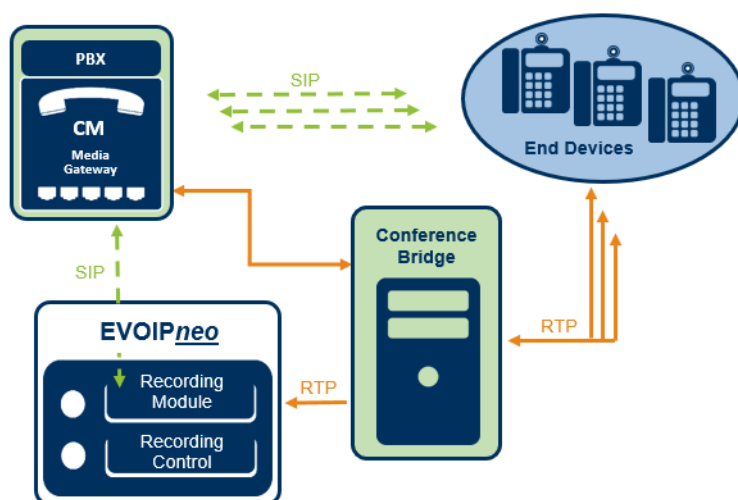


Fig. 1: Overview of the recording solution

### 3 System requirements



For basic information about the necessary hardware and software components refer to the installation manual *Installation requirements*.



A list of the codecs supported in this recording solution can be found in the installation manual *Installation requirements*.



A list of the supported PBXs and end devices as well as their supported versions can be found at ASC XCHANGE (<https://www.asc.de/partner>) in the current *neo Integration Overview*.

#### 3.1 Hardware components



For basic information about the necessary hardware components refer to the installation manual *Installation requirements*.



EVOIP<sub>neo</sub> recording software can be used on the customer's existing hardware. Alternatively, you can use ASC recorders.

##### 3.1.1 Recorder

For the recording solution you can use the following systems:

- EVOLUTION<sub>neo</sub> eco
- EVOLUTION<sub>neo</sub>
- EVOLUTION<sub>neo</sub> XXL



With hybrid systems (VoIP and TDM) the required software for the recording solution has already been installed on the EVOLUTION<sub>neo</sub> recorder. If more performance is needed, an additional EVOLUTION<sub>neo</sub> recorder or EVOIP<sub>neo</sub> server can be added.

#### 3.2 Software components

For the recording, you need the installation medium with the server software *neo* Suite which is installed on the ASC recording server.

#### 3.3 External components



A list of the supported PBXs and end devices as well as their supported versions can be found at ASC XCHANGE (<https://www.asc.de/partner>) in the current *neo Integration Overview*.

##### 3.3.1 Supported PBXs and end devices

Supported are PBXs end devices which use SIP as signaling protocol.

The following RFC standards are supported:

- RFC 3261 (SIP)
- RFC 3550 (RTP)
- RFC 3665 (SIP Basic Call Flow Examples)
- RFC 3711 (SRTP)
- RFC 4566 (SDP Session Description Protocol)
- RFC 4568 (SDES)
- RFC 4733 (DTMF) optional



---

In this recording solution, the [SIP](#) authentication methods *basic* and *auth* are supported.

---

ASC gives no guarantee for the functionality of untested end devices.



## 4 Installation requirements



For basic information about the used default ports refer to the installation manual *Installation requirements* in chapter *Communication matrix*.



If you have configured customer-specific ports, you have to open them in the firewall separately.

### 4.1 Licenses

#### ASC

License name	Number
EVOIP <sup>neo</sup> Base license - active	1 license per recording server
EVOIP <sup>neo</sup> active for SIP	1 license per concurrent recording

Tab. 1: Licenses of ASC



Depending on the deployed PBX additional vendor-specific licenses can be required.

#### OpenScape Contact Center (optional)

License name	Number
CTI <sup>connect</sup> for Unify OpenScape Contact Center	1 per recording system
SDK license for OpenScape Contact Center of Unify	1 per monitored business unit Number of the <a href="#">SDK</a> licenses

Tab. 2: Licenses for OpenScape Contact Center optional

#### Sparkassen FI ISP (optional)

License name	Number
CTI <sup>connect</sup> for Sparkassen FI ISP	1 per recording system

Tab. 3: Licenses for Sparkassen FI ISP optional

#### Genesys T-Server (optional)

License name	Number
CTI <sup>connect</sup> for Genesys T-Server	1 per recording system
Genesys Recording Connector	1 per monitored recording resource
Genesys Universal SDK	1 per recording server

Tab. 4: Licenses for Genesys

### 4.2 Information

Before you start the installation, make sure that the following information is available:

- IP address of the recording server
- SIP port of the recording server



In this recording solution, the [SIP](#) authentication methods *basic* and *auth* are supported.

## 5

## Overview install and configure product

The following steps have to be carried out:

1. Install *neo* software
2. Configure PBX and conference bridge
  - Since the configuration is vendor-specific, the steps cannot be described here. The configuration is usually done by the telecommunication technician.
3. Configure System Configuration
  - Create and activate recording architectures
    - The recording servers, recording types, and the integration types are assigned in the Recording Architectures module.
  - Configure servers
    - In the Servers module, the usage of the server is configured.  
A server can be used for archiving, import, export, replay, data storage or for audio analysis.
  - Create PBX
    - A PBX configuration can either be created via the PBX module or via the configuration in the Integrations module.
  - Create, configure, and activate integration
    - Configure recording architecture  
Link the integration to the previously created recording architecture.
    - Global recording settings  
Configuration of port and transport protocol for SIP signaling
    - Configure recording servers  
Configuration of the parameters of the recording server, e. g. IP address, incoming port for RTP, and extensions.
  - Configure add-on  
The add-on is disabled by default.  
Optionally, you can configure the following add-ons for this recording solution:  
*OpenScape Contact Center*  
*Sparkassen FI ISP*  
*Genesys T-Server*
  - Configure miscellaneous settings  
Optional configuration of participant information in an additional data field

## 6 Installation



**Before** installing the *neo* software, ensure that Microsoft Windows has been installed and configured according to our specifications.



For information about the installation and configuration of Microsoft Windows refer to the respective installation manual for system providers *Configuration Windows Server 2012 R2*, *Configuration Windows Server 2016* or *Configuration Windows Server 2019*.



For information about the installation of the *neo* software refer to the installation manual for system providers *Installation of the recording software of ASC*.

### 6.1 Install OpenScape Contact Center SDK-Runtime (optional)

If you would like to use the software OpenScape Contact Center, you have to additionally install the following components.

Check which version of the OpenScape Contact Center is used, e. g. V8 R2 GP03.

Then install the *basic setup* for the release and subsequently the appropriate *general patch*, in the example GP03.

#### 6.1.1 Basic setup

1. From the installation path, extract the ZIP file which corresponds to the version of your server, e. g. `\ASC\ASC Product Suite\thirdparty\OSCCRuntimeSDK\ SDK_Runtime_V8R2.zip`.
2. Execute the installation file `setup.exe` and follow the instructions of the installation wizard.

#### 6.1.2 General patch

Start the Windows Installer Patch `OSCC80R2G03SDKRuntime.msp` under `\ASC\ASC Product Suite\thirdparty\OSCCRuntimeSDK\`.

### 6.2 Install certificate for TLS encryption

For encrypted transfer between the recording server and the [SIP](#) trunk, both components must be able to match and confirm the certificate of the other participant. Therefore, both certificates must be available on both components.

To be able to establish an encrypted connection, proceed as follows:

- [chapter "Import certificate to recording server"](#), p. 11
- [chapter "Import certificate to SIP client"](#), p. 14

#### 6.2.1 Import certificate to recording server

To enable the recording server to confirm the certificate of the [SIP](#) client, the certificate must be available on the recording server.

There are 2 possibilities to import [TLS](#) certificates:

- *Installing a customer-specific certificate*, see [chapter "Import customer-specific certificate to the recording server"](#), p. 12
- *Installing PBX certificate already existing on the SIP client*, see [chapter "Import PBX certificate to recording server"](#), p. 13

### 6.2.1.1 Import customer-specific certificate to the recording server

If you would like to use a customer-specific certificate, you can import it to the keystore of the recording server by means of the program *certimporter.exe*.

1. To import the [TLS](#) certificate to the recording server, change to the recording server.
2. Open the tool Certificate Import Tool in the folder  
*C:\Program Files (x86)\ASC\ASC Product Suite\scripts*.  
 ⇒ The window Certificate Import Tool appears.

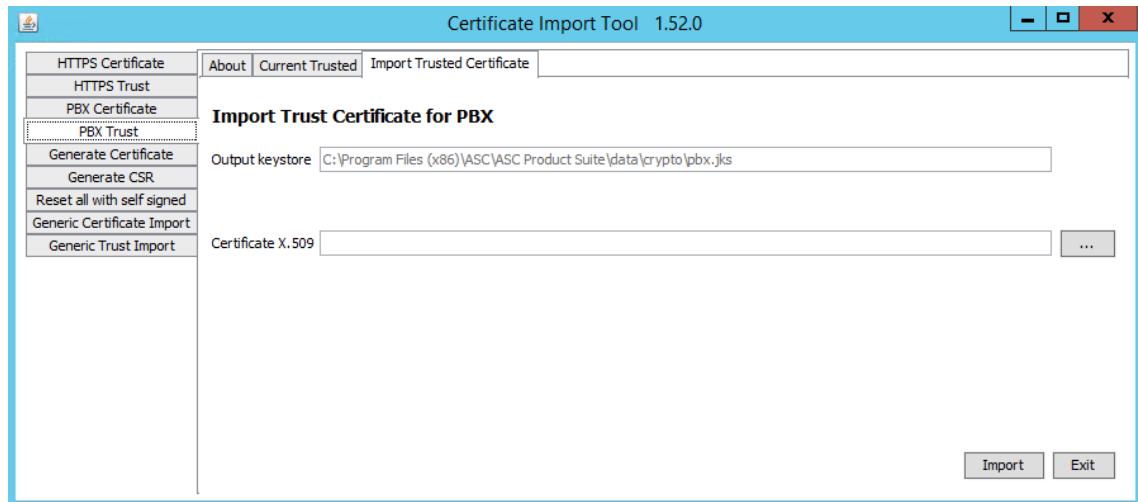



Fig. 2: Selection of the certificate

3. Select the menu item *PBX Trust* in the navigation bar.  
 This function enables you to fill the keystore with the customer-specific certificate.
4. Select the tab *Import Trusted Certificate*.
5. Click on the button  next to the field *Certificate X.509* to select the certificate file.

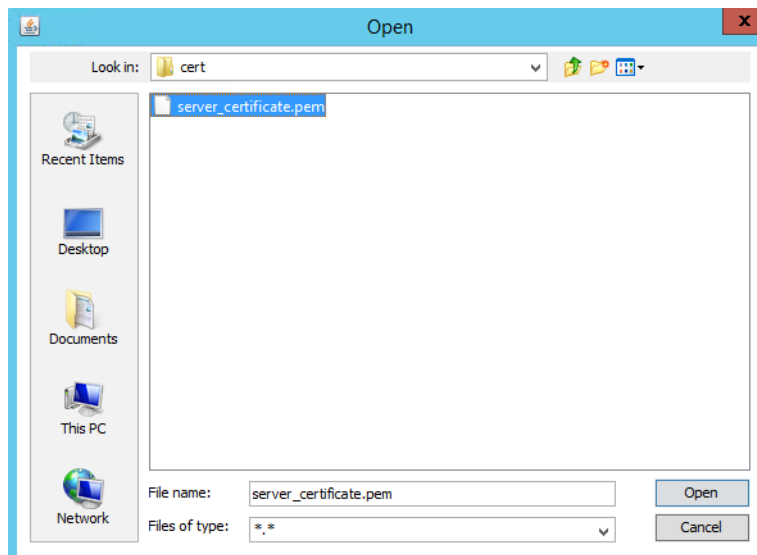


Fig. 3: Import certificate

6. Select the certificate file *server\_certificate.pem* that you have copied from the [SIP](#) client.
7. Click on the button *Open*.  
 ⇒ The window to enter the alias appears.

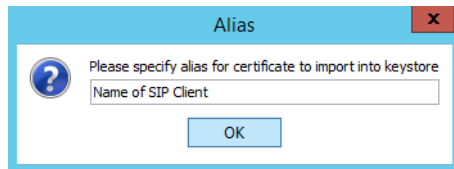


Fig. 4: Confirm alias

8. Enter the name of the [SIP](#) client.
9. Click on the button *OK* to confirm the alias.
  - ⇒ A message will inform you about the successful import.

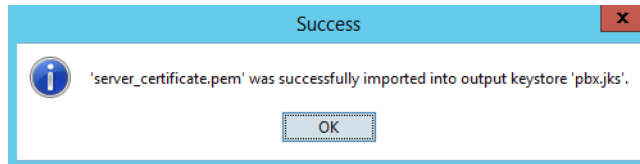


Fig. 5: Message - Successful import

10. Click on the button *OK* to confirm the success message.
11. Click on the button *Exit* to close the program Certificate Import Tool.

#### 6.2.1.2 Import PBX certificate to recording server

By means of this function you overwrite the delivered certificate on the recording server with the certificate of the [SIP](#) client or of the [PBX](#).

1. Copy the certificate of the [SIP](#) client or of the [PBX](#) to the recording server.
2. Open the tool *Certificate Import Tool* in the folder *C:\Program Files (x86)\ASC\ASC Product Suite\scripts*.
  - ⇒ The window *Certificate Import Tool* appears.

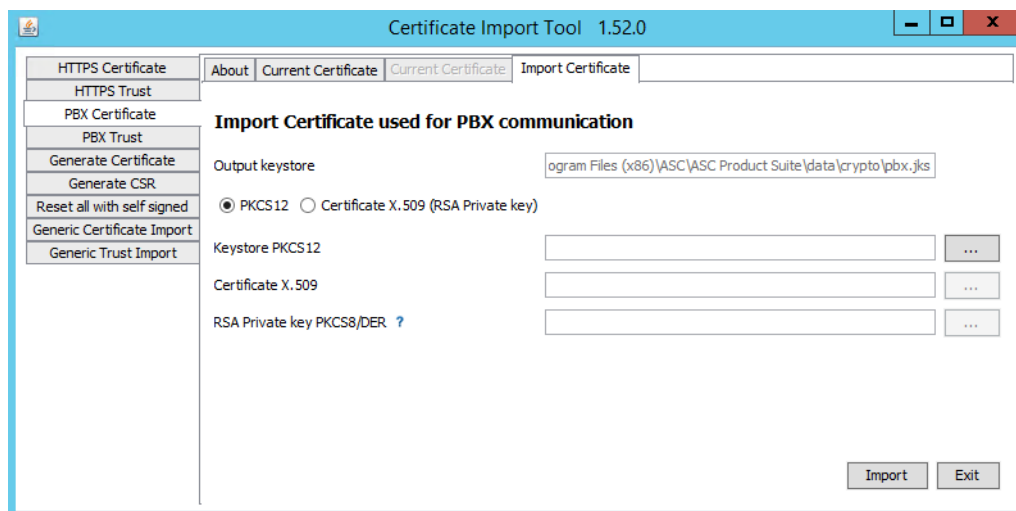



Fig. 6: Selection of the certificate

3. Select the menu item *PBX Certificate* in the navigation bar.  
By means of this function you overwrite the delivered certificate on the recording server.
4. Select the tab *Import Certificate*.
5. Select the format of the certificate.
6. Click on the button  next to the respective entry field to select the certificate file.
7. Select the respective certificate file that you have copied from the [SIP](#) client.
8. Click on the button *Open*.

- ⇒ The window to enter the alias appears.
- 9. Enter the alias of the **SIP** client.
- 10. Click on the button **OK** to confirm the alias.
  - ⇒ A message will inform you about the successful import.
- 11. Click on the button **OK** to confirm the success message.
- 12. Click on the button **Exit** to close the program *Certificate Import Tool*.

## 6.2.2 Import certificate to SIP client

To enable the **SIP** client to confirm the certificate of the recording server, the certificate of the recording server must be available in the certificate management of the **SIP** client.

### 6.2.2.1 Export TLS certificate from recording server

1. To export the certificate from the recording server, change to the recording server.
2. Open the Certificate Import Tool *certimporter.exe* in the folder *C:\Program Files (x86)\ASC\ASC Product Suite\scripts*.
  - ⇒ The following window appears:

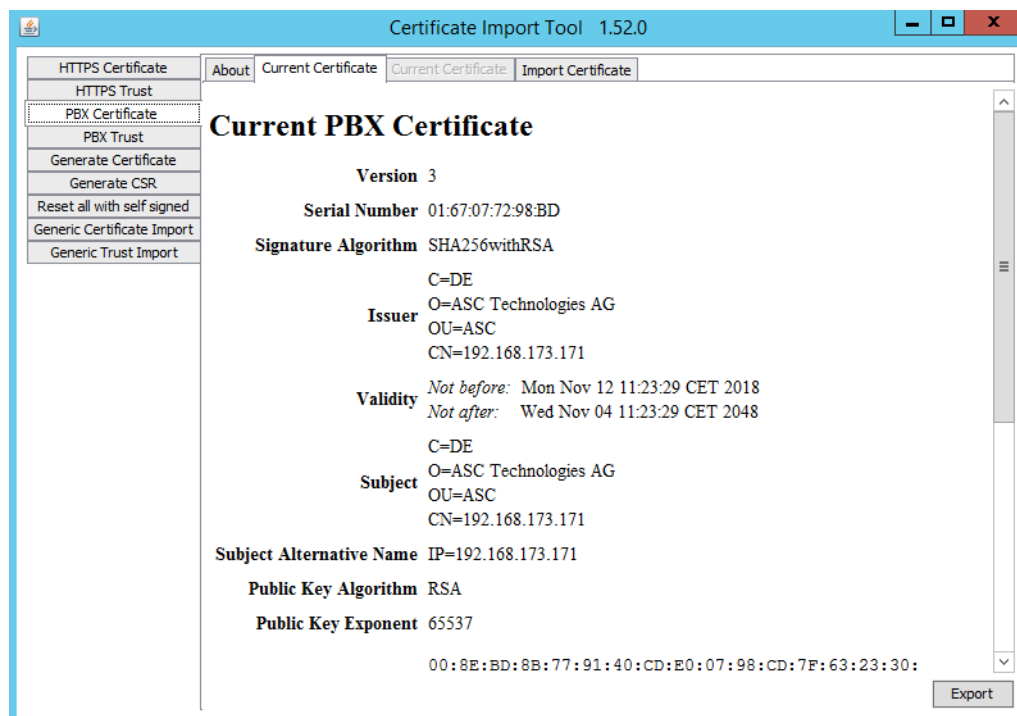
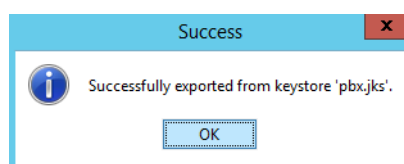


Fig. 7: Export PBX certificate from recording server

3. Select the menu item *PBX Certificate* in the navigation bar.
4. Click on the tab *Current Certificate*.
5. Click on the button **Export** to export the current certificate.
6. Select an appropriate storage location for the certificate.
7. Click on the button **Save**.
  - ⇒ A success message appears.



8. Upon confirmation, you can import the certificate to the [SIP](#) client.

### 6.2.2.2 Import TLS certificate to SIP client

To be able to establish an encrypted connection to the recording server, you must import the certificate of the recording server to the trust store in the certificate management of the [SIP](#) client.

## 7 Configuration

### 7.1 System Configuration



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

#### 7.1.1 Start application

During the installation routine, shortcuts for the *neo* programs are created on your desktop.

1. To start the application directly on the server, double-click on the shortcut System Configuration.

To access the application from a computer via the web, enter the following URL in the address bar:

*https://<System-IP>/SystemConfiguration.*

If you have configured customer-specific ports, you have to include the port in the URL:

*https://<System-IP>:<Port>/SystemConfiguration.*

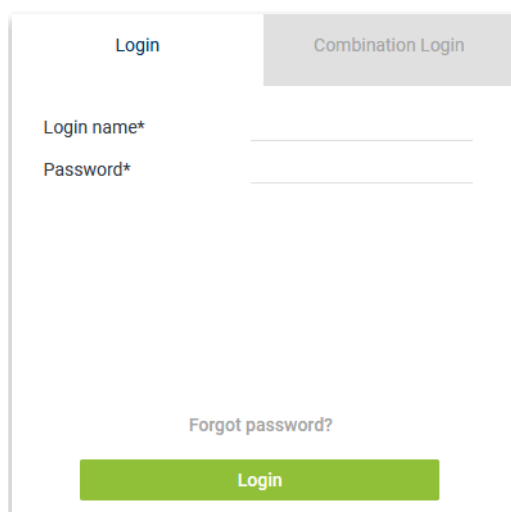


Fig. 8: System Configuration - web interface

To install and configure the recording solutions, you have to log in as system provider.

Login data for the administrator of the system provider:

User name:	<i>system-admin</i>
<i>neo</i> version < 6.3	
Default password:	<i>1</i>
	If the default password <i>1</i> has never been changed before a software update to a <i>neo</i> version $\geq 6.3$ , the password must be changed upon the next login or by entering it again. If the default password has already been changed before a software update to a <i>neo</i> version $\geq 6.3$ , the changed password remains.
<i>neo</i> version $\geq 6.3$	
Default password:	<i>A\$c123</i>

Tab. 5: Login data - system provider

2. Log in to the web interface.
  - ⇒ The main window System Configuration appears.



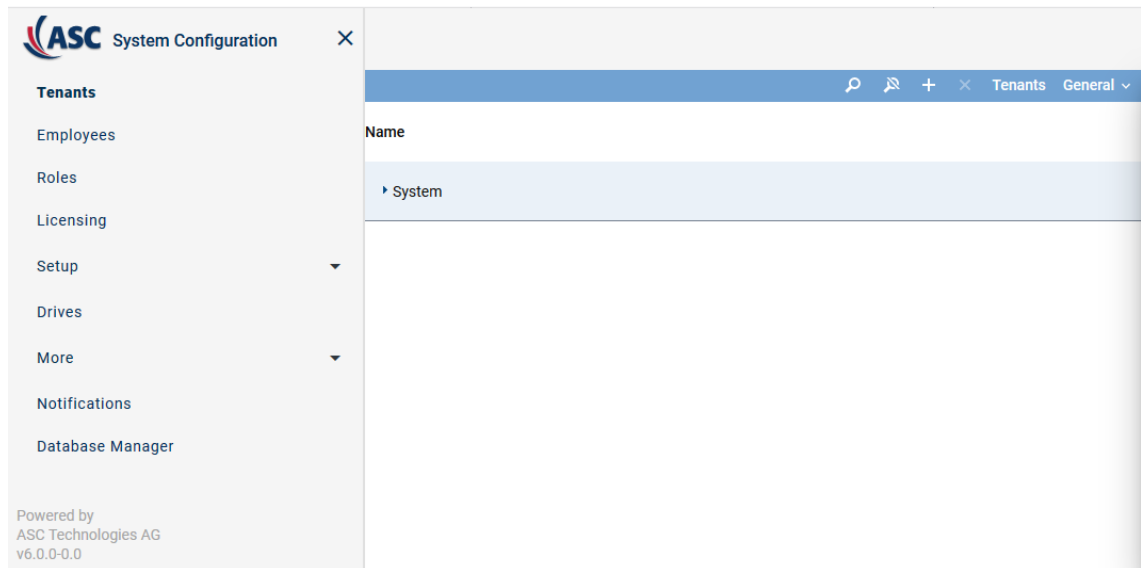


Fig. 9: System Configuration - main view:

### 7.1.2 Configure recording solution

#### Supported recording architectures

In this recording solution, the following recording architecture types are supported:

- All-in-one Basic Recording
- All-in-one Failover
- All-in-one Parallel Recording
- Multi-Server Recording
- Multi-Server Failover
- Multi-Server Parallel Recording

#### 7.1.2.1 Configure recording solution All-in-one Basic

##### 7.1.2.1.1 Create recording architecture

Start the configuration in the Recording Architectures module because an activated recording architecture is required for further configuration.

The recording servers, recording types, and the integration types are assigned in the Recording Architectures module.

1. Select the menu item *Setup > Recording Architectures* in the navigation bar.
  - ⇒ The following window appears:

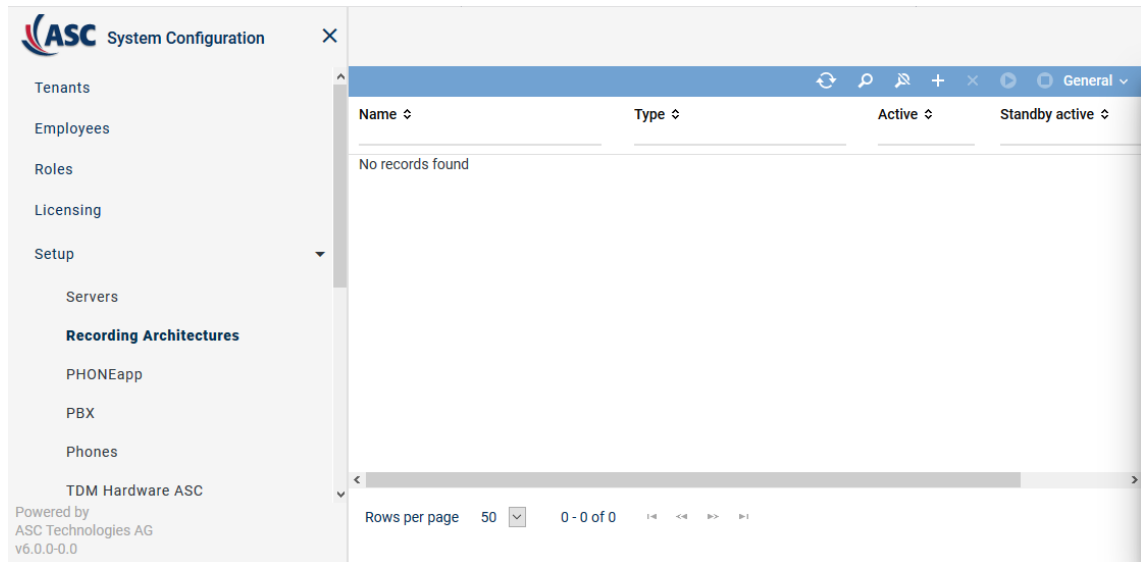




Fig. 10: Recording architectures - main view

<b>Name</b>	Name of the recording architecture
<b>Type</b>	Type of the recording architecture
<b>Active</b>	Shows whether the recording architecture has been activated and is ready to be used for the recording. <div> <span>✓</span> = Recording architecture is active and ready to be used for recording. It can be deactivated by clicking on the icon  (<i>Deactivate</i>) in the toolbar.  <span>✗</span> = Recording architecture is not active. It can be activated by clicking on the icon  (<i>Activate</i>) in the toolbar. </div>
<b>Standby Active</b>	Shows whether the standby server is active for one or several recording components in the recording architecture. <div> <span>✓</span> = At least 1 standby server is active.  <span>✗</span> = No standby server is active or no standby server has been defined. </div>
<b>Creation Date</b>	Date on which the recording architecture was installed.
<b>Updated</b>	Date on which the settings of the recording architecture were updated for the last time.





**NOTICE!** Hidden columns can be added by clicking on the menu item *General > Adjust Table*.





### Toolbar of the Recording Architectures module

The toolbar offers the following functions.



Fig. 11: Toolbar Recording Architectures module

	<b>Refresh</b>	Refreshes the main view.
	<b>Search</b>	Opens the window of the search function. The search function allows searching systematically for sets of data which meet certain criteria.  The icon  is displayed whenever the search has been adjusted by means of a filter.
	<b>Reset search</b>	Resets all search filters so that the main view displays all data sets again.

	<i>Create</i>	Creates a new recording architecture.
	<i>Delete</i>	Deletes the selected recording architecture. The recording architecture is removed from the list of the main view. <b>NOTICE!</b> You can only delete recording architectures which are inactive and have not been assigned to an integration or server for the import.
	<i>Activate</i>	Activates the selected recording architecture.
	<i>Deactivate</i>	Deactivates the selected recording architecture. <b>NOTICE!</b> You can only deactivate recording architectures which have neither been assigned to an active integration nor to an active import.
<i>Recording Architectures</i>	<i>Standby management</i>	The menu item is only available for recording architectures with failover possibilities. By clicking on the menu item Standby Management, you can open a window in which you can manually define the active server in architectures with failover concepts.
<i>General</i>	<i>Print</i>	Prints the table of the main view.
	<i>Adjust Table</i>	Opens a window in which you can adjust the following settings for the main view: <ul style="list-style-type: none"> <li>• <i>Displayed information</i></li> <li>• <i>Order of the displayed columns</i></li> <li>• <i>Number of rows per page</i></li> </ul>
	<i>Save Table Configuration</i>	Saves the current table configuration of the main view as default view of the user.
	<i>General Help</i>	Opens the online help.
	<i>Module Help</i>	Opens the module-specific online help.




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

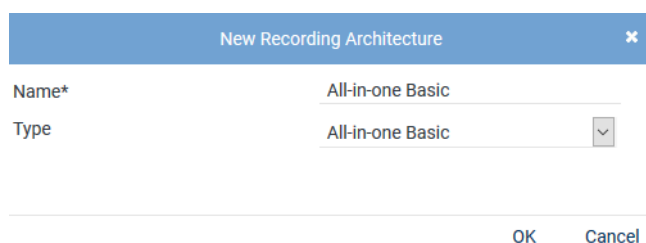
### Create recording architecture All-in-one Basic

If the entire *neo* software has been installed on one server, you must create a recording architecture of the type *All-in-one Basic Recording*.



Depending on the selected recording architecture type, the following configuration steps vary. The following configuration steps are exemplary for the recording architecture *All-in-one Basic Recording*.

1. To create a new recording architecture, click on the icon  (*Create*) in the toolbar of the main view.  
⇒ The window *New Recording Architecture* appears.



New Recording Architecture

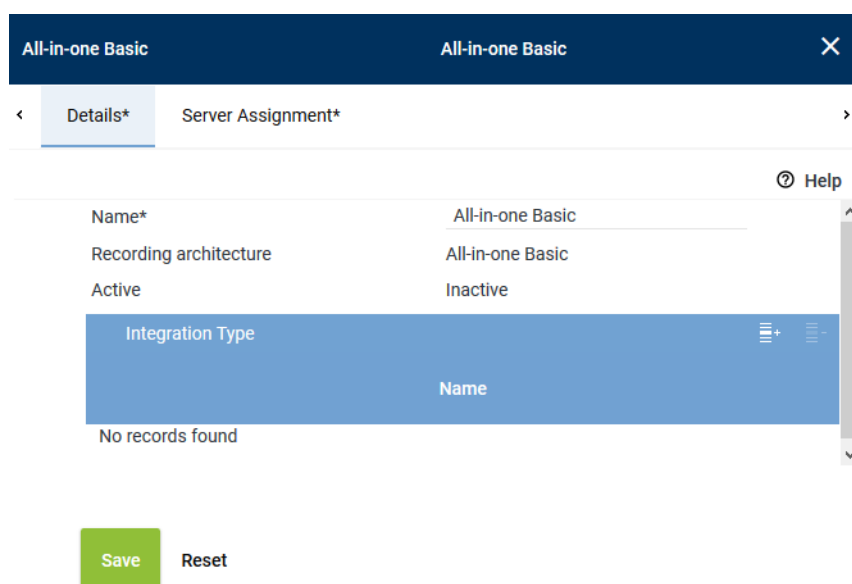
Name\* All-in-one Basic

Type All-in-one Basic

OK Cancel

Fig. 12: Create recording architecture - All-in-one Basic Recording

- In the entry field *Name*, enter a descriptive name for the recording architecture.
- From the drop-down list *Type*, select the recording architecture type *All-in-one Basic Recording*.  
**NOTICE!** The drop-down list only displays the supported recording architecture types.
- Click on the button *OK*.  
⇒ Your entries now appear in the detail view.



All-in-one Basic All-in-one Basic

< Details\* Server Assignment\* >

Help

Name*	All-in-one Basic
Recording architecture	All-in-one Basic
Active	Inactive


Integration Type

No records found

Save Reset

Fig. 13: Recording architecture - tab Details

### Add integration type

- Click on the icon  (*Add*) in the toolbar of the list *Integration Type*.  
⇒ The window *Integration Type* appears.

Integrationstyp

Name

SIP active

Hinzufügen
Abbrechen

Fig. 14: Select integration type



Only those integration types are displayed which have a license in the system and which support the selected architecture type.



Any number of integration types can be assigned to a recording architecture.

- Select *SIP active* from the list of the available integration types and click on the button *Add*.  
⇒ The name of the integration type now appears in the list in the detail window.

### Assign server for All-in-one Basic

- Click on the tab *Server Assignment* to assign a recording server to the recording architecture..

All-in-one Basic
All-in-one Basic

Details\*
Server Assignment\*

Server\*
REC-01
+
-

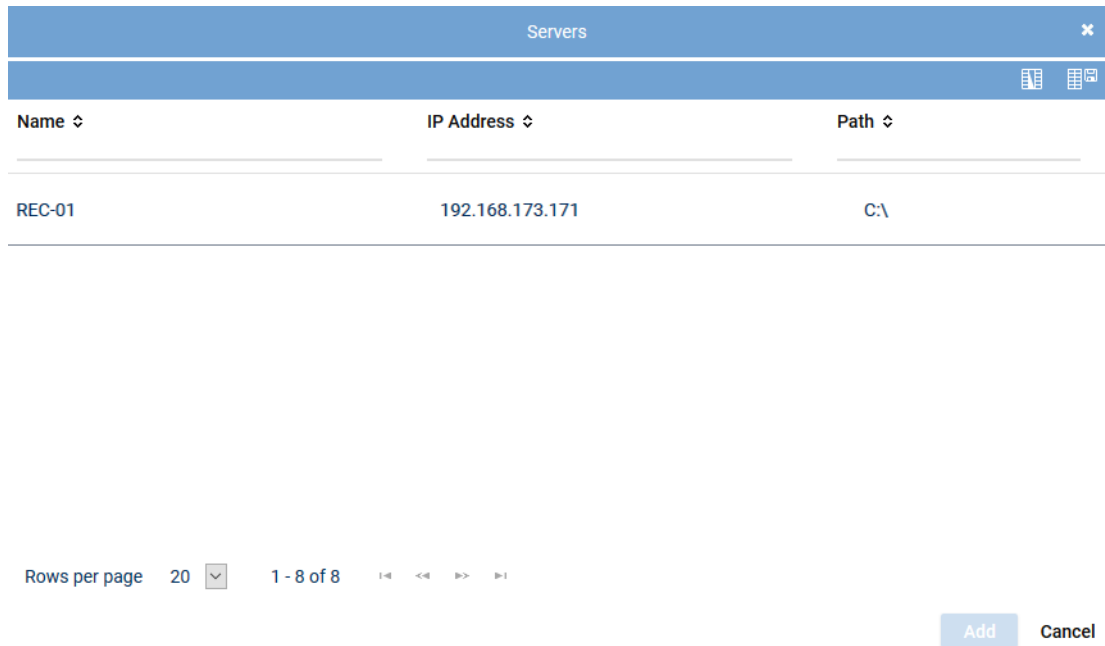
Used in activated architecture
No

Recording type
☐ VoIP/Video
☐ TDM
☐ Screen
☐ Chat

Save
Reset

Fig. 15: Recording architecture - tab Server Assignment

2. Click on the button **+** next to the entry field *Server*.  
⇒ The window *Servers* appears.



Name ↕	IP Address ↕	Path ↕
REC-01	192.168.173.171	C:\

Rows per page 20 1 - 8 of 8

Add Cancel

Fig. 16: Recording architecture - assign server

3. Select the respective server.



A server can be configured in several recording architectures, but you cannot activate several recording architectures with the same server at the same time. If you would like to activate several recording architectures at the same time, you have to use different servers to do so.

4. Click on the button *Add*.  
⇒ The name of the server appears in the detail view.
5. Activate the check boxes in front of the recording variants that you would like to use this server for.

Recording type

☒ VoIP/Video

☐ TDM

☐ Screen

☐ Chat


Save Reset

Fig. 17: Recording architecture - activate recording variant



You can activate several recording types if the integration has been designed for this and if you have installed the respective licenses.

### Activate recording architecture

1. Click on the button *Save*.
2. Select the recording architecture in the main view so that the icon  (*Activate*) in the tool-bar becomes active.



<i>Creation Date</i>	Date on which the server was installed.
<i>Updated</i>	Date on which the settings of the server were updated for the last time.

**NOTICE!** Hidden columns can be added by clicking on the menu item *General > Adjust Table*.

### Toolbar of the Servers module

The toolbar offers the following functions.

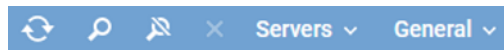







Fig. 20: Toolbar Servers module

	<i>Refresh</i>	Refreshes the main view.
	<i>Search</i>	Opens the window of the search function. The search function allows searching systematically for sets of data which meet certain criteria.  The icon  is displayed whenever the search has been adjusted by means of a filter.
	<i>Reset search</i>	Resets all search filters so that all sets of data are displayed in the main view again.
	<i>Delete</i>	Deletes the selected server configuration.  This function is meant to delete the server configuration if the hardware of a server has been removed and there is no connection to the <i>neo</i> system.
<i>Servers</i>	<i>Administrate Server Locations</i>	Opens a window in which you can create and administrate locations of the servers, see <a href="#">chapter "Administrate server locations"</a> , p. 24.
	<i>Administrate NTP server</i>	Opens a window in which you can administrate the servers for the time synchronization, see <i>Administrate NTP server</i> .
	<i>Manage Synchronization Configurations</i>	Opens a window in which you can manage the synchronization configurations.
<i>General</i>	<i>Adjust Table</i>	Opens a window in which you can adjust the following settings for the main view: <ul style="list-style-type: none"> <li>• <i>Displayed information</i></li> <li>• <i>Order of the displayed columns</i></li> <li>• <i>Number of rows per page</i></li> </ul>
	<i>Save Table Configuration</i>	Saves the current table configuration of the main view as default view of the user.
	<i>General Help</i>	Opens the online help.
	<i>Module Help</i>	Opens the module-specific online help.



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

### Administrate server locations

You can create and manage a list of server locations. In the tab *Details*, you can assign locations to the servers.



### Add server locations

- Click on the menu item *Servers > Administrate Server Locations* in the toolbar of the main view.  
⇒ The window *Server Locations* appears.

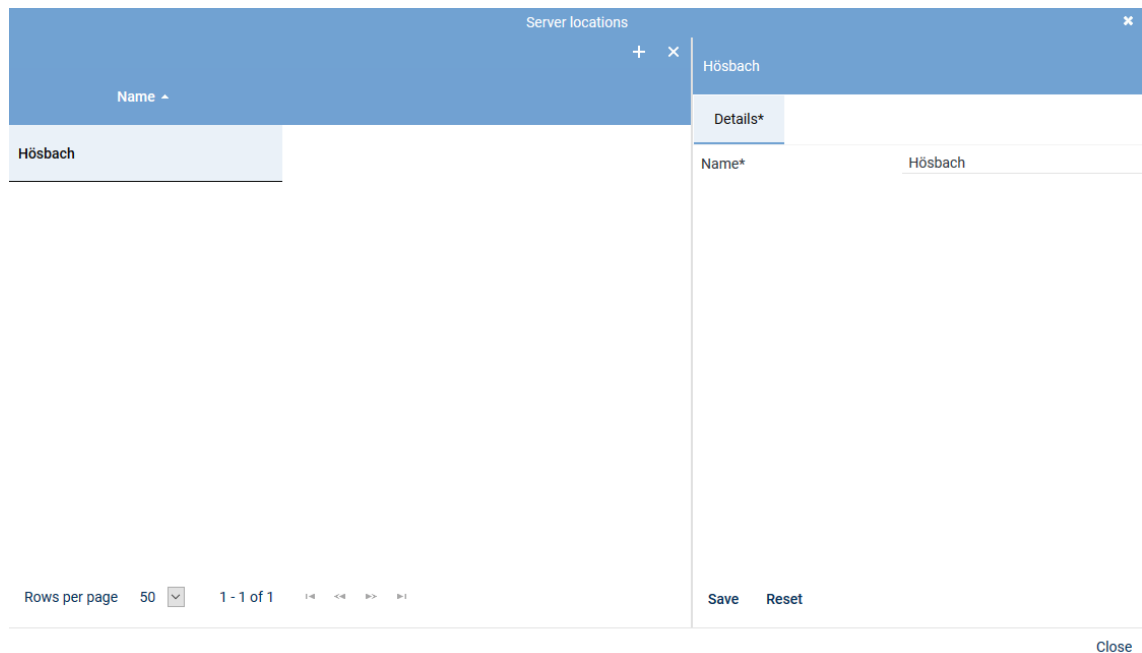



Fig. 21: Add server locations

- Click on the icon  (*Create*) in the toolbar of the window *Server Locations*.
- Enter the name of the location on the right side in the tab *Details*.
- To save the entry, click on the button *Save*.  
To discard the entry, click on the button *Reset*.
- To add further locations, repeat the last 3 steps.
- To close the window, click on the button *Close*.

### Delete server location



A server location can only be deleted when it has not been assigned. To be able to delete a server location, you must first delete possible assignments.

- Click on the menu item *Servers > Administrate Server Locations* in the toolbar of the main view.  
⇒ The window *Server Locations* appears.
- Select the location you would like to delete.

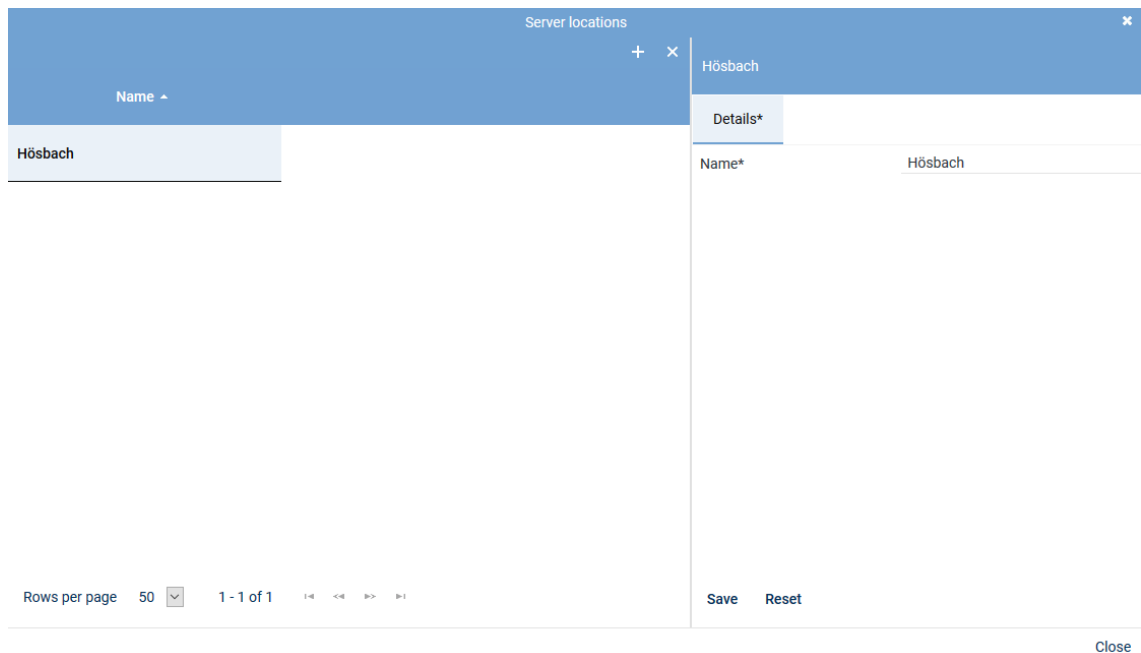



Fig. 22: Delete server location

3. Click on the icon  (*Delete*) in the toolbar of the window.
4. To delete further locations, repeat the last 2 steps.
5. To close the window, click on the button *Close*.

### Tab Details

1. To configure the server, select the entry of the corresponding server in the main view.
  - ⇒ In the detail view, the tab *Details* appears.
  - The information *Name* and *Configured IP address* has already been entered during the installation and is displayed for your information only.

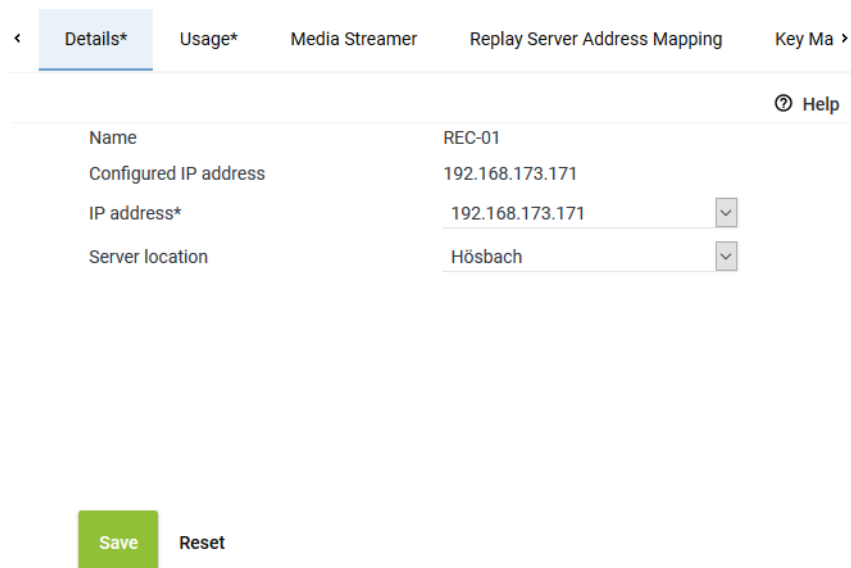


Fig. 23: Servers - tab Details

2. From the drop-down list, select the IP address which is supposed to be used as default address of the server in the system.
3. Select the *Server location* in the drop-down list. The drop-down list displays all locations which have been created in the location management.

- Click on the button **Save** if the entries are correct.

### Tab Usage

- Click on the tab *Usage* to configure the intended purpose.



As a server may be used for several recording solutions, all intended purposes are displayed. Note that some intended purposes do not apply for certain recording solutions. In chat recording, for instance, audio analysis or replay via phone cannot be used.

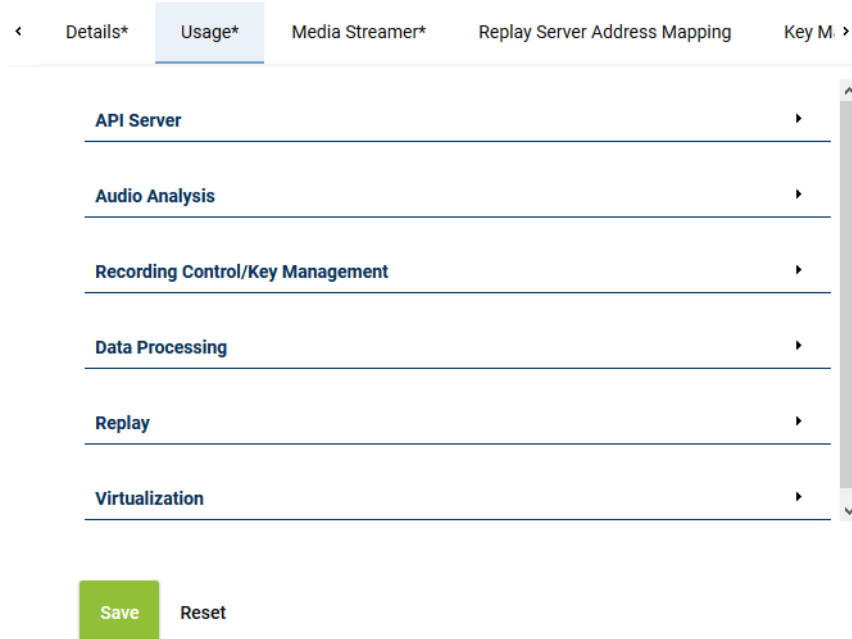


Fig. 24: Servers - tab usage

### Group field API Server

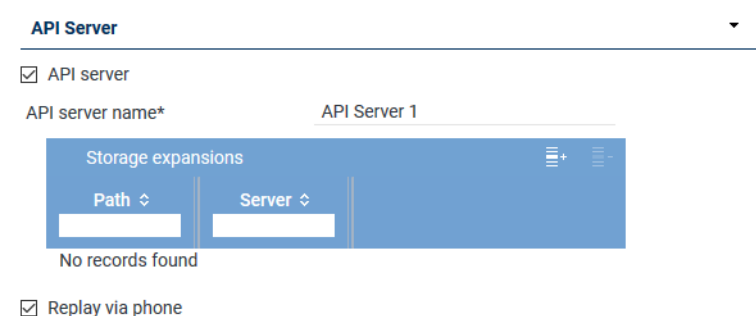


Fig. 25: Group field API Server



The ASC API Server is a service within the neo software.



The ASC API Server must have been activated on every server where the Recording Control service runs.


The ASC API Server does not only offer an interface for the internal modules; additionally, the client applications communicate with the neo system by means of this interface, too, using defined commands.

Furthermore, the ASC API Server is responsible for replay by means of the web browser. Not until the ASC API Server has started, can the replay server be activated and the corresponding ASC API Server assigned for replay in the web applications.

Parameter	Value/Description
<i>API server</i>	<p>Tick the check box to start the API server.</p> <p><input checked="" type="checkbox"/> = Function has been activated. You have to complete the entry field <i>API server</i>.</p> <p><input type="checkbox"/> = Function has not been activated.</p> <p>In order to be able to reach the API server from a public network and with configured port forwarding, too, you have to adjust the settings in the tab <i>Replay Server Address Mapping</i>, see <a href="#">chapter "Tab Replay Server Address Mapping"</a>, p. 37.</p>
<i>API server name</i>	<p>Enter the name which is supposed to denote the server in the system. The displayed name can be selected arbitrarily and is a kind of pseudonym.</p> <p>The displayed name is meant to make it easier for users to select a server as different API servers may be used across the system by different tenants. When selecting the API server, these pseudonyms are displayed on the client computers instead of the real server name or the IP address.</p>
<i>List Storage expansions</i>	<p>Here, you can add storage expansions for replay. If a recording which is supposed to be replayed cannot be found on the server, the search is continued on the storage expansions which have been entered here. That way, even recordings can be replayed which have not been transferred to the server.</p> <p>If the function <i>Replay</i> has been activated, you can adjust the following settings:</p> <ul style="list-style-type: none"> <li>By clicking on the icon  (<i>Add</i>), you can add the storage expansions, see <a href="#">chapter "Add storage expansion for replay"</a>, p. 29.</li> <li>By clicking on the icon  (<i>Remove</i>), you can remove the storage expansions from the list.</li> </ul> <p>If you use several recording servers in your system for which storage expansions have been configured, you can add any storage expansion of any recording server on every API server of the system.</p>
<i>Replay via phone</i>	<p>Activate this function if you would like to use the functions <i>Replay via phone</i> or <i>Last Call Repeat</i>.</p> <p><input checked="" type="checkbox"/> = Function has been activated.</p> <p><input type="checkbox"/> = Function has not been activated.</p> <p><b>NOTICE!</b> The function <i>Replay via phone</i> has been implemented in the following <i>neo</i> components:</p> <ul style="list-style-type: none"> <li>Application POWER<del>play</del> Pro</li> <li>Application POWER<del>play</del> Instant</li> <li>Replay module</li> </ul> <p>In order to enable a client to use the functionality <i>Replay via phone</i>, you have to assign this client an identifier either in the Employees module or in the Phones module which allows the system to clearly identify the phone.</p>

Parameter	Value/Description
	<b>NOTICE!</b> In the tab <i>Media Streamer</i> , you have to assign this function to a <a href="#">PBX</a> , see <a href="#">chapter "Tab Media Streamer", p. 36</a> . To be able to do so, at least 1 <a href="#">PBX</a> must have been configured in the system.

### Add storage expansion for replay

1. Click on the icon  (*Add*) in the toolbar of the list.
2. Select 1 or several storage expansions.  
If you would like to select several storage expansions or revoke a selection, click on the respective line while holding the [Ctrl] key down.

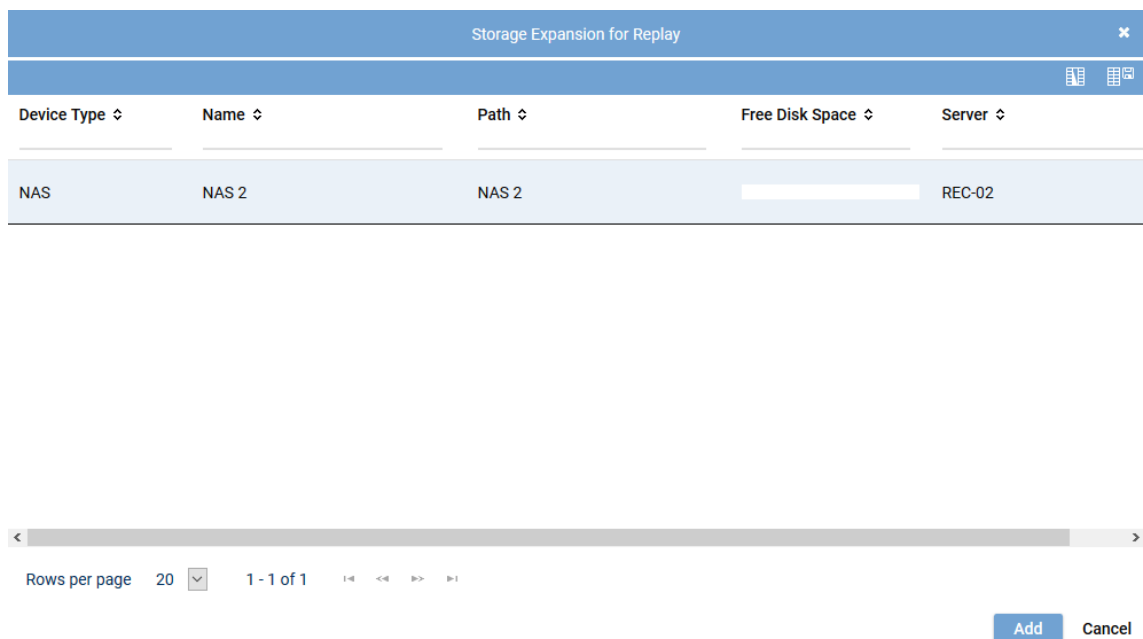


Fig. 26: Select storage expansion

3. To apply the selected storage expansions, click on the button *Add*.  
To discard the selection and close the window, click on the button *Cancel*.

### Group field Audio analysis



Fig. 27: Group field Audio analysis

Parameter	Value/Description
<i>Emotion detection</i>	Activate this check box to activate emotion detection for audio analysis.  <input checked="" type="checkbox"/> = Function has been activated. Tenants can use the function emotion detection.  <input type="checkbox"/> = Function has not been activated.

Tab. 6: Configure audio analysis

### Group field Recording Control/Key Management

**Recording Control/Key Management** ▼

---

☒ Recording control/Monitoring

Recording architecture      Please choose... ▼

☒ neo key management

Fig. 28: Group field Recording Control/Key Management

Parameter	Value/Description
<i>Recording control/monitoring</i>	<p>Activate the check box, if you would like to use CLIENT<code>command</code> or API recording control. The function is only available if a recording architecture has been configured and activated.</p> <ul style="list-style-type: none"> <li>Recording architecture From the drop-down list, select the recording architecture via which you would like to control the recording.</li> </ul>
<i>neo key management</i>	<p>This function serves for customer-specific recording encryption. To be able to configure the conditions for key management, activate the check box <i>Key management</i>.</p> <p>The function can only be activated if the license <code>ASC_KEY_MANAGEMENT</code> is available.</p> <p>For more information about the configuration of key management refer to the administration manual <i>Configuration server and recording architectures</i> and to the installation manual <i>Installation Dongle Manager</i>.</p>

Tab. 7: Configure recording control/key management

### Group field Data Processing

**Data Processing** ▼

☒ Data storage

☒ Transfer data for replay

Target Server

Name	IP Address ↕
No records found	

☒ Transfer data for data storage

Target Server

Name	IP Address ↕
No records found	

Activate period of time ☒

from 11:59:36

to 11:59:36

Receives data from

Name	Only Replay
No records found	



☒ Archiving



☒ Export

☒ Import

Recording architecture Please choose... ▼


Fig. 29: Group field Data Processing

Parameter	Value/Description
<i>Data storage</i>	Activate the check box to allow the modification of the additional functions of data processing.
<i>Transfer data for replay</i>	<p>Activate the check box if you would like to transfer data only for replay to another server.</p> <p>If the function has been activated, you can select a server from the list <i>Target Server</i> to which the recorded data is supposed to be transferred for replay. The data is not stored on the target server but deposited in a cache temporarily in order to be replayed.</p> <ul style="list-style-type: none"> <li>By clicking on the icon  (<i>Add</i>), you can add the target server, see <a href="#">chapter "Add target server to a list", p. 32</a>.</li> <li>By clicking on the icon  (<i>Remove</i>), you can remove the target server from the list.</li> </ul> <p><b>NOTICE!</b> Only those servers are displayed on which an API server and a replay server have been configured.</p>
<i>Transfer data for data storage</i>	<p>Activate the check box if you would like to transfer data for storage to another server.</p> <p>If the function has been activated, you can select a server from the list <i>Target Server</i> to which the recorded data is supposed to be transferred for data storage purposes. In the drop-down list, all servers are displayed on which the function <i>Data Storage</i> has been activated. The data is copied to the target server and stored there.</p>

Parameter	Value/Description
	<ul style="list-style-type: none"> <li>By clicking on the icon  (Add), you can add the target server, see <a href="#">chapter "Add target server to a list", p. 32</a>.</li> <li>By clicking on the icon  (Remove), you can remove the target server from the list.</li> </ul> <p><b>NOTICE!</b> Only those servers are displayed on which the function <i>Data Storage</i> has been activated.</p> <p>If the function has been activated, you can activate the transfer for a certain period of time.</p> <ul style="list-style-type: none"> <li>Activate period of time <input checked="" type="checkbox"/> = Function has been activated. The fields for entering the time become active. Select the time via the rotating field for the period from – to.</li> <li>Active period of time <input type="checkbox"/> = Function has not been activated.</li> </ul> <p><b>NOTICE!</b> In distributed systems with slow network connections, the storage interval for the data transfer can be adjusted. The storage interval for the data transfer has to be configured by an ASC service technician or by an authorized partner company.</p>
<i>Receives data from</i>	<p>This table contains those servers which transfer data to this server.</p> <p>In the column <i>Name</i>, the name of the server appears from which data has been transferred.</p> <p>In the column <i>Only Replay</i>, the purpose of the transfer is displayed:</p> <p><input checked="" type="checkbox"/> = Data is transferred only for replay.</p> <p><input checked="" type="checkbox"/> = Data is transferred for data storage.</p>
<i>Archiving</i>	Activate the check box <i>Archiving</i> if you would like to use the server for archiving purposes.
<i>Export</i>	Activate the check box <i>Export</i> to allow the export from this server.
<i>Import</i>	<p>Activate the check box <i>Import</i> so that the imported data can be stored on this server.</p> <ul style="list-style-type: none"> <li>Recording architecture From the drop-down list, select the recording architecture that fulfills this function. In the drop-down list, all recording architectures are displayed which enable this function as well.</li> </ul> <p><b>NOTICE!</b> If you would like to use a server for the import function on which no recording is supposed to take place, you can configure an architecture exclusively for the import.</p>

Tab. 8: Configure data storage

### Add target server to a list

- In the toolbar of the list *Target Server*, click on the icon  (Add).
- Select the server from the list to which you would like to transfer the data.  
If you would like to select several servers or revoke a selection, click on the respective line while holding the [Ctrl] key down.





Name	IP Address
RC-02	192.168.173.176
REC-04	192.168.173.174
RC-01	192.168.173.175
REC-02	192.168.173.172
CTI-01	192.168.173.177
REC-03	192.168.173.173

Rows per page: 20 | 1 - 6 of 6

**Add** **Cancel**

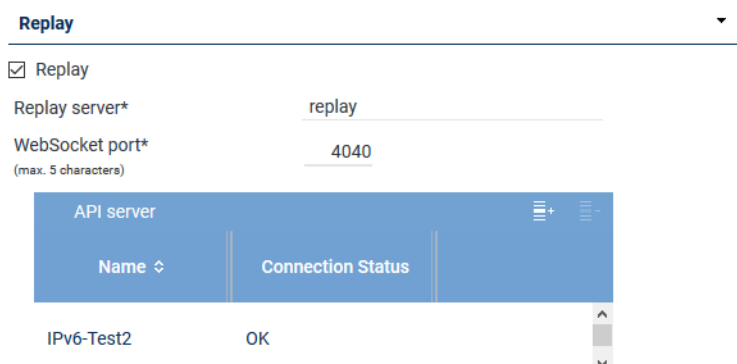
Fig. 30: Select server



Only those servers are available on which the function *Data storage* has been activated.

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

### Group field Replay



**Replay**

☒ Replay



Replay server\*

WebSocket port\*   
(max. 5 characters)

Name	Connection Status
IPv6-Test2	OK

Fig. 31: Group field Replay

Parameter	Value/Description
<i>Replay</i>	<p>A replay server can replay recordings via the integrated <i>Replay Feature</i>. Only data which has either been recorded directly on this server or which has been transferred to this server for data storage or only for replay purposes can be replayed. The client computers of the system can connect to a replay server for replay purposes.</p> <p>Activate the check box <i>Replay</i> to be able to use the replay function of the players and the phones.</p> <p><input checked="" type="checkbox"/> = Function has been activated. You have to complete the entry field <i>Replay server</i>.</p> <p><input type="checkbox"/> = Function has not been activated.</p>

Parameter	Value/Description
<i>Replay server</i>	<p>If the function has been activated, you can enter a displayed name which is supposed to denote the server as the replay server in the system in the entry field <i>Replay server</i>. The displayed name can be selected arbitrarily and is a kind of pseudonym. As the replay server and the <a href="#">API</a> server must not be identical, you can select different pseudonyms.</p> <p>The displayed name is meant to make it easier for users to select a server as different replay servers may be used across the system by different tenants. When selecting the replay server, these pseudonyms are displayed on the client computers instead of the real server name or the IP address.</p> <p>In order to be able to reach the server activated for replay from a public network and with configured port forwarding, you have to set the configuration in the tab <i>Replay Server Address Mapping</i>. For further details about the configuration refer to the administration manual <i>Configuration of servers and recording architectures</i>.</p>
<i>WebSocket port (maximum of 5 characters)</i>	Enter the port via which the data to be replayed in <i>POWERplay</i> Web are supposed to be transmitted.
<i>List API server</i>	<p>Here, you can add <a href="#">API servers</a> that the replay server may use. If a recording which is supposed to be replayed cannot be found on a server, the search is continued on the <a href="#">API servers</a> which have been entered here.</p> <p>If the function <i>Replay</i> has been activated, you can adjust the following settings:</p> <ul style="list-style-type: none"> <li>By clicking on the icon  (<i>Add</i>), you can add the <a href="#">API server</a>, see <a href="#">chapter "Add API server to a list"</a>, p. 34.</li> <li>By clicking on the icon  (<i>Remove</i>), you can remove selected <a href="#">API servers</a> from the list.</li> </ul>

Tab. 9: Configure replay

### Search and replay functions



To be able to use the search and replay functions via [LCR](#) as well as to use replay via phone, you have to create the users with the respective access rights in the application System Configuration in the Employees module. For information about the configuration refer to the administration manual *User management* for tenants.

### Add API server to a list

The replay server required the services of an [API](#) server. The configuration must be as follows:


- If the replay server runs on a server with a local [API](#) server, it must not necessarily be assigned as the replay server always addresses the local [API](#) server first.
  - If the replay server runs on a separate server, you must assign at least one [API](#) server that the replay server can address.
  - If several [API](#) servers are available in the network, you can assign further [API](#) servers in addition to the local [API](#) server. The assigned [API](#) servers are addressed in order. For this reason, the local [API](#) server should always be first in the list.
- To assign an [API](#) server, click on the icon  (*Add*) in the toolbar of the list *API Server*.
  - Select the server from the list on which the [API](#) service is running.



Fig. 32: Select server



Only those servers are available on which the [API](#) service has been installed and activated. See [chapter "Group field API Server", p. 27](#).

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

### Group field Virtualization



Fig. 33: Group field Virtualization

Parameter	Value/Description
<i>VM support</i>	<p>Activate the check box <i>VM support</i> to be able to use the licensing for several VM installations.</p> <p>This function can only be activated if the system has been installed in a VMware and no <i>TRUSTED_VIRTUALIZATION</i> license has been imported to the system.</p> <p>When activating the function <i>VM support</i>, you have to configure the respective settings in the tab <i>Keystore/VM Licensing</i>. For further details about the configuration of this function refer to the administration manual <i>Configuration of servers and recording architectures</i>.</p>

Tab. 10: Configure virtualization



For the *virtualization* without Internet connection, a dongle is required which contains the system information. The application *Dongle Manager*, required to read the dongle, has to be installed on the server that the dongle has been connected to.

- To save the entries, click on the button *Save* in the detail view.  
To reset the entries, click on the button *Reset* in the detail view.

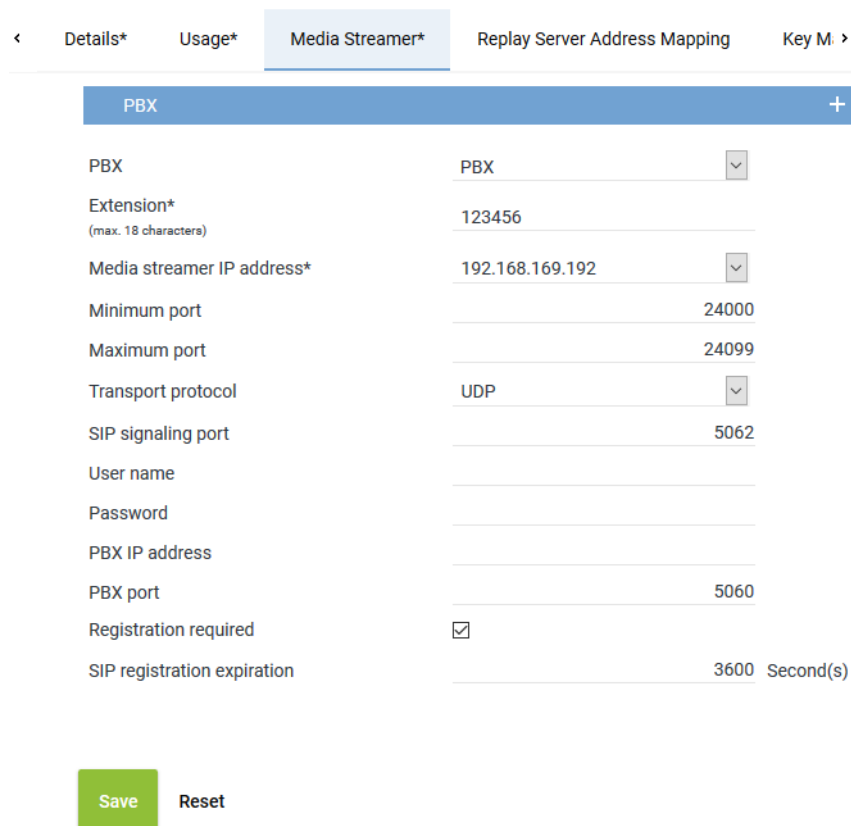
### Tab Media Streamer

1. Click on the tab *Media Streamer* in the detail view.

In this tab, you can configure the Media Streamer for the functionalities *Replay via phone* and *Last Call Repeat Facility*.



The tab *Media Streamer* is only active if the function *Replay via phone* has been activated in the tab *Usage*.



Details\* Usage\* **Media Streamer\*** Replay Server Address Mapping Key M. >

PBX +

PBX	PBX	
Extension* (max. 18 characters)	123456	
Media streamer IP address*	192.168.169.192	
Minimum port		24000
Maximum port		24099
Transport protocol	UDP	
SIP signaling port		5062
User name		
Password		
PBX IP address		
PBX port		5060
Registration required	<input checked="" type="checkbox"/>	
SIP registration expiration		3600 Second(s)

Save Reset

Fig. 34: Servers module - tab Media Streamer

2. Enter the following parameters:

<b>PBX</b>	<p><b>PBX</b> that the Media Streamer is supposed to be mapped to.</p> <p>Select a <b>PBX</b> from the drop-down list. The drop-down list displays all <b>PBXs</b> which have been created in the system.</p> <p>If no <b>PBX</b> has been created in the system yet, you can create a <b>PBX</b> via the blue bar <b>PBX</b>, see <a href="#">chapter "Create PBX"</a>, p. 41.</p>
<b>Extension</b>	<p>Extension which is supposed to be mapped to the Media Streamer. This is a mandatory field; the configuration cannot be saved if this information is missing.</p> <p>If an external analog gateway has been integrated, enter the value <b>8000</b>.</p>
<b>Media streamer IP address</b>	<p>IP address which is supposed to be used for the exchange of the audio data and for the <b>SIP</b> communication.</p> <p>Select an IP address from the drop-down list. In the drop-down list, all IP addresses of the server are displayed.</p> <p>If an external analog gateway has been integrated, select the IP address <b>169.254.254.100</b> in the drop-down list.</p>

<i>Minimum port</i>	Enter the minimum port which is supposed to be used for the audio data exchange.
<i>Maximum port</i>	Enter the maximum port which is supposed to be used for the audio data exchange.  A port range of 100 (e. g. 24000-24099) is sufficient for 50 licenses. The port range should be twice as wide as the number of available licenses.
<i>Transport protocol</i>	Select the transport protocol type you would like to use for the <b>SIP</b> communication from the drop-down list.  <b>TCP</b> = unencrypted <b>UDP</b> = unencrypted <b>TLS</b> = encrypted  If an external analog gateway has been integrated, select <b>UDP</b> in the drop-down list.
<i>SIP signaling port</i>	Enter the port for the <b>SIP</b> communication. Port for data exchange: 5062
<i>User name</i>	Enter the user name for the authentication on the <b>SIP</b> server.
<i>Password</i>	Enter the password for the authentication on the <b>SIP</b> server.
<i>PBX IP address</i>	Enter the IP address of the <b>SIP</b> registrar of the <b>PBX</b> .  If an external analog gateway has been integrated, enter the IP address 169.254.254.101.
<i>PBX port</i>	Enter the port of the <b>SIP</b> registrar of the <b>PBX</b> .  If an external analog gateway has been integrated, enter the value 5060.
<i>Registration required</i>	Select whether the <b>SIP</b> extension has to be registered with the <b>SIP</b> registrar of the <b>PBX</b> .  <input checked="" type="checkbox"/> = <b>SIP</b> extension has to be registered. <input type="checkbox"/> = <b>SIP</b> extension does not have to be registered.  If an external analog gateway has been integrated, deactivate the check box <i>Registration required</i> .
<i>SIP registration expiration</i>	Enter the time interval after which the registration has to be repeated.

### Tab Replay Server Address Mapping

1. Click on the tab *Replay Server Address Mapping* in the detail view.

In this tab, you can configure the replay server address mapping. Servers which have been activated for replay require this address mapping so that they can be reached from a public network and with configured port forwarding.



The tab *Replay Server Address Mapping* is only active if the function *Replay* has been enabled in the tab *Usage*.

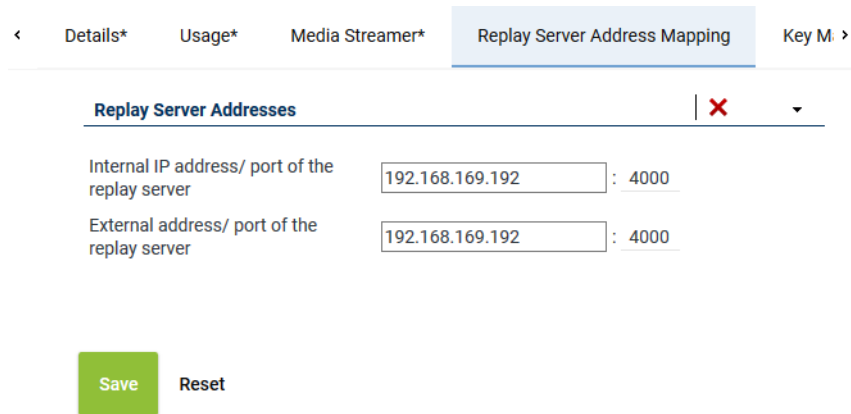


Fig. 35: Servers Module - tab Replay Server Address Mapping

### Group field Replay Server Addresses

1. Enter the following parameters:

<i>Internal IP address/ port of the replay server</i>	Enter the destination <b>IP</b> address and the port of the replay server at which the Replay module can be reached internally.
<i>External address / Port of the replay server</i>	Enter the <b>URL</b> or the <b>IP</b> address and the port at which the Replay module can be reached via the browser from outside. When entering the external address consider whether the SSL certificate has been created for an IP address or for a DNS address. In the latter case, it is imperative to enter the DNS name! Otherwise the certificate check in the replay applications will fail.

If you would like to remove the addresses, click on the icon  in the title bar of the group field.



If address mapping has been configured, the Replay module receives the configured address and the configured port.

If address mapping has not been configured, the Replay module receives the IP address and the default port *4040* as entered in the tab *Details*.



To allow the users of the respective tenant to access the replay server via the browser, an internal address and/or an external IP address or a DNS name must be configured in the *Tenants* module.



For information about the configuration refer to the administration manual for tenants *User management tenant*.

### Tab Key Management

1. Click on the tab *Key Management* in the detail view.

In this tab, you can configure the settings for the *neo* key management. This tab is only active if you have installed the corresponding license and enabled the function *neo Key Management* in the tab *Usage*.

< Usage\* Media Streamer\* Replay Server Address Mapping
Key Management >

Key creation interval

☒ All

365 Day(s)

☐ Create key manually

Delay usage
until

0 Day(s)

0 Hour(s)

☐ Key expiration date
after

0 Day(s)

☒ In case of an error switch to simple key management automatically

Save

Reset

Fig. 36: Servers module - tab Key Management

<i>Key creation interval</i>	<p>Select whether a key is supposed to be generated automatically or manually. Select one of the following options:</p> <ul style="list-style-type: none"> <li>• <i>All</i> Select the intervals in which a new key is supposed to be generated automatically. Possible time interval: 1 to 365 days Default value: 365 days</li> <li>• <i>Create key manually</i> Select that a key is supposed to be generated manually.</li> </ul> <p>Old keys which are no longer used for encryption become inactive for the time being. They remain in the database, though, since they are still required for the decryption of old recordings.</p>
<i>Delay usage</i>	<p>If required, enter a time interval during which the new key is not supposed to be used yet after having been created. Not until after this time interval has passed can the key be actually used for encryption.</p> <p>Possible time interval: 0 to 14 days Default value: 0 days (new keys are immediately used for encryption)</p> <p>A delay guarantees that the key has been captured by a database backup before it will actually be used.</p>
<i>Key expiration date</i>	<p>Select whether an inactive key is supposed to become invalid after the expiration of the time interval defined here.</p> <p><input type="checkbox"/> = Key never becomes invalid.</p> <p><input checked="" type="checkbox"/> = Key becomes invalid. In the entry field, enter the time interval after which the key loses its validity. Once this time interval has passed, the key cannot be used anymore. If recording data must be deleted after a certain period of time, this option offers additional security on top of the configured date of deletion. This especially applies to the case when recording data has been transferred manually to a storage location where the deletion mechanism of the system cannot find it.</p>

**CAUTION!** All recordings which have been encrypted with a key which has meanwhile become invalid are useless and cannot be replayed anymore.

*In case of an error ... automatically*

Select whether simple key management is supposed to be used if the neo key management does not work (e. g. if the service *DongleMan* fails). If you have not activated the option, no recording takes place as long as the neo key management has been activated but does not work.

☒ = In case of an error, simple key management is used as replacement.

☐ = In case of an error, no recording takes place as long as the neo key management has been activated. In this case, disable key management in the tab *Usage*.



On top of the settings in this tab, each tenant who would like to use the neo key management has to define individual settings in his own user management (Tenants module).



For information about the configuration refer to the administration manual for tenants *User management tenant*.

### Tab Keystore/Virtualization

1. Click on the tab *Keystore/Virtualization* in the detail view.

In this tab, you can configure the connection data for the service *DongleMan* for the neo key management and for the authentication of the VM.



If your system has been installed in a virtual environment, the application Dongle Manager must have been installed and started locally outside the VM so that the access to the dongle works. The dongle must have been connected to the server on which the VM has been installed.



For detailed information about neo key management refer to the administration manual *Encryption of recordings*.

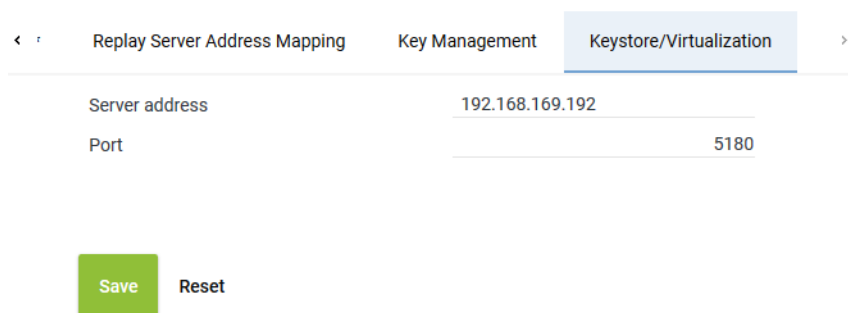


Fig. 37: Servers module - tab Keystore/Virtualization

#### Server address

Enter the address of the server for this connection.

- If you use the neo key management as well as the virtualization:  
IP address of the server that the service *DongleMan* has been installed on.
- If you use only virtualization, you can authenticate the VM via the ASC License Management System, too. In this case, enter the following address:  
*licensing.asc.de*



- If you use only the ASC key management:  
IP address of the server with the master password database

**Port** Enter the port for the connection.  
Default value: 5180

2. To save the settings, click on the button *Save*.  
To discard the settings, click on the button *Reset*.

### 7.1.2.1.3 Create PBX

The PBX can either be configured via the PBX module or via the Integrations module.

In this configuration step, the parameters for the PBX are configured, e. g. the name, the area code and the net code.

1. Select the menu item *Setup > PBX* in the navigation bar.  
⇒ The following window appears:

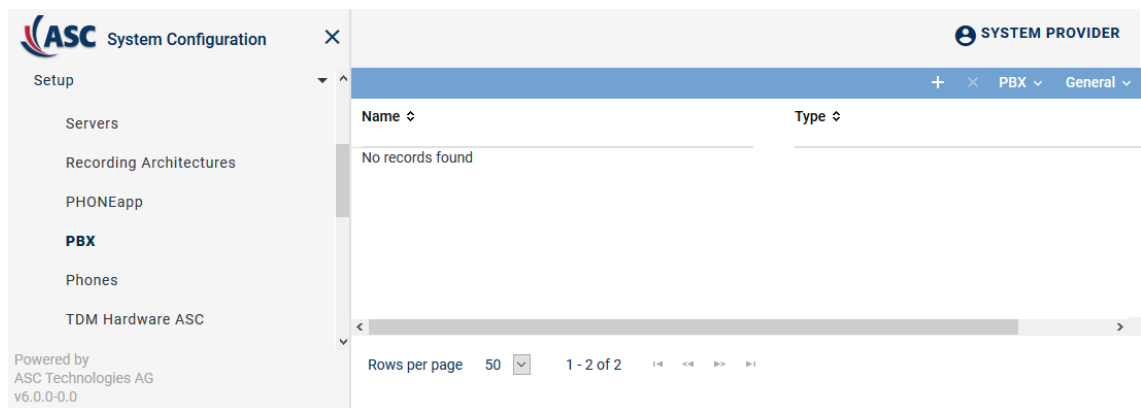




Fig. 38: Create new PBX

### Toolbar of the PBX module

The toolbar offers the following functions.



Fig. 39: Toolbar PBX module


	<i>Create</i>	In the detail view, you can enter the parameters of the new PBX.
	<i>Delete</i>	Deletes the selected PBX configuration. A PBX can only be deleted if it is not used in any configuration.
<i>PBX</i>	<i>Phone Configuration</i>	Opens a window in which you can create and configure phones.
	<i>Administrate Unused Extensions</i>	Opens a window in which you can delete extensions that are not used in any configuration.
<i>General</i>	<i>Print</i>	Prints the table of the main view.
	<i>Adjust Table</i>	Opens a window in which you can adjust the following settings for the main view: <ul style="list-style-type: none"> <li>• <i>Displayed information</i></li> <li>• <i>Order of the displayed columns</i></li> <li>• <i>Number of rows per page</i></li> </ul>

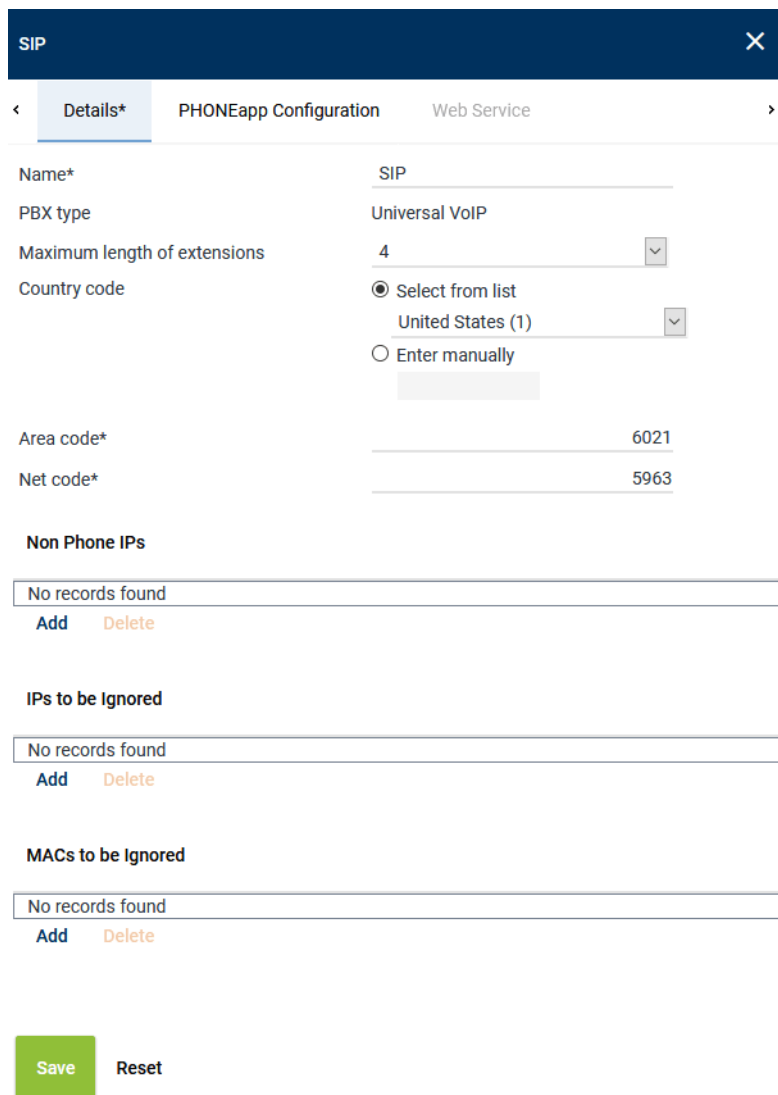
<i>Save Table Configuration</i>	Saves the current table configuration of the main view as default view of the user.
<i>General Help</i>	Opens the online help.
<i>Module Help</i>	Opens the module-specific online help.



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

### Create new PBX

- Click on the icon  (*Create*) in the toolbar of the main view of the PBX module.  
⇒ In the detail view, the tab *Details* appears.



**SIP** [X]

< Details\* PHONEapp Configuration Web Service >

Name\* SIP

PBX type Universal VoIP

Maximum length of extensions 4

Country code ☒ Select from list  
United States (1)

☐ Enter manually

Area code\* 6021

Net code\* 5963

**Non Phone IPs**

No records found  
[Add](#) [Delete](#)

**IPs to be Ignored**

No records found  
[Add](#) [Delete](#)

**MACs to be Ignored**

No records found  
[Add](#) [Delete](#)

[Save](#) [Reset](#)

Fig. 40: Create new PBX - tab Details

- Set the following parameters in the detail view:

Parameter	Value/Description
<i>Name</i>	This <i>name</i> serves as the identifier of this PBX.
<i>PBX type</i>	Select the type of the <b>PBX</b> from the drop-down list.
<i>Maximum length of the extensions</i>	Enter the number of digits of the extensions, e. g. 4.
<i>Country code</i>	Select the option for the country code:

Parameter	Value/Description
	<ul style="list-style-type: none"> <li>• <i>Select from list</i> Select the country code from the drop-down list.</li> <li>• <i>Enter manually</i> If the corresponding country code is not available in the drop-down list, you can enter the 3-digit code manually. e. g. for Sri Lanka <i>094</i>.</li> </ul>
<i>Area code</i>	Enter the area code without the preceding <i>0</i> , e. g. <i>6021</i> .
<i>Net code</i>	Enter the net code, e. g. <i>5963</i> . Do not enter an extension here.

Tab. 11: Create PBX

If you would like to display the complete phone number, e. g. if you use more than one PBX, several area codes, or if you would like to record mobile phones, you have to configure the value *0* in the following parameters:

Parameter	Value/Description
<i>Maximum length of the extensions</i>	Enter the number <i>0</i> in the field maximum length of the extensions to display the complete phone number.
<i>Area code</i>	Enter the number <i>0</i> as area code to display the complete phone number.
<i>Net code</i>	Enter the number <i>0</i> as net code to display the complete phone number.

Tab. 12: PBX parameters with complete phone number

- To save the settings, click on the button *Save*.  
To discard the settings, click on the button *Reset*.

#### 7.1.2.1.4 Assign recording resources

In multi-tenant systems, you have to assign each tenant its own recording resources.

Depending on the recording type, agents can be assigned to the recording resource via the extension, via the PBX Agent ID or via the chat ID. Within one tenant, you can configure all three possibilities.

#### Assign extensions to tenants

If you would like to make an assignment based on extensions, you can assign the respective tenant the extension designated for recording in the Tenants module.



In 1-tenant systems, all extensions are automatically assigned to the tenant who has been created by the system (1st tenant). Extensions are assigned to the user in the Employees module.

When installing a 1-tenant system, you can skip this chapter.



In multi-tenant systems, you have to assign the extensions manually to each tenant who is supposed to be able to use them. There are multi-tenant systems, too, in which only 1 tenant has been set up.

The manual assignment of extensions is not possible until a PBX has been created since extensions are assigned in relation to the PBX.

- Select the menu item *Tenants* in the navigation bar.

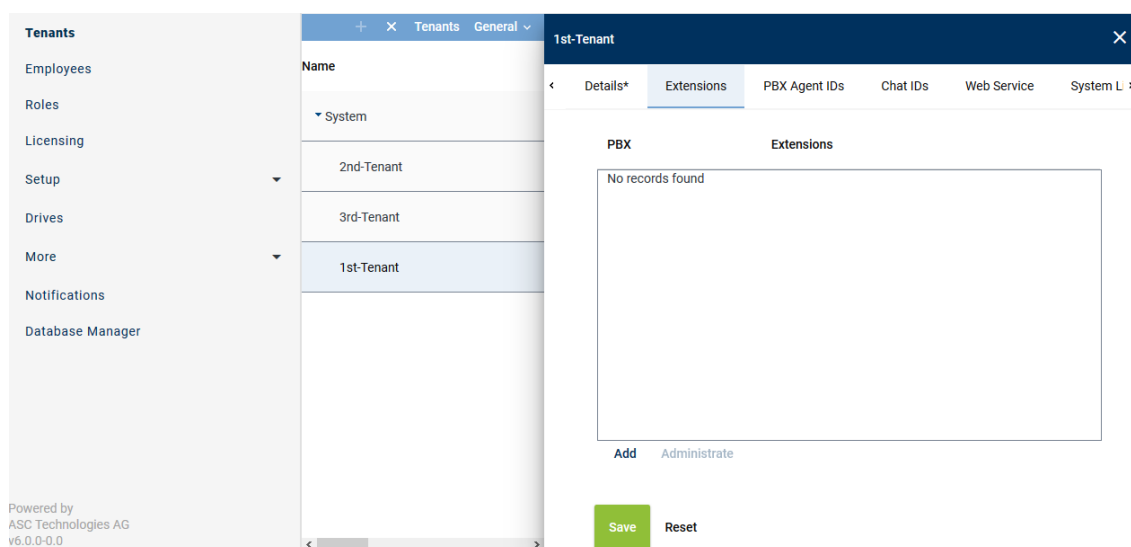


Fig. 41: Tenants - main view - tab Extensions

### Add extensions

1. In the main view, select the tenant to whom you would like to assign extensions.
2. Click on the tab *Extensions*.
3. Click on the button *Add*.

⇒ The following window appears:

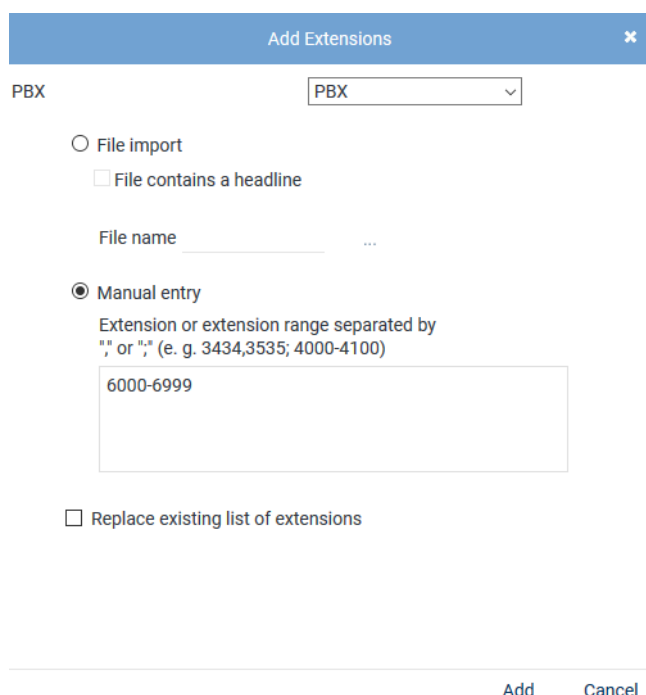


Fig. 42: Assign extensions to tenants

4. From the drop-down list, select the PBX in which the extensions for this tenant have been configured.

#### File import

Select the option to import extensions from an existing file and add them to the table of extensions.

The following file formats are supported:

- ZIP
- TXT

- CSV

**NOTICE! The maximum number of extensions in a file has been limited to 2000 for performance reasons. If more extensions are required, you can import several files.**



#### *File contains a headline*

Activate this option so that this structured is recognized correctly when importing the file.

The file must not contain more than one column. If commas or other column separators are detected in the file, the file is considered invalid and an error message is displayed.

#### *File name*

To import the file, proceed as follows:

- Click on the button  behind the field *File name*.
- Click on the button *Choose File*.
- Select the respective file in the Explorer and click on the button *Open*.
- Click on the button  *Upload File*.

#### *Manual entry*

Select this option to enter extensions or extension ranges manually.

To import number ranges, you must enter the same number of digits for the beginning and the end of the range, e. g. 1-9, 10-99, 01-20, 001-200, 4000-5000. If the end of the range asks for several digits, you have to add zeros for the beginning of the range, e. g. 01-10, 010-100.

Enter country codes as number ranges as follows:

+4984496800--+4984496810

**NOTICE! The number of digits must be equal. Add zeros in front of digits to level up possible incongruences.**

**NOTICE! Wildcards cannot be used!**

#### *Replace existing list of extensions*

Activate the check box to replace the list of extensions.

☒ = Function has been activated; the entry replaces the extensions of the selected PBX.

☐ = Function has not been activated; the configured extensions of all PBXs are kept and the new extensions are added to the selected PBX.

- Click on the button *Add*.  
⇒ The extensions are added in the table of extensions.
- If errors have been detected, the window *Result* appears.  
Click on the button *Display Error Report* to open the window *Error Report*.  
To close the window *Error Report*, click on the button *Close*.  
To close the window *Result*, click on the button *Close*.
- The configured extensions now appear in the detail view.
- Click on the button *Save* in the detail view to save the entries.

#### **Remove extensions**

- In the list, select the **PBX** for which you would like to remove the assigned extensions.

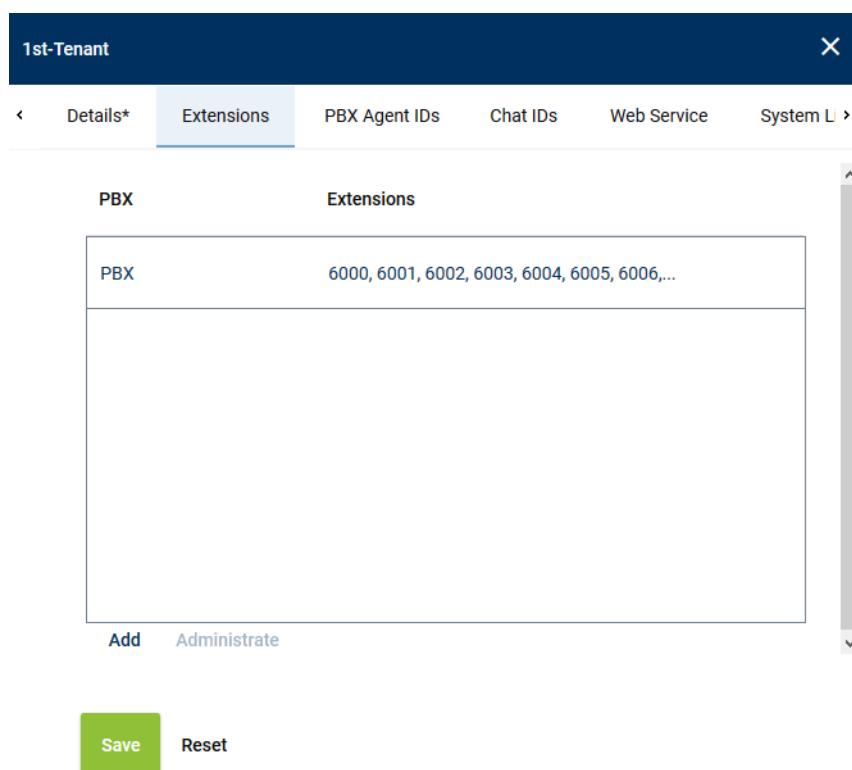


Fig. 43: Remove extensions

2. Click the button *Administrate*.
3. Select one or several extensions you would like to remove from the assignment.  
To select several extensions or to revoke the selection, click on the respective line while holding the [Ctrl] key down.



Fig. 44: Select extensions

4. To remove the selected extensions, click on the button *Remove*.  
To cancel the process and close the window, click on the button *Cancel*.

#### 7.1.2.1.5 Configure additional data

In the Additional Data module, you can configure the additional data which is delivered for a conversation with a protocol.

For selection fields to appear in the drop-down list, they have to be configured in the Additional Data module.

1. Select the menu item *Setup > Additional Data* in the navigation bar.

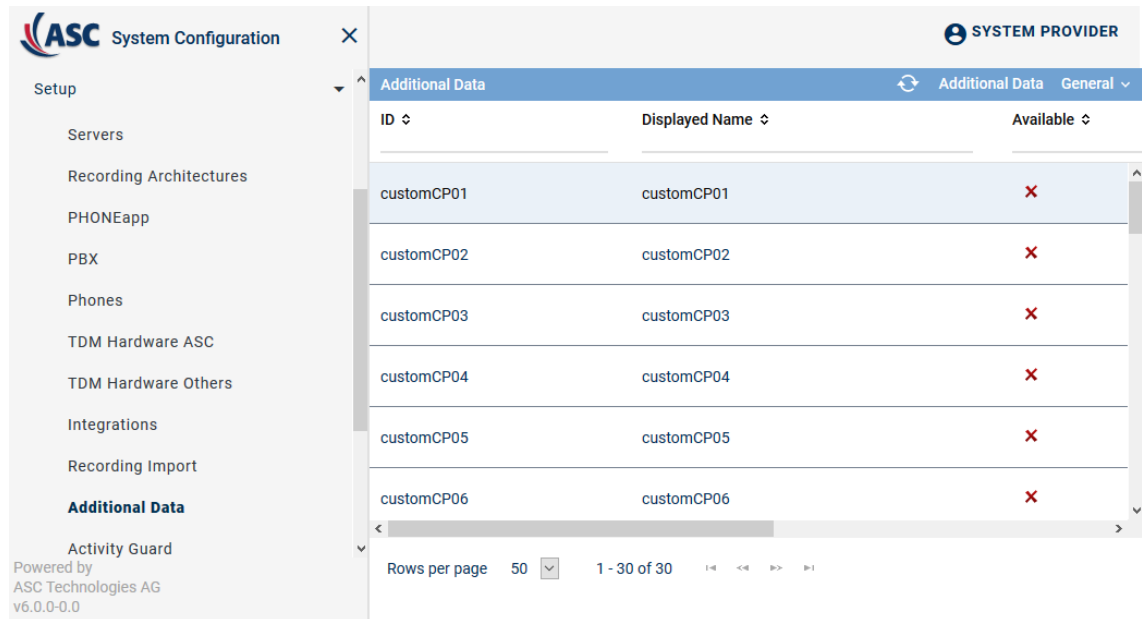


Fig. 45: Additional Data module main view

2. Select a set of data.  
⇒ The detail view displays the information you can configure.

### Change display name







Change Display Name		
Language	Content	
ar_SA	customCP01	
bg_BG	customCP01	
de_DE	Universal Call ID	
en_GB	customCP01	
en_US	Universal Call ID	 

Fig. 46: Configure additional data

1. To change the display name, click on the pen in the line of the language you would like to change.
2. Enter a display name and click on the check mark at the end of the line to confirm the entry.

### Availability

Availability	
Available	<input checked="" type="checkbox"/>
Editable	<input checked="" type="checkbox"/>
External recording control	<input checked="" type="checkbox"/>

Save
Reset

Fig. 47: Additional data - configure availability

1. To make the data field available to the entire system, activate the check box of the option *Available*.
2. To make the data field in the search and replay applications editable later on, activate the check box of the option *Editable*.
3. To be able to use the data field for external recording control, activate the check box of the option *External recording control*. This option is only available if recording control has been activated in the *Servers module* in the tab *Usage*.
4. Click on the button *Save* to save the settings.



For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.



Additional data which is not delivered along with the protocol is not available for further use.

#### 7.1.2.1.6 Create integration for All-in-one Basic

In the Integrations module, the PBX-related recording settings are configured.

You first have to create and activate a recording architecture to be able to create a integration and to assign it here.

Depending on the recording solution, you additionally have to configure IP addresses, ports, protocols, sniffer cards, CTI connection data, phones, monitor points, and, where required, add-ons.

1. In the navigation bar, select the menu item *Setup > Integrations*.
  - ⇒ The following window appears:



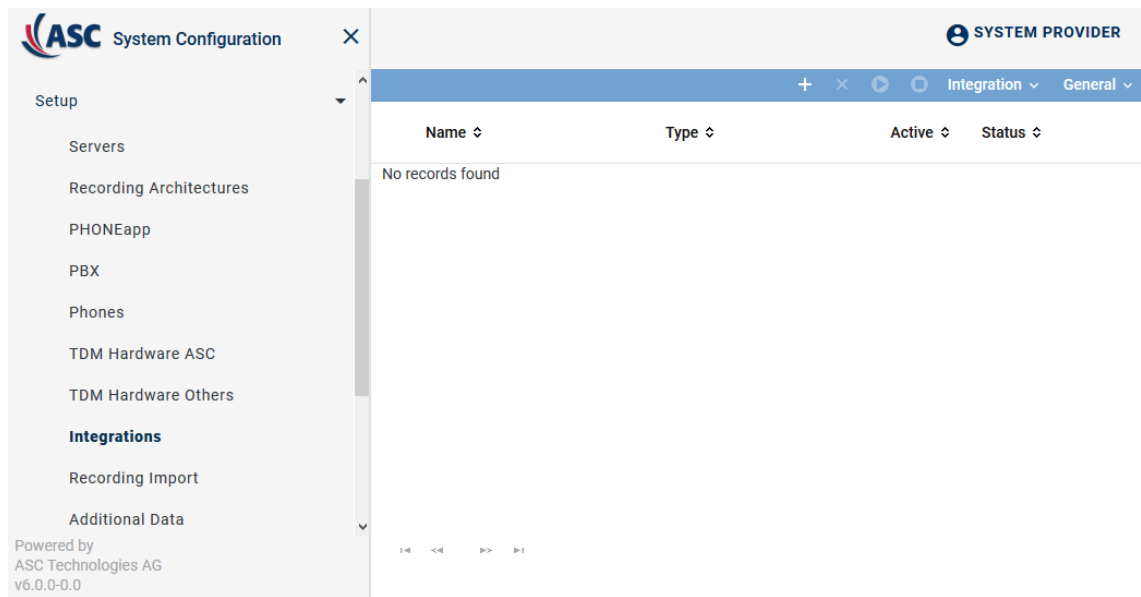




Fig. 48: Integrations - main view

In the table in the main view, the following information is displayed:





<b>Name</b>	Name of the integration
<b>Type</b>	Type of the integration
<b>Active</b>	Shows whether the integration has been activated and is used for the recording. <div> <span>✓</span> = Integration is active, can be deactivated in the toolbar via the icon .           <span>✗</span> = Integration is not active, can be activated in the toolbar via the icon .         </div>
<b>Status</b>	Shows whether the configuration has been carried out completely. <div> <span>✓</span> = Configuration is complete.           <span>✗</span> = Configuration is incomplete.         </div>

### Toolbar of the Integrations module


The toolbar offers the following functions.



Fig. 49: Toolbar Integrations module

	<b>Create</b>	Opens the detail view so that you can create a new integration.
	<b>Delete</b>	Deletes the selected integration. The integration can only be deleted if it has been deactivated.
	<b>Activate</b>	Activates the selected integration. The integration can only be activated if it has been configured completely.
	<b>Deactivate</b>	Deactivates the selected integration. This stops running recordings.
<b>Integration</b>	<b>Import Grammar</b>	By clicking on this menu item, you can import a customized grammar which you can then configure in the configuration step for the CTI connection data.
<b>General</b>	<b>General Help</b>	Opens the online help.
	<b>Module Help</b>	Opens the module-specific online help.

### Assign integration type

- Click on the icon  (*Create*) in the toolbar of the main view to create a new integration.  
⇒ In the detail view, the tab *Integration Type* appears.

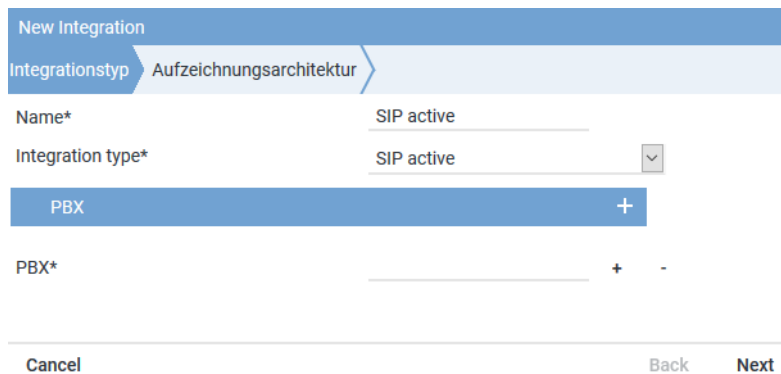



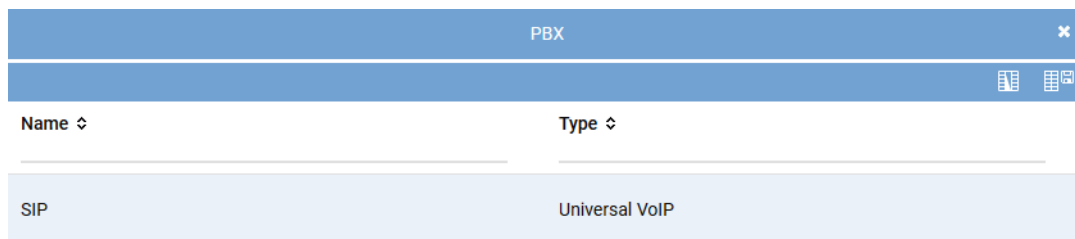
Fig. 50: Create integration type

- Enter the following parameters:

Parameter	Value
<i>Name</i>	In the entry field, enter a descriptive name for the integration. This name is used as the identifier of this integration in the system.
<i>Integration type</i>	Select the entry <i>SIP active</i> from the drop-down list <i>Integration type</i> .

Tab. 13: Create integration type

- To assign the PBX, click on the button  behind the field *PBX*.  
⇒ The window *PBX* appears.



Name	Type
SIP	Universal VoIP



Fig. 51: Select PBX

- Select the respective *PBX* from the list of available PBXs.
- Click on the button *Add*.

### Assign recording architecture for All-in-one Basic

- In the detail view on the bottom right, click on the button *Next*.  
⇒ The tab *Recording Architecture* appears.



New Integration

Integration Type Recording Architecture

Recording Architecture

Recording architecture\* All-in-one Basic

Save Cancel Back Next

Fig. 52: Assign recording architecture - All-in-one Basic


2. Select the respective recording architecture from the drop-down list *Recording architecture*.



Only activated recording architectures in which the appropriate integration type has been configured appear in the drop-down list.

3. Click on the button **Save**.
  - ⇒ The integration now appears in the main view.

### Configuration steps

1. To complete the configuration of the integration, click on the icon  in front of the name of the new integration.
  - ⇒ The following configuration steps appear:








SIP active		SIP active		X	
Step		Configuration			
Configure recording architecture		✓			
Global recording settings		✗			
Configure recording servers		✗			
Configure add-on		✓			
Configure miscellaneous settings		✓			

Fig. 53: Configuration steps of the integration

### Configure recording architecture

The section *Configure recording architecture* has already been configured in previous steps.

1. Click on the button  (*Edit configuration step*) in the line *Configure recording architecture* in the main view to show the configuration.
  - ⇒ In the detail view, the configuration step appears with the information of the assigned recording architecture.

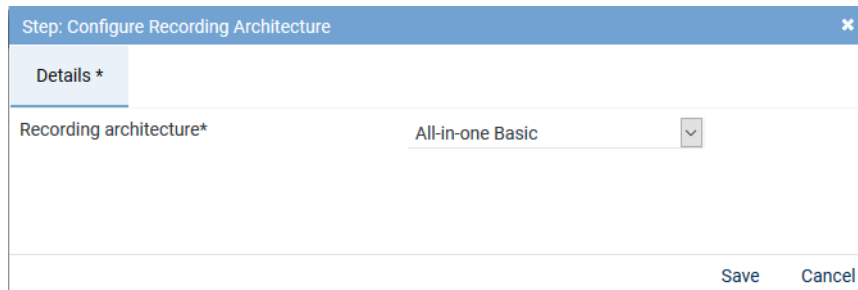



Fig. 54: Configuration step - Configure Recording Architecture

- Click on the button *Save* to save changes and to finish the configuration step.
- Click on the button *Cancel* to cancel the configuration step without applying changes.

### Global recording settings for All-in-one Basic

- Click on the button  (*Edit configuration step*) in the line *Global recording settings* in the main view.  
⇒ The window *Step: Global Recording Settings* appears.

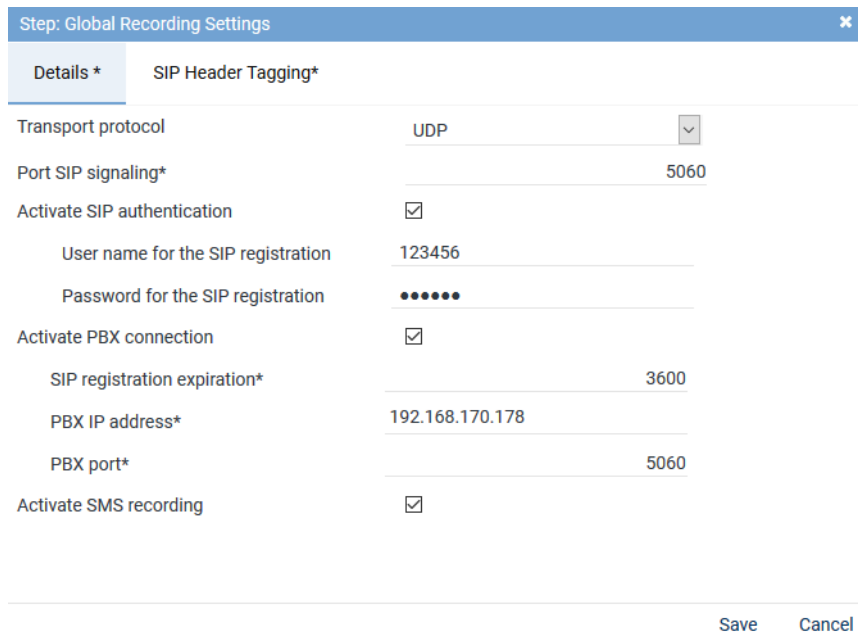


Fig. 55: Configuration step - Global Recording Settings

- Set the following parameters in the tab *Details*:

Parameter	Value/Description
<i>Transport protocol</i>	From the drop-down list, select the used transport protocol for the SIP signaling between the recording server and the PBX. The following protocols are available: <b>TCP</b> = unencrypted <b>UDP</b> = unencrypted <b>TLS</b> = encrypted
<i>Port SIP signaling</i>	Enter the port for the <b>SIP</b> signaling, where the recording server is expecting the signaling. Default value for <b>UDP</b> and <b>TCP</b> is 5060. Default value with <b>TLS</b> encryption is 5061.

Parameter	Value/Description
	<b>NOTICE!</b> If you would like to use several integrations, you have to configure a separate <a href="#">SIP</a> port for each integration. <b>NOTICE!</b> If you would like to use a media streamer for replay, configure another <a href="#">SIP</a> port for it, too. In case of communication issues with the media streamer, this could otherwise affect the recording.
Activate SIP authentication	Activate this option if you would like to use <a href="#">SIP Digest Authentication</a> .
User name of the SIP registration	Enter the user name for the <a href="#">SIP</a> registration, e. g. 123456.
Password of the SIP registration	Enter the password, if an authentication for the <a href="#">SIP</a> registration is used.
Activate PBX connection	Activate this check box if the recording server is supposed to register itself on the PBX.
SIP registration expiration	Enter the time in seconds after which the <a href="#">SIP</a> registration runs out, e. g. 3600.
PBX IP address	Enter the IP address of the PBX.
PBX port	Enter the port on which the SIP signaling is sent to the <a href="#">PBX</a> . The default value is 5060.
Activate SMS recording	Activate the check box if you would like to use <a href="#">SMS</a> recording.

Tab. 14: Global recording settings

- To save the entries, click on the button *Save*.  
To discard entries, click on the button *Cancel*.

### Tab SIP Header Tagging

- If you would like to configure the SIP header tagging, click on the tab *SIP Header Tagging*.

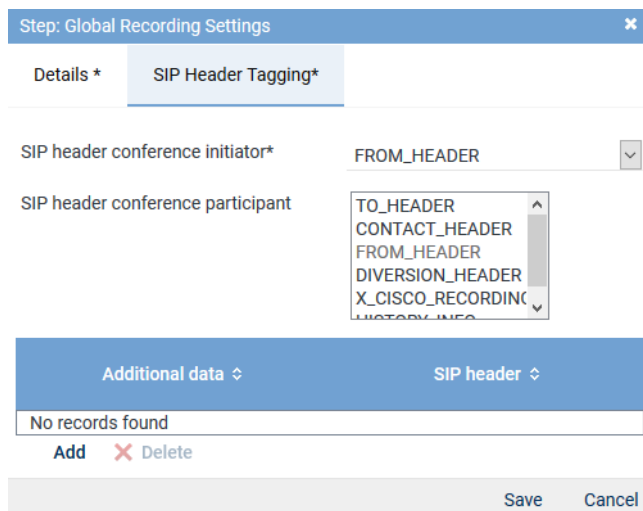


Fig. 56: Tab SIP Header Tagging Configure sources

- Enter the following parameters:

Parameter	Value/Description
<i>SIP header conference initiator</i>	Select the SIP header which contains the extension of the conference initiator.
<i>SIP header conference participant</i>	Select the SIP header which contains the extension of the additional conference participants.

Parameter	Value/Description
-----------	-------------------

Tab. 15: Configure SIP header tagging



It is possible to select several entries; the information is then displayed one after the other in the respective replay application.

To select several entries, highlight the respective entries while holding the [Ctrl] key down. To deselect an entry, click on it again without releasing the [Ctrl] key.

- If you would like to configure individual additional data that you have defined previously in the Additional Data module, click on the button *Add* in the section *Additional data*.

⇒ The window *SIP Additional Data* appears.

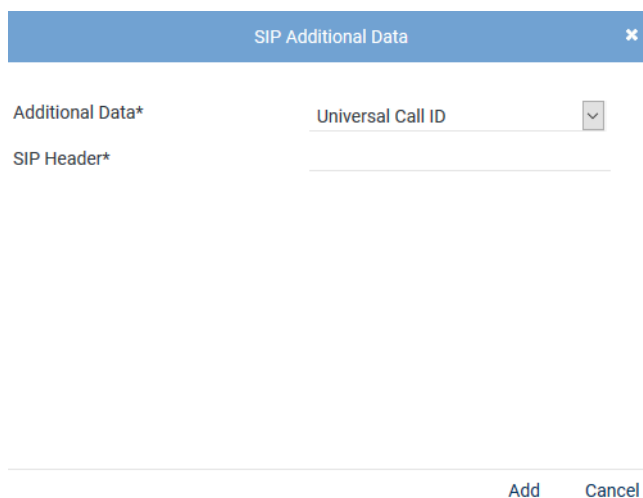


Fig. 57: SIP Additional Data



Only those entries appear in the drop-down list which have been configured in the application System Configuration in the Additional Data module. For further information refer to the administration manual *Additional Data module*.

- Enter the following parameters:

Parameter	Value/Description
<i>Additional Data</i>	In the drop-down list, select the display name of the field in which the information of the SIP header is supposed to be released.
<i>SIP Header</i>	Enter the source from the SIP header from where the information is to be extracted. Observe the correct spelling.

Tab. 16: Configure SIP conversation parameters

- Click on the button *Save* to close the window.
- Click on the button *Save* to finish the configuration in this step.

### Configure recording server for All-in-one Basic

- In the main view in the line *Configure recording servers* click on the button  (*Edit configuration step*).

⇒ The window *Step: Configure Recording Servers* appears.

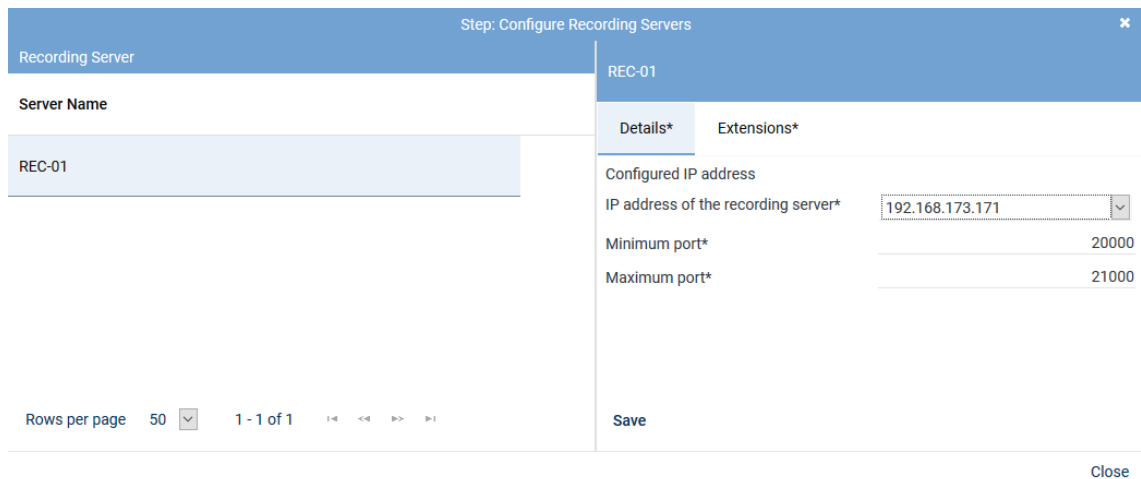


Fig. 58: Configuration step - Configure recording servers

2. Enter the following parameters in the tab *Details*:

Parameter	Value/Description
<i>Configured IP address</i>	Here, the IP address is displayed which has been configured for this recording server and via which the data to be recorded are received.
<i>IP address of the recording server</i>	From the drop-down list, select one of the available IP addresses of the recording server for the recording data.
<i>Minimum port</i>	Enter the lowest port of the port range configured on the PBX that is used to receive the <b>RTP</b> data from the recording server, e. g. <b>20000</b> .
<i>Maximum port</i>	Enter the highest port configured on the PBX that is used to receive the <b>RTP</b> data from the recording server, e. g. <b>21000</b> .

Tab. 17: Configure recording servers



This recording solutions allows recording data streams in stereo. For stereo recording, reckon with 4 ports as only even ports are used to receive **RTP**.

Stereo recording requires more storage space, too.



If you use several active integrations in one recording architecture, you must configure different port ranges for each integration in the configuration step *Configure recording servers*.

### Tab Extensions

#### Configure extensions for SIP trunk

To register the **SIP** trunk, you can enter a registration phone number in the tab *Extensions*.

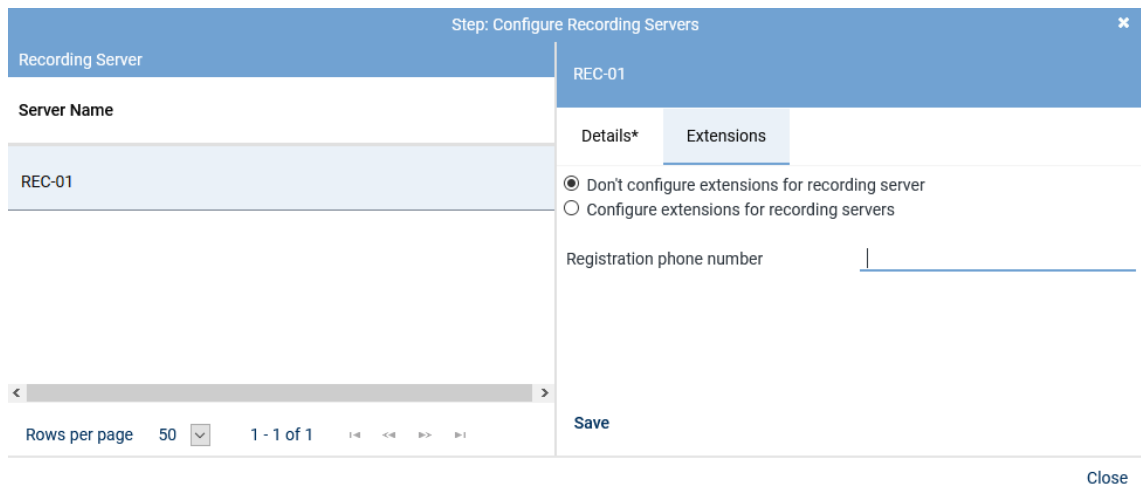


Fig. 59: Recording server - Configure extension for SIP trunk

*Don't configure extensions for recording server* - Activate this option if you do not have configured extensions for the recording server in the PBX and would like to configure a [SIP](#) trunk phone number instead.



If you do not define a phone number for the [SIP](#) trunk of the recording server, all incoming [SIP](#) connections are accepted without being examined.

**Registration phone number** Enter a registration phone number for the [SIP](#) trunk.

For a successful registration, registration must have been activated in the section *Global recording settings*. The user name and password entered there are used to register the [SIP](#) trunk, see [chapter "Global recording settings for All-in-one Basic"](#), p. 52.

1. Click on the button *Save*.
2. Click on the button *Close* to finish this configuration step.

### Configure extensions for the recording server

1. If you have defined extensions for the recording servers in the PBX, you can configure these extensions in the tab *Extensions*.

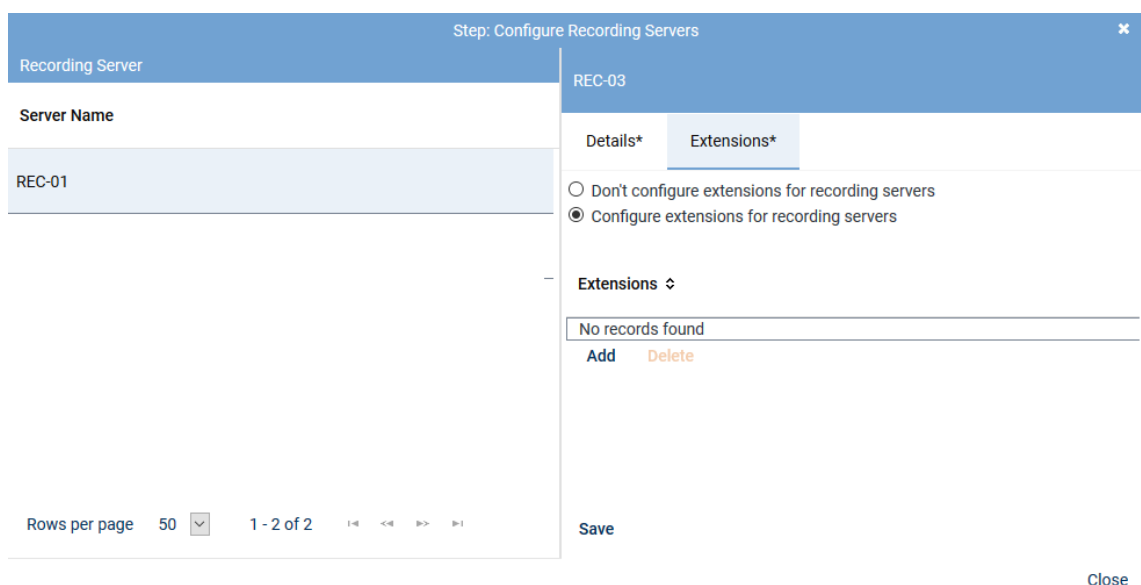


Fig. 60: Tab Extensions



*Configure extensions of the recording server* Activate this option if you have configured extensions for the recording server in the PBX and add the extensions.

2. To add extensions, click on the button *Add* in the table *Extensions*.  
⇒ The window *Add Extensions* appears.

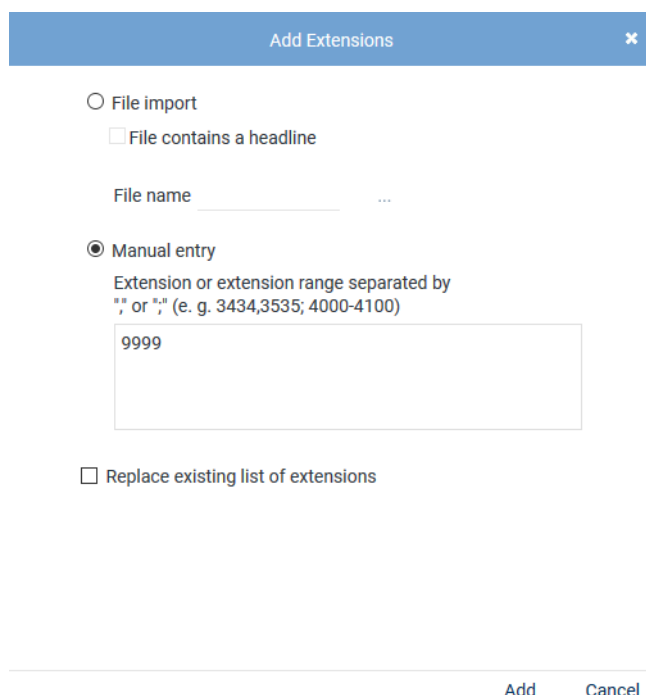


Fig. 61: Add extensions

3. In the window *Add Extensions*, enter either the individual extensions or an extension range that the recording server is supposed to use to register at the PBX.
4. Click on the button *Add*.  
⇒ The extensions are added in the table of extensions.
5. If errors have been detected, the window *Result* appears.  
Click on the button *Display Error Report* to open the window *Error Report*.  
To close the window *Error Report*, click on the button *Close*.  
To close the window *Result*, click on the button *Close*.
6. The configured extensions now appear in the detail view.

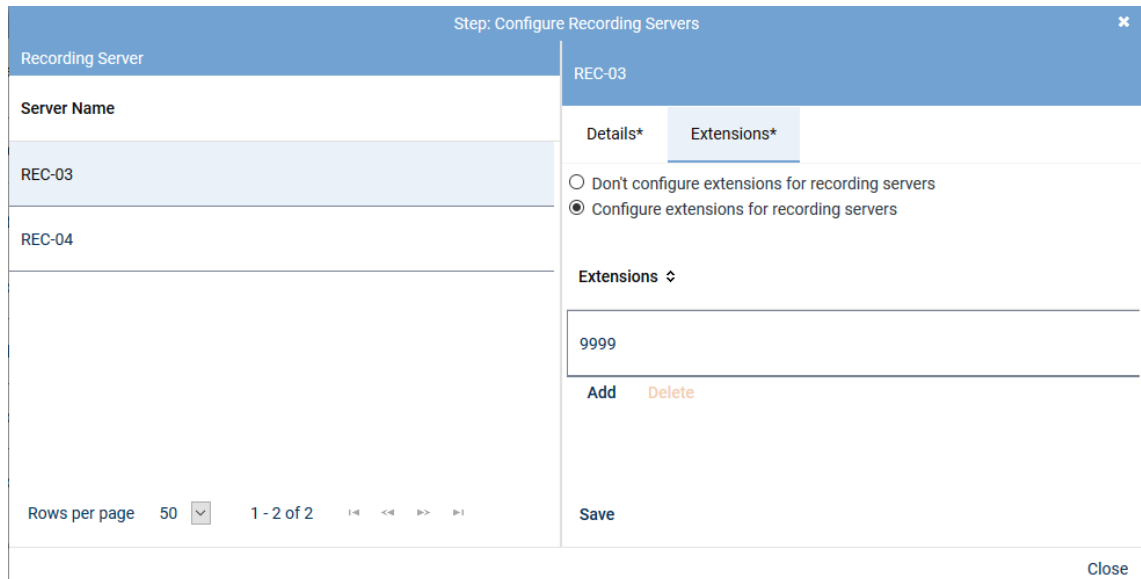


Fig. 62: Added extensions

- Repeat the steps for additional servers. For each server, configure its own extension or extension range depending on how it can be reached.



In failover architectures, it is recommended to set up a separate extension or extension range for each recording server. If the [SIP](#) registration timer has expired for the extension for the recording server, problems may occur when switching back to the primary recording server. If the primary recording server displays an error, it is not yet possible to register the [SIP](#) endpoints again.

- Click on the button *Save*.
- Click on the button *Close* to finish this configuration step.

### Configure add-on



The use of the add-on in the integration is optional. The status of this configuration step has been set to *No selection* by default and is considered to be completely configured that way. You can activate and use the integration without an add-on, too.

If you use an application with add-on, you can select the required grammar in the corresponding version in this configuration step. Additionally, you can configure the connection data and the additional data.



The additional data delivered by an add-on supplements the additional data which is delivered by the [CTIconnect](#) module of the integration.

### Configure add-on for Sparkassen FI ISP (optional)

The add-on refers to the usage of [CTIconnect](#) for Sparkassen FI ISP in the DACH region and only has to be configured if the add-on is used.



The add-on cannot be used in a failover architecture. The application Sparkassen FI ISP cannot connect to more than one IP address.

The integration runs in combination with a PBX and the recording server. The service [CTIconnect](#) for Sparkassen FI ISP receives the additional data from the PBX and sends them to the recording server. In addition, the recording decision which is initiated by the user on the end device is processed via [CTIconnect](#) for Sparkassen FI ISP and sent to the recording server.

### Sparkassen FI Interaktive Service Plattform

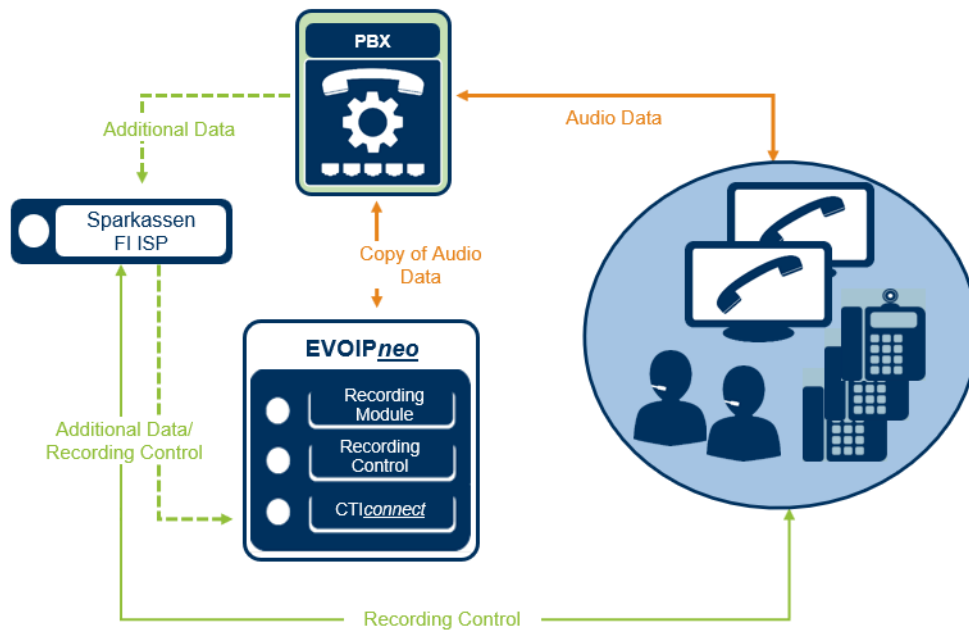



Fig. 63: Overview of Sparkassen FI ISP

#### Configure add-on in the integration

1. To configure the add-on, click on the button  (*Edit configuration step*) in the main view in the line *Configure add-on*.
2. Select the add-on *Sparkassen FI ISP* in the detail view.

Step: Configure Add-on
✕

Details \*

Select add-on

☐ None

☒ Sparkassen FI ISP

**CTIconnect Module**

Type	CTIconnect passive	
Grammar name*	ISP Sparkassen FI	<span>▼</span>
Grammar version*	1.00.05	<span>▼</span>

**Connection Data** ▼

Listener port*	3468
----------------	------

**Additional Data** ▼

ID des Call Centers	Call Center ID	<span>▼</span>
ID des Calls aus Genesys	Universal Call ID	<span>▼</span>
Anmeldename des Kunden	User name	<span>▼</span>
Name des Kunden	Customer name	<span>▼</span>
Personennummer des Kunden	Customer ID	<span>▼</span>

Arbitrary assignment
+

<input style="width: 90%;" type="text"/>	Please select...	<span>▼</span>	<span>⊖</span>
<input style="width: 90%;" type="text"/>	Please select...	<span>▼</span>	<span>⊖</span>
<input style="width: 90%;" type="text"/>	Please select...	<span>▼</span>	<span>⊖</span>

Save Cancel

Fig. 64: Configure add-on for Sparkassen FI ISP

### Group field CTIconnect Module

1. Enter the following parameters for the grammar:

Parameter	Value/Description
Type	Is filled automatically.
Grammar name	A default grammar has been preset. If required, select the name of the grammar from the drop-down list.
Grammar version	Select the current version of the grammar from the drop-down list.

Tab. 18: Configure CTIconnect module



For recording control via the add-on of the Sparkassen FI ISP, grammar version 1.00.05 or higher is required. If the grammar in the respective version is not available yet, you can import it. See [chapter "Import grammar", p. 276](#).

### Group field Connection Data

Set the following parameter in the group field *Connection Data*; the IP address for the PBX does not have to be entered, since the PBX connects to our recording server:

Parameter	Value/Description
<i>Listener port</i>	Enter the port that the add-on connects to, e. g. 3468.

Tab. 19: Configure connection data

### Group field Additional Data



This add-on is used exclusively in the DACH region; for this reason the additional data is only available in German, too. The names of the fields refer to the assignment of the strings which are delivered by the interface.

When using CTIconnect for Sparkassen FI ISP, the following additional data is delivered with the protocol:

- *ID of the call center*
- *ID of the call from Genesys*
- *Login name of the customer*
- *Name of the customer*
- *Employee number of the customer*

### Arbitrary assignment

In the section *Arbitrary assignment*, you can configure the additional data which is additionally delivered by the PBX or by an add-on but which is not listed yet. Upon assigning the delivered additional data, it appears in the search and replay applications.



The names of the column headlines which are supposed to appear in the players must be configured and made available in the Additional Data module first.

For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.



The drop-down list only contains those additional data that you have configured and made available in the Additional Data module. The display name then appears in the column headlines in the players.

For more information about the configuration of additional data refer to the administration manual for system providers *Additional Data module*

1. In the group field headline *Additional Data*, click on the arrow ► to expand the group field and to assign the additional data to the data fields of the search and replay applications.

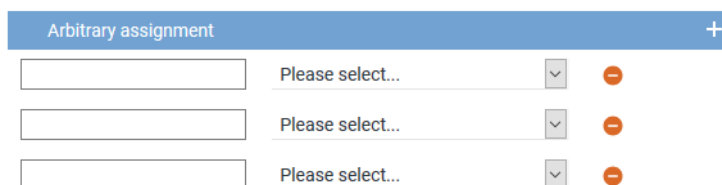



Fig. 65: Arbitrary assignment of the additional data

The following additional data are always available:

- *Start time*
- *End time*
- *Duration*
- *Calling Party Phone Number*
- *Called Party Phone Number*

- *Conversation Direction*
- 2. In the entry field on the left, enter the description of the additional data type from the protocol. Observe the same spelling as it is used in the protocol. The information which is read out of the protocol is displayed in the columns in the players.
- 3. From the drop-down list, select the respective display name that you have configured in the Additional Data module. Only those display names are displayed for which the option *Available* has been activated in the Additional Data module.
- 4. To add a new assignment, click on the icon  (*Create*) in the toolbar of the table.
  - ⇒ An additional row appears to assign another additional data type.
- 5. Click on the button *Save* in the detail view to save the entries and finish this configuration step.

The add-on provides additional data that can be tagged in customer-specific additional data fields (customCP fields). By means of these additional data fields, the respective recording behavior can be reached by means of the recording planner, e. g. recording start beginning with tagging or threat call scenario.



To allow users to control the recording by means of keys, you must configure the recording profile accordingly in the Recording Planner module.



For information about the Recording Planner module refer to the administration manual for tenants *Recording Planner*.


### **Configure add-on for OpenScape Contact Center (optional)**

The add-on refers to the usage of the OpenScape Contact Center and must only be configured if a OpenScape Contact Center is used.

The integration runs in combination with a Unify PBX which is responsible for recording. The CTIconnect service receives the conversation events of the agents via a SDK link in the OpenScape Contact Center and sends the additional data to the EVOIPneo recording service.

For information about the configuration of the OpenScape Contact Center, see [chapter "Configure OpenScape Contact Center \(optional\)", p. 372](#).

### **Configure add-on in the integration**

1. To configure the add-on, click on the button  (*Edit configuration step*) in the main view in the line *Configure add-on*.
2. Select the add-on OpenScape Contact Center in the detail view.

Step: Configure Add-on

Details

Select add-on  
☐ None  
☒ OpenScape Contact Center

**CTIconnect Module**

TypeCTIconnect passive  
Grammar name\*Unify OpenScape Contact Center  
Grammar version\*1.00.04

**Connection Data**

**Connection data**

6000@192.168.170.29

Add Edit Delete

**Additional Data**

Business UnitBusiness Unit  
DepartmentDepartment  
Department KeyDepartment Key  
Call IDUniversal Call ID  
To PartyTo Party  
ACD Group NumberACD Group Number

Arbitrary assignment

Please select...

Please select...

Save Cancel

Fig. 66: Configure add-on for OSCC

### Group field CTIconnect Module

- Enter the following parameters for the grammar:

Parameter	Value/Description
Type	Is filled automatically.
Grammar name	A default grammar has been preset. If required, select the name of the grammar from the drop-down list.
Grammar version	Select the current version of the grammar from the drop-down list.

Tab. 20: Configure CTIconnect module

### Group field Connection Data

In the table Connection Data, you can enter one or several sets of connection data.

If you are configuring several connections, several connections to different business units are established simultaneously in the recording solution with OpenScape Contact Center.

- In the group field *Connection Data* in the table, click on the button *Add*.

⇒ The following window appears:

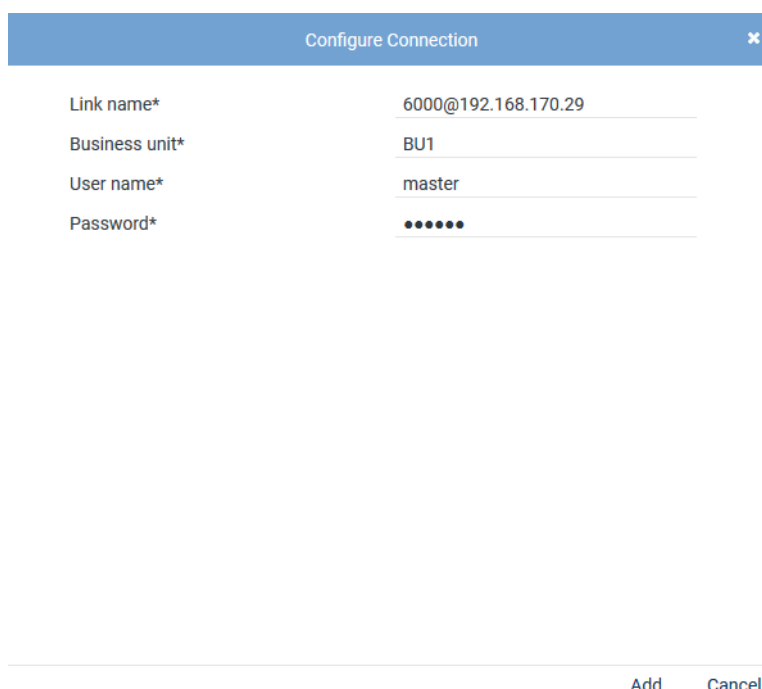


Fig. 67: Configure connection data

2. Enter the following parameters:

Parameter	Value/Description
<i>Link name</i>	Enter the link to the <b>OSCC</b> server in the format <i>osccport@ascserver</i> . The default value for the <b>OSCC</b> port is 6000 and the name of the OSCC server is usually spelled in minor letters. A valid link can look like this: 6000@osccv7r3. Ensure that the server name (e. g. osccv7r3) can be resolved to an IP address. Check whether the address can be reached via the ping command. Alternatively, you can also enter the IP address.
<i>Business unit</i>	The default name of a business unit is <i>default</i> . This is a predefined name for the business unit after a new <b>OSCC</b> server installation. Enter the business unit's actual name you would like to use in the future.
<i>User name</i>	Create a valid user for the business unit that you have created on the <b>OSCC</b> server, so the <b>CTIconnect</b> service can establish the connection to the <b>OSCC</b> server. See <a href="#">chapter "Create user for CTIconnect", p. 372</a> .
<i>Password</i>	Enter the password for the user of the business unit.

Tab. 21: Configure connection data

- Click on the button *Add* to save the entries and to close the window.
- To configure additional connections, repeat the configuration steps accordingly.

### Group field Additional Data

When using **CTIconnect** for Unify OpenScope Contact Center, the following additional data is delivered with the protocol by default:

- *Business unit*
- *Department*
- *Department Key*
- *Call ID*



- *To Party*
- *ACD Group Number*

### Arbitrary assignment

In the section *Arbitrary assignment*, you can configure the additional data which is additionally delivered by the PBX or by an add-on but which is not listed yet. Upon assigning the delivered additional data, it appears in the search and replay applications.



The names of the column headlines which are supposed to appear in the players must have been configured and made available in the Additional Data module previously.

For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.

Here, you can map the database fields for the additional data which is delivered by the [OSCC](#). The contact data of the processed contacts of the OpenScape Contact Center provides a list of key pairs/value pairs. The keyword of this key pair/value pair can be chosen arbitrarily and adjusted customer-specifically. If you would like to use more than one word, avoid spaces. Use underscores instead of spaces, e. g. *ACD\_group*.

1. In the group field headline *Additional Data*, click on the arrow ▶ to expand the group field and to assign the additional data to the data fields of the search and replay applications.

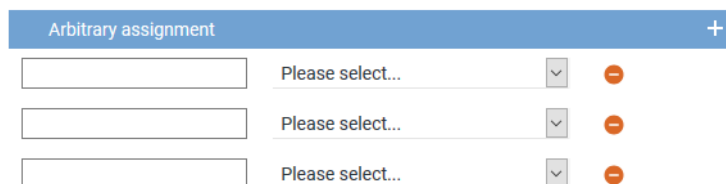




Fig. 68: Arbitrary assignment of the additional data

2. In the entry field on the left, enter the description of the additional data type from the protocol. Observe the same spelling as it is used in the protocol. The information which is read out of the protocol is displayed in the columns in the players.
3. From the drop-down list, select a configured display name of the additional data type which is supposed to appear as column headline in the players. Here, you can only select the display names for the additional data that you have configured and made available in the Additional Data module.
4. To add a new assignment, click on the icon  (*Create*) in the toolbar of the table.  
⇒ An additional row appears to assign another additional data type.
5. To delete an assignment, click on the icon  in the respective row.
6. Click on the button *Save* in the detail view to save the entries and finish this configuration step.

### Configure add-on for Genesys T-Server (optional)

The add-on refers to the usage of Genesys T-Servers and must only be configured if you use Genesys T-Servers.

The integration runs in combination with the PBX and the recording server. The CTI<sup>connect</sup> service receives the information which Genesys T-Server the monitor points have been assigned to from the Genesys Configuration Server. The monitor points must register on the respective Genesys T-Server. Upon successful registration, the respective Genesys T-Server sends all conversation events and additional data of the agents to the recording server.

## CTIconnect for Genesys T-Server

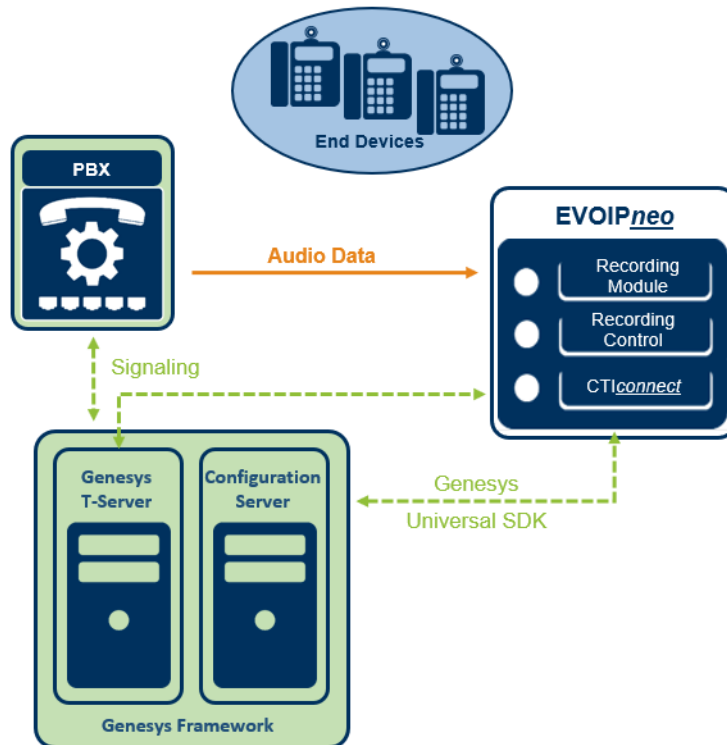


Fig. 69: Overview of the add on of Genesys T-Server



For further information about the configuration of Genesys T-Servers, see [chapter "Configure Genesys T-Server \(optional\)", p. 373](#).

The Genesys add-on uses either a unique call ID or the extension to unambiguously identify the conversations to be recorded.



The additional data delivered by an add-on supplements the additional data which is delivered by the CTIconnect module of the integration.

When using a CTIconnect for Genesys T-Server, a Genesys Framework with T-Servers and Genesys Configuration Servers are required.


By default, the Genesys data field *CallID* has been selected as identifier. If a different data field is supposed to be used for internal control, this can be changed in the configuration file *basic.pif.properties*.

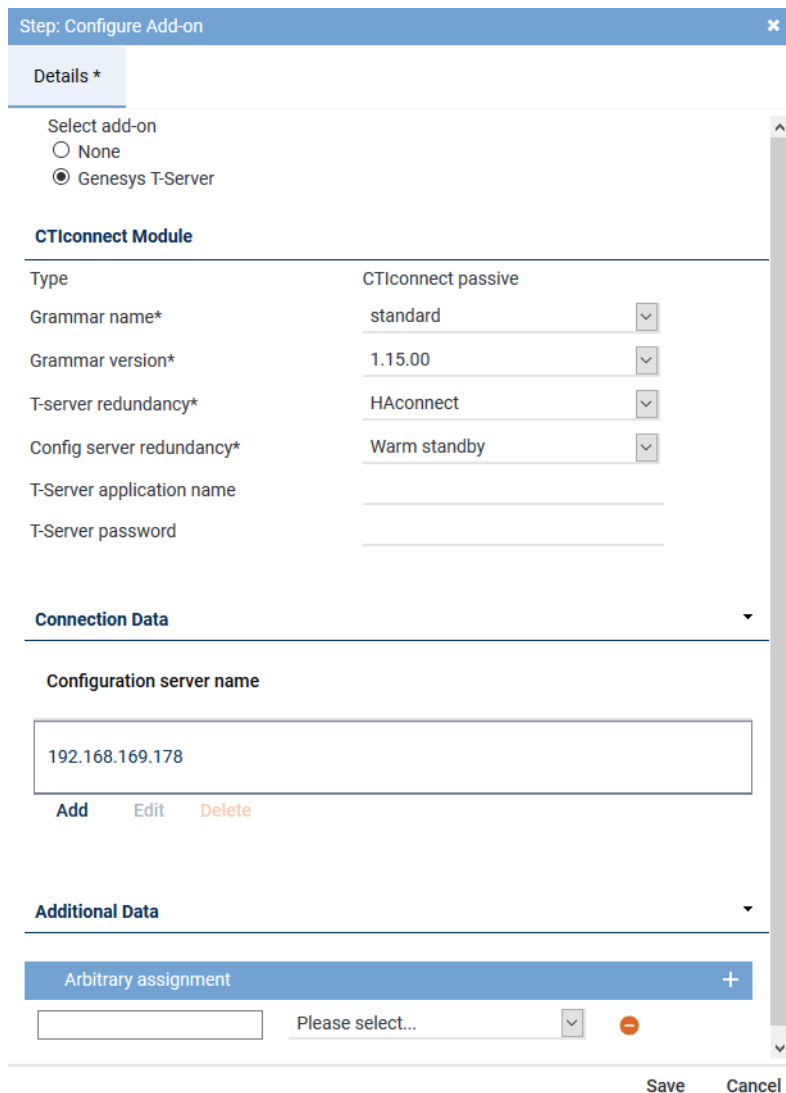
### Adjust configuration file for Genesys add-on

The data field which is supposed to be used by the Genesys add-on is selected by means of the parameter *pifgenesys.call\_identifier*.

1. To adjust the identifier, change to the path  
C:\ASC Product Suite\data\CTIConnectForGenesysT\.
2. Open the file *basic.pif.properties*.
3. Enter the respective data field for the parameter *pifgenesys.call\_identifier*.
4. Save the changes in the file.
5. Restart the recording architecture after completing the change.

### Configure add-on in the integration

1. To configure the add-on, click on the button  (*Edit configuration step*) in the main view in the line *Configure add-on*.
2. In the detail view, select the add-on *Genesys T-Server*.



Step: Configure Add-on

Details \*

Select add-on

☐ None

☒ Genesys T-Server

**CTIconnect Module**

Type CTIconnect passive

Grammar name\* standard

Grammar version\* 1.15.00

T-server redundancy\* HAconnect

Config server redundancy\* Warm standby

T-Server application name

T-Server password

**Connection Data**

Configuration server name

192.168.169.178

Add Edit Delete

**Additional Data**

Arbitrary assignment

Please select...

Save Cancel

Fig. 70: Configure add-on for Genesys T-Server

### Group field CTIconnect Module

1. Enter the following parameters:

Parameter	Value/Description
<i>Type</i>	Here, the type of the CTI <u>connect</u> module is displayed.
<i>Grammar name</i>	Select the respective grammar.
<i>Grammar version</i>	Select the respective grammar version.
<i>T-server redundancy</i>	Select the redundancy which is used from the drop-down list. <ul style="list-style-type: none"> <li>• <i>No redundancy</i></li> <li>• <i>HAconnect</i> - for High Availability Connection</li> <li>• <i>Warm Standby</i> - for a connectable redundancy</li> </ul>
<i>Config server redundancy</i>	From the drop-down list, select the redundancy which is used for the Configuration Server of Genesys.

Parameter	Value/Description
	<ul style="list-style-type: none"> <li>• <i>No redundancy</i></li> <li>• <i>HAconnect</i> - for High Availability Connection</li> <li>• <i>Warm Standby</i> - for a connectable redundancy</li> </ul>
<i>T-Server application name</i>	<p>This parameter must only be entered, if authentication on the Genesys T-Server is required.</p> <p>Enter the application name that the CTI<u>connect</u> module is supposed to use to log in to the Genesys T-Server.</p> <p>If you use several Genesys T-Servers, the login data must be identical for all servers.</p>
<i>T-Server password</i>	<p>This parameter must only be entered, if authentication on the Genesys T-Server is required.</p> <p>Enter the password that the CTI<u>connect</u> module is supposed to use to log in to the Genesys T-Server.</p> <p>If you use several Genesys T-Servers, the login data must be identical for all servers.</p>

Tab. 22: Configure add-on for Genesys T-Server

### Group field Connection Data

In this group field, you can enter one or several sets of connection data.

1. In the group field *Connection Data* in the table, click on the button *Add*.  
⇒ The following window appears:

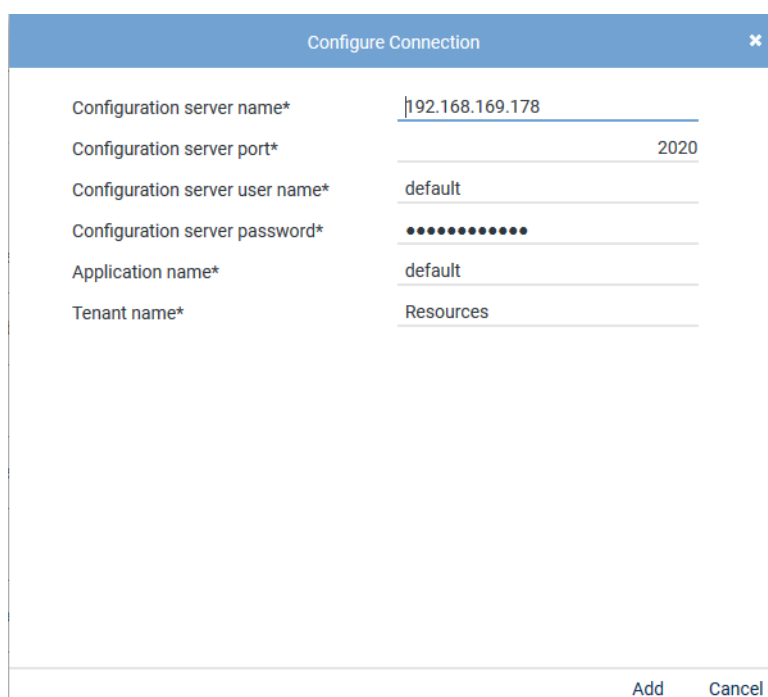


Fig. 71: Configure connection data

2. Enter the following parameters:

Parameter	Value/Description
<i>Configuration Server: Name</i>	Enter the IP address or the name of the computer that the Genesys Configuration Server runs on.
<i>Configuration Server: Port</i>	Enter the port of the Genesys Configuration Server.

Parameter	Value/Description
<i>Configuration Server: User name</i>	Enter the user name to log in to the Genesys Configuration Server.
<i>Configuration Server: Password</i>	Enter the password to log in to the Genesys Configuration Server.
<i>Application name</i>	Enter the application name that the recording servers uses to log in to the Genesys Configuration Server. Default is <i>default</i> .
<i>Tenant name</i>	Enter the name of the Genesys tenant(s) that are supposed to request the configuration data. Default is <i>Resources</i> . Several tenants can be added separated by commas.

Tab. 23: Configure connection data

### Group field Additional Data

The following additional data is delivered by default in the protocol when using Genesys T-Server:

- *CallID*
- *ANI*
- *CallUuid*
- *DNIS*



Further additional data depend on the configuration of the Genesys T-Servers. Check the list *AttributeUserData* in the trace files to find out which further additional data have been delivered by the Genesys T-Servers. Put the addition *UserData* in front of the additional data type when configuring customer-specific additional data, e. g. for *RTargetAgentGroup* you have to configure *UserDataRTargetAgentGroup*.

### Arbitrary assignment

In the section *Arbitrary assignment*, you can configure the additional data which is additionally delivered by the PBX or by an add-on but which is not listed yet. Upon assigning the delivered additional data, it appears in the search and replay applications.



The names of the column headlines which are supposed to appear in the players must be configured and made available in the Additional Data module first.

For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.



The drop-down list only contains those additional data that you have configured and made available in the Additional Data module. The display name then appears in the column headlines in the players.


For more information about the configuration of additional data refer to the administration manual for system providers *Additional Data module*

1. In the group field headline *Additional Data*, click on the arrow ► to expand the group field and to assign the additional data to the data fields of the search and replay applications.

Arbitrary assignment			+
<input type="text"/>	Please select...	▼	⊖
<input type="text"/>	Please select...	▼	⊖
<input type="text"/>	Please select...	▼	⊖

Fig. 72: Arbitrary assignment of the additional data

The following additional data are always available:

- *Start time*
  - *End time*
  - *Duration*
  - *Calling Party Phone Number*
  - *Called Party Phone Number*
  - *Conversation Direction*
2. In the entry field on the left, enter the description of the additional data type from the protocol. Observe the same spelling as it is used in the protocol. The information which is read out of the protocol is displayed in the columns in the players.
  3. From the drop-down list, select the respective display name that you have configured in the Additional Data module. Only those display names are displayed for which the option *Available* has been activated in the Additional Data module.
  4. To add a new assignment, click on the icon  (*Create*) in the toolbar of the table.
    - ⇒ An additional row appears to assign another additional data type.
  5. Click on the button *Save* in the detail view to save the entries and finish this configuration step.

The add-on provides additional data that can be tagged in customer-specific additional data fields (customCP fields). By means of these additional data fields, the respective recording behavior can be reached by means of the recording planner, e. g. recording start beginning with tagging or threat call scenario.




To allow users to control the recording by means of keys, you must configure the recording profile accordingly in the Recording Planner module.



For information about the Recording Planner module refer to the administration manual for tenants *Recording Planner*.

### Configure miscellaneous settings

1. Click on the button  (*Edit configuration step*) in the line *Configure recording servers* in the main view.
  - ⇒ The window *Step: Miscellaneous Settings* appears.

Step: Miscellaneous Settings

×

Details

Dispatcher

Please select...

▼

Save

Cancel

Fig. 73: Configure miscellaneous settings

2. Enter the following parameter:


Parameters	Description
<i>Dispatcher</i>	From the drop-down list, select the previously created additional data field that the participant information is supposed to be connected with.





Only those entries appear in the drop-down list which have been configured in the application System Configuration in the Additional Data module. For further information refer to the administration manual *Additional Data module*.

### Activate integration

The integration can only be activated after the configuration is complete.

If not all configuration steps have been carried out completely, the icon  (*Incomplete*) will appear in the main view, in the line of the created integration, in the column *Status*.

If the configuration has been carried out completely, the icon  (*Complete*) will appear in the line of the respective step, in the column *Configuration*.

If all settings are complete, the icon  (*OK*) will appear in the main view, in the line of the created integration, in the column *Status*.

















+ × ⏮ ⏭ Integration ▾ General ▾			
Name ▾	Type ▾	Active ▾	Status ▾
 SIP active	SIP active		
Step		Configuration	
Configure recording architecture			
Global recording settings			
Configure recording servers			
Configure add-on			
Configure miscellaneous settings			

Fig. 74: Activate integration

1. Mark the integration in the main view, so that the icon  (*Activate*) becomes active in the toolbar.
2. To activate the integration, click on the icon  (*Activate*).  
⇒ In the column *Active*, the icon  (*Active*) appears.




+ × ⏮ ⏭ Integration ▾ General ▾			
Name ▾	Type ▾	Active ▾	Status ▾
 SIP active	SIP active		

Fig. 75: Activated integration



If you use several PBXs, you can create and activate several integrations with the same recording architecture.



If you take advantage of the grace period and there is no valid license file in the system after its expiration, all integrations are deactivated. After uploading a valid license file, you have to activate the integrations again.






Upon activating the standard configuration, a bulk recording will start.

To restrict the recording to particular end devices, the tenant can configure the Recording Planner in the System Configuration accordingly.

### Deactivate/Delete integration

To be able to delete an integration, it has to be deactivated.

- To deactivate the integration, click on the icon  (*Deactivate*) in the toolbar.
  - ⇒ In the column *Active*, the icon  (*Inactive*) appears.
  - ⇒ The icon  (*Delete*) becomes active in the toolbar.







+ ×   Integration ▾ General ▾			
Name ↕	Type ↕	Active ↕	Status ↕
 SIP active	SIP active		

Fig. 76: Deactivate integration

- Click on the icon  (*Delete*) and confirm the security prompt to delete the integration.

## 7.1.2.2 Configure recording solution All-in-one Failover

### 7.1.2.2.1 Create recording architecture

Start the configuration in the Recording Architectures module because an activated recording architecture is required for further configuration.

The recording servers, recording types, and the integration types are assigned in the Recording Architectures module.

- Select the menu item *Setup > Recording Architectures* in the navigation bar.
  - ⇒ The following window appears:



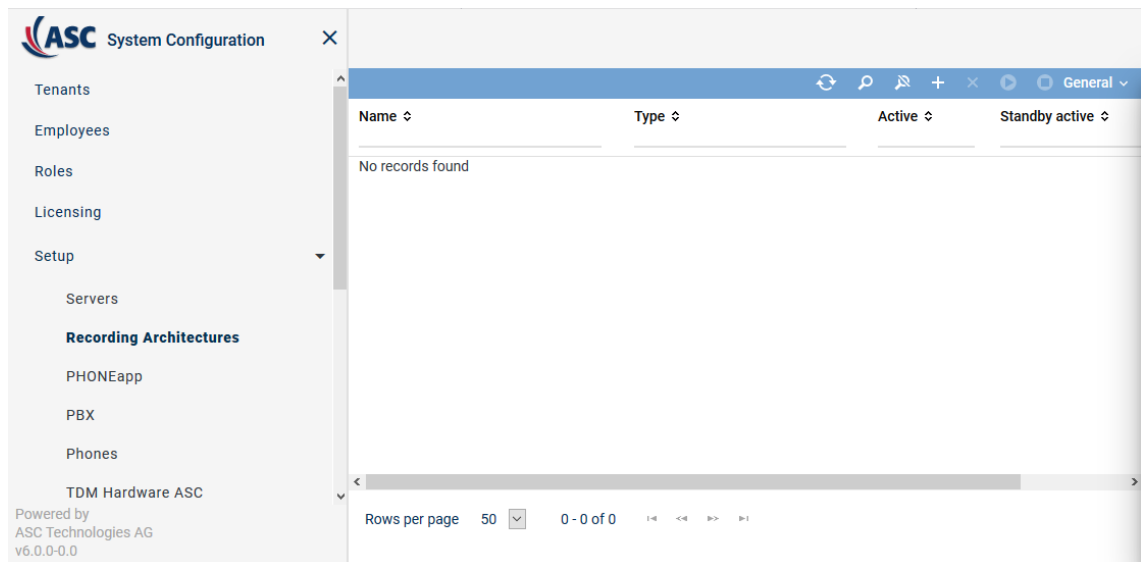




Fig. 77: Recording architectures - main view

<b>Name</b>	Name of the recording architecture
<b>Type</b>	Type of the recording architecture
<b>Active</b>	Shows whether the recording architecture has been activated and is ready to be used for the recording. <div> <span>✓</span> = Recording architecture is active and ready to be used for recording. It can be deactivated by clicking on the icon  (<i>Deactivate</i>) in the toolbar. </div> <div> <span>✗</span> = Recording architecture is not active. It can be activated by clicking on the icon  (<i>Activate</i>) in the toolbar. </div>
<b>Standby Active</b>	Shows whether the standby server is active for one or several recording components in the recording architecture. <div> <span>✓</span> = At least 1 standby server is active. </div> <div> <span>✗</span> = No standby server is active or no standby server has been defined. </div>
<b>Creation Date</b>	Date on which the recording architecture was installed.
<b>Updated</b>	Date on which the settings of the recording architecture were updated for the last time.





**NOTICE!** Hidden columns can be added by clicking on the menu item *General > Adjust Table*.





### Toolbar of the Recording Architectures module

The toolbar offers the following functions.



Fig. 78: Toolbar Recording Architectures module

	<b>Refresh</b>	Refreshes the main view.
	<b>Search</b>	Opens the window of the search function. The search function allows searching systematically for sets of data which meet certain criteria.  The icon  is displayed whenever the search has been adjusted by means of a filter.
	<b>Reset search</b>	Resets all search filters so that the main view displays all data sets again.


	<i>Create</i>	Creates a new recording architecture.
	<i>Delete</i>	Deletes the selected recording architecture. The recording architecture is removed from the list of the main view. <b>NOTICE!</b> You can only delete recording architectures which are inactive and have not been assigned to an integration or server for the import.
	<i>Activate</i>	Activates the selected recording architecture.
	<i>Deactivate</i>	Deactivates the selected recording architecture. <b>NOTICE!</b> You can only deactivate recording architectures which have neither been assigned to an active integration nor to an active import.
<i>Recording Architectures</i>	<i>Standby management</i>	The menu item is only available for recording architectures with failover possibilities. By clicking on the menu item Standby Management, you can open a window in which you can manually define the active server in architectures with failover concepts.
<i>General</i>	<i>Print</i>	Prints the table of the main view.
	<i>Adjust Table</i>	Opens a window in which you can adjust the following settings for the main view: <ul style="list-style-type: none"> <li>• <i>Displayed information</i></li> <li>• <i>Order of the displayed columns</i></li> <li>• <i>Number of rows per page</i></li> </ul>
	<i>Save Table Configuration</i>	Saves the current table configuration of the main view as default view of the user.
	<i>General Help</i>	Opens the online help.
	<i>Module Help</i>	Opens the module-specific online help.



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

### Create recording architecture All-in-one Failover

If a standby recording server is supposed to take over recording in case of an error, you have to create a recording architecture of the type *All-in-one Failover*.

- To create a new recording architecture, click on the icon  (*Create*) in the toolbar of the main view.

⇒ The window *New Recording Architecture* appears.

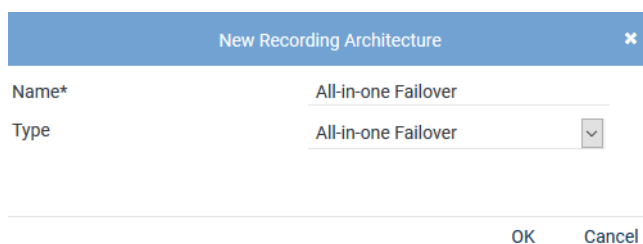


Fig. 79: Create recording architecture - All-in-one Failover

- In the entry field *Name*, enter a descriptive name for the recording architecture.

3. From the drop-down list *Type*, select the recording architecture type *All-in-one Failover*.  
**NOTICE!** The drop-down list only displays the supported recording architecture types.
4. Click on the button *OK*.  
⇒ Your entries now appear in the detail view.

All-in-one Failover
All-in-one Failover X

Details\*

Server Assignment\*

Help

Name*	All-in-one Failover
Failover timeout*	15 Sec
Recording architecture	All-in-one Failover
Standby Failover aktivieren	<input type="checkbox"/>
Active	Inactive

Integration Type
⌵ ⌶

Name
No records found

Save


Reset

Fig. 80: Recording architecture - tab Details - All-in-one Failover

As standby components may have been configured for the active recording server, a failover timeout may be configured in this recording architecture. For further information about failover architectures, see [chapter "Standby management for failover architectures", p. 363](#).

<i>Failover timeout</i>	<p>Enter a timeout of a minimum of 15 seconds after which the failover process is supposed to start. Depending on the system architecture it may make sense to configure a longer timeout period. The timeout defines the elapse time until the failover process starts. If the status returns to <i>OK</i> within this time, then the failover process is not triggered.</p> <p><b>NOTICE!</b> Check these parameters after an update and set the timeout to 15 seconds, if required.</p>
<i>Activate standby failover</i>	<p>Activate this option if you would like to ensure that the system switches back to the primary server in case of an error of the standby server.</p> <p><b>NOTICE!</b> There is no check whether the primary database is working properly before switching back. As a result it is possible that both databases are in an undefined state.</p> <p><b>NOTICE!</b> After switching back to the original primary server from the standby server, this option is deactivated. If the switching process is supposed to be carried out automatically in the event of a new error, you must activate this option again.</p>
<i>Active</i>	Shows the status of the recording architecture.

### Add integration type

- Click on the icon  (Add) in the toolbar of the list *Integration Type*.  
⇒ The window *Integration Type* appears.

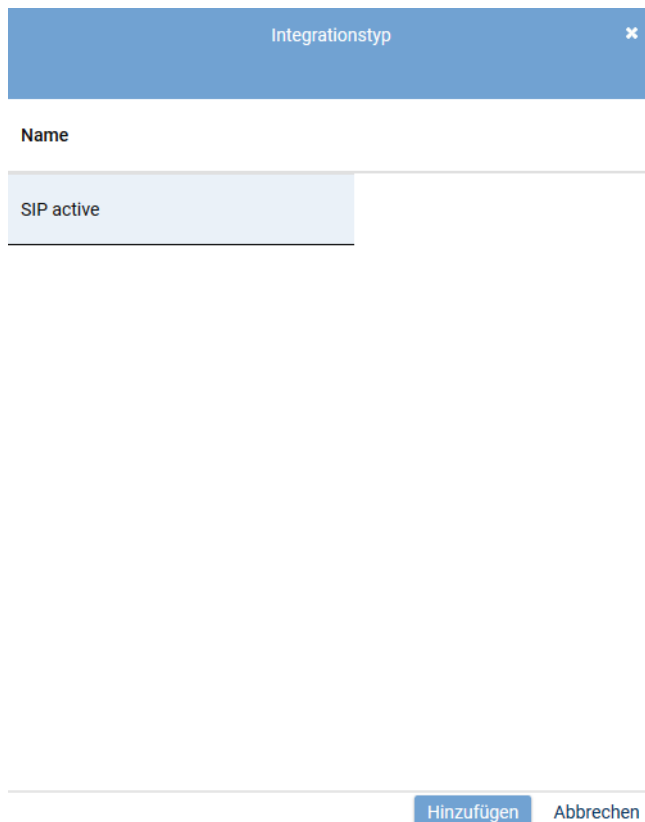


Fig. 81: Select integration type



Only those integration types are displayed which have a license in the system and which support the selected architecture type.



Any number of integration types can be assigned to a recording architecture.

- Select *SIP active* from the list of the available integration types and click on the button *Add*.  
⇒ The name of the integration type now appears in the list in the detail window.

### Assign servers for All-in-one Failover Recording

- Click on the tab *Server Assignment* to assign the recording servers to the recording architecture *All-in-one Failover Recording*.

All-in-one Failover

All-in-one Failover

✕

Details\*

Server Assignment\*

Primary server\*

REC-01

+

-

Used in activated architecture

No

Standby server\*

REC-02

+

-

Used in activated architecture

No

Recording type

☐ VoIP/Video

☐ TDM

☐ Screen

☐ Chat

Save

Reset

Fig. 82: Recording Architecture - tab Server Assignment

- Click on the button **+** behind the entry field *Primary server*.  
⇒ The window *Servers* appears.

Servers		
Name	IP Address	Path
REC-01	192.168.173.171	C:\
REC-02	192.168.173.172	C:\

Fig. 83: Recording Architecture - assign server - example


3. Select the *primary* server.



A server can be configured in several recording architectures, but you cannot activate several recording architectures with the same server at the same time.

If you would like to activate several recording architectures at the same time, you have to use different servers to do so.

- Click on the button *Add*.  
⇒ The name of the server now appears in the detail view.

5. To delete an assignment, click on the button .
6. Repeat the steps and select the server which is supposed to be use in case of an error failover operation in the entry field *Standby server*.
7. Select the recording type you would like to use for these servers by activating the check box.

Recording type

☒ VoIP/Video

☒ TDM

☒ Screen

☒ Chat




Fig. 84: Recording Architecture - activate recording type



You can activate several recording types if the integration has been designed for this and if you have installed the respective licenses.

8. To save the settings, click on the button *Save*.  
To discard the settings, click on the button *Reset*.

#### Activate recording architecture

1. Once all servers have been assigned, click on the button *Save*.
2. Select the recording architecture in the main view so that the icon  (*Activate*) in the toolbar becomes active.
3. To activate the recording architecture, click on the icon  (*Activate*).  
⇒ In the column *Active*, the icon  (*Active*) appears.










     Recording Architecture ▾ General ▾			
Name ▾	Type ▾	Active ▾	Standby active ▾
All-in-one Failover	All-in-one Failover		

Fig. 85: Recording architecture - activate recording architecture

4. To deactivate the recording architecture, if required, click on the icon  (*Deactivate*).  
⇒ In the column *Active*, the icon  (*Inactive*) appears.



The recording architecture must have been activated so that the integration can be configured.



For updates, the recording architecture is stopped and deactivated. Once the update has been completed, check that the recording architecture has been activated again.



For all recording architectures with failover components, you can manage to the standby components via standby management. This holds true for Multi-Server Recording and Multi-Server Parallel Recording systems if redundancy options are available for these systems. See [chapter "Standby management for failover architectures", p. 363](#).



If you install an add-on for the integration subsequently, you must deactivate the recording architecture and activate it again after having installed the license.

### 7.1.2.2.2 Configure servers

Every server in your network that the *neo* software has been installed on is automatically identified as a server of the recording system and displayed in the main view of the Servers module. In the Servers module, you can configure the usage of the servers in your recording system.

1. Select the menu item *Setup > Servers* in the navigation bar.

⇒ The following window appears:

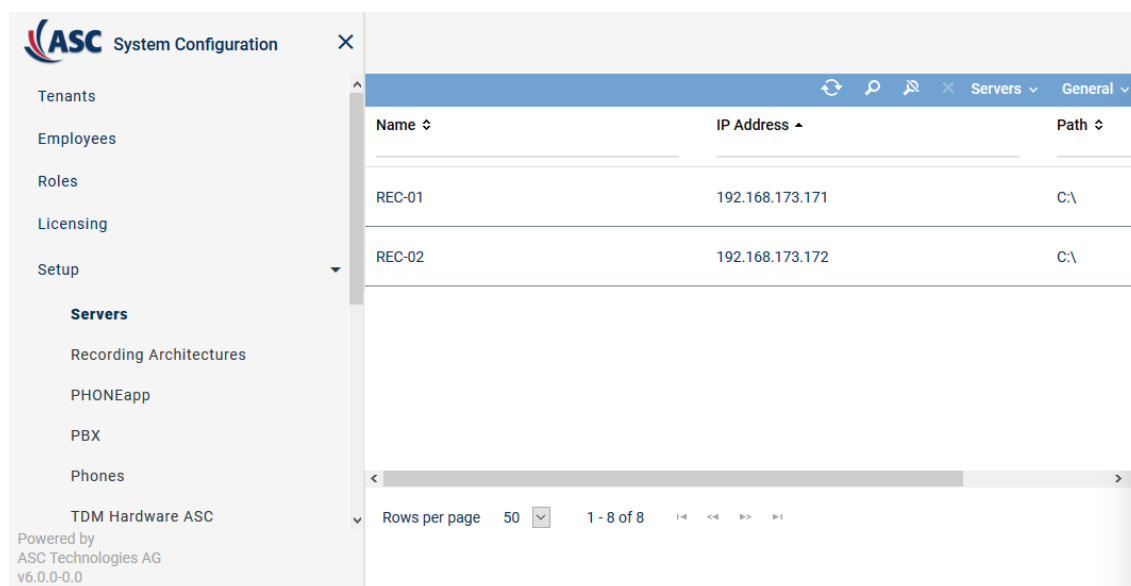


Fig. 86: Servers - main view

Depending on the configuration of the columns, the following information is displayed in the main view:

<i>Name</i>	Shows the name of the server.
<i>IP Address</i>	Shows the IP address of the server.
<i>Path</i>	Shows the path of the server.
<i>Creation Date</i>	Date on which the server was installed.
<i>Updated</i>	Date on which the settings of the server were updated for the last time.

**NOTICE!** Hidden columns can be added by clicking on the menu item *General > Adjust Table*.

#### Toolbar of the Servers module

The toolbar offers the following functions.

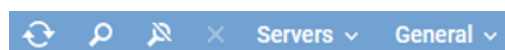







Fig. 87: Toolbar Servers module

	<i>Refresh</i>	Refreshes the main view.
	<i>Search</i>	Opens the window of the search function. The search function allows searching systematically for sets of data which meet certain criteria.  The icon  is displayed whenever the search has been adjusted by means of a filter.
	<i>Reset search</i>	Resets all search filters so that all sets of data are displayed in the main view again.
	<i>Delete</i>	Deletes the selected server configuration.

		This function is meant to delete the server configuration if the hardware of a server has been removed and there is no connection to the <i>neo</i> system.
Servers	<i>Administrate Server Locations</i>	Opens a window in which you can create and administrate locations of the servers, see <a href="#">chapter "Administrate server locations", p. 80</a> .
	<i>Administrate NTP server</i>	Opens a window in which you can administrate the servers for the time synchronization, see <i>Administrate NTP server</i> .
	<i>Manage Synchronization Configurations</i>	Opens a window in which you can manage the synchronization configurations.
General	<i>Adjust Table</i>	Opens a window in which you can adjust the following settings for the main view: <ul style="list-style-type: none"> <li>• <i>Displayed information</i></li> <li>• <i>Order of the displayed columns</i></li> <li>• <i>Number of rows per page</i></li> </ul>
	<i>Save Table Configuration</i>	Saves the current table configuration of the main view as default view of the user.
	<i>General Help</i>	Opens the online help.
	<i>Module Help</i>	Opens the module-specific online help.



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

### Administrate server locations

You can create and manage a list of server locations. In the tab *Details*, you can assign locations to the servers.

#### Add server locations

1. Click on the menu item *Servers > Administrate Server Locations* in the toolbar of the main view.
  - ⇒ The window *Server Locations* appears.



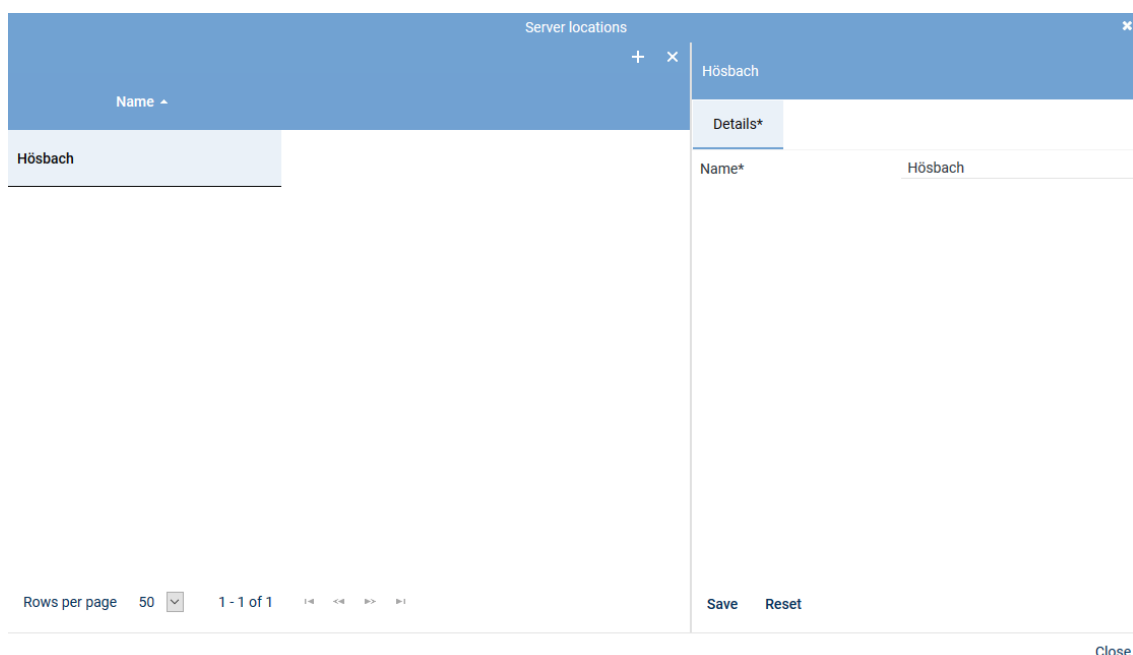



Fig. 88: Add server locations

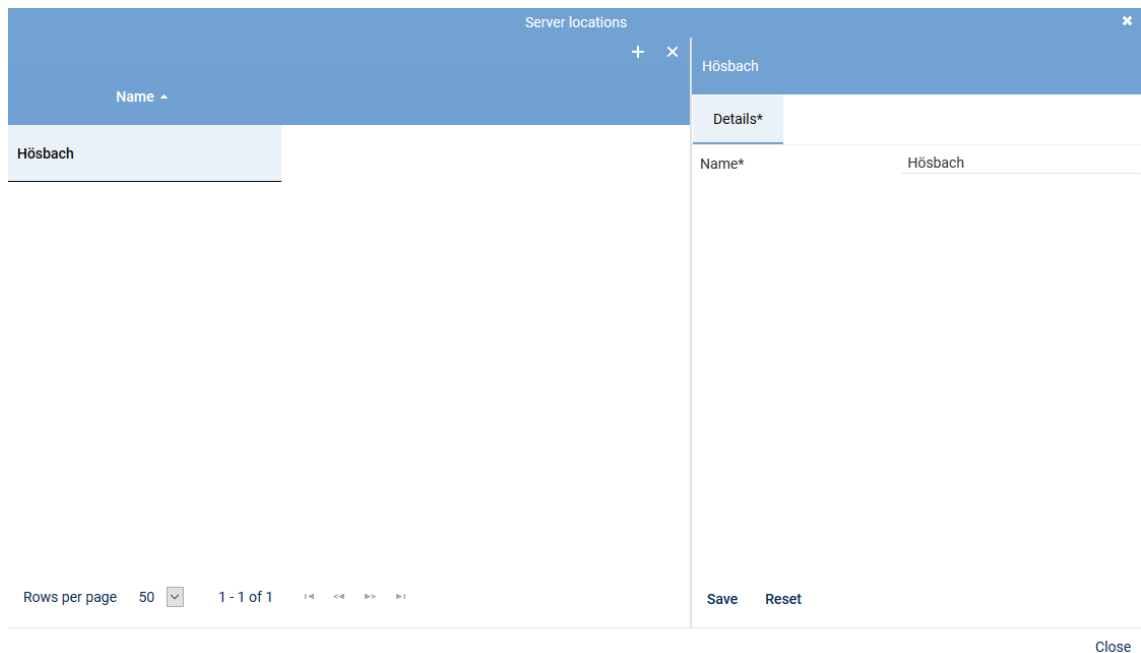
2. Click on the icon  (*Create*) in the toolbar of the window *Server Locations*.
3. Enter the name of the location on the right side in the tab *Details*.
4. To save the entry, click on the button *Save*.  
To discard the entry, click on the button *Reset*.
5. To add further locations, repeat the last 3 steps.
6. To close the window, click on the button *Close*.

### Delete server location




A server location can only be deleted when it has not been assigned. To be able to delete a server location, you must first delete possible assignments.

1. Click on the menu item *Servers > Administrate Server Locations* in the toolbar of the main view.  
⇒ The window *Server Locations* appears.
2. Select the location you would like to delete.



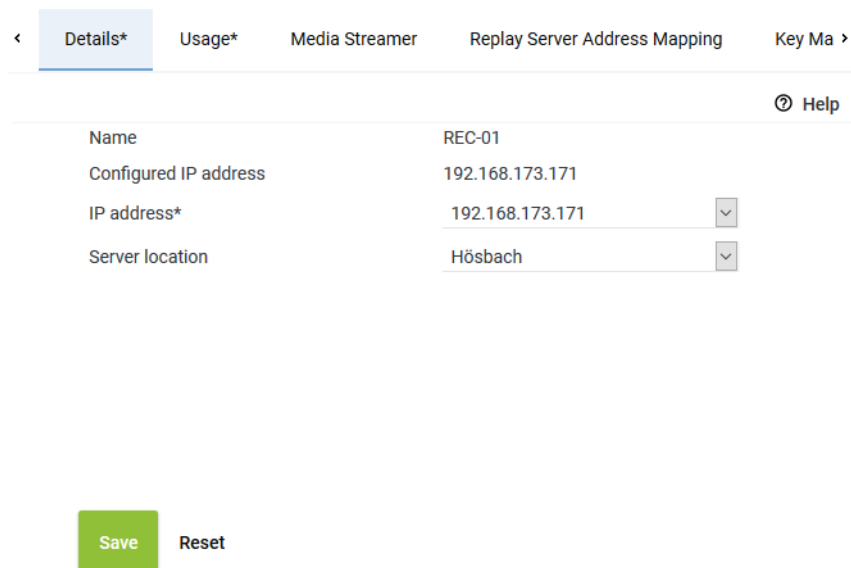
The screenshot shows a window titled "Server locations" with a close button (x) in the top right. Inside, there's a table with a header "Name" and one row containing "Hösbach". To the right of the table is a "Details\*" tab. Below the tab, there's a form with a label "Name\*" and a text input field containing "Hösbach". At the bottom of the window, there are "Save" and "Reset" buttons. A "Close" button is located at the bottom right of the window frame.

Fig. 89: Delete server location



3. Click on the icon  (*Delete*) in the toolbar of the window.
4. To delete further locations, repeat the last 2 steps.
5. To close the window, click on the button *Close*.

### Tab Details

1. To configure the server, select the entry of the corresponding server in the main view.
  - ⇒ In the detail view, the tab *Details* appears.
  - The information *Name* and *Configured IP address* has already been entered during the installation and is displayed for your information only.



The screenshot shows a window titled "Servers - tab Details" with a close button (x) in the top right. The window has a tabbed interface with tabs: "Details\*", "Usage\*", "Media Streamer", "Replay Server Address Mapping", and "Key Ma". The "Details\*" tab is active. Below the tabs, there's a form with the following fields:

Name	REC-01
Configured IP address	192.168.173.171
IP address*	192.168.173.171 
Server location	Hösbach 

At the bottom of the window, there are "Save" and "Reset" buttons. A "Help" icon is located at the bottom right of the window frame.

Fig. 90: Servers - tab Details

2. From the drop-down list, select the IP address which is supposed to be used as default address of the server in the system.
3. Select the *Server location* in the drop-down list. The drop-down list displays all locations which have been created in the location management.

- Click on the button **Save** if the entries are correct.

### Tab Usage

- Click on the tab *Usage* to configure the intended purpose.



As a server may be used for several recording solutions, all intended purposes are displayed. Note that some intended purposes do not apply for certain recording solutions. In chat recording, for instance, audio analysis or replay via phone cannot be used.

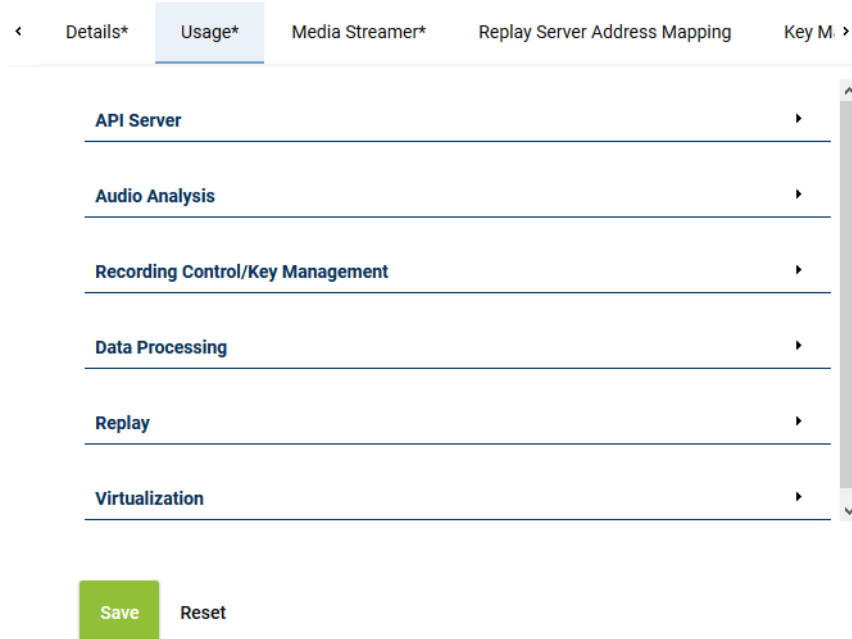


Fig. 91: Servers - tab usage

### Group field API Server

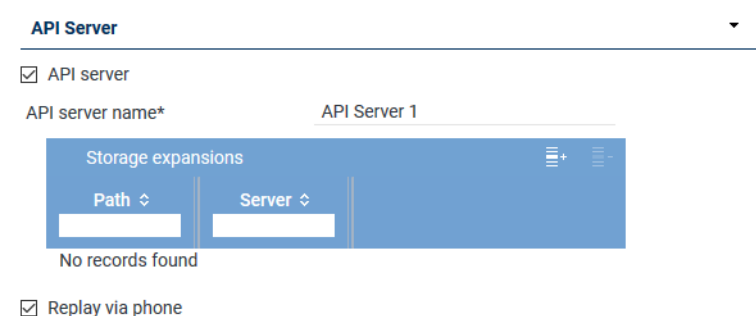


Fig. 92: Group field API Server



The ASC API Server is a service within the neo software.



The ASC API Server must have been activated on every server where the Recording Control service runs.


The ASC API Server does not only offer an interface for the internal modules; additionally, the client applications communicate with the neo system by means of this interface, too, using defined commands.

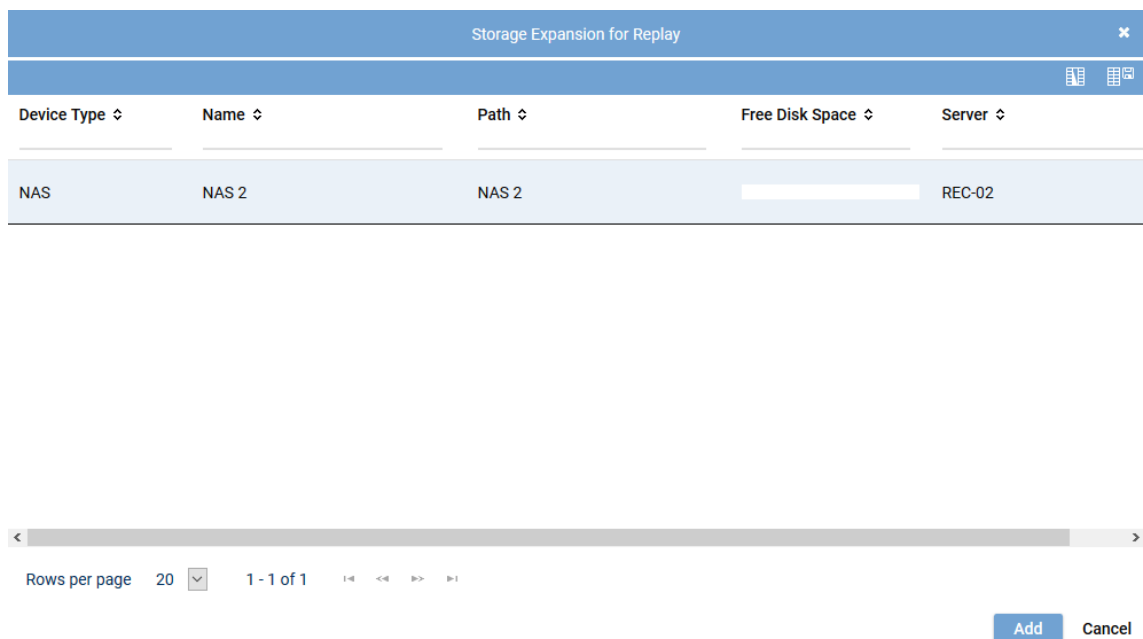
Furthermore, the ASC API Server is responsible for replay by means of the web browser. Not until the ASC API Server has started, can the replay server be activated and the corresponding ASC API Server assigned for replay in the web applications.

Parameter	Value/Description
<i>API server</i>	<p>Tick the check box to start the API server.</p> <p><input checked="" type="checkbox"/> = Function has been activated. You have to complete the entry field <i>API server</i>.</p> <p><input type="checkbox"/> = Function has not been activated.</p> <p>In order to be able to reach the API server from a public network and with configured port forwarding, too, you have to adjust the settings in the tab <i>Replay Server Address Mapping</i>, see <a href="#">chapter "Tab Replay Server Address Mapping"</a>, p. 93.</p>
<i>API server name</i>	<p>Enter the name which is supposed to denote the server in the system. The displayed name can be selected arbitrarily and is a kind of pseudonym.</p> <p>The displayed name is meant to make it easier for users to select a server as different API servers may be used across the system by different tenants. When selecting the API server, these pseudonyms are displayed on the client computers instead of the real server name or the IP address.</p>
<i>List Storage expansions</i>	<p>Here, you can add storage expansions for replay. If a recording which is supposed to be replayed cannot be found on the server, the search is continued on the storage expansions which have been entered here. That way, even recordings can be replayed which have not been transferred to the server.</p> <p>If the function <i>Replay</i> has been activated, you can adjust the following settings:</p> <ul style="list-style-type: none"> <li>• By clicking on the icon  (<i>Add</i>), you can add the storage expansions, see <a href="#">chapter "Add storage expansion for replay"</a>, p. 85.</li> <li>• By clicking on the icon  (<i>Remove</i>), you can remove the storage expansions from the list.</li> </ul> <p>If you use several recording servers in your system for which storage expansions have been configured, you can add any storage expansion of any recording server on every API server of the system.</p>
<i>Replay via phone</i>	<p>Activate this function if you would like to use the functions <i>Replay via phone</i> or <i>Last Call Repeat</i>.</p> <p><input checked="" type="checkbox"/> = Function has been activated.</p> <p><input type="checkbox"/> = Function has not been activated.</p> <p><b>NOTICE!</b> The function <i>Replay via phone</i> has been implemented in the following <i>neo</i> components:</p> <ul style="list-style-type: none"> <li>• Application POWERplay Pro</li> <li>• Application POWERplay Instant</li> <li>• Replay module</li> </ul> <p>In order to enable a client to use the functionality <i>Replay via phone</i>, you have to assign this client an identifier either in the Employees module or in the Phones module which allows the system to clearly identify the phone.</p>

Parameter	Value/Description
	<b>NOTICE!</b> In the tab <i>Media Streamer</i> , you have to assign this function to a <a href="#">PBX</a> , see <a href="#">chapter "Tab Media Streamer", p. 92</a> . To be able to do so, at least 1 <a href="#">PBX</a> must have been configured in the system.

### Add storage expansion for replay

1. Click on the icon  (*Add*) in the toolbar of the list.
2. Select 1 or several storage expansions.  
If you would like to select several storage expansions or revoke a selection, click on the respective line while holding the [Ctrl] key down.



Device Type	Name	Path	Free Disk Space	Server
NAS	NAS 2	NAS 2	<div></div>	REC-02

Fig. 93: Select storage expansion

3. To apply the selected storage expansions, click on the button *Add*.  
To discard the selection and close the window, click on the button *Cancel*.

### Group field Audio analysis



Fig. 94: Group field Audio analysis

Parameter	Value/Description
<i>Emotion detection</i>	Activate this check box to activate emotion detection for audio analysis.  <input checked="" type="checkbox"/> = Function has been activated. Tenants can use the function emotion detection.  <input type="checkbox"/> = Function has not been activated.

Tab. 24: Configure audio analysis

### Group field Recording Control/Key Management

**Recording Control/Key Management** ▼

---

☒ Recording control/Monitoring

Recording architecture      Please choose... ▼

☒ neo key management

Fig. 95: Group field Recording Control/Key Management

Parameter	Value/Description
<i>Recording control/monitoring</i>	<p>Activate the check box, if you would like to use CLIENT<u>command</u> or API recording control. The function is only available if a recording architecture has been configured and activated.</p> <ul style="list-style-type: none"> <li>Recording architecture From the drop-down list, select the recording architecture via which you would like to control the recording.</li> </ul>
<i>neo key management</i>	<p>This function serves for customer-specific recording encryption. To be able to configure the conditions for key management, activate the check box <i>Key management</i>.</p> <p>The function can only be activated if the license <code>ASC_KEY_MANAGEMENT</code> is available.</p> <p>For more information about the configuration of key management refer to the administration manual <i>Configuration server and recording architectures</i> and to the installation manual <i>Installation Dongle Manager</i>.</p>

Tab. 25: Configure recording control/key management

### Group field Data Processing

**Data Processing** ▼

☒ Data storage

☒ Transfer data for replay

Target Server

Name	IP Address ↕
No records found	

☒ Transfer data for data storage

Target Server

Name	IP Address ↕
No records found	

Activate period of time ☒

from 11:59:36

to 11:59:36

Receives data from

Name	Only Replay
No records found	



☒ Archiving





☒ Export

☒ Import

Recording architecture Please choose... ▼


Fig. 96: Group field Data Processing

Parameter	Value/Description
<i>Data storage</i>	Activate the check box to allow the modification of the additional functions of data processing.
<i>Transfer data for replay</i>	<p>Activate the check box if you would like to transfer data only for replay to another server.</p> <p>If the function has been activated, you can select a server from the list <i>Target Server</i> to which the recorded data is supposed to be transferred for replay. The data is not stored on the target server but deposited in a cache temporarily in order to be replayed.</p> <ul style="list-style-type: none"> <li>By clicking on the icon  (<i>Add</i>), you can add the target server, see <a href="#">chapter "Add target server to a list", p. 88</a>.</li> <li>By clicking on the icon  (<i>Remove</i>), you can remove the target server from the list.</li> </ul> <p><b>NOTICE!</b> Only those servers are displayed on which an API server and a replay server have been configured.</p>
<i>Transfer data for data storage</i>	<p>Activate the check box if you would like to transfer data for storage to another server.</p> <p>If the function has been activated, you can select a server from the list <i>Target Server</i> to which the recorded data is supposed to be transferred for data storage purposes. In the drop-down list, all servers are displayed on which the function <i>Data Storage</i> has been activated. The data is copied to the target server and stored there.</p>

Parameter	Value/Description
	<ul style="list-style-type: none"> <li>By clicking on the icon  (Add), you can add the target server, see <a href="#">chapter "Add target server to a list", p. 88</a>.</li> <li>By clicking on the icon  (Remove), you can remove the target server from the list.</li> </ul> <p><b>NOTICE!</b> Only those servers are displayed on which the function <i>Data Storage</i> has been activated.</p> <p>If the function has been activated, you can activate the transfer for a certain period of time.</p> <ul style="list-style-type: none"> <li>Activate period of time <input checked="" type="checkbox"/> = Function has been activated. The fields for entering the time become active. Select the time via the rotating field for the period from – to.</li> <li>Active period of time <input type="checkbox"/> = Function has not been activated.</li> </ul> <p><b>NOTICE!</b> In distributed systems with slow network connections, the storage interval for the data transfer can be adjusted. The storage interval for the data transfer has to be configured by an ASC service technician or by an authorized partner company.</p>
<i>Receives data from</i>	<p>This table contains those servers which transfer data to this server.</p> <p>In the column <i>Name</i>, the name of the server appears from which data has been transferred.</p> <p>In the column <i>Only Replay</i>, the purpose of the transfer is displayed:</p> <p> = Data is transferred only for replay.</p> <p> = Data is transferred for data storage.</p>
<i>Archiving</i>	Activate the check box <i>Archiving</i> if you would like to use the server for archiving purposes.
<i>Export</i>	Activate the check box <i>Export</i> to allow the export from this server.
<i>Import</i>	<p>Activate the check box <i>Import</i> so that the imported data can be stored on this server.</p> <ul style="list-style-type: none"> <li>Recording architecture From the drop-down list, select the recording architecture that fulfills this function. In the drop-down list, all recording architectures are displayed which enable this function as well.</li> </ul> <p><b>NOTICE!</b> If you would like to use a server for the import function on which no recording is supposed to take place, you can configure an architecture exclusively for the import.</p>

Tab. 26: Configure data storage

### Add target server to a list

- In the toolbar of the list *Target Server*, click on the icon  (Add).
- Select the server from the list to which you would like to transfer the data.  
If you would like to select several servers or revoke a selection, click on the respective line while holding the [Ctrl] key down.





Name	IP Address
RC-02	192.168.173.176
REC-04	192.168.173.174
RC-01	192.168.173.175
REC-02	192.168.173.172
CTI-01	192.168.173.177
REC-03	192.168.173.173

Rows per page: 20 | 1 - 6 of 6

Add Cancel

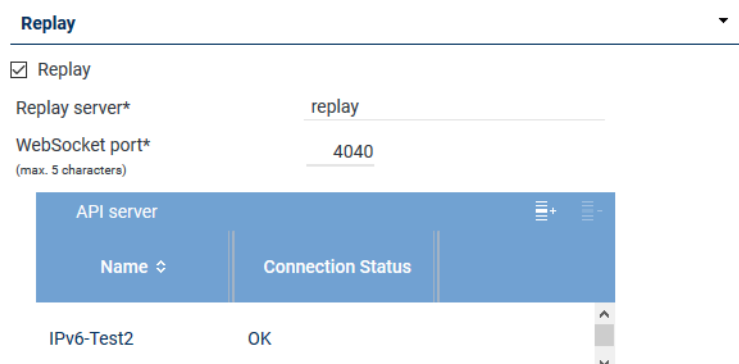
Fig. 97: Select server



Only those servers are available on which the function *Data storage* has been activated.

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

### Group field Replay



**Replay**

☒ Replay



Replay server\*

WebSocket port\*   
(max. 5 characters)

Name	Connection Status
IPv6-Test2	OK

Fig. 98: Group field Replay

Parameter	Value/Description
<i>Replay</i>	<p>A replay server can replay recordings via the integrated <i>Replay Feature</i>. Only data which has either been recorded directly on this server or which has been transferred to this server for data storage or only for replay purposes can be replayed. The client computers of the system can connect to a replay server for replay purposes.</p> <p>Activate the check box <i>Replay</i> to be able to use the replay function of the players and the phones.</p> <p><input checked="" type="checkbox"/> = Function has been activated. You have to complete the entry field <i>Replay server</i>.</p> <p><input type="checkbox"/> = Function has not been activated.</p>

Parameter	Value/Description
<i>Replay server</i>	<p>If the function has been activated, you can enter a displayed name which is supposed to denote the server as the replay server in the system in the entry field <i>Replay server</i>. The displayed name can be selected arbitrarily and is a kind of pseudonym. As the replay server and the <a href="#">API</a> server must not be identical, you can select different pseudonyms.</p> <p>The displayed name is meant to make it easier for users to select a server as different replay servers may be used across the system by different tenants. When selecting the replay server, these pseudonyms are displayed on the client computers instead of the real server name or the IP address.</p> <p>In order to be able to reach the server activated for replay from a public network and with configured port forwarding, you have to set the configuration in the tab <i>Replay Server Address Mapping</i>. For further details about the configuration refer to the administration manual <i>Configuration of servers and recording architectures</i>.</p>
<i>WebSocket port (maximum of 5 characters)</i>	Enter the port via which the data to be replayed in <i>POWERplay</i> Web are supposed to be transmitted.
<i>List API server</i>	<p>Here, you can add <a href="#">API servers</a> that the replay server may use. If a recording which is supposed to be replayed cannot be found on a server, the search is continued on the <a href="#">API servers</a> which have been entered here.</p> <p>If the function <i>Replay</i> has been activated, you can adjust the following settings:</p> <ul style="list-style-type: none"> <li>By clicking on the icon  (<i>Add</i>), you can add the <a href="#">API server</a>, see <a href="#">chapter "Add API server to a list"</a>, p. 90.</li> <li>By clicking on the icon  (<i>Remove</i>), you can remove selected <a href="#">API servers</a> from the list.</li> </ul>

Tab. 27: Configure replay

### Search and replay functions



To be able to use the search and replay functions via [LCR](#) as well as to use replay via phone, you have to create the users with the respective access rights in the application System Configuration in the Employees module. For information about the configuration refer to the administration manual *User management* for tenants.

### Add API server to a list

The replay server required the services of an [API](#) server. The configuration must be as follows:


- If the replay server runs on a server with a local [API](#) server, it must not necessarily be assigned as the replay server always addresses the local [API](#) server first.
  - If the replay server runs on a separate server, you must assign at least one [API](#) server that the replay server can address.
  - If several [API](#) servers are available in the network, you can assign further [API](#) servers in addition to the local [API](#) server. The assigned [API](#) servers are addressed in order. For this reason, the local [API](#) server should always be first in the list.
- To assign an [API](#) server, click on the icon  (*Add*) in the toolbar of the list *API Server*.
  - Select the server from the list on which the [API](#) service is running.



Fig. 99: Select server



Only those servers are available on which the [API](#) service has been installed and activated. See [chapter "Group field API Server", p. 83](#).

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

### Group field Virtualization



Fig. 100: Group field Virtualization

Parameter	Value/Description
<i>VM support</i>	<p>Activate the check box <i>VM support</i> to be able to use the licensing for several VM installations.</p> <p>This function can only be activated if the system has been installed in a VMware and no <i>TRUSTED_VIRTUALIZATION</i> license has been imported to the system.</p> <p>When activating the function <i>VM support</i>, you have to configure the respective settings in the tab <i>Keystore/VM Licensing</i>. For further details about the configuration of this function refer to the administration manual <i>Configuration of servers and recording architectures</i>.</p>

Tab. 28: Configure virtualization



For the *virtualization* without Internet connection, a dongle is required which contains the system information. The application *Dongle Manager*, required to read the dongle, has to be installed on the server that the dongle has been connected to.

- To save the entries, click on the button *Save* in the detail view.  
To reset the entries, click on the button *Reset* in the detail view.

### Tab Media Streamer

1. Click on the tab *Media Streamer* in the detail view.

In this tab, you can configure the Media Streamer for the functionalities *Replay via phone* and *Last Call Repeat Facility*.



The tab *Media Streamer* is only active if the function *Replay via phone* has been activated in the tab *Usage*.

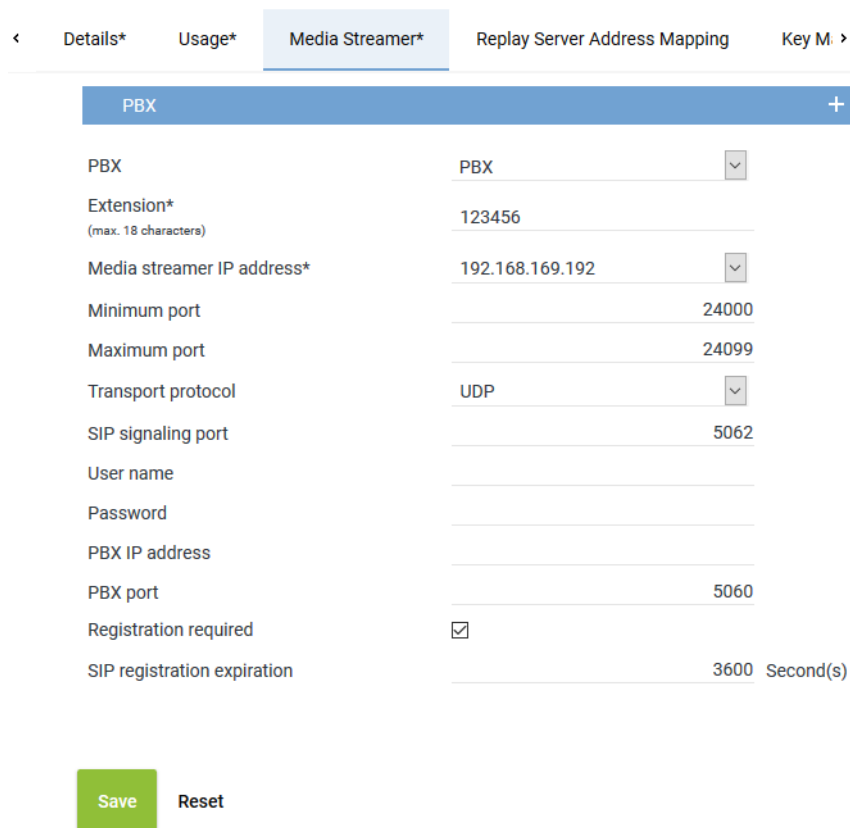


Fig. 101: Servers module - tab Media Streamer

2. Enter the following parameters:

<b>PBX</b>	<p><b>PBX</b> that the Media Streamer is supposed to be mapped to.</p> <p>Select a <b>PBX</b> from the drop-down list. The drop-down list displays all <b>PBXs</b> which have been created in the system.</p> <p>If no <b>PBX</b> has been created in the system yet, you can create a <b>PBX</b> via the blue bar <b>PBX</b>, see <a href="#">chapter "Create PBX"</a>, p. 97.</p>
<b>Extension</b>	<p>Extension which is supposed to be mapped to the Media Streamer. This is a mandatory field; the configuration cannot be saved if this information is missing.</p> <p>If an external analog gateway has been integrated, enter the value <b>8000</b>.</p>
<b>Media streamer IP address</b>	<p>IP address which is supposed to be used for the exchange of the audio data and for the <b>SIP</b> communication.</p> <p>Select an IP address from the drop-down list. In the drop-down list, all IP addresses of the server are displayed.</p> <p>If an external analog gateway has been integrated, select the IP address <b>169.254.254.100</b> in the drop-down list.</p>

<i>Minimum port</i>	Enter the minimum port which is supposed to be used for the audio data exchange.
<i>Maximum port</i>	Enter the maximum port which is supposed to be used for the audio data exchange.  A port range of 100 (e. g. 24000-24099) is sufficient for 50 licenses. The port range should be twice as wide as the number of available licenses.
<i>Transport protocol</i>	Select the transport protocol type you would like to use for the <b>SIP</b> communication from the drop-down list.  <b>TCP</b> = unencrypted <b>UDP</b> = unencrypted <b>TLS</b> = encrypted  If an external analog gateway has been integrated, select <b>UDP</b> in the drop-down list.
<i>SIP signaling port</i>	Enter the port for the <b>SIP</b> communication. Port for data exchange: 5062
<i>User name</i>	Enter the user name for the authentication on the <b>SIP</b> server.
<i>Password</i>	Enter the password for the authentication on the <b>SIP</b> server.
<i>PBX IP address</i>	Enter the IP address of the <b>SIP</b> registrar of the <b>PBX</b> .  If an external analog gateway has been integrated, enter the IP address 169.254.254.101.
<i>PBX port</i>	Enter the port of the <b>SIP</b> registrar of the <b>PBX</b> .  If an external analog gateway has been integrated, enter the value 5060.
<i>Registration required</i>	Select whether the <b>SIP</b> extension has to be registered with the <b>SIP</b> registrar of the <b>PBX</b> .  <input checked="" type="checkbox"/> = <b>SIP</b> extension has to be registered. <input type="checkbox"/> = <b>SIP</b> extension does not have to be registered.  If an external analog gateway has been integrated, deactivate the check box <i>Registration required</i> .
<i>SIP registration expiration</i>	Enter the time interval after which the registration has to be repeated.

### Tab Replay Server Address Mapping

1. Click on the tab *Replay Server Address Mapping* in the detail view.

In this tab, you can configure the replay server address mapping. Servers which have been activated for replay require this address mapping so that they can be reached from a public network and with configured port forwarding.



The tab *Replay Server Address Mapping* is only active if the function *Replay* has been enabled in the tab *Usage*.

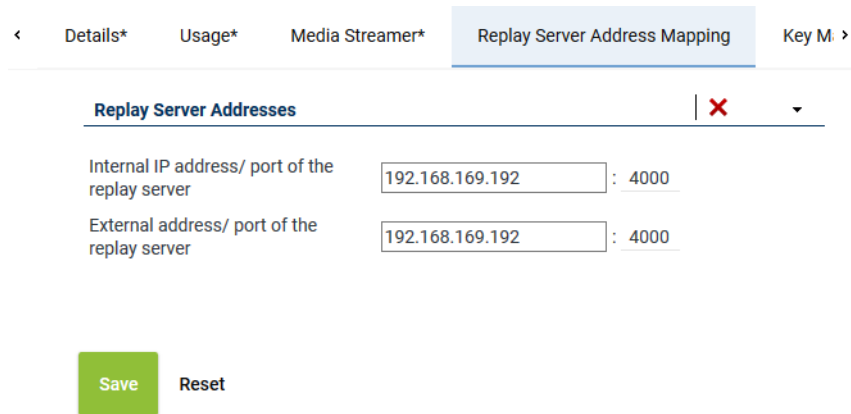


Fig. 102: Servers Module - tab Replay Server Address Mapping

### Group field Replay Server Addresses

1. Enter the following parameters:

<i>Internal IP address/ port of the replay server</i>	Enter the destination <b>IP</b> address and the port of the replay server at which the Replay module can be reached internally.
<i>External address / Port of the replay server</i>	Enter the <b>URL</b> or the <b>IP</b> address and the port at which the Replay module can be reached via the browser from outside. When entering the external address consider whether the SSL certificate has been created for an IP address or for a DNS address. In the latter case, it is imperative to enter the DNS name! Otherwise the certificate check in the replay applications will fail.

If you would like to remove the addresses, click on the icon  in the title bar of the group field.



If address mapping has been configured, the Replay module receives the configured address and the configured port.

If address mapping has not been configured, the Replay module receives the IP address and the default port *4040* as entered in the tab *Details*.



To allow the users of the respective tenant to access the replay server via the browser, an internal address and/or an external IP address or a DNS name must be configured in the Tenants module.



For information about the configuration refer to the administration manual for tenants *User management tenant*.

### Tab Key Management

1. Click on the tab *Key Management* in the detail view.

In this tab, you can configure the settings for the *neo* key management. This tab is only active if you have installed the corresponding license and enabled the function *neo Key Management* in the tab *Usage*.

< Usage\* Media Streamer\* Replay Server Address Mapping **Key Management** >

Key creation interval

☒ All  
365 Day(s)

☐ Create key manually

Delay usage

until 0 Day(s) 0 Hour(s)

☐ Key expiration date

after 0 Day(s)

☒ In case of an error switch to simple key management automatically

Save Reset

Fig. 103: Servers module - tab Key Management

<i>Key creation interval</i>	<p>Select whether a key is supposed to be generated automatically or manually. Select one of the following options:</p> <ul style="list-style-type: none"> <li>• <i>All</i> Select the intervals in which a new key is supposed to be generated automatically. Possible time interval: 1 to 365 days Default value: 365 days</li> <li>• <i>Create key manually</i> Select that a key is supposed to be generated manually.</li> </ul> <p>Old keys which are no longer used for encryption become inactive for the time being. They remain in the database, though, since they are still required for the decryption of old recordings.</p>
<i>Delay usage</i>	<p>If required, enter a time interval during which the new key is not supposed to be used yet after having been created. Not until after this time interval has passed can the key be actually used for encryption.</p> <p>Possible time interval: 0 to 14 days Default value: 0 days (new keys are immediately used for encryption)</p> <p>A delay guarantees that the key has been captured by a database backup before it will actually be used.</p>
<i>Key expiration date</i>	<p>Select whether an inactive key is supposed to become invalid after the expiration of the time interval defined here.</p> <p><input type="checkbox"/> = Key never becomes invalid.</p> <p><input checked="" type="checkbox"/> = Key becomes invalid. In the entry field, enter the time interval after which the key loses its validity. Once this time interval has passed, the key cannot be used anymore. If recording data must be deleted after a certain period of time, this option offers additional security on top of the configured date of deletion. This especially applies to the case when recording data has been transferred manually to a storage location where the deletion mechanism of the system cannot find it.</p>

**CAUTION!** All recordings which have been encrypted with a key which has meanwhile become invalid are useless and cannot be replayed anymore.

*In case of an error ... automatically*

Select whether simple key management is supposed to be used if the neo key management does not work (e. g. if the service *DongleMan* fails). If you have not activated the option, no recording takes place as long as the neo key management has been activated but does not work.

☒ = In case of an error, simple key management is used as replacement.

☐ = In case of an error, no recording takes place as long as the neo key management has been activated. In this case, disable key management in the tab *Usage*.



On top of the settings in this tab, each tenant who would like to use the neo key management has to define individual settings in his own user management (Tenants module).



For information about the configuration refer to the administration manual for tenants *User management tenant*.

### Tab Keystore/Virtualization

1. Click on the tab *Keystore/Virtualization* in the detail view.

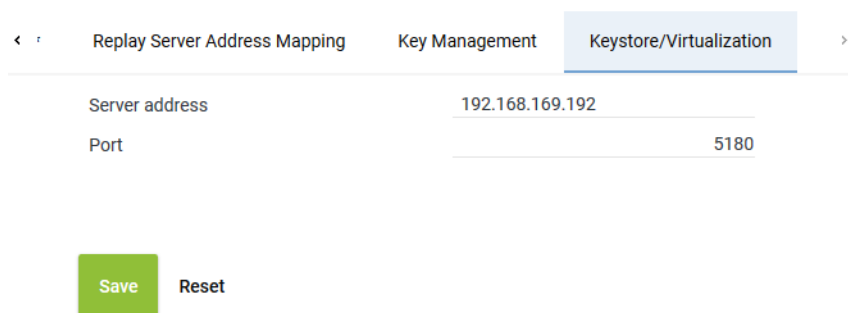
In this tab, you can configure the connection data for the service *DongleMan* for the neo key management and for the authentication of the VM.



If your system has been installed in a virtual environment, the application Dongle Manager must have been installed and started locally outside the VM so that the access to the dongle works. The dongle must have been connected to the server on which the VM has been installed.



For detailed information about neo key management refer to the administration manual *Encryption of recordings*.



Navigation: < Replay Server Address Mapping Key Management **Keystore/Virtualization** >

Server address	192.168.169.192
Port	5180

Buttons: Save Reset

Fig. 104: Servers module - tab Keystore/Virtualization

#### Server address

Enter the address of the server for this connection.

- If you use the neo key management as well as the virtualization:  
IP address of the server that the service *DongleMan* has been installed on.
- If you use only virtualization, you can authenticate the VM via the ASC License Management System, too. In this case, enter the following address:  
*licensing.asc.de*



- If you use only the ASC key management:  
IP address of the server with the master password database

**Port** Enter the port for the connection.  
Default value: 5180

2. To save the settings, click on the button *Save*.  
To discard the settings, click on the button *Reset*.

### 7.1.2.2.3 Create PBX

The PBX can either be configured via the PBX module or via the Integrations module.

In this configuration step, the parameters for the PBX are configured, e. g. the name, the area code and the net code.

1. Select the menu item *Setup > PBX* in the navigation bar.  
⇒ The following window appears:

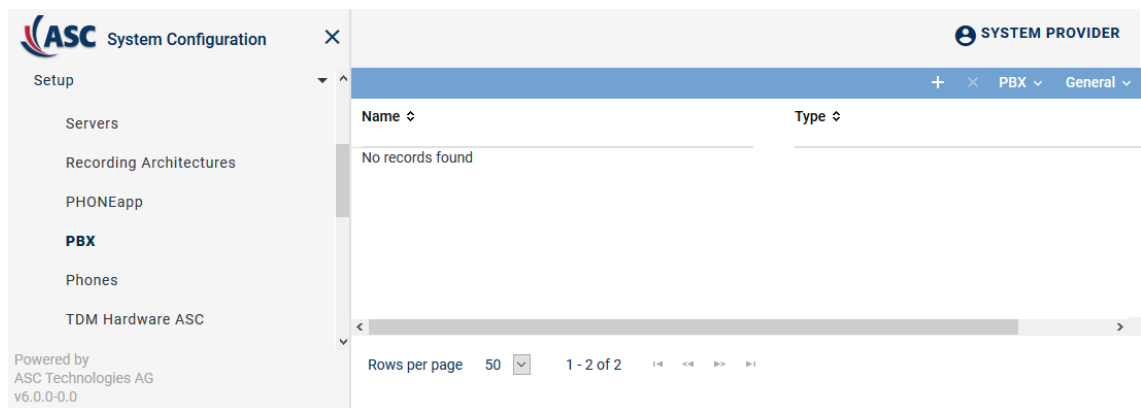




Fig. 105: Create new PBX

### Toolbar of the PBX module

The toolbar offers the following functions.



Fig. 106: Toolbar PBX module


	<i>Create</i>	In the detail view, you can enter the parameters of the new PBX.
	<i>Delete</i>	Deletes the selected PBX configuration. A PBX can only be deleted if it is not used in any configuration.
<b>PBX</b>	<i>Phone Configuration</i>	Opens a window in which you can create and configure phones.
	<i>Administratre Unused Extensions</i>	Opens a window in which you can delete extensions that are not used in any configuration.
<b>General</b>	<i>Print</i>	Prints the table of the main view.
	<i>Adjust Table</i>	Opens a window in which you can adjust the following settings for the main view: <ul style="list-style-type: none"> <li>• <i>Displayed information</i></li> <li>• <i>Order of the displayed columns</i></li> <li>• <i>Number of rows per page</i></li> </ul>

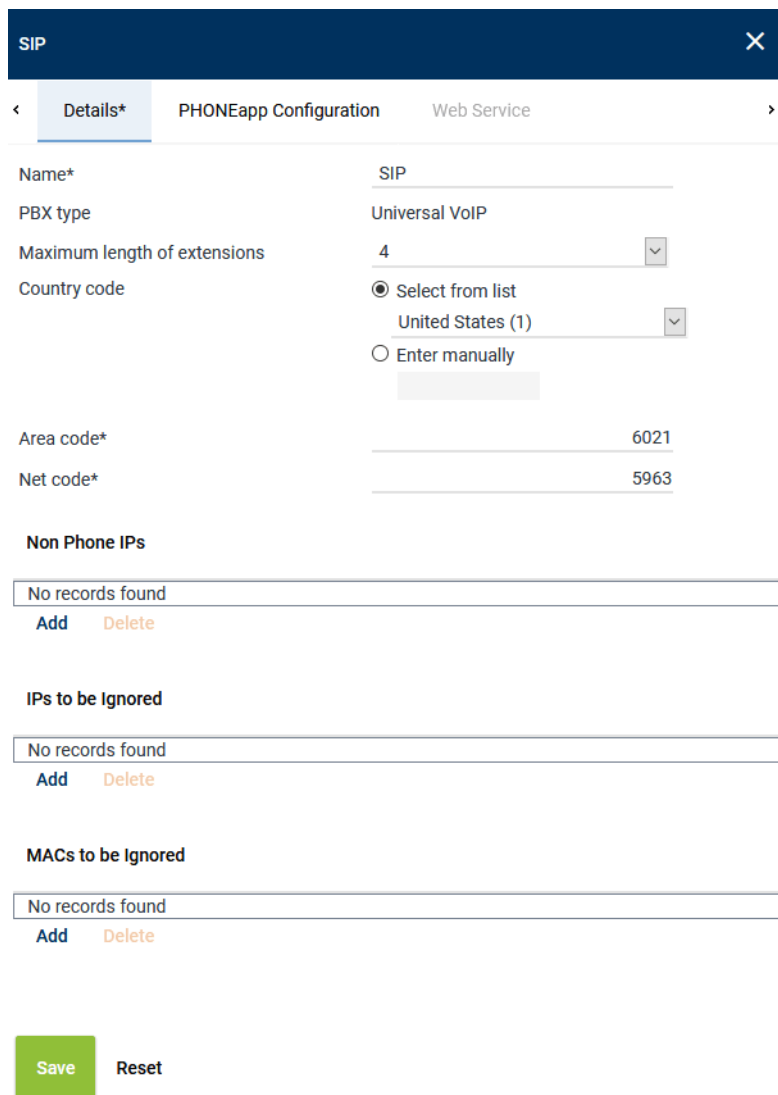
<i>Save Table Configuration</i>	Saves the current table configuration of the main view as default view of the user.
<i>General Help</i>	Opens the online help.
<i>Module Help</i>	Opens the module-specific online help.



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

### Create new PBX

- Click on the icon  (*Create*) in the toolbar of the main view of the PBX module.  
⇒ In the detail view, the tab *Details* appears.



**SIP**

Details\* | PHONEapp Configuration | Web Service

Name\*

PBX type

Maximum length of extensions

Country code ☒ Select from list  ☐ Enter manually

Area code\*

Net code\*

**Non Phone IPs**

No records found

[Add](#) [Delete](#)

**IPs to be Ignored**

No records found

[Add](#) [Delete](#)

**MACs to be Ignored**

No records found

[Add](#) [Delete](#)

[Save](#) [Reset](#)

Fig. 107: Create new PBX - tab Details

- Set the following parameters in the detail view:

Parameter	Value/Description
<i>Name</i>	This <i>name</i> serves as the identifier of this PBX.
<i>PBX type</i>	Select the type of the <a href="#">PBX</a> from the drop-down list.
<i>Maximum length of the extensions</i>	Enter the number of digits of the extensions, e. g. 4.
<i>Country code</i>	Select the option for the country code:

Parameter	Value/Description
	<ul style="list-style-type: none"> <li>• <i>Select from list</i> Select the country code from the drop-down list.</li> <li>• <i>Enter manually</i> If the corresponding country code is not available in the drop-down list, you can enter the 3-digit code manually. e. g. for Sri Lanka <i>094</i>.</li> </ul>
<i>Area code</i>	Enter the area code without the preceding <i>0</i> , e. g. <i>6021</i> .
<i>Net code</i>	Enter the net code, e. g. <i>5963</i> . Do not enter an extension here.

Tab. 29: Create PBX

If you would like to display the complete phone number, e. g. if you use more than one PBX, several area codes, or if you would like to record mobile phones, you have to configure the value *0* in the following parameters:

Parameter	Value/Description
<i>Maximum length of the extensions</i>	Enter the number <i>0</i> in the field maximum length of the extensions to display the complete phone number.
<i>Area code</i>	Enter the number <i>0</i> as area code to display the complete phone number.
<i>Net code</i>	Enter the number <i>0</i> as net code to display the complete phone number.

Tab. 30: PBX parameters with complete phone number

- To save the settings, click on the button *Save*.  
To discard the settings, click on the button *Reset*.

#### 7.1.2.2.4 Assign recording resources

In multi-tenant systems, you have to assign each tenant its own recording resources.

Depending on the recording type, agents can be assigned to the recording resource via the extension, via the PBX Agent ID or via the chat ID. Within one tenant, you can configure all three possibilities.

#### Assign extensions to tenants

If you would like to make an assignment based on extensions, you can assign the respective tenant the extension designated for recording in the Tenants module.



In 1-tenant systems, all extensions are automatically assigned to the tenant who has been created by the system (1st tenant). Extensions are assigned to the user in the Employees module.

When installing a 1-tenant system, you can skip this chapter.



In multi-tenant systems, you have to assign the extensions manually to each tenant who is supposed to be able to use them. There are multi-tenant systems, too, in which only 1 tenant has been set up.

The manual assignment of extensions is not possible until a PBX has been created since extensions are assigned in relation to the PBX.

- Select the menu item *Tenants* in the navigation bar.

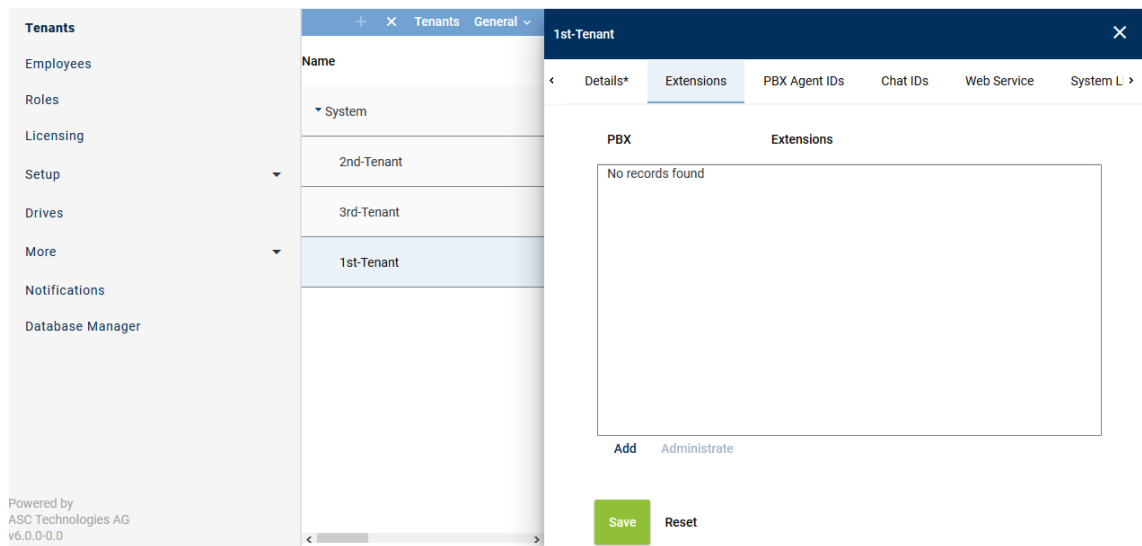


Fig. 108: Tenants - main view - tab Extensions

### Add extensions

1. In the main view, select the tenant to whom you would like to assign extensions.
2. Click on the tab *Extensions*.
3. Click on the button *Add*.  
⇒ The following window appears:

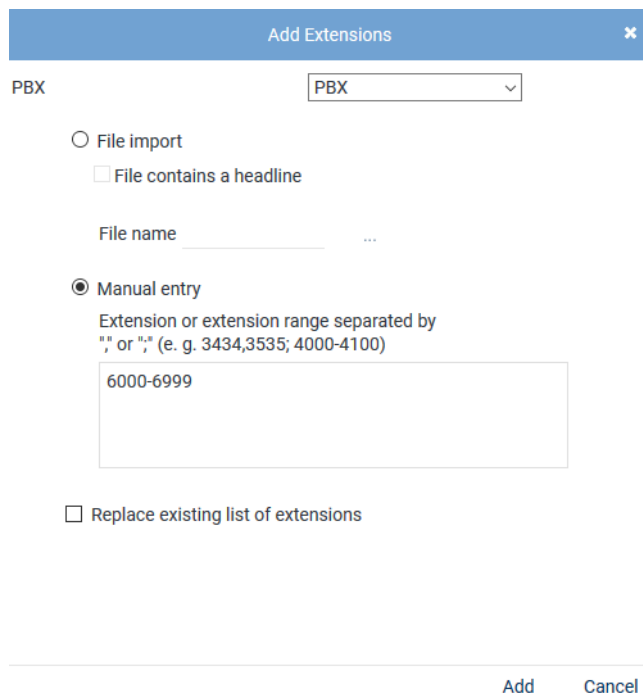


Fig. 109: Assign extensions to tenants

4. From the drop-down list, select the PBX in which the extensions for this tenant have been configured.

#### File import

Select the option to import extensions from an existing file and add them to the table of extensions.

The following file formats are supported:

- ZIP
- TXT

- CSV

**NOTICE! The maximum number of extensions in a file has been limited to 2000 for performance reasons. If more extensions are required, you can import several files.**



#### *File contains a headline*

Activate this option so that this structured is recognized correctly when importing the file.

The file must not contain more than one column. If commas or other column separators are detected in the file, the file is considered invalid and an error message is displayed.

#### *File name*

To import the file, proceed as follows:

- Click on the button  behind the field *File name*.
- Click on the button *Choose File*.
- Select the respective file in the Explorer and click on the button *Open*.
- Click on the button  *Upload File*.

#### *Manual entry*

Select this option to enter extensions or extension ranges manually.

To import number ranges, you must enter the same number of digits for the beginning and the end of the range, e. g. 1-9, 10-99, 01-20, 001-200, 4000-5000. If the end of the range asks for several digits, you have to add zeros for the beginning of the range, e. g. 01-10, 010-100.

Enter country codes as number ranges as follows:

+4984496800--+4984496810

**NOTICE! The number of digits must be equal. Add zeros in front of digits to level up possible incongruences.**

**NOTICE! Wildcards cannot be used!**

#### *Replace existing list of extensions*

Activate the check box to replace the list of extensions.

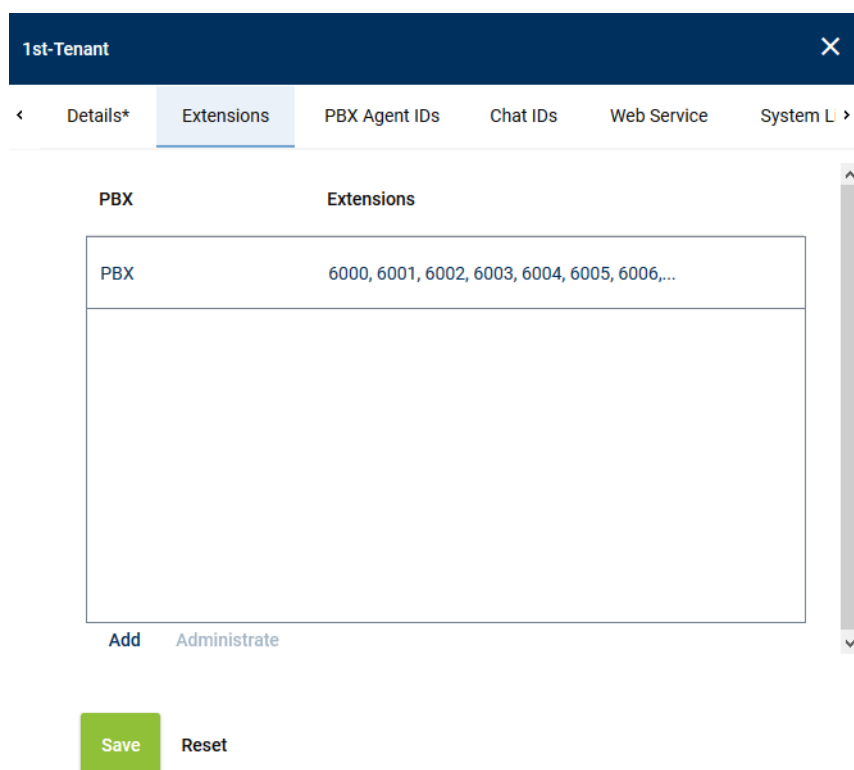
☒ = Function has been activated; the entry replaces the extensions of the selected PBX.

☐ = Function has not been activated; the configured extensions of all PBXs are kept and the new extensions are added to the selected PBX.

- Click on the button *Add*.  
⇒ The extensions are added in the table of extensions.
- If errors have been detected, the window *Result* appears.  
Click on the button *Display Error Report* to open the window *Error Report*.  
To close the window *Error Report*, click on the button *Close*.  
To close the window *Result*, click on the button *Close*.
- The configured extensions now appear in the detail view.
- Click on the button *Save* in the detail view to save the entries.

#### **Remove extensions**

- In the list, select the **PBX** for which you would like to remove the assigned extensions.



1st-Tenant

< Details\* Extensions PBX Agent IDs Chat IDs Web Service System L >

PBX	Extensions
PBX	6000, 6001, 6002, 6003, 6004, 6005, 6006,...

Add Administrate

Save Reset

Fig. 110: Remove extensions

- Click the button *Administrate*.
- Select one or several extensions you would like to remove from the assignment.  
To select several extensions or to revoke the selection, click on the respective line while holding the [Ctrl] key down.



Administrate Extensions

6993
6994
6995
6996
6997
6998
6999

Remove Cancel

Fig. 111: Select extensions

- To remove the selected extensions, click on the button *Remove*.  
To cancel the process and close the window, click on the button *Cancel*.

#### 7.1.2.2.5 Configure additional data

In the Additional Data module, you can configure the additional data which is delivered for a conversation with a protocol.

For selection fields to appear in the drop-down list, they have to be configured in the Additional Data module.

1. Select the menu item *Setup > Additional Data* in the navigation bar.

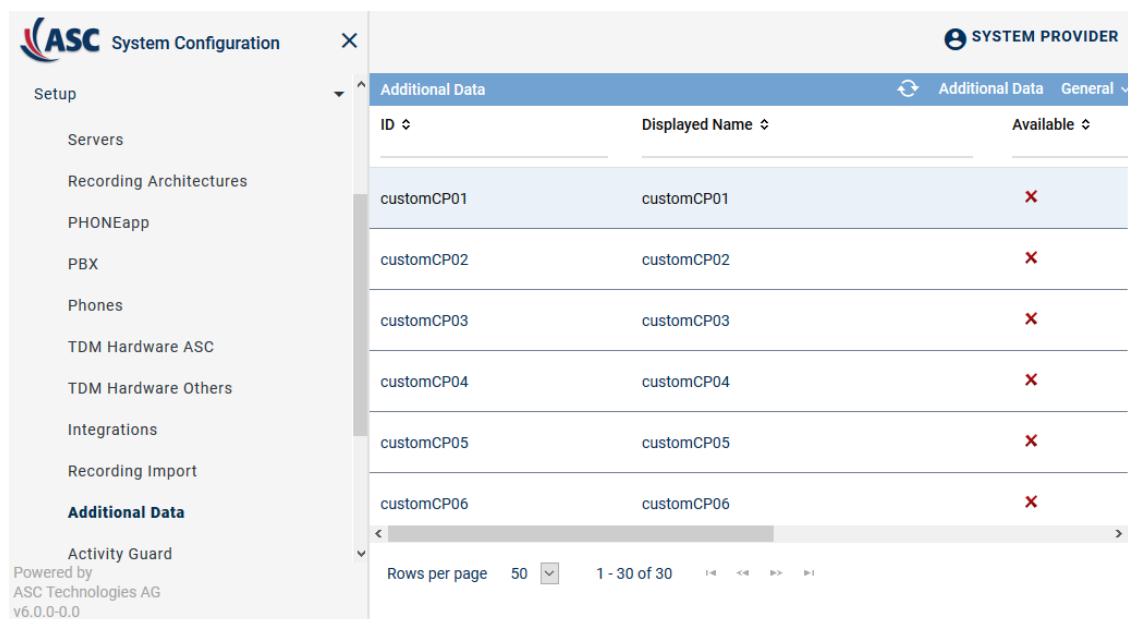


Fig. 112: Additional Data module main view

2. Select a set of data.  
⇒ The detail view displays the information you can configure.

### Change display name







Change Display Name		
Language	Content	
ar_SA	customCP01	
bg_BG	customCP01	
de_DE	Universal Call ID	
en_GB	customCP01	
en_US	Universal Call ID	 

Fig. 113: Configure additional data

1. To change the display name, click on the pen in the line of the language you would like to change.
2. Enter a display name and click on the check mark at the end of the line to confirm the entry.

### Availability

Availability	
Available	<input checked="" type="checkbox"/>
Editable	<input checked="" type="checkbox"/>
External recording control	<input checked="" type="checkbox"/>

Save
Reset

Fig. 114: Additional data - configure availability

1. To make the data field available to the entire system, activate the check box of the option *Available*.
2. To make the data field in the search and replay applications editable later on, activate the check box of the option *Editable*.
3. To be able to use the data field for external recording control, activate the check box of the option *External recording control*. This option is only available if recording control has been activated in the *Servers module* in the tab *Usage*.
4. Click on the button *Save* to save the settings.



For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.



Additional data which is not delivered along with the protocol is not available for further use.

#### 7.1.2.2.6 Create integration for All-in-one Failover

In the Integrations module, the PBX-related recording settings are configured.

You first have to create and activate a recording architecture to be able to create a integration and to assign it here.

Depending on the recording solution, you additionally have to configure IP addresses, ports, protocols, sniffer cards, CTI connection data, phones, monitor points, and, where required, add-ons.

1. In the navigation bar, select the menu item *Setup > Integrations*.  
⇒ The following window appears:



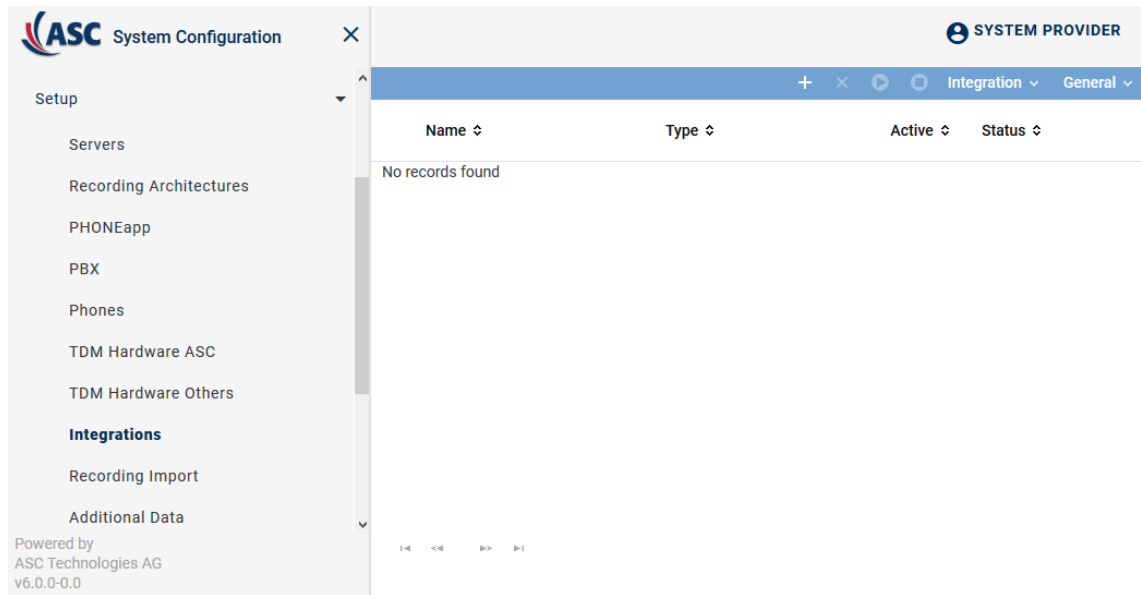




Fig. 115: Integrations - main view

In the table in the main view, the following information is displayed:





<b>Name</b>	Name of the integration
<b>Type</b>	Type of the integration
<b>Active</b>	Shows whether the integration has been activated and is used for the recording. <div> <span>✓</span> = Integration is active, can be deactivated in the toolbar via the icon .           <span>✗</span> = Integration is not active, can be activated in the toolbar via the icon .         </div>
<b>Status</b>	Shows whether the configuration has been carried out completely. <div> <span>✓</span> = Configuration is complete.           <span>✗</span> = Configuration is incomplete.         </div>

### Toolbar of the Integrations module


The toolbar offers the following functions.



Fig. 116: Toolbar Integrations module

	<b>Create</b>	Opens the detail view so that you can create a new integration.
	<b>Delete</b>	Deletes the selected integration. The integration can only be deleted if it has been deactivated.
	<b>Activate</b>	Activates the selected integration. The integration can only be activated if it has been configured completely.
	<b>Deactivate</b>	Deactivates the selected integration. This stops running recordings.
<b>Integration</b>	<b>Import Grammar</b>	By clicking on this menu item, you can import a customized grammar which you can then configure in the configuration step for the CTI connection data.
<b>General</b>	<b>General Help</b>	Opens the online help.
	<b>Module Help</b>	Opens the module-specific online help.

### Assign integration type

- Click on the icon  (*Create*) in the toolbar of the main view to create a new integration.  
⇒ In the detail view, the tab *Integration Type* appears.

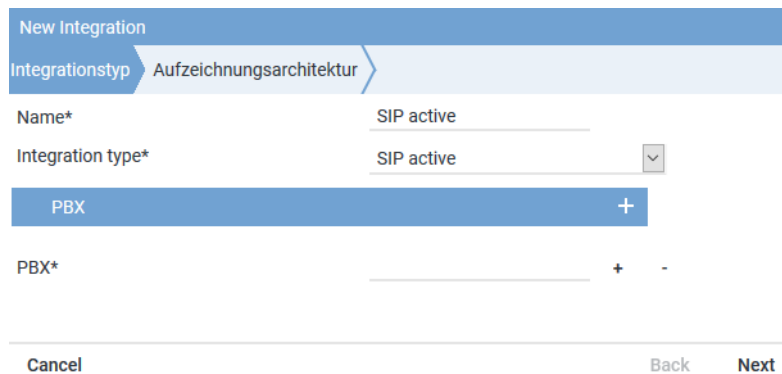



Fig. 117: Create integration type

- Enter the following parameters:

Parameter	Value
<i>Name</i>	In the entry field, enter a descriptive name for the integration. This name is used as the identifier of this integration in the system.
<i>Integration type</i>	Select the entry <i>SIP active</i> from the drop-down list <i>Integration type</i> .

Tab. 31: Create integration type

- To assign the PBX, click on the button  behind the field *PBX*.  
⇒ The window *PBX* appears.

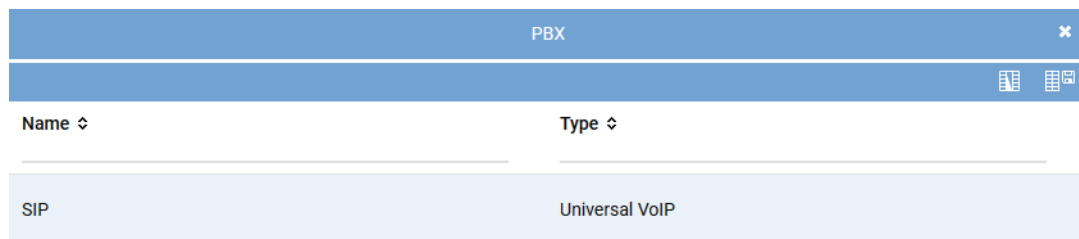
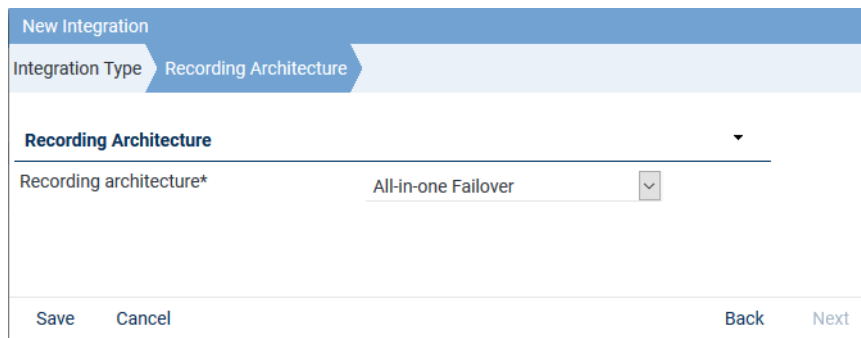



Fig. 118: Select PBX

- Select the respective *PBX* from the list of available PBXs.
- Click on the button *Add*.

### Assign recording architecture for All-in-one Failover

- In the detail view on the bottom right, click on the button *Next*.  
⇒ The tab *Recording Architecture* appears.



New Integration

Integration Type Recording Architecture

Recording Architecture

Recording architecture\* All-in-one Failover

Save Cancel Back Next

Fig. 119: Assign recording architecture - All-in-one Failover


2. Select the respective recording architecture from the drop-down list *Recording architecture*.



Only activated recording architectures in which the appropriate integration type has been configured appear in the drop-down list.

3. Click on the button **Save**.  
⇒ The integration now appears in the main view.

### Configuration steps

1. To complete the configuration of the integration, click on the icon  in front of the name of the new integration.  
⇒ The following configuration steps appear:






SIP active		SIP active		X	⚙
Step		Configuration			
Configure recording architecture		✓			
Global recording settings		✗			
Configure recording servers		✗			
Configure add-on		✓			
Configure miscellaneous settings		✓			

Fig. 120: Configuration steps of the integration

### Configure recording architecture

The section *Configure recording architecture* has already been configured in previous steps.



1. Click on the button  (*Edit configuration step*) in the line *Configure recording architecture* in the main view to show the configuration.  
⇒ In the detail view, the configuration step appears with the information of the assigned recording architecture.



Fig. 121: Configuration step - Configure Recording Architecture

- Click on the button *Save* to save changes and to finish the configuration step.
- Click on the button *Cancel* to cancel the configuration step without applying changes.

### Global recording settings for All-in-one Failover

- Click on the button  (*Edit configuration step*) in the line *Global recording settings* in the main view.  
⇒ The window *Step: Global Recording Settings* appears.

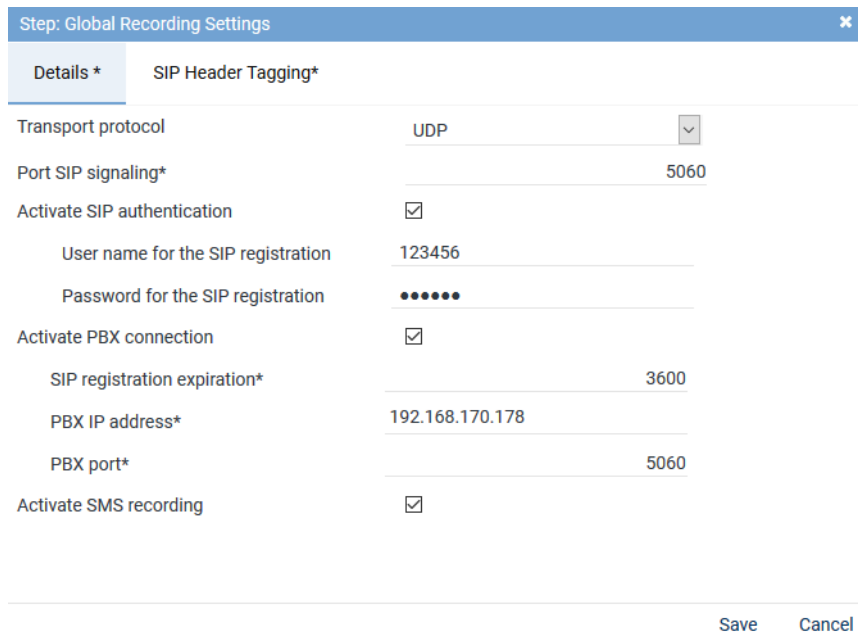


Fig. 122: Configuration step - Global Recording Settings

- Set the following parameters in the tab *Details*:

Parameter	Value/Description
<i>Transport protocol</i>	From the drop-down list, select the used transport protocol for the SIP signaling between the recording server and the PBX. The following protocols are available: TCP = unencrypted UDP = unencrypted TLS = encrypted
<i>Port SIP signaling</i>	Enter the port for the SIP signaling, where the recording server is expecting the signaling. Default value for UDP and TCP is 5060. Default value with TLS encryption is 5061.

Parameter	Value/Description
	<b>NOTICE!</b> If you would like to use several integrations, you have to configure a separate <a href="#">SIP</a> port for each integration. <b>NOTICE!</b> If you would like to use a media streamer for replay, configure another <a href="#">SIP</a> port for it, too. In case of communication issues with the media streamer, this could otherwise affect the recording.
Activate SIP authentication	Activate this option if you would like to use <a href="#">SIP Digest Authentication</a> .
User name of the SIP registration	Enter the user name for the <a href="#">SIP</a> registration, e. g. 123456.
Password of the SIP registration	Enter the password, if an authentication for the <a href="#">SIP</a> registration is used.
Activate PBX connection	Activate this check box if the recording server is supposed to register itself on the PBX.
SIP registration expiration	Enter the time in seconds after which the <a href="#">SIP</a> registration runs out, e. g. 3600.
PBX IP address	Enter the IP address of the PBX.
PBX port	Enter the port on which the SIP signaling is sent to the <a href="#">PBX</a> . The default value is 5060.
Activate SMS recording	Activate the check box if you would like to use <a href="#">SMS</a> recording.

Tab. 32: Global recording settings

### Tab SIP Header Tagging

- If you would like to configure the SIP header tagging, click on the tab *SIP Header Tagging*.

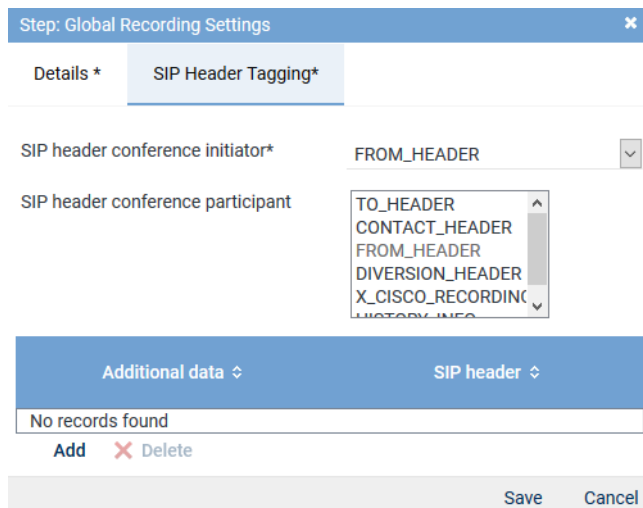


Fig. 123: Tab SIP Header Tagging Configure sources

- Enter the following parameters:

Parameter	Value/Description
SIP header conference initiator	Select the SIP header which contains the extension of the conference initiator.
SIP header conference participant	Select the SIP header which contains the extension of the additional conference participants.

Tab. 33: Configure SIP header tagging



It is possible to select several entries; the information is then displayed one after the other in the respective replay application.

To select several entries, highlight the respective entries while holding the [Ctrl] key down. To deselect an entry, click on it again without releasing the [Ctrl] key.

3. If you would like to configure individual additional data that you have defined previously in the Additional Data module, click on the button *Add* in the section *Additional data*.  
⇒ The window *SIP Additional Data* appears.

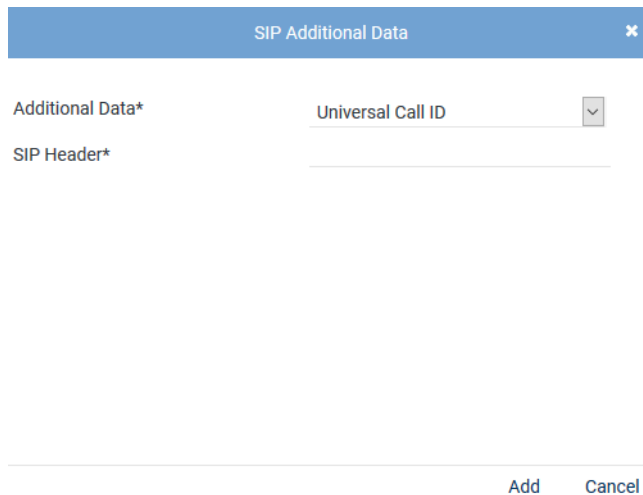


Fig. 124: SIP Additional Data



Only those entries appear in the drop-down list which have been configured in the application System Configuration in the Additional Data module. For further information refer to the administration manual *Additional Data module*.

4. Enter the following parameters:

Parameter	Value/Description
<i>Additional Data</i>	In the drop-down list, select the display name of the field in which the information of the SIP header is supposed to be released.
<i>SIP Header</i>	Enter the source from the SIP header from where the information is to be extracted. Observe the correct spelling.


Tab. 34: Configure SIP conversation parameters

5. Click on the button *Save* to close the window.
6. Click on the button *Save* to finish the configuration in this step.

### Configure recording server for All-in-one Failover

To guarantee that switching servers in case of failover runs smoothly, you must configure a port range for both recording servers. The range may be the same for both recording servers. Make sure, though, that the port range lies within the range of ports activated in the firewall, refer to the installation manual Installation requirements in chapter Communication matrix.

This configuration takes place in the configuration step *Configure recording servers*.

1. Click on the button  (*Edit configuration step*) in the line *Configure recording servers* in the main view.  
⇒ The window *Step: Configure Recording Servers* appears.

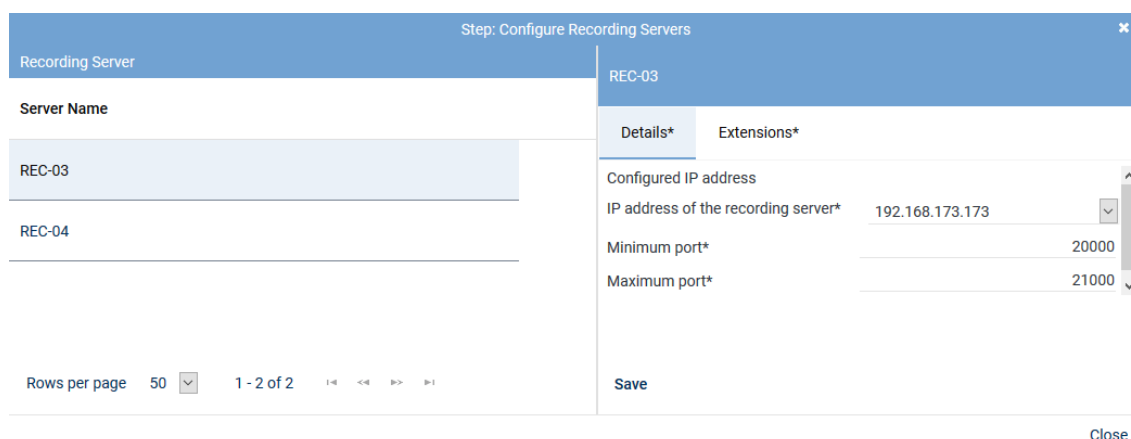


Fig. 125: Configuration step - Configure recording servers

2. Enter the following parameters in the tab *Details*:

Parameter	Value/Description
<i>Configured IP address</i>	Here, the IP address is displayed which has been configured for this recording server and via which the data to be recorded are received.
<i>IP address of the recording server</i>	From the drop-down list, select one of the available IP addresses of the recording server for the recording data.
<i>Minimum port</i>	Enter the lowest port of the port range configured on the PBX that is used to receive the <b>RTP</b> data from the recording server, e. g. <b>20000</b> .
<i>Maximum port</i>	Enter the highest port configured on the PBX that is used to receive the <b>RTP</b> data from the recording server, e. g. <b>21000</b> .

Tab. 35: Configure recording servers



This recording solutions allows recording data streams in stereo. For stereo recording, reckon with 4 ports as only even ports are used to receive **RTP**.

Stereo recording requires more storage space, too.



If you use several active integrations in one recording architecture, you must configure different port ranges for each integration in the configuration step *Configure recording servers*.



If you use several active integrations in one recording architecture, you must configure different port ranges for each integration in the configuration step *Configure recording servers*.

### Tab Extensions

#### Configure extensions for SIP trunk

To register the **SIP** trunk, you can enter a registration phone number in the tab *Extensions*.

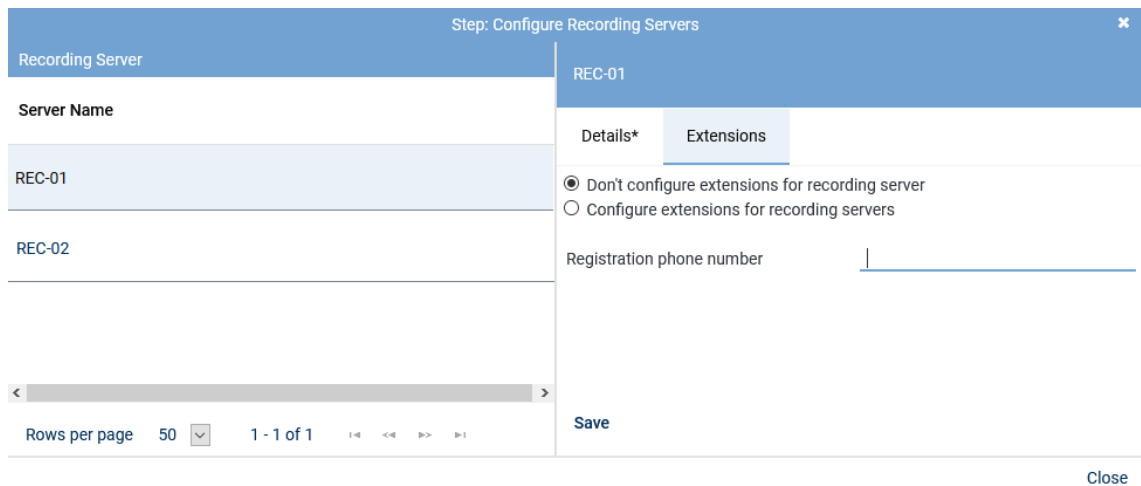


Fig. 126: Recording server - Configure extension for SIP trunk

**Don't configure extensions for recording server** - Activate this option if you do not have configured extensions for the recording server in the PBX and would like to configure a [SIP](#) trunk phone number instead.



If you do not define a phone number for the [SIP](#) trunk of the recording server, all incoming [SIP](#) connections are accepted without being examined.

**Registration phone number** Enter a registration phone number for the [SIP](#) trunk.

For a successful registration, registration must have been activated in the section *Global recording settings*. The user name and password entered there are used to register the [SIP](#) trunk, see [chapter "Global recording settings for All-in-one Failover", p. 108](#).

1. Click on the button *Save*.
2. Click on the button *Close* to finish this configuration step.

### Configure extensions for the recording server

1. If you have defined extensions for the recording servers in the PBX, you can configure these extensions in the tab *Extensions*.

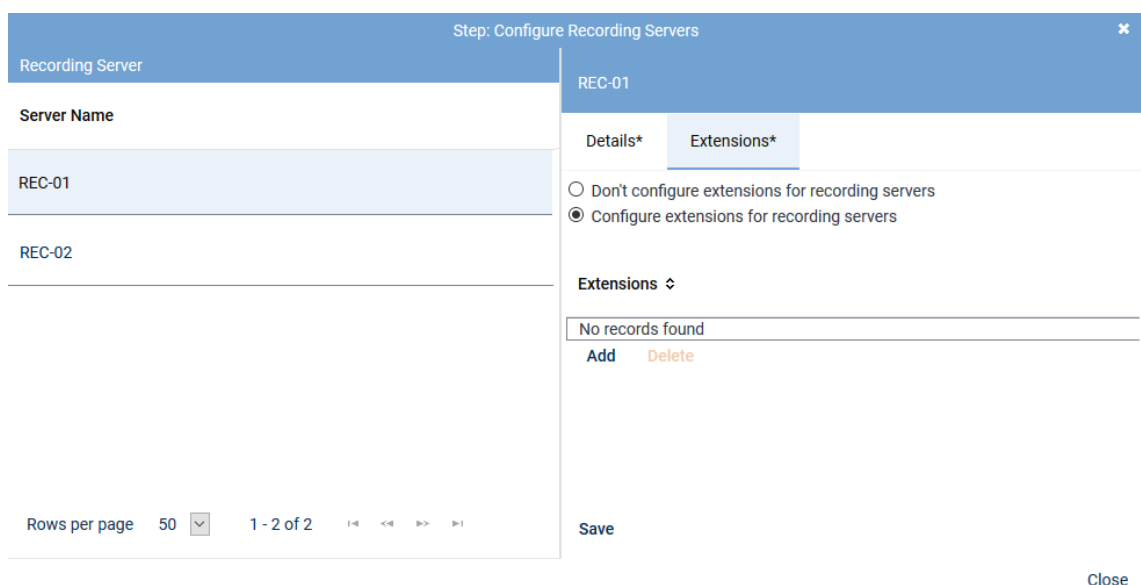
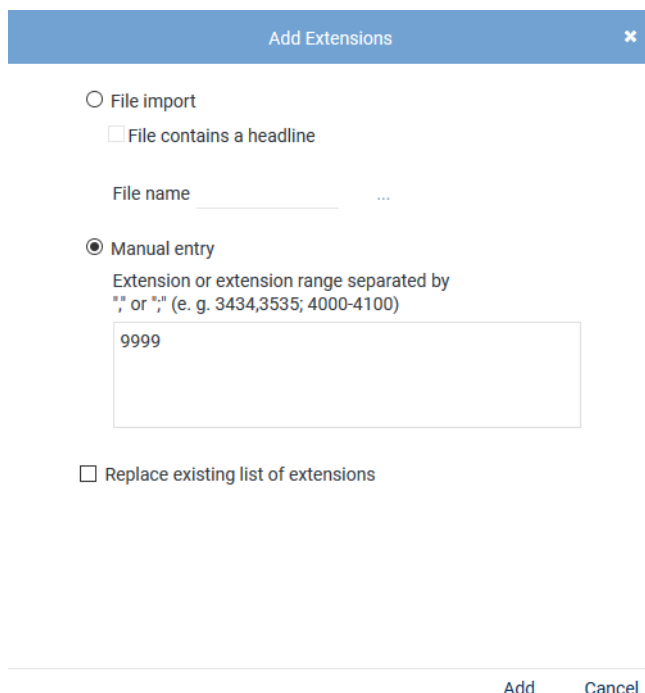


Fig. 127: Tab Extensions



*Configure extensions of the recording server* Activate this option if you have configured extensions for the recording server in the PBX and add the extensions.

2. To add extensions, click on the button *Add* in the table *Extensions*.  
⇒ The window *Add Extensions* appears.



Add Extensions

☐ File import

☐ File contains a headline

File name

☒ Manual entry

Extension or extension range separated by  
", " or "; " (e. g. 3434,3535; 4000-4100)

☐ Replace existing list of extensions

Add Cancel

Fig. 128: Add extensions

3. In the window *Add Extensions*, enter either a single extension or an extension range that the recording server is to use when registering on the PBX.
4. Click on the button *Add*.  
⇒ The extensions are added in the table of extensions.
5. If errors have been detected, the window *Result* appears.  
Click on the button *Display Error Report* to open the window *Error Report*.  
To close the window *Error Report*, click on the button *Close*.  
To close the window *Result*, click on the button *Close*.
6. The configured extensions now appear in the detail view.

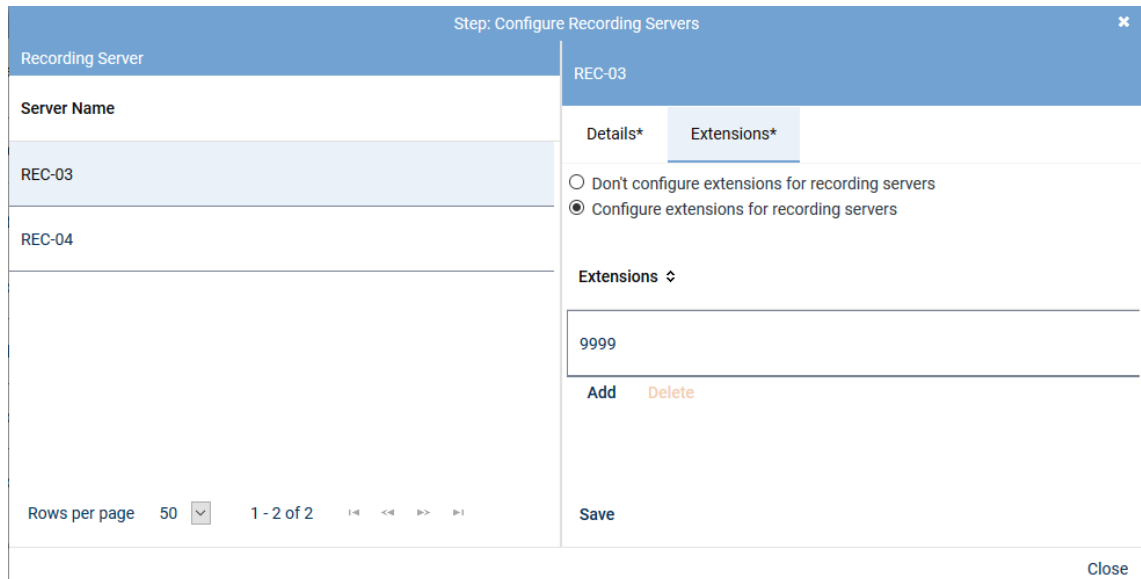


Fig. 129: Added extensions

- Repeat the steps for additional servers. For each server, configure its own extension or extension range depending on how it can be reached.



In failover architectures, it is recommended to set up a separate extension or extension range for each recording server. If the [SIP](#) registration timer has expired for the extension for the recording server, problems may occur when switching back to the primary recording server. If the primary recording server displays an error, it is not yet possible to register the [SIP](#) endpoints again.

- Click on the button *Save*.
- Click on the button *Close* to finish this configuration step.

### Configure add-on



The use of the add-on in the integration is optional. The status of this configuration step has been set to *No selection* by default and is considered to be completely configured that way. You can activate and use the integration without an add-on, too.

If you use an application with add-on, you can select the required grammar in the corresponding version in this configuration step. Additionally, you can configure the connection data and the additional data.



The additional data delivered by an add-on supplements the additional data which is delivered by the [CTIconnect](#) module of the integration.

### Configure add-on for Sparkassen FI ISP (optional)

The add-on refers to the usage of [CTIconnect](#) for Sparkassen FI ISP in the DACH region and only has to be configured if the add-on is used.



The add-on cannot be used in a failover architecture. The application Sparkassen FI ISP cannot connect to more than one IP address.

The integration runs in combination with a PBX and the recording server. The service [CTIconnect](#) for Sparkassen FI ISP receives the additional data from the PBX and sends them to the recording server. In addition, the recording decision which is initiated by the user on the end device is processed via [CTIconnect](#) for Sparkassen FI ISP and sent to the recording server.

### Sparkassen FI Interaktive Service Plattform

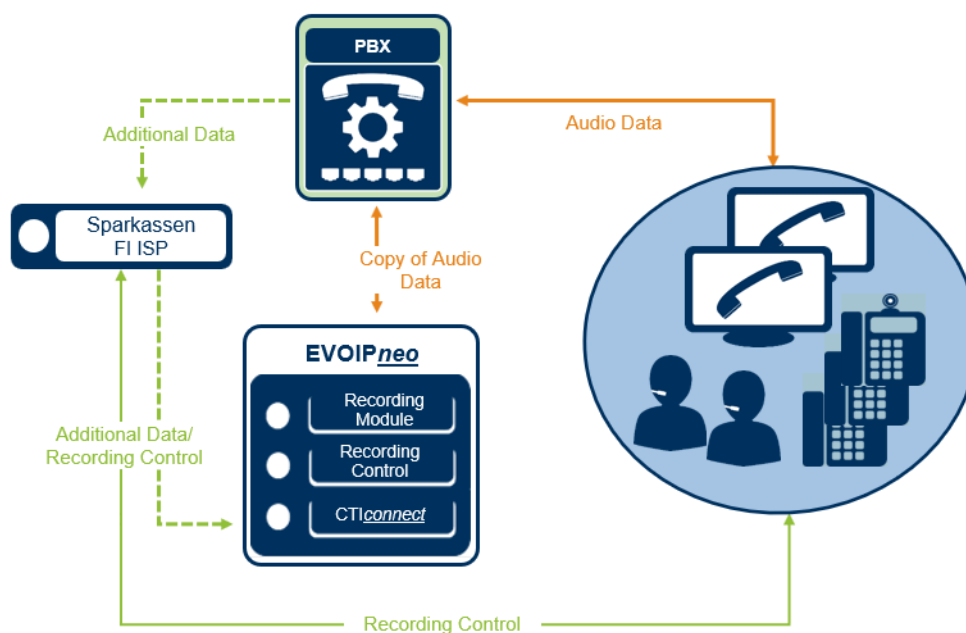



Fig. 130: Overview of Sparkassen FI ISP

#### Configure add-on in the integration

1. To configure the add-on, click on the button  (*Edit configuration step*) in the main view in the line *Configure add-on*.
2. Select the add-on *Sparkassen FI ISP* in the detail view.

Step: Configure Add-on
✕

Details \*

Select add-on

☐ None

☒ Sparkassen FI ISP

**CTIconnect Module**

Type	CTIconnect passive	
Grammar name*	ISP Sparkassen FI	▼
Grammar version*	1.00.05	▼

**Connection Data** ▼

Listener port*	3468
----------------	------

**Additional Data** ▼

ID des Call Centers	Call Center ID	▼
ID des Calls aus Genesys	Universal Call ID	▼
Anmeldename des Kunden	User name	▼
Name des Kunden	Customer name	▼
Personennummer des Kunden	Customer ID	▼

Arbitrary assignment
+

	Please select...	▼	-
	Please select...	▼	-
	Please select...	▼	-

Save Cancel

Fig. 131: Configure add-on for Sparkassen FI ISP

### Group field CTIconnect Module

1. Enter the following parameters for the grammar:

Parameter	Value/Description
Type	Is filled automatically.
Grammar name	A default grammar has been preset. If required, select the name of the grammar from the drop-down list.
Grammar version	Select the current version of the grammar from the drop-down list.

Tab. 36: Configure CTIconnect module



For recording control via the add-on of the Sparkassen FI ISP, grammar version 1.00.05 or higher is required. If the grammar in the respective version is not available yet, you can import it. See [chapter "Import grammar", p. 276](#).

### Group field Connection Data

Set the following parameter in the group field *Connection Data*; the IP address for the PBX does not have to be entered, since the PBX connects to our recording server:

Parameter	Value/Description
<i>Listener port</i>	Enter the port that the add-on connects to, e. g. 3468.

Tab. 37: Configure connection data

### Group field Additional Data



This add-on is used exclusively in the DACH region; for this reason the additional data is only available in German, too. The names of the fields refer to the assignment of the strings which are delivered by the interface.

When using CTIconnect for Sparkassen FI ISP, the following additional data is delivered with the protocol:

- *ID of the call center*
- *ID of the call from Genesys*
- *Login name of the customer*
- *Name of the customer*
- *Employee number of the customer*

### Arbitrary assignment

In the section *Arbitrary assignment*, you can configure the additional data which is additionally delivered by the PBX or by an add-on but which is not listed yet. Upon assigning the delivered additional data, it appears in the search and replay applications.



The names of the column headlines which are supposed to appear in the players must be configured and made available in the Additional Data module first.

For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.



The drop-down list only contains those additional data that you have configured and made available in the Additional Data module. The display name then appears in the column headlines in the players.

For more information about the configuration of additional data refer to the administration manual for system providers *Additional Data module*

1. In the group field headline *Additional Data*, click on the arrow ► to expand the group field and to assign the additional data to the data fields of the search and replay applications.

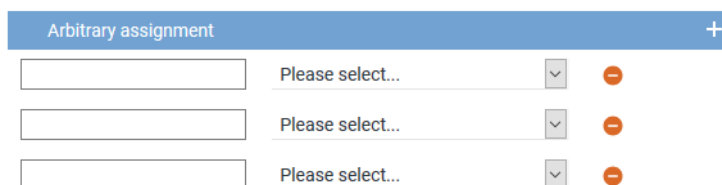



Fig. 132: Arbitrary assignment of the additional data

The following additional data are always available:

- *Start time*
- *End time*
- *Duration*
- *Calling Party Phone Number*
- *Called Party Phone Number*

- *Conversation Direction*
- 2. In the entry field on the left, enter the description of the additional data type from the protocol. Observe the same spelling as it is used in the protocol. The information which is read out of the protocol is displayed in the columns in the players.
- 3. From the drop-down list, select the respective display name that you have configured in the Additional Data module. Only those display names are displayed for which the option *Available* has been activated in the Additional Data module.
- 4. To add a new assignment, click on the icon  (*Create*) in the toolbar of the table.
  - ⇒ An additional row appears to assign another additional data type.
- 5. Click on the button *Save* in the detail view to save the entries and finish this configuration step.

The add-on provides additional data that can be tagged in customer-specific additional data fields (customCP fields). By means of these additional data fields, the respective recording behavior can be reached by means of the recording planner, e. g. recording start beginning with tagging or threat call scenario.



To allow users to control the recording by means of keys, you must configure the recording profile accordingly in the Recording Planner module.



For information about the Recording Planner module refer to the administration manual for tenants *Recording Planner*.


### **Configure add-on for OpenScape Contact Center (optional)**

The add-on refers to the usage of the OpenScape Contact Center and must only be configured if a OpenScape Contact Center is used.

The integration runs in combination with a Unify PBX which is responsible for recording. The CTIconnect service receives the conversation events of the agents via a SDK link in the OpenScape Contact Center and sends the additional data to the EVOIPneo recording service.

For information about the configuration of the OpenScape Contact Center, see [chapter "Configure OpenScape Contact Center \(optional\)", p. 372](#).

### **Configure add-on in the integration**

1. To configure the add-on, click on the button  (*Edit configuration step*) in the main view in the line *Configure add-on*.
2. Select the add-on OpenScape Contact Center in the detail view.

Step: Configure Add-on

Details

Select add-on  
☐ None  
☒ OpenScape Contact Center

**CTIconnect Module**

TypeCTIconnect passive  
Grammar name\*Unify OpenScape Contact Center  
Grammar version\*1.00.04

**Connection Data**

**Connection data**

6000@192.168.170.29

Add Edit Delete

**Additional Data**

Business UnitBusiness Unit  
DepartmentDepartment  
Department KeyDepartment Key  
Call IDUniversal Call ID  
To PartyTo Party  
ACD Group NumberACD Group Number

Arbitrary assignment

Please select...

Please select...

Save Cancel

Fig. 133: Configure add-on for OSCC

### Group field CTIconnect Module

- Enter the following parameters for the grammar:

Parameter	Value/Description
Type	Is filled automatically.
Grammar name	A default grammar has been preset. If required, select the name of the grammar from the drop-down list.
Grammar version	Select the current version of the grammar from the drop-down list.

Tab. 38: Configure CTIconnect module

### Group field Connection Data

In the table Connection Data, you can enter one or several sets of connection data.

If you are configuring several connections, several connections to different business units are established simultaneously in the recording solution with OpenScape Contact Center.

- In the group field *Connection Data* in the table, click on the button *Add*.

⇒ The following window appears:

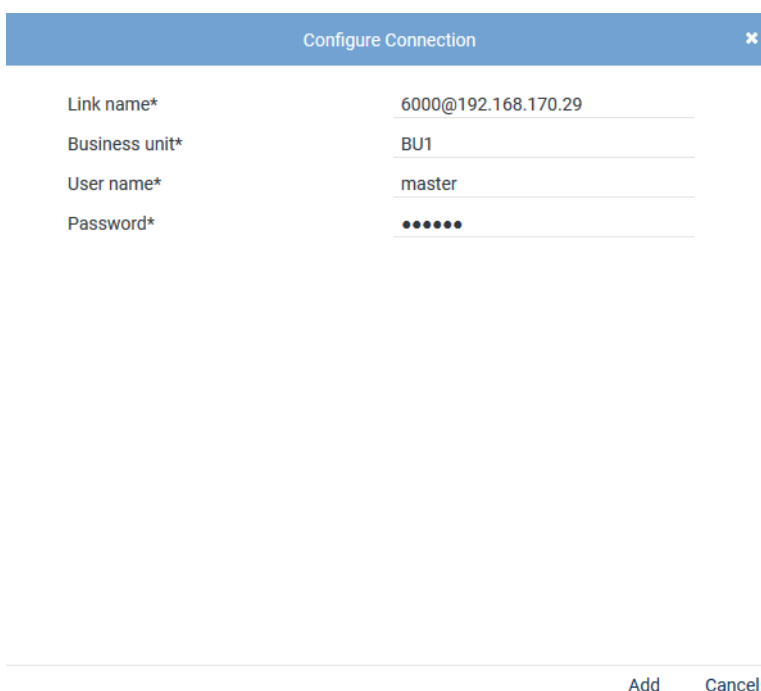


Fig. 134: Configure connection data

2. Enter the following parameters:

Parameter	Value/Description
<i>Link name</i>	Enter the link to the <b>OSCC</b> server in the format <code>osccport@ascserver</code> . The default value for the <b>OSCC</b> port is 6000 and the name of the OSCC server is usually spelled in minor letters. A valid link can look like this: 6000@osccv7r3. Ensure that the server name (e. g. osccv7r3) can be resolved to an IP address. Check whether the address can be reached via the ping command. Alternatively, you can also enter the IP address.
<i>Business unit</i>	The default name of a business unit is <i>default</i> . This is a predefined name for the business unit after a new <b>OSCC</b> server installation. Enter the business unit's actual name you would like to use in the future.
<i>User name</i>	Create a valid user for the business unit that you have created on the <b>OSCC</b> server, so the <b>CTIconnect</b> service can establish the connection to the <b>OSCC</b> server. See <a href="#">chapter "Create user for CTIconnect", p. 372</a> .
<i>Password</i>	Enter the password for the user of the business unit.

Tab. 39: Configure connection data

- Click on the button *Add* to save the entries and to close the window.
- To configure additional connections, repeat the configuration steps accordingly.

### Group field Additional Data

When using **CTIconnect** for Unify OpenScope Contact Center, the following additional data is delivered with the protocol by default:

- Business unit*
- Department*
- Department Key*
- Call ID*



- *To Party*
- *ACD Group Number*

### Arbitrary assignment

In the section *Arbitrary assignment*, you can configure the additional data which is additionally delivered by the PBX or by an add-on but which is not listed yet. Upon assigning the delivered additional data, it appears in the search and replay applications.



The names of the column headlines which are supposed to appear in the players must have been configured and made available in the Additional Data module previously.

For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.

Here, you can map the database fields for the additional data which is delivered by the [OSCC](#). The contact data of the processed contacts of the OpenScape Contact Center provides a list of key pairs/value pairs. The keyword of this key pair/value pair can be chosen arbitrarily and adjusted customer-specifically. If you would like to use more than one word, avoid spaces. Use underscores instead of spaces, e. g. *ACD\_group*.

1. In the group field headline *Additional Data*, click on the arrow ▶ to expand the group field and to assign the additional data to the data fields of the search and replay applications.

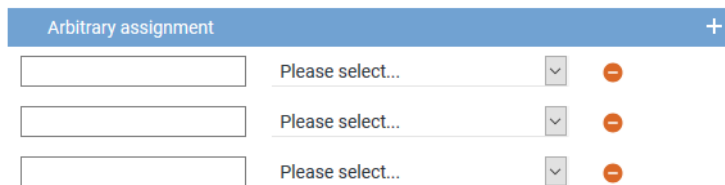




Fig. 135: Arbitrary assignment of the additional data

2. In the entry field on the left, enter the description of the additional data type from the protocol. Observe the same spelling as it is used in the protocol. The information which is read out of the protocol is displayed in the columns in the players.
3. From the drop-down list, select a configured display name of the additional data type which is supposed to appear as column headline in the players. Here, you can only select the display names for the additional data that you have configured and made available in the Additional Data module.
4. To add a new assignment, click on the icon  (*Create*) in the toolbar of the table.  
⇒ An additional row appears to assign another additional data type.
5. To delete an assignment, click on the icon  in the respective row.
6. Click on the button *Save* in the detail view to save the entries and finish this configuration step.

### Configure add-on for Genesys T-Server (optional)

The add-on refers to the usage of Genesys T-Servers and must only be configured if you use Genesys T-Servers.

The integration runs in combination with the PBX and the recording server. The CTI<sup>connect</sup> service receives the information which Genesys T-Server the monitor points have been assigned to from the Genesys Configuration Server. The monitor points must register on the respective Genesys T-Server. Upon successful registration, the respective Genesys T-Server sends all conversation events and additional data of the agents to the recording server.

## CTIconnect for Genesys T-Server

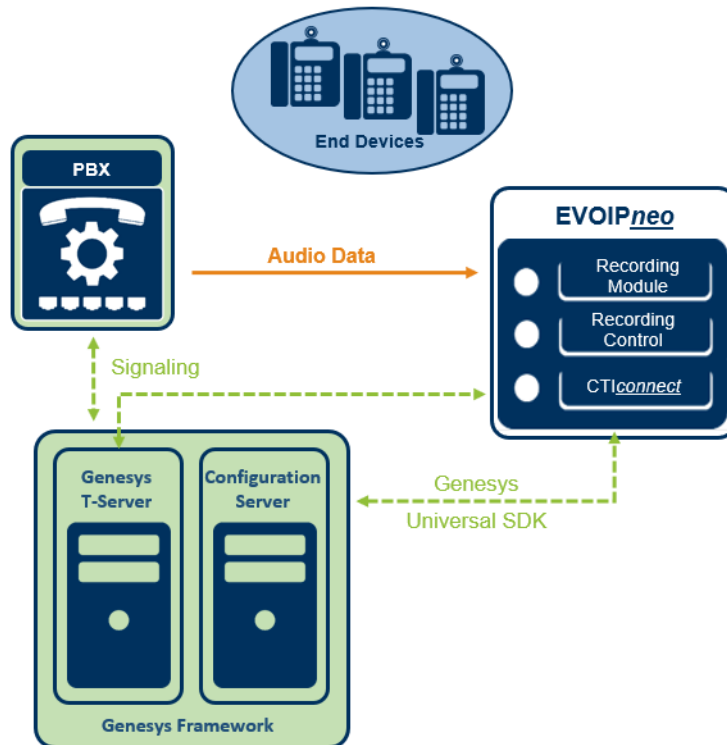


Fig. 136: Overview of the add on of Genesys T-Server



For further information about the configuration of Genesys T-Servers, see [chapter "Configure Genesys T-Server \(optional\)", p. 373](#).

The Genesys add-on uses either a unique call ID or the extension to unambiguously identify the conversations to be recorded.



The additional data delivered by an add-on supplements the additional data which is delivered by the CTIconnect module of the integration.

When using a CTIconnect for Genesys T-Server, a Genesys Framework with T-Servers and Genesys Configuration Servers are required.


By default, the Genesys data field *CallID* has been selected as identifier. If a different data field is supposed to be used for internal control, this can be changed in the configuration file *basic.pif.properties*.

### Adjust configuration file for Genesys add-on

The data field which is supposed to be used by the Genesys add-on is selected by means of the parameter *pifgenesys.call\_identifier*.

1. To adjust the identifier, change to the path  
C:\ASC Product Suite\data\CTIConnectForGenesysT\.
2. Open the file *basic.pif.properties*.
3. Enter the respective data field for the parameter *pifgenesys.call\_identifier*.
4. Save the changes in the file.
5. Restart the recording architecture after completing the change.

### Configure add-on in the integration

1. To configure the add-on, click on the button  (*Edit configuration step*) in the main view in the line *Configure add-on*.
2. In the detail view, select the add-on *Genesys T-Server*.

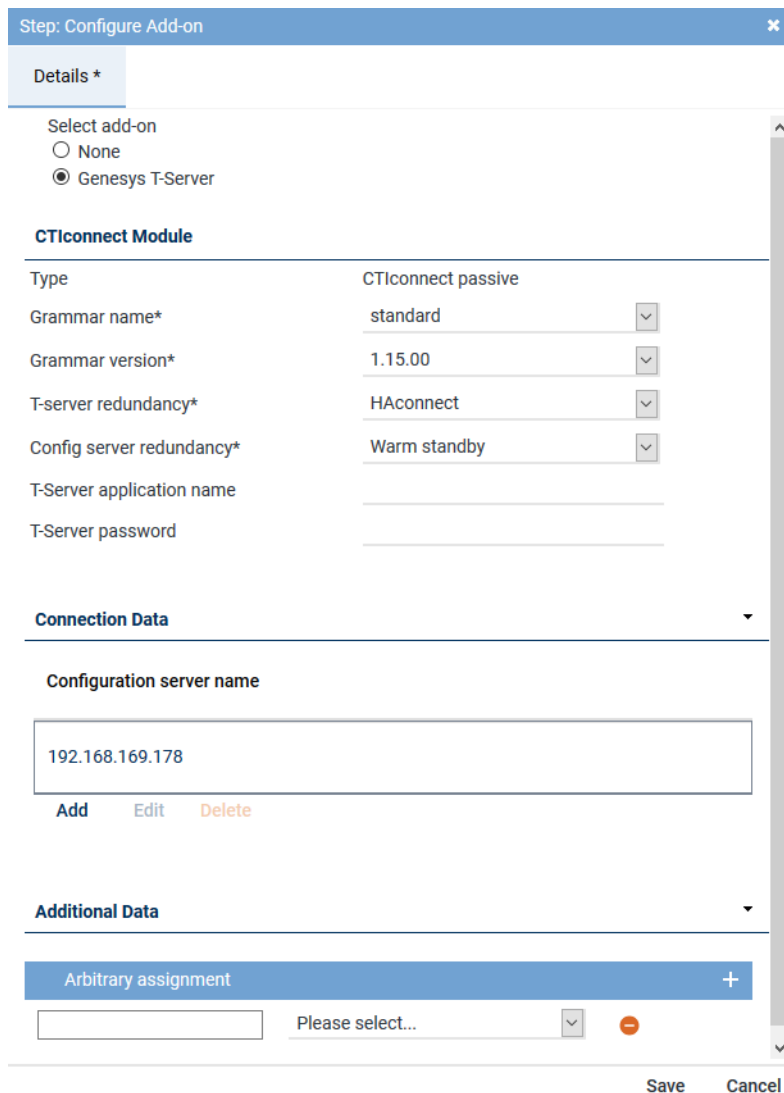


Fig. 137: Configure add-on for Genesys T-Server

### Group field CTIconnect Module

1. Enter the following parameters:

Parameter	Value/Description
<i>Type</i>	Here, the type of the CTI <u>connect</u> module is displayed.
<i>Grammar name</i>	Select the respective grammar.
<i>Grammar version</i>	Select the respective grammar version.
<i>T-server redundancy</i>	Select the redundancy which is used from the drop-down list. <ul style="list-style-type: none"> <li>• <i>No redundancy</i></li> <li>• <i>HAconnect</i> - for High Availability Connection</li> <li>• <i>Warm Standby</i> - for a connectable redundancy</li> </ul>
<i>Config server redundancy</i>	From the drop-down list, select the redundancy which is used for the Configuration Server of Genesys.

Parameter	Value/Description
	<ul style="list-style-type: none"> <li>• <i>No redundancy</i></li> <li>• <i>HAconnect</i> - for High Availability Connection</li> <li>• <i>Warm Standby</i> - for a connectable redundancy</li> </ul>
<i>T-Server application name</i>	<p>This parameter must only be entered, if authentication on the Genesys T-Server is required.</p> <p>Enter the application name that the CTI<u>connect</u> module is supposed to use to log in to the Genesys T-Server.</p> <p>If you use several Genesys T-Servers, the login data must be identical for all servers.</p>
<i>T-Server password</i>	<p>This parameter must only be entered, if authentication on the Genesys T-Server is required.</p> <p>Enter the password that the CTI<u>connect</u> module is supposed to use to log in to the Genesys T-Server.</p> <p>If you use several Genesys T-Servers, the login data must be identical for all servers.</p>

Tab. 40: Configure add-on for Genesys T-Server

### Group field Connection Data

In this group field, you can enter one or several sets of connection data.

1. In the group field *Connection Data* in the table, click on the button *Add*.  
⇒ The following window appears:

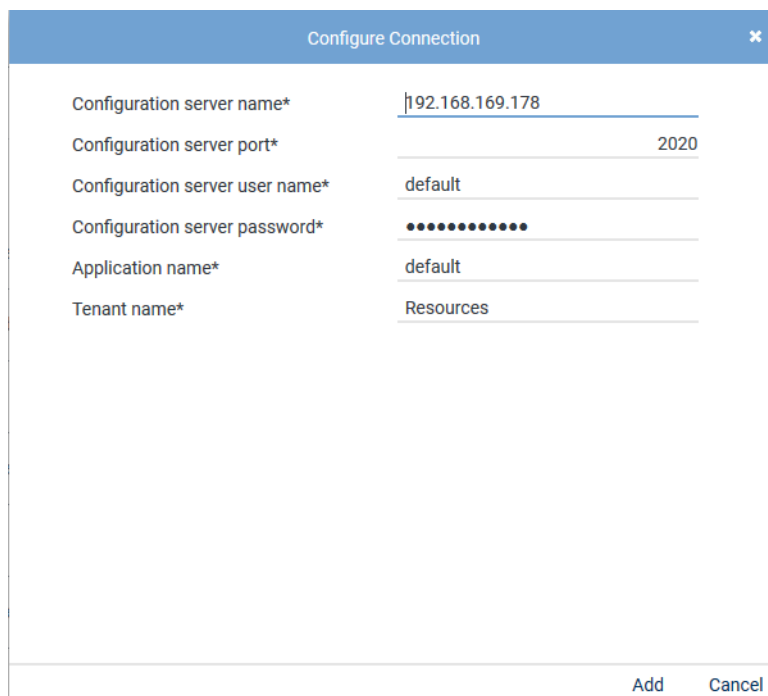


Fig. 138: Configure connection data

2. Enter the following parameters:

Parameter	Value/Description
<i>Configuration Server: Name</i>	Enter the IP address or the name of the computer that the Genesys Configuration Server runs on.
<i>Configuration Server: Port</i>	Enter the port of the Genesys Configuration Server.

Parameter	Value/Description
<i>Configuration Server: User name</i>	Enter the user name to log in to the Genesys Configuration Server.
<i>Configuration Server: Password</i>	Enter the password to log in to the Genesys Configuration Server.
<i>Application name</i>	Enter the application name that the recording servers uses to log in to the Genesys Configuration Server. Default is <i>default</i> .
<i>Tenant name</i>	Enter the name of the Genesys tenant(s) that are supposed to request the configuration data. Default is <i>Resources</i> . Several tenants can be added separated by commas.

Tab. 41: Configure connection data

### Group field Additional Data

The following additional data is delivered by default in the protocol when using Genesys T-Server:

- *CallID*
- *ANI*
- *CallUuid*
- *DNIS*



Further additional data depend on the configuration of the Genesys T-Servers. Check the list *AttributeUserData* in the trace files to find out which further additional data have been delivered by the Genesys T-Servers. Put the addition *UserData* in front of the additional data type when configuring customer-specific additional data, e. g. for *RTargetAgentGroup* you have to configure *UserDataRTargetAgentGroup*.

### Arbitrary assignment

In the section *Arbitrary assignment*, you can configure the additional data which is additionally delivered by the PBX or by an add-on but which is not listed yet. Upon assigning the delivered additional data, it appears in the search and replay applications.



The names of the column headlines which are supposed to appear in the players must be configured and made available in the Additional Data module first.

For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.



The drop-down list only contains those additional data that you have configured and made available in the Additional Data module. The display name then appears in the column headlines in the players.


For more information about the configuration of additional data refer to the administration manual for system providers *Additional Data module*

1. In the group field headline *Additional Data*, click on the arrow ► to expand the group field and to assign the additional data to the data fields of the search and replay applications.

Arbitrary assignment			+
<input type="text"/>	Please select...	▼	⊖
<input type="text"/>	Please select...	▼	⊖
<input type="text"/>	Please select...	▼	⊖

Fig. 139: Arbitrary assignment of the additional data

The following additional data are always available:

- *Start time*
  - *End time*
  - *Duration*
  - *Calling Party Phone Number*
  - *Called Party Phone Number*
  - *Conversation Direction*
2. In the entry field on the left, enter the description of the additional data type from the protocol. Observe the same spelling as it is used in the protocol. The information which is read out of the protocol is displayed in the columns in the players.
  3. From the drop-down list, select the respective display name that you have configured in the Additional Data module. Only those display names are displayed for which the option *Available* has been activated in the Additional Data module.
  4. To add a new assignment, click on the icon  (*Create*) in the toolbar of the table.
    - ⇒ An additional row appears to assign another additional data type.
  5. Click on the button *Save* in the detail view to save the entries and finish this configuration step.

The add-on provides additional data that can be tagged in customer-specific additional data fields (customCP fields). By means of these additional data fields, the respective recording behavior can be reached by means of the recording planner, e. g. recording start beginning with tagging or threat call scenario.




To allow users to control the recording by means of keys, you must configure the recording profile accordingly in the Recording Planner module.



For information about the Recording Planner module refer to the administration manual for tenants *Recording Planner*.

### Configure miscellaneous settings

1. Click on the button  (*Edit configuration step*) in the line *Configure recording servers* in the main view.
  - ⇒ The window *Step: Miscellaneous Settings* appears.

Step: Miscellaneous Settings

×

Details

Dispatcher

Please select...

▼

Save

Cancel

Fig. 140: Configure miscellaneous settings

2. Enter the following parameter:


Parameters	Description
<i>Dispatcher</i>	From the drop-down list, select the previously created additional data field that the participant information is supposed to be connected with.





Only those entries appear in the drop-down list which have been configured in the application System Configuration in the Additional Data module. For further information refer to the administration manual *Additional Data module*.

### Activate integration

The integration can only be activated after the configuration is complete.

If not all configuration steps have been carried out completely, the icon  (*Incomplete*) will appear in the main view, in the line of the created integration, in the column *Status*.

If the configuration has been carried out completely, the icon  (*Complete*) will appear in the line of the respective step, in the column *Configuration*.

If all settings are complete, the icon  (*OK*) will appear in the main view, in the line of the created integration, in the column *Status*.

















+ × ⏮ ⏭ Integration ▾ General ▾			
Name ▾	Type ▾	Active ▾	Status ▾
 SIP active	SIP active		
Step		Configuration	
Configure recording architecture			
Global recording settings			
Configure recording servers			
Configure add-on			
Configure miscellaneous settings			

Fig. 141: Activate integration

1. Mark the integration in the main view, so that the icon  (*Activate*) becomes active in the toolbar.
2. To activate the integration, click on the icon  (*Activate*).  
⇒ In the column *Active*, the icon  (*Active*) appears.




+ × ⏮ ⏭ Integration ▾ General ▾			
Name ▾	Type ▾	Active ▾	Status ▾
 SIP active	SIP active		

Fig. 142: Activated integration



If you use several PBXs, you can create and activate several integrations with the same recording architecture.



If you take advantage of the grace period and there is no valid license file in the system after its expiration, all integrations are deactivated. After uploading a valid license file, you have to activate the integrations again.






Upon activating the standard configuration, a bulk recording will start.

To restrict the recording to particular end devices, the tenant can configure the Recording Planner in the System Configuration accordingly.

### Deactivate/Delete integration

To be able to delete an integration, it has to be deactivated.

- To deactivate the integration, click on the icon  (*Deactivate*) in the toolbar.
  - ⇒ In the column *Active*, the icon  (*Inactive*) appears.
  - ⇒ The icon  (*Delete*) becomes active in the toolbar.







+ ×   Integration ▾ General ▾			
Name ↕	Type ↕	Active ↕	Status ↕
 SIP active	SIP active		

Fig. 143: Deactivate integration

- Click on the icon  (*Delete*) and confirm the security prompt to delete the integration.

## 7.1.2.3 Configure recording solution All-in-one Parallel Recording

### 7.1.2.3.1 Create recording architecture

Start the configuration in the Recording Architectures module because an activated recording architecture is required for further configuration.

The recording servers, recording types, and the integration types are assigned in the Recording Architectures module.

- Select the menu item *Setup > Recording Architectures* in the navigation bar.
  - ⇒ The following window appears:



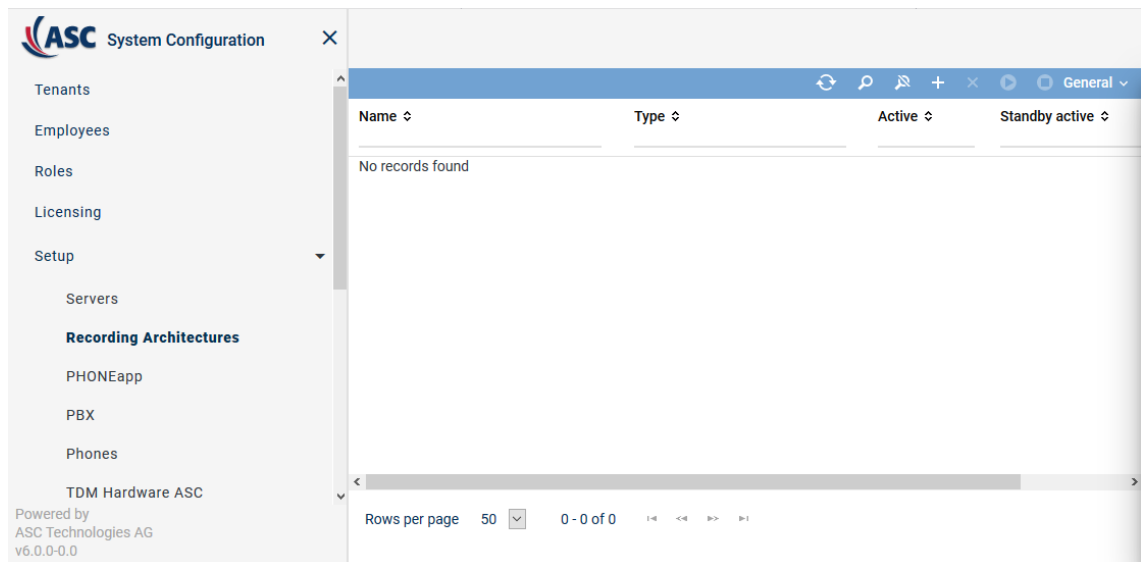




Fig. 144: Recording architectures - main view

<b>Name</b>	Name of the recording architecture
<b>Type</b>	Type of the recording architecture
<b>Active</b>	Shows whether the recording architecture has been activated and is ready to be used for the recording. <div> <span>✓</span> = Recording architecture is active and ready to be used for recording. It can be deactivated by clicking on the icon  (Deactivate) in the toolbar.  <span>✗</span> = Recording architecture is not active. It can be activated by clicking on the icon  (Activate) in the toolbar. </div>
<b>Standby Active</b>	Shows whether the standby server is active for one or several recording components in the recording architecture. <div> <span>✓</span> = At least 1 standby server is active.  <span>✗</span> = No standby server is active or no standby server has been defined. </div>
<b>Creation Date</b>	Date on which the recording architecture was installed.
<b>Updated</b>	Date on which the settings of the recording architecture were updated for the last time.





**NOTICE!** Hidden columns can be added by clicking on the menu item *General > Adjust Table*.





### Toolbar of the Recording Architectures module

The toolbar offers the following functions.



Fig. 145: Toolbar Recording Architectures module

	<b>Refresh</b>	Refreshes the main view.
	<b>Search</b>	Opens the window of the search function. The search function allows searching systematically for sets of data which meet certain criteria.  The icon  is displayed whenever the search has been adjusted by means of a filter.
	<b>Reset search</b>	Resets all search filters so that the main view displays all data sets again.


	<i>Create</i>	Creates a new recording architecture.
	<i>Delete</i>	Deletes the selected recording architecture. The recording architecture is removed from the list of the main view. <b>NOTICE!</b> You can only delete recording architectures which are inactive and have not been assigned to an integration or server for the import.
	<i>Activate</i>	Activates the selected recording architecture.
	<i>Deactivate</i>	Deactivates the selected recording architecture. <b>NOTICE!</b> You can only deactivate recording architectures which have neither been assigned to an active integration nor to an active import.
<i>Recording Architectures</i>	<i>Standby management</i>	The menu item is only available for recording architectures with failover possibilities. By clicking on the menu item Standby Management, you can open a window in which you can manually define the active server in architectures with failover concepts.
<i>General</i>	<i>Print</i>	Prints the table of the main view.
	<i>Adjust Table</i>	Opens a window in which you can adjust the following settings for the main view: <ul style="list-style-type: none"> <li>• <i>Displayed information</i></li> <li>• <i>Order of the displayed columns</i></li> <li>• <i>Number of rows per page</i></li> </ul>
	<i>Save Table Configuration</i>	Saves the current table configuration of the main view as default view of the user.
	<i>General Help</i>	Opens the online help.
	<i>Module Help</i>	Opens the module-specific online help.



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

### Create recording architecture All-in-one Parallel Recording

If there are two recording servers which are supposed to record the same tracks in parallel, you have to create a recording architecture of the type *All-in-one Parallel Recording*.

- To create a new recording architecture, click on the icon  (*Create*) in the toolbar of the main view.

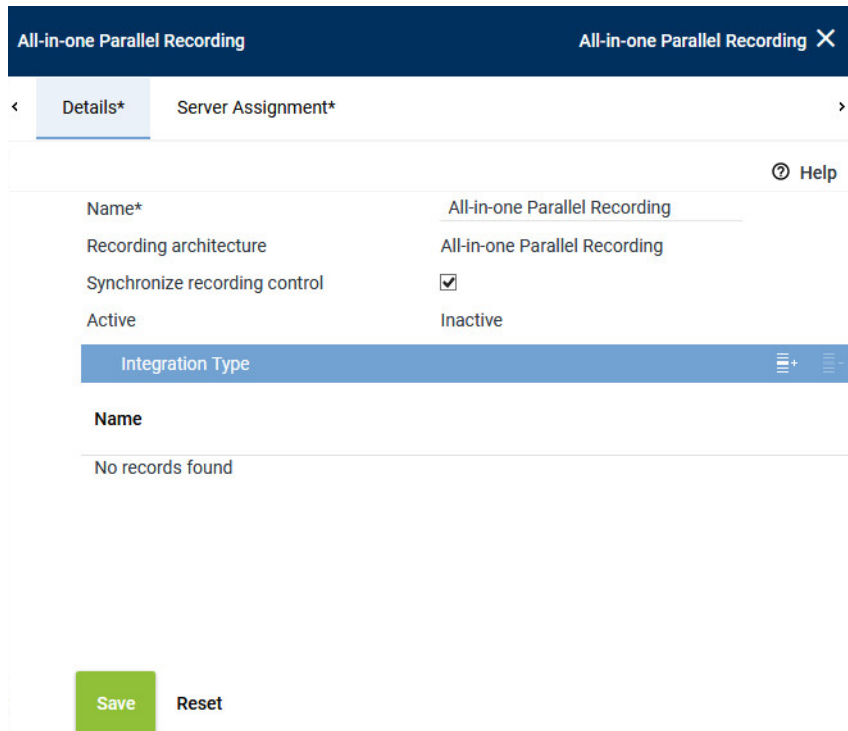
⇒ The window *New Recording Architecture* appears.



Fig. 146: Create recording architecture - All-in-one Parallel Recording

- In the entry field *Name*, enter a descriptive name for the recording architecture.

3. From the drop-down list *Type*, select the recording architecture type *All-in-one Parallel Recording*.  
**NOTICE!** The drop-down list only displays the supported recording architecture types.
4. Click on the button *OK*.  
⇒ Your entries now appear in the detail view.



The screenshot shows a configuration window titled 'All-in-one Parallel Recording'. It has two tabs: 'Details\*' (selected) and 'Server Assignment\*'. The 'Details\*' tab contains the following fields:

- Name\***: All-in-one Parallel Recording
- Recording architecture**: All-in-one Parallel Recording
- Synchronize recording control**: ☒
- Active**: Inactive

Below these fields is a section titled 'Integration Type' which contains a table. The table is currently empty, displaying the message 'No records found'.

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


Fig. 147: Recording architecture - tab Details - All-in-one Parallel Recording

5. Activate the check box *Synchronize recording control* so that the Recording Control services can be synchronized and only one service controls recording for the two recording servers, see [chapter "Synchronizing recording control", p. 355](#).

**NOTICE!** If you have activated the option *Synchronize recording control*, only one set of data is generated in the database but audio data is recorded on both recording servers. This method makes duplicate detection impossible. Ensure that there is enough storage capacity for twice the amount of data.

If you do not want to synchronize recording control, you can configure duplicate detection, see [chapter "Duplicates in parallel recording architectures", p. 359](#).

### Add integration type

1. Click on the icon  (*Add*) in the toolbar of the list *Integration Type*.  
⇒ The window *Integration Type* appears.

Integrationstyp

Name

SIP active

Hinzufügen

Abbrechen

Fig. 148: Select integration type



Only those integration types are displayed which have a license in the system and which support the selected architecture type.

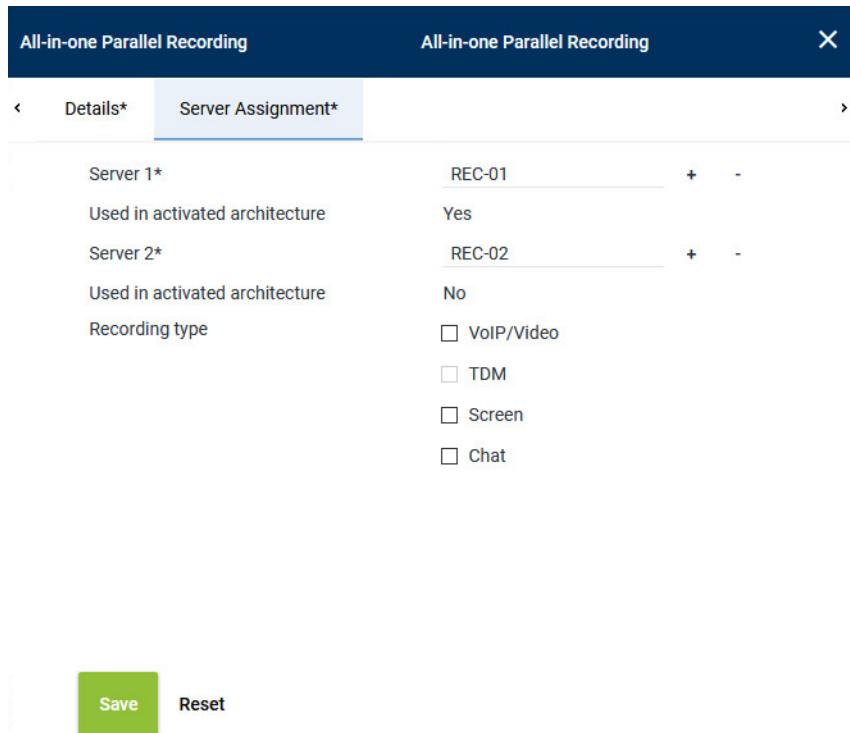


Any number of integration types can be assigned to a recording architecture.

2. Select *SIP active* from the list of the available integration types and click on the button *Add*.  
⇒ The name of the integration type now appears in the list in the detail window.

### **Assign server for All-in-one Parallel Recording**

1. Click on the tab *Server Assignment* to assign the recording servers to the recording architecture *All-in-one Parallel Recording*.



All-in-one Parallel Recording		All-in-one Parallel Recording	
<div> <div>Details*</div> <div>Server Assignment*</div> </div>			
Server 1*	REC-01	+	-
Used in activated architecture	Yes		
Server 2*	REC-02	+	-
Used in activated architecture	No		
Recording type	<input type="checkbox"/> VoIP/Video <input type="checkbox"/> TDM <input type="checkbox"/> Screen <input type="checkbox"/> Chat		
<div> <div>Save</div> <div>Reset</div> </div>			

Fig. 149: Recording Architecture - tab Server Assignment

- Click on the button **+** behind the entry field *Server 1*.  
⇒ The window *Servers* appears.



Servers		
Name ↕	IP Address ↕	Path ↕
REC-01	192.168.173.171	C:\
REC-02	192.168.173.172	C:\

Rows per page 20 1 - 8 of 8

Add Cancel

Fig. 150: Recording Architecture - assign server - example


- Select *Server 1*.



A server can be configured in several recording architectures, but you cannot activate several recording architectures with the same server at the same time.  
If you would like to activate several recording architectures at the same time, you have to use different servers to do so.

- Click on the button *Add*.

⇒ The name of the server now appears in the detail view.

5. To delete an assignment, click on the button .
6. Repeat the steps and select Server 2 for the entry field *Server 2*.
7. Select the recording type you would like to use for these servers by activating the check box.

Recording type

☒ VoIP/Video

☒ TDM

☒ Screen

☒ Chat




Fig. 151: Recording Architecture - activate recording type

8. To save the settings, click on the button *Save*.  
To discard the settings, click on the button *Reset*.



You can activate several recording types if the integration has been designed for this and if you have installed the respective licenses.

### Activate recording architecture

1. Once all servers have been assigned, click on the button *Save*.
2. Select the recording architecture in the main view so that the icon  (*Activate*) in the tool-bar becomes active.
3. To activate the recording architecture, click on the icon  (*Activate*).  
⇒ In the column *Active*, the icon  (*Active*) appears.










     General ▾			
Name ▾	Type ▾	Active	Standby active ▾
All-in-one Parallel Recording	All-in-one Parallel Recording		

Fig. 152: Activate recording architecture

4. To deactivate the recording architecture, if required, click on the icon  (*Deactivate*).  
⇒ In the column *Active*, the icon  (*Inactive*) appears.



The recording architecture must have been activated so that the integration can be configured.



For updates, the recording architecture is stopped and deactivated. Once the update has been completed, check that the recording architecture has been activated again.



Parallel recording results in redundant recording data in the system. To make sure that this data does not remain in the system permanently, you can configure duplicate detection so that duplicate sets of data are deleted, see [chapter "Configure duplicate detection", p. 359](#).



If you install an add-on for the integration subsequently, you must deactivate the recording architecture and activate it again after having installed the license.

### 7.1.2.3.2 Configure servers

Every server in your network that the *neo* software has been installed on is automatically identified as a server of the recording system and displayed in the main view of the Servers module. In the Servers module, you can configure the usage of the servers in your recording system.

1. Select the menu item *Setup > Servers* in the navigation bar.

⇒ The following window appears:

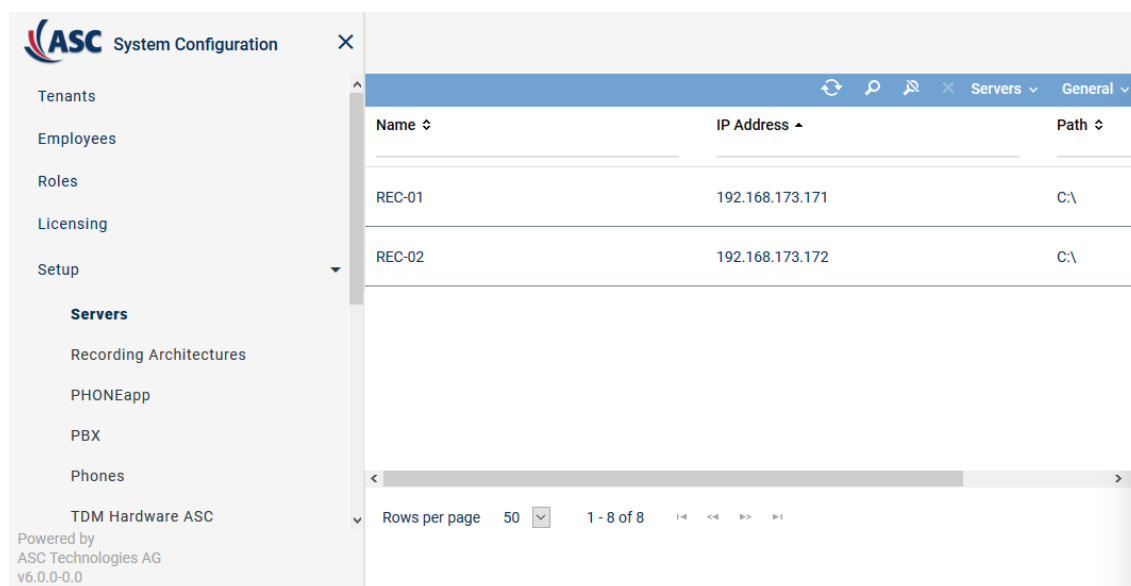


Fig. 153: Servers - main view

Depending on the configuration of the columns, the following information is displayed in the main view:

<i>Name</i>	Shows the name of the server.
<i>IP Address</i>	Shows the IP address of the server.
<i>Path</i>	Shows the path of the server.
<i>Creation Date</i>	Date on which the server was installed.
<i>Updated</i>	Date on which the settings of the server were updated for the last time.

**NOTICE!** Hidden columns can be added by clicking on the menu item *General > Adjust Table*.

#### Toolbar of the Servers module

The toolbar offers the following functions.

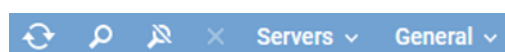







Fig. 154: Toolbar Servers module

	<i>Refresh</i>	Refreshes the main view.
	<i>Search</i>	Opens the window of the search function. The search function allows searching systematically for sets of data which meet certain criteria.  The icon  is displayed whenever the search has been adjusted by means of a filter.
	<i>Reset search</i>	Resets all search filters so that all sets of data are displayed in the main view again.
	<i>Delete</i>	Deletes the selected server configuration.

		This function is meant to delete the server configuration if the hardware of a server has been removed and there is no connection to the <i>neo</i> system.
Servers	<i>Administrate Server Locations</i>	Opens a window in which you can create and administrate locations of the servers, see <a href="#">chapter "Administrate server locations"</a> , p. 136.
	<i>Administrate NTP server</i>	Opens a window in which you can administrate the servers for the time synchronization, see <i>Administrate NTP server</i> .
	<i>Manage Synchronization Configurations</i>	Opens a window in which you can manage the synchronization configurations.
General	<i>Adjust Table</i>	Opens a window in which you can adjust the following settings for the main view: <ul style="list-style-type: none"> <li>• <i>Displayed information</i></li> <li>• <i>Order of the displayed columns</i></li> <li>• <i>Number of rows per page</i></li> </ul>
	<i>Save Table Configuration</i>	Saves the current table configuration of the main view as default view of the user.
	<i>General Help</i>	Opens the online help.
	<i>Module Help</i>	Opens the module-specific online help.



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

### Administrate server locations

You can create and manage a list of server locations. In the tab *Details*, you can assign locations to the servers.

#### Add server locations

1. Click on the menu item *Servers > Administrate Server Locations* in the toolbar of the main view.
  - ⇒ The window *Server Locations* appears.



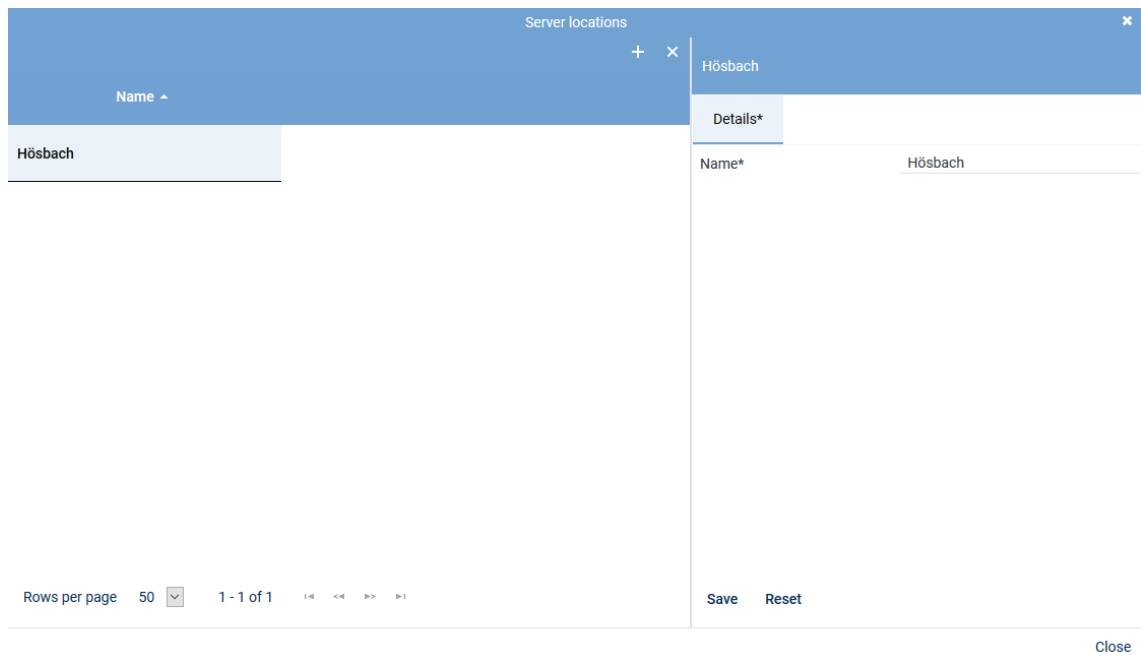



Fig. 155: Add server locations

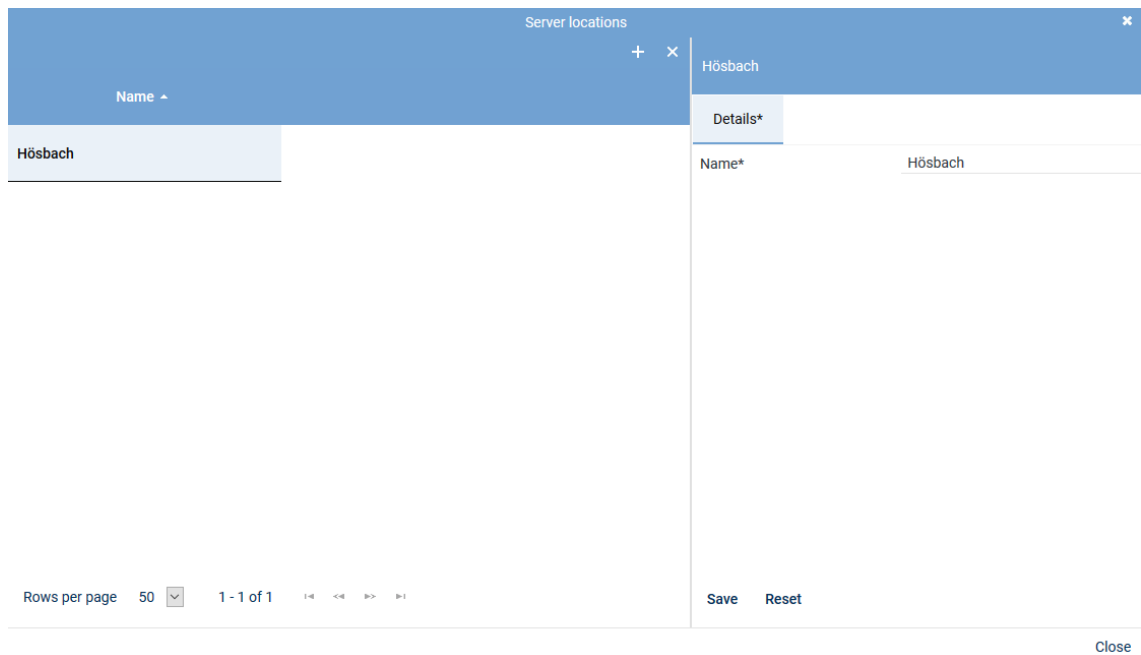
2. Click on the icon  (*Create*) in the toolbar of the window *Server Locations*.
3. Enter the name of the location on the right side in the tab *Details*.
4. To save the entry, click on the button *Save*.  
To discard the entry, click on the button *Reset*.
5. To add further locations, repeat the last 3 steps.
6. To close the window, click on the button *Close*.

### Delete server location




A server location can only be deleted when it has not been assigned. To be able to delete a server location, you must first delete possible assignments.

1. Click on the menu item *Servers > Administrate Server Locations* in the toolbar of the main view.  
⇒ The window *Server Locations* appears.
2. Select the location you would like to delete.



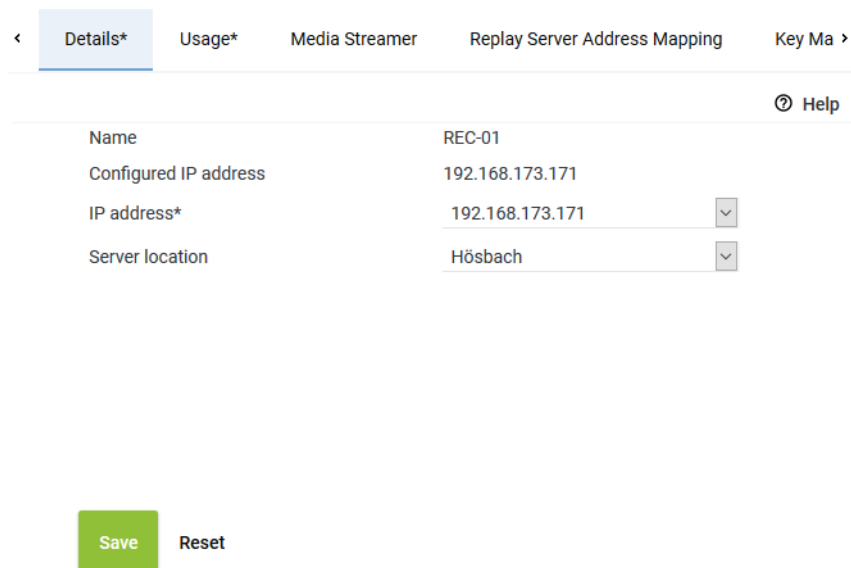
The screenshot shows a window titled "Server locations" with a close button (x) in the top right corner. Inside the window, there is a table with one row containing the name "Hörsbach". To the right of the table is a "Details\*" tab. Below the table, there is a pagination bar showing "Rows per page 50" and "1 - 1 of 1". At the bottom right of the window, there are "Save" and "Reset" buttons. A "Close" button is located outside the window at the bottom right.

Fig. 156: Delete server location



3. Click on the icon  (*Delete*) in the toolbar of the window.
4. To delete further locations, repeat the last 2 steps.
5. To close the window, click on the button *Close*.

### Tab Details

1. To configure the server, select the entry of the corresponding server in the main view.
  - ⇒ In the detail view, the tab *Details* appears.
  - The information *Name* and *Configured IP address* has already been entered during the installation and is displayed for your information only.



The screenshot shows the "Servers - tab Details" window. It has a tab bar with "Details\*" (selected), "Usage\*", "Media Streamer", "Replay Server Address Mapping", and "Key Ma". Below the tabs is a table with the following fields:

Name	REC-01
Configured IP address	192.168.173.171
IP address*	192.168.173.171 
Server location	Hörsbach 

At the bottom left, there are "Save" and "Reset" buttons. A "Help" icon is located at the bottom right of the table area.

Fig. 157: Servers - tab Details

2. From the drop-down list, select the IP address which is supposed to be used as default address of the server in the system.
3. Select the *Server location* in the drop-down list. The drop-down list displays all locations which have been created in the location management.

- Click on the button **Save** if the entries are correct.

### Tab Usage

- Click on the tab *Usage* to configure the intended purpose.



As a server may be used for several recording solutions, all intended purposes are displayed. Note that some intended purposes do not apply for certain recording solutions. In chat recording, for instance, audio analysis or replay via phone cannot be used.

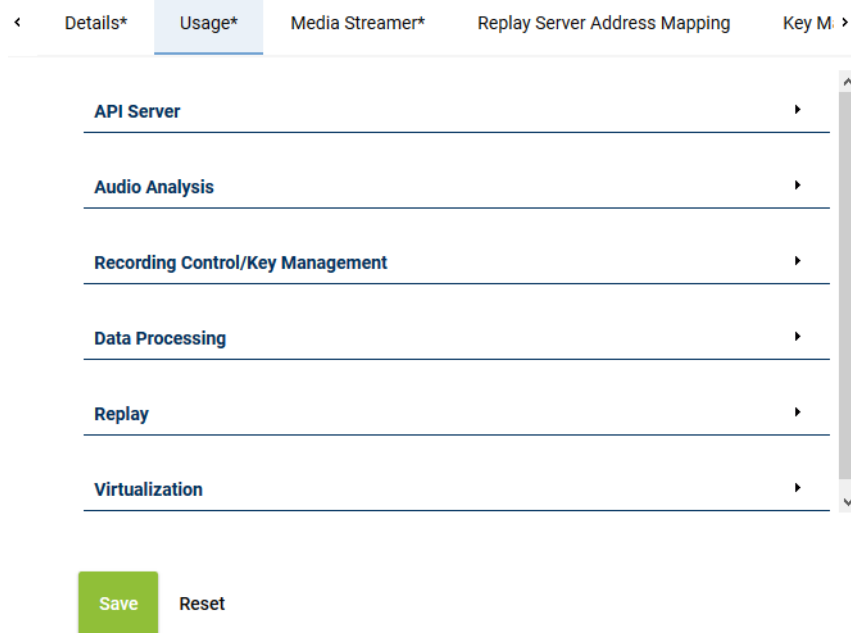


Fig. 158: Servers - tab usage

### Group field API Server

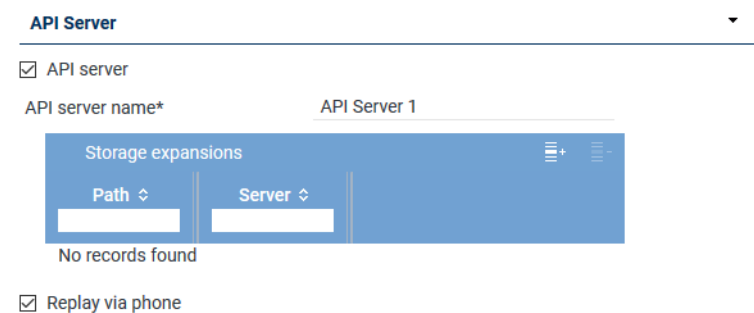


Fig. 159: Group field API Server



The ASC API Server is a service within the neo software.



The ASC API Server must have been activated on every server where the Recording Control service runs.


The ASC API Server does not only offer an interface for the internal modules; additionally, the client applications communicate with the neo system by means of this interface, too, using defined commands.

Furthermore, the ASC API Server is responsible for replay by means of the web browser. Not until the ASC API Server has started, can the replay server be activated and the corresponding ASC API Server assigned for replay in the web applications.

Parameter	Value/Description
<i>API server</i>	<p>Tick the check box to start the API server.</p> <p><input checked="" type="checkbox"/> = Function has been activated. You have to complete the entry field <i>API server</i>.</p> <p><input type="checkbox"/> = Function has not been activated.</p> <p>In order to be able to reach the API server from a public network and with configured port forwarding, too, you have to adjust the settings in the tab <i>Replay Server Address Mapping</i>, see <a href="#">chapter "Tab Replay Server Address Mapping"</a>, p. 149.</p>
<i>API server name</i>	<p>Enter the name which is supposed to denote the server in the system. The displayed name can be selected arbitrarily and is a kind of pseudonym.</p> <p>The displayed name is meant to make it easier for users to select a server as different API servers may be used across the system by different tenants. When selecting the API server, these pseudonyms are displayed on the client computers instead of the real server name or the IP address.</p>
<i>List</i> <i>Storage expansions</i>	<p>Here, you can add storage expansions for replay. If a recording which is supposed to be replayed cannot be found on the server, the search is continued on the storage expansions which have been entered here. That way, even recordings can be replayed which have not been transferred to the server.</p> <p>If the function <i>Replay</i> has been activated, you can adjust the following settings:</p> <ul style="list-style-type: none"> <li>By clicking on the icon  (<i>Add</i>), you can add the storage expansions, see <a href="#">chapter "Add storage expansion for replay"</a>, p. 141.</li> <li>By clicking on the icon  (<i>Remove</i>), you can remove the storage expansions from the list.</li> </ul> <p>If you use several recording servers in your system for which storage expansions have been configured, you can add any storage expansion of any recording server on every API server of the system.</p>
<i>Replay via phone</i>	<p>Activate this function if you would like to use the functions <i>Replay via phone</i> or <i>Last Call Repeat</i>.</p> <p><input checked="" type="checkbox"/> = Function has been activated.</p> <p><input type="checkbox"/> = Function has not been activated.</p> <p><b>NOTICE!</b> The function <i>Replay via phone</i> has been implemented in the following <i>neo</i> components:</p> <ul style="list-style-type: none"> <li>Application POWERplay Pro</li> <li>Application POWERplay Instant</li> <li>Replay module</li> </ul> <p>In order to enable a client to use the functionality <i>Replay via phone</i>, you have to assign this client an identifier either in the Employees module or in the Phones module which allows the system to clearly identify the phone.</p>

Parameter	Value/Description
	<b>NOTICE!</b> In the tab <i>Media Streamer</i> , you have to assign this function to a <a href="#">PBX</a> , see <a href="#">chapter "Tab Media Streamer", p. 148</a> . To be able to do so, at least 1 <a href="#">PBX</a> must have been configured in the system.

### Add storage expansion for replay

1. Click on the icon  (*Add*) in the toolbar of the list.
2. Select 1 or several storage expansions.  
If you would like to select several storage expansions or revoke a selection, click on the respective line while holding the [Ctrl] key down.

Storage Expansion for Replay				
Device Type	Name	Path	Free Disk Space	Server
NAS	NAS 2	NAS 2	<div></div>	REC-02

Rows per page 20 1 - 1 of 1

Add Cancel

Fig. 160: Select storage expansion

3. To apply the selected storage expansions, click on the button *Add*.  
To discard the selection and close the window, click on the button *Cancel*.

### Group field Audio analysis

Audio Analysis

☐ Emotion detection

Stream audio data from\*

Fig. 161: Group field Audio analysis

Parameter	Value/Description
<i>Emotion detection</i>	Activate this check box to activate emotion detection for audio analysis. <input checked="" type="checkbox"/> = Function has been activated. Tenants can use the function emotion detection. <input type="checkbox"/> = Function has not been activated.

Tab. 42: Configure audio analysis

### Group field Recording Control/Key Management

**Recording Control/Key Management** ▼

---

☒ Recording control/Monitoring

Recording architecture      Please choose... ▼

☒ neo key management

Fig. 162: Group field Recording Control/Key Management

Parameter	Value/Description
<i>Recording control/monitoring</i>	<p>Activate the check box, if you would like to use CLIENT<u>command</u> or API recording control. The function is only available if a recording architecture has been configured and activated.</p> <ul style="list-style-type: none"> <li>Recording architecture From the drop-down list, select the recording architecture via which you would like to control the recording.</li> </ul>
<i>neo key management</i>	<p>This function serves for customer-specific recording encryption. To be able to configure the conditions for key management, activate the check box <i>Key management</i>.</p> <p>The function can only be activated if the license <code>ASC_KEY_MANAGEMENT</code> is available.</p> <p>For more information about the configuration of key management refer to the administration manual <i>Configuration server and recording architectures</i> and to the installation manual <i>Installation Dongle Manager</i>.</p>

Tab. 43: Configure recording control/key management

### Group field Data Processing

**Data Processing** ▼

☒ Data storage

☒ Transfer data for replay

Target Server

Name	IP Address ↕
No records found	

☒ Transfer data for data storage

Target Server

Name	IP Address ↕
No records found	

Activate period of time ☒

from 11:59:36 ↕

to 11:59:36 ↕

Receives data from

Name	Only Replay
No records found	



☒ Archiving





☒ Export

☒ Import

Recording architecture Please choose... ▼


Fig. 163: Group field Data Processing

Parameter	Value/Description
<i>Data storage</i>	Activate the check box to allow the modification of the additional functions of data processing.
<i>Transfer data for replay</i>	<p>Activate the check box if you would like to transfer data only for replay to another server.</p> <p>If the function has been activated, you can select a server from the list <i>Target Server</i> to which the recorded data is supposed to be transferred for replay. The data is not stored on the target server but deposited in a cache temporarily in order to be replayed.</p> <ul style="list-style-type: none"> <li>By clicking on the icon  (<i>Add</i>), you can add the target server, see <a href="#">chapter "Add target server to a list", p. 144</a>.</li> <li>By clicking on the icon  (<i>Remove</i>), you can remove the target server from the list.</li> </ul> <p><b>NOTICE!</b> Only those servers are displayed on which an API server and a replay server have been configured.</p>
<i>Transfer data for data storage</i>	<p>Activate the check box if you would like to transfer data for storage to another server.</p> <p>If the function has been activated, you can select a server from the list <i>Target Server</i> to which the recorded data is supposed to be transferred for data storage purposes. In the drop-down list, all servers are displayed on which the function <i>Data Storage</i> has been activated. The data is copied to the target server and stored there.</p>

Parameter	Value/Description
	<ul style="list-style-type: none"> <li>By clicking on the icon  (Add), you can add the target server, see <a href="#">chapter "Add target server to a list", p. 144</a>.</li> <li>By clicking on the icon  (Remove), you can remove the target server from the list.</li> </ul> <p><b>NOTICE!</b> Only those servers are displayed on which the function <i>Data Storage</i> has been activated.</p> <p>If the function has been activated, you can activate the transfer for a certain period of time.</p> <ul style="list-style-type: none"> <li>Activate period of time <input checked="" type="checkbox"/> = Function has been activated. The fields for entering the time become active. Select the time via the rotating field for the period from – to.</li> <li>Active period of time <input type="checkbox"/> = Function has not been activated.</li> </ul> <p><b>NOTICE!</b> In distributed systems with slow network connections, the storage interval for the data transfer can be adjusted. The storage interval for the data transfer has to be configured by an ASC service technician or by an authorized partner company.</p>
<i>Receives data from</i>	<p>This table contains those servers which transfer data to this server.</p> <p>In the column <i>Name</i>, the name of the server appears from which data has been transferred.</p> <p>In the column <i>Only Replay</i>, the purpose of the transfer is displayed:</p> <p> = Data is transferred only for replay.</p> <p> = Data is transferred for data storage.</p>
<i>Archiving</i>	Activate the check box <i>Archiving</i> if you would like to use the server for archiving purposes.
<i>Export</i>	Activate the check box <i>Export</i> to allow the export from this server.
<i>Import</i>	<p>Activate the check box <i>Import</i> so that the imported data can be stored on this server.</p> <ul style="list-style-type: none"> <li>Recording architecture From the drop-down list, select the recording architecture that fulfills this function. In the drop-down list, all recording architectures are displayed which enable this function as well.</li> </ul> <p><b>NOTICE!</b> If you would like to use a server for the import function on which no recording is supposed to take place, you can configure an architecture exclusively for the import.</p>

Tab. 44: Configure data storage

### Add target server to a list

- In the toolbar of the list *Target Server*, click on the icon  (Add).
- Select the server from the list to which you would like to transfer the data.  
If you would like to select several servers or revoke a selection, click on the respective line while holding the [Ctrl] key down.





Target Server

Name ↕	IP Address ↕
RC-02	192.168.173.176
REC-04	192.168.173.174
RC-01	192.168.173.175
REC-02	192.168.173.172
CTI-01	192.168.173.177
REC-03	192.168.173.173

Rows per page 20 1 - 6 of 6

Add Cancel

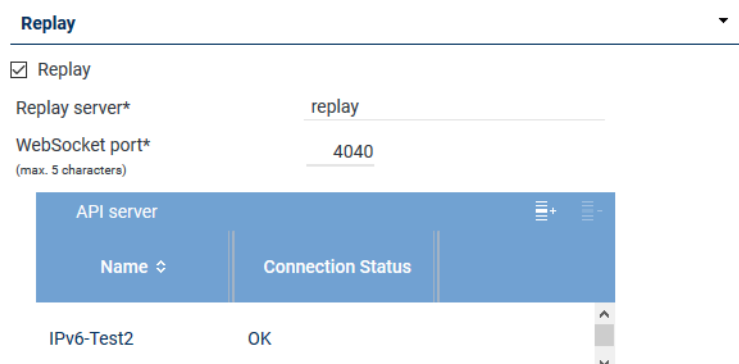
Fig. 164: Select server



Only those servers are available on which the function *Data storage* has been activated.

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

### Group field Replay



Replay

☒ Replay



Replay server\* replay

WebSocket port\* 4040  
(max. 5 characters)

API server	
Name ↕	Connection Status
IPv6-Test2	OK

Fig. 165: Group field Replay

Parameter	Value/Description
<i>Replay</i>	<p>A replay server can replay recordings via the integrated <i>Replay Feature</i>. Only data which has either been recorded directly on this server or which has been transferred to this server for data storage or only for replay purposes can be replayed. The client computers of the system can connect to a replay server for replay purposes.</p> <p>Activate the check box <i>Replay</i> to be able to use the replay function of the players and the phones.</p> <p><input checked="" type="checkbox"/> = Function has been activated. You have to complete the entry field <i>Replay server</i>.</p> <p><input type="checkbox"/> = Function has not been activated.</p>

Parameter	Value/Description
<i>Replay server</i>	<p>If the function has been activated, you can enter a displayed name which is supposed to denote the server as the replay server in the system in the entry field <i>Replay server</i>. The displayed name can be selected arbitrarily and is a kind of pseudonym. As the replay server and the <a href="#">API</a> server must not be identical, you can select different pseudonyms.</p> <p>The displayed name is meant to make it easier for users to select a server as different replay servers may be used across the system by different tenants. When selecting the replay server, these pseudonyms are displayed on the client computers instead of the real server name or the IP address.</p> <p>In order to be able to reach the server activated for replay from a public network and with configured port forwarding, you have to set the configuration in the tab <i>Replay Server Address Mapping</i>. For further details about the configuration refer to the administration manual <i>Configuration of servers and recording architectures</i>.</p>
<i>WebSocket port (maximum of 5 characters)</i>	Enter the port via which the data to be replayed in <i>POWERplay</i> Web are supposed to be transmitted.
<i>List API server</i>	<p>Here, you can add <a href="#">API servers</a> that the replay server may use. If a recording which is supposed to be replayed cannot be found on a server, the search is continued on the <a href="#">API servers</a> which have been entered here.</p> <p>If the function <i>Replay</i> has been activated, you can adjust the following settings:</p> <ul style="list-style-type: none"> <li>By clicking on the icon  (<i>Add</i>), you can add the <a href="#">API server</a>, see <a href="#">chapter "Add API server to a list"</a>, p. 146.</li> <li>By clicking on the icon  (<i>Remove</i>), you can remove selected <a href="#">API servers</a> from the list.</li> </ul>

Tab. 45: Configure replay

## Search and replay functions



To be able to use the search and replay functions via [LCR](#) as well as to use replay via phone, you have to create the users with the respective access rights in the application System Configuration in the Employees module. For information about the configuration refer to the administration manual *User management* for tenants.

### Add API server to a list

The replay server required the services of an [API](#) server. The configuration must be as follows:


- If the replay server runs on a server with a local [API](#) server, it must not necessarily be assigned as the replay server always addresses the local [API](#) server first.
  - If the replay server runs on a separate server, you must assign at least one [API](#) server that the replay server can address.
  - If several [API](#) servers are available in the network, you can assign further [API](#) servers in addition to the local [API](#) server. The assigned [API](#) servers are addressed in order. For this reason, the local [API](#) server should always be first in the list.
- To assign an [API](#) server, click on the icon  (*Add*) in the toolbar of the list *API Server*.
  - Select the server from the list on which the [API](#) service is running.



Fig. 166: Select server



Only those servers are available on which the [API](#) service has been installed and activated. See [chapter "Group field API Server", p. 139](#).

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

### Group field Virtualization



Fig. 167: Group field Virtualization

Parameter	Value/Description
<i>VM support</i>	<p>Activate the check box <i>VM support</i> to be able to use the licensing for several VM installations.</p> <p>This function can only be activated if the system has been installed in a VMware and no <i>TRUSTED_VIRTUALIZATION</i> license has been imported to the system.</p> <p>When activating the function <i>VM support</i>, you have to configure the respective settings in the tab <i>Keystore/VM Licensing</i>. For further details about the configuration of this function refer to the administration manual <i>Configuration of servers and recording architectures</i>.</p>

Tab. 46: Configure virtualization



For the *virtualization* without Internet connection, a dongle is required which contains the system information. The application *Dongle Manager*, required to read the dongle, has to be installed on the server that the dongle has been connected to.

- To save the entries, click on the button *Save* in the detail view.  
To reset the entries, click on the button *Reset* in the detail view.

### Tab Media Streamer

1. Click on the tab *Media Streamer* in the detail view.

In this tab, you can configure the Media Streamer for the functionalities *Replay via phone* and *Last Call Repeat Facility*.



The tab *Media Streamer* is only active if the function *Replay via phone* has been activated in the tab *Usage*.

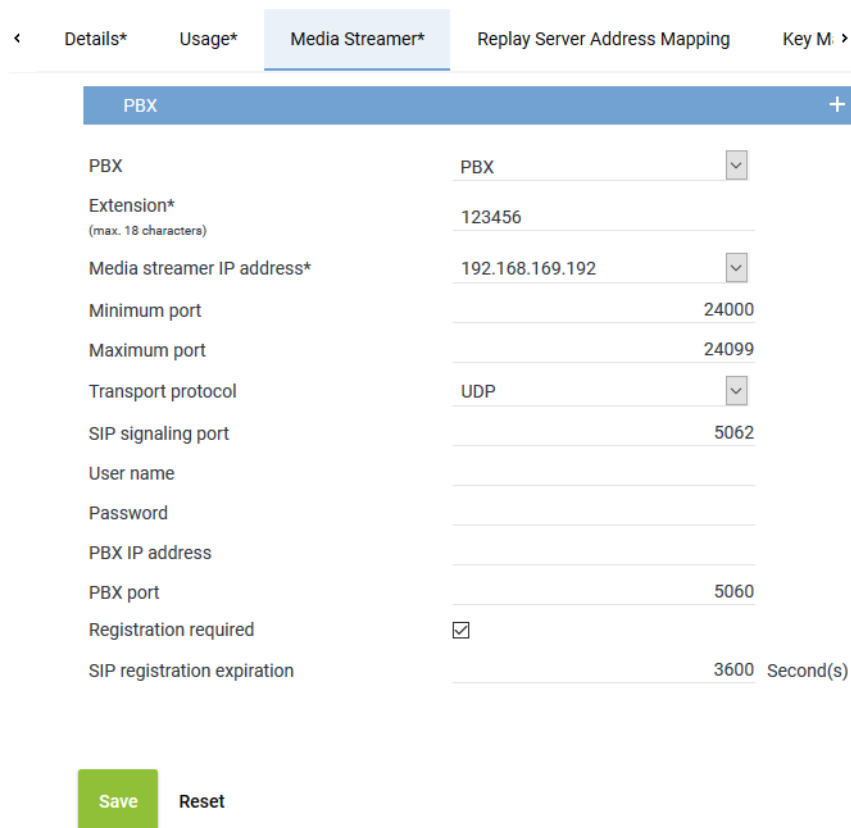


Fig. 168: Servers module - tab Media Streamer

2. Enter the following parameters:

<b>PBX</b>	<p><b>PBX</b> that the Media Streamer is supposed to be mapped to.</p> <p>Select a <b>PBX</b> from the drop-down list. The drop-down list displays all <b>PBXs</b> which have been created in the system.</p> <p>If no <b>PBX</b> has been created in the system yet, you can create a <b>PBX</b> via the blue bar <b>PBX</b>, see <a href="#">chapter "Create PBX"</a>, p. 153.</p>
<b>Extension</b>	<p>Extension which is supposed to be mapped to the Media Streamer. This is a mandatory field; the configuration cannot be saved if this information is missing.</p> <p>If an external analog gateway has been integrated, enter the value <b>8000</b>.</p>
<b>Media streamer IP address</b>	<p>IP address which is supposed to be used for the exchange of the audio data and for the <b>SIP</b> communication.</p> <p>Select an IP address from the drop-down list. In the drop-down list, all IP addresses of the server are displayed.</p> <p>If an external analog gateway has been integrated, select the IP address <b>169.254.254.100</b> in the drop-down list.</p>

<i>Minimum port</i>	Enter the minimum port which is supposed to be used for the audio data exchange.
<i>Maximum port</i>	Enter the maximum port which is supposed to be used for the audio data exchange.  A port range of 100 (e. g. 24000-24099) is sufficient for 50 licenses. The port range should be twice as wide as the number of available licenses.
<i>Transport protocol</i>	Select the transport protocol type you would like to use for the <b>SIP</b> communication from the drop-down list.  <b>TCP</b> = unencrypted <b>UDP</b> = unencrypted <b>TLS</b> = encrypted  If an external analog gateway has been integrated, select <b>UDP</b> in the drop-down list.
<i>SIP signaling port</i>	Enter the port for the <b>SIP</b> communication. Port for data exchange: 5062
<i>User name</i>	Enter the user name for the authentication on the <b>SIP</b> server.
<i>Password</i>	Enter the password for the authentication on the <b>SIP</b> server.
<i>PBX IP address</i>	Enter the IP address of the <b>SIP</b> registrar of the <b>PBX</b> .  If an external analog gateway has been integrated, enter the IP address 169.254.254.101.
<i>PBX port</i>	Enter the port of the <b>SIP</b> registrar of the <b>PBX</b> .  If an external analog gateway has been integrated, enter the value 5060.
<i>Registration required</i>	Select whether the <b>SIP</b> extension has to be registered with the <b>SIP</b> registrar of the <b>PBX</b> .  <input checked="" type="checkbox"/> = <b>SIP</b> extension has to be registered. <input type="checkbox"/> = <b>SIP</b> extension does not have to be registered.  If an external analog gateway has been integrated, deactivate the check box <i>Registration required</i> .
<i>SIP registration expiration</i>	Enter the time interval after which the registration has to be repeated.

### Tab Replay Server Address Mapping

1. Click on the tab *Replay Server Address Mapping* in the detail view.

In this tab, you can configure the replay server address mapping. Servers which have been activated for replay require this address mapping so that they can be reached from a public network and with configured port forwarding.



The tab *Replay Server Address Mapping* is only active if the function *Replay* has been enabled in the tab *Usage*.

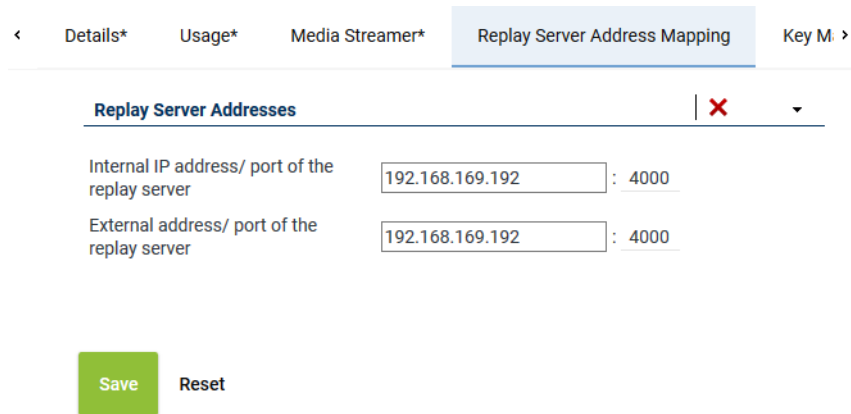


Fig. 169: Servers Module - tab Replay Server Address Mapping

### Group field Replay Server Addresses

1. Enter the following parameters:

<i>Internal IP address/ port of the replay server</i>	Enter the destination <b>IP</b> address and the port of the replay server at which the Replay module can be reached internally.
<i>External address / Port of the replay server</i>	Enter the <b>URL</b> or the <b>IP</b> address and the port at which the Replay module can be reached via the browser from outside. When entering the external address consider whether the SSL certificate has been created for an IP address or for a DNS address. In the latter case, it is imperative to enter the DNS name! Otherwise the certificate check in the replay applications will fail.

If you would like to remove the addresses, click on the icon  in the title bar of the group field.



If address mapping has been configured, the Replay module receives the configured address and the configured port.

If address mapping has not been configured, the Replay module receives the IP address and the default port *4040* as entered in the tab *Details*.



To allow the users of the respective tenant to access the replay server via the browser, an internal address and/or an external IP address or a DNS name must be configured in the *Tenants* module.



For information about the configuration refer to the administration manual for tenants *User management tenant*.

### Tab Key Management

1. Click on the tab *Key Management* in the detail view.

In this tab, you can configure the settings for the *neo* key management. This tab is only active if you have installed the corresponding license and enabled the function *neo Key Management* in the tab *Usage*.

< Usage\* Media Streamer\* Replay Server Address Mapping **Key Management** >

Key creation interval

☒ All

365 Day(s)

☐ Create key manually

Delay usage

until

0 Day(s)

0 Hour(s)

☐ Key expiration date

after

0 Day(s)

☒ In case of an error switch to simple key management automatically

Save

Reset

Fig. 170: Servers module - tab Key Management

<i>Key creation interval</i>	<p>Select whether a key is supposed to be generated automatically or manually. Select one of the following options:</p> <ul style="list-style-type: none"> <li>• <i>All</i> Select the intervals in which a new key is supposed to be generated automatically. Possible time interval: 1 to 365 days Default value: 365 days</li> <li>• <i>Create key manually</i> Select that a key is supposed to be generated manually.</li> </ul> <p>Old keys which are no longer used for encryption become inactive for the time being. They remain in the database, though, since they are still required for the decryption of old recordings.</p>
<i>Delay usage</i>	<p>If required, enter a time interval during which the new key is not supposed to be used yet after having been created. Not until after this time interval has passed can the key be actually used for encryption.</p> <p>Possible time interval: 0 to 14 days Default value: 0 days (new keys are immediately used for encryption)</p> <p>A delay guarantees that the key has been captured by a database backup before it will actually be used.</p>
<i>Key expiration date</i>	<p>Select whether an inactive key is supposed to become invalid after the expiration of the time interval defined here.</p> <p><input type="checkbox"/> = Key never becomes invalid.</p> <p><input checked="" type="checkbox"/> = Key becomes invalid. In the entry field, enter the time interval after which the key loses its validity. Once this time interval has passed, the key cannot be used anymore. If recording data must be deleted after a certain period of time, this option offers additional security on top of the configured date of deletion. This especially applies to the case when recording data has been transferred manually to a storage location where the deletion mechanism of the system cannot find it.</p>

**CAUTION!** All recordings which have been encrypted with a key which has meanwhile become invalid are useless and cannot be replayed anymore.

*In case of an error ... automatically*

Select whether simple key management is supposed to be used if the neo key management does not work (e. g. if the service *DongleMan* fails). If you have not activated the option, no recording takes place as long as the neo key management has been activated but does not work.

☒ = In case of an error, simple key management is used as replacement.

☐ = In case of an error, no recording takes place as long as the neo key management has been activated. In this case, disable key management in the tab *Usage*.



On top of the settings in this tab, each tenant who would like to use the neo key management has to define individual settings in his own user management (Tenants module).



For information about the configuration refer to the administration manual for tenants *User management tenant*.

### Tab Keystore/Virtualization

1. Click on the tab *Keystore/Virtualization* in the detail view.

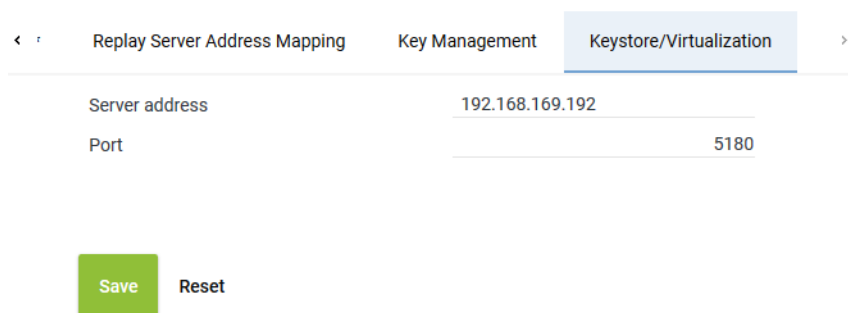
In this tab, you can configure the connection data for the service *DongleMan* for the neo key management and for the authentication of the VM.



If your system has been installed in a virtual environment, the application Dongle Manager must have been installed and started locally outside the VM so that the access to the dongle works. The dongle must have been connected to the server on which the VM has been installed.



For detailed information about neo key management refer to the administration manual *Encryption of recordings*.



Navigation: < Replay Server Address Mapping Key Management **Keystore/Virtualization** >

Server address	192.168.169.192
Port	5180

Buttons: Save Reset

Fig. 171: Servers module - tab Keystore/Virtualization

#### Server address

Enter the address of the server for this connection.

- If you use the neo key management as well as the virtualization:  
IP address of the server that the service *DongleMan* has been installed on.
- If you use only virtualization, you can authenticate the VM via the ASC License Management System, too. In this case, enter the following address:  
*licensing.asc.de*



- If you use only the ASC key management:  
IP address of the server with the master password database

**Port** Enter the port for the connection.  
Default value: 5180

2. To save the settings, click on the button *Save*.  
To discard the settings, click on the button *Reset*.

### 7.1.2.3.3 Create PBX

The PBX can either be configured via the PBX module or via the Integrations module.

In this configuration step, the parameters for the PBX are configured, e. g. the name, the area code and the net code.

1. Select the menu item *Setup > PBX* in the navigation bar.  
⇒ The following window appears:

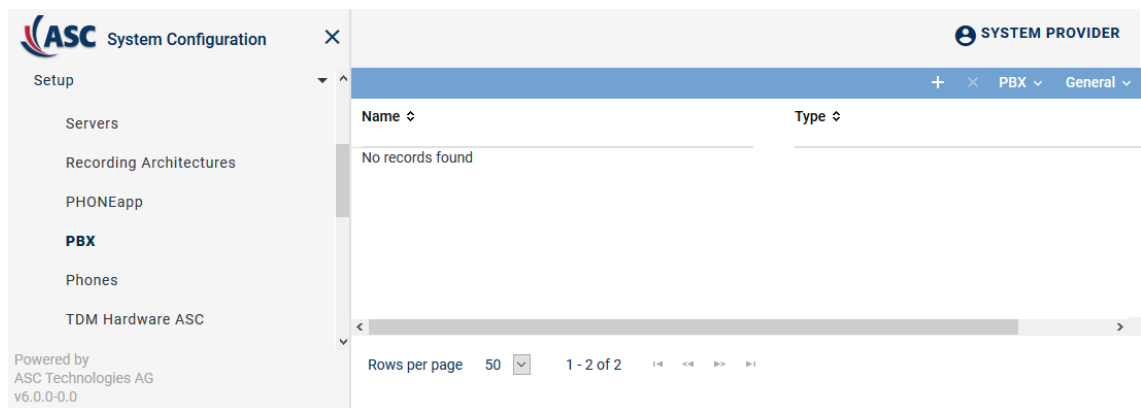




Fig. 172: Create new PBX

### Toolbar of the PBX module

The toolbar offers the following functions.



Fig. 173: Toolbar PBX module


	<i>Create</i>	In the detail view, you can enter the parameters of the new PBX.
	<i>Delete</i>	Deletes the selected PBX configuration. A PBX can only be deleted if it is not used in any configuration.
<i>PBX</i>	<i>Phone Configuration</i>	Opens a window in which you can create and configure phones.
	<i>Administrate Unused Extensions</i>	Opens a window in which you can delete extensions that are not used in any configuration.
<i>General</i>	<i>Print</i>	Prints the table of the main view.
	<i>Adjust Table</i>	Opens a window in which you can adjust the following settings for the main view: <ul style="list-style-type: none"> <li>• <i>Displayed information</i></li> <li>• <i>Order of the displayed columns</i></li> <li>• <i>Number of rows per page</i></li> </ul>

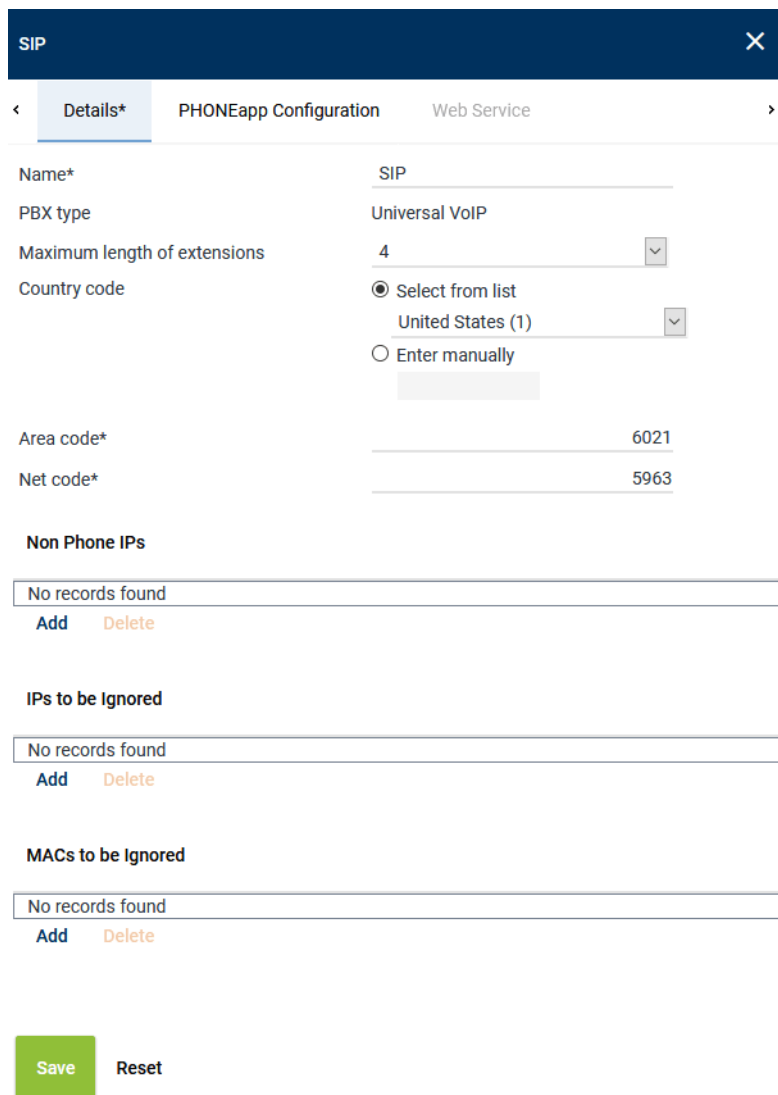
<i>Save Table Configuration</i>	Saves the current table configuration of the main view as default view of the user.
<i>General Help</i>	Opens the online help.
<i>Module Help</i>	Opens the module-specific online help.



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

### Create new PBX

- Click on the icon  (*Create*) in the toolbar of the main view of the PBX module.  
⇒ In the detail view, the tab *Details* appears.



**SIP** [X]

< Details\* PHONEapp Configuration Web Service >

Name\* SIP

PBX type Universal VoIP

Maximum length of extensions 4

Country code ☒ Select from list  
United States (1)

☐ Enter manually

Area code\* 6021

Net code\* 5963

**Non Phone IPs**

No records found  
Add Delete

**IPs to be Ignored**

No records found  
Add Delete

**MACs to be Ignored**

No records found  
Add Delete

Save Reset

Fig. 174: Create new PBX - tab Details

- Set the following parameters in the detail view:

Parameter	Value/Description
<i>Name</i>	This <i>name</i> serves as the identifier of this PBX.
<i>PBX type</i>	Select the type of the <b>PBX</b> from the drop-down list.
<i>Maximum length of the extensions</i>	Enter the number of digits of the extensions, e. g. 4.
<i>Country code</i>	Select the option for the country code:

Parameter	Value/Description
	<ul style="list-style-type: none"> <li>• <i>Select from list</i> Select the country code from the drop-down list.</li> <li>• <i>Enter manually</i> If the corresponding country code is not available in the drop-down list, you can enter the 3-digit code manually. e. g. for Sri Lanka <i>094</i>.</li> </ul>
<i>Area code</i>	Enter the area code without the preceding <i>0</i> , e. g. <i>6021</i> .
<i>Net code</i>	Enter the net code, e. g. <i>5963</i> . Do not enter an extension here.

Tab. 47: Create PBX

If you would like to display the complete phone number, e. g. if you use more than one PBX, several area codes, or if you would like to record mobile phones, you have to configure the value *0* in the following parameters:

Parameter	Value/Description
<i>Maximum length of the extensions</i>	Enter the number <i>0</i> in the field maximum length of the extensions to display the complete phone number.
<i>Area code</i>	Enter the number <i>0</i> as area code to display the complete phone number.
<i>Net code</i>	Enter the number <i>0</i> as net code to display the complete phone number.

Tab. 48: PBX parameters with complete phone number

- To save the settings, click on the button *Save*.  
To discard the settings, click on the button *Reset*.

#### 7.1.2.3.4 Assign recording resources

In multi-tenant systems, you have to assign each tenant its own recording resources.

Depending on the recording type, agents can be assigned to the recording resource via the extension, via the PBX Agent ID or via the chat ID. Within one tenant, you can configure all three possibilities.

#### Assign extensions to tenants

If you would like to make an assignment based on extensions, you can assign the respective tenant the extension designated for recording in the Tenants module.



In 1-tenant systems, all extensions are automatically assigned to the tenant who has been created by the system (1st tenant). Extensions are assigned to the user in the Employees module.

When installing a 1-tenant system, you can skip this chapter.



In multi-tenant systems, you have to assign the extensions manually to each tenant who is supposed to be able to use them. There are multi-tenant systems, too, in which only 1 tenant has been set up.

The manual assignment of extensions is not possible until a PBX has been created since extensions are assigned in relation to the PBX.

- Select the menu item *Tenants* in the navigation bar.

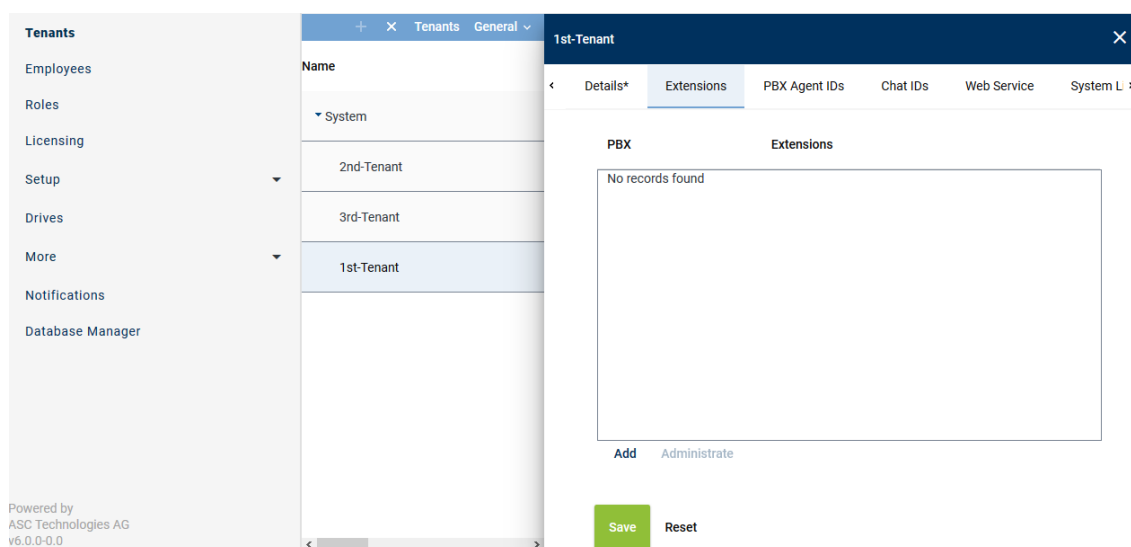


Fig. 175: Tenants - main view - tab Extensions

### Add extensions

1. In the main view, select the tenant to whom you would like to assign extensions.
2. Click on the tab *Extensions*.
3. Click on the button *Add*.  
⇒ The following window appears:

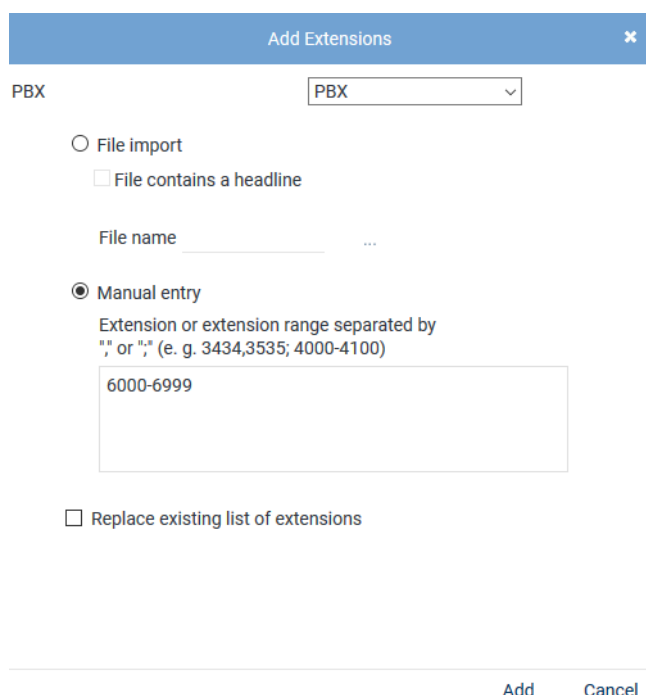


Fig. 176: Assign extensions to tenants

4. From the drop-down list, select the PBX in which the extensions for this tenant have been configured.

#### File import

Select the option to import extensions from an existing file and add them to the table of extensions.

The following file formats are supported:

- ZIP
- TXT

- CSV

**NOTICE! The maximum number of extensions in a file has been limited to 2000 for performance reasons. If more extensions are required, you can import several files.**



*File contains a headline*

Activate this option so that this structured is recognized correctly when importing the file.

The file must not contain more than one column. If commas or other column separators are detected in the file, the file is considered invalid and an error message is displayed.

*File name*

To import the file, proceed as follows:

- Click on the button  behind the field *File name*.
- Click on the button *Choose File*.
- Select the respective file in the Explorer and click on the button *Open*.
- Click on the button  *Upload File*.

*Manual entry*

Select this option to enter extensions or extension ranges manually.

To import number ranges, you must enter the same number of digits for the beginning and the end of the range, e. g. 1-9, 10-99, 01-20, 001-200, 4000-5000. If the end of the range asks for several digits, you have to add zeros for the beginning of the range, e. g. 01-10, 010-100.

Enter country codes as number ranges as follows:

+4984496800--+4984496810

**NOTICE! The number of digits must be equal. Add zeros in front of digits to level up possible incongruences.**

**NOTICE! Wildcards cannot be used!**

*Replace existing list of extensions*

Activate the check box to replace the list of extensions.

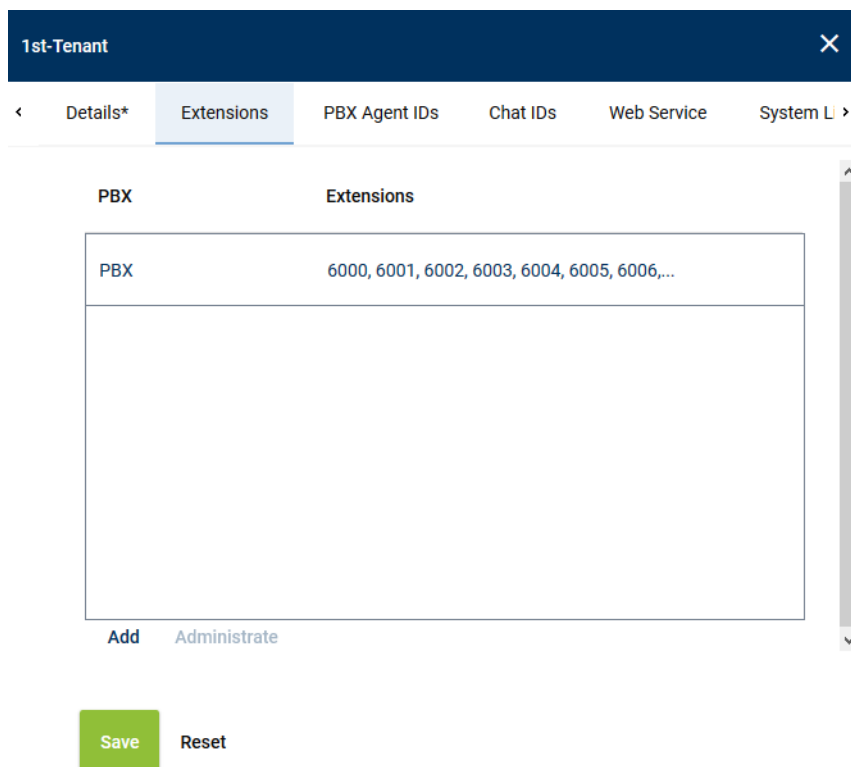
☒ = Function has been activated; the entry replaces the extensions of the selected PBX.

☐ = Function has not been activated; the configured extensions of all PBXs are kept and the new extensions are added to the selected PBX.

- Click on the button *Add*.  
⇒ The extensions are added in the table of extensions.
- If errors have been detected, the window *Result* appears.  
Click on the button *Display Error Report* to open the window *Error Report*.  
To close the window *Error Report*, click on the button *Close*.  
To close the window *Result*, click on the button *Close*.
- The configured extensions now appear in the detail view.
- Click on the button *Save* in the detail view to save the entries.

**Remove extensions**

- In the list, select the **PBX** for which you would like to remove the assigned extensions.



1st-Tenant

< Details\* Extensions PBX Agent IDs Chat IDs Web Service System L >

PBX	Extensions
PBX	6000, 6001, 6002, 6003, 6004, 6005, 6006,...

Add Administrate

Save Reset

Fig. 177: Remove extensions

- Click the button *Administrate*.
- Select one or several extensions you would like to remove from the assignment.  
To select several extensions or to revoke the selection, click on the respective line while holding the [Ctrl] key down.



Administrate Extensions

6993
6994
6995
6996
6997
6998
6999

Remove Cancel

Fig. 178: Select extensions

- To remove the selected extensions, click on the button *Remove*.  
To cancel the process and close the window, click on the button *Cancel*.

#### 7.1.2.3.5 Configure additional data

In the Additional Data module, you can configure the additional data which is delivered for a conversation with a protocol.

For selection fields to appear in the drop-down list, they have to be configured in the Additional Data module.

1. Select the menu item *Setup > Additional Data* in the navigation bar.

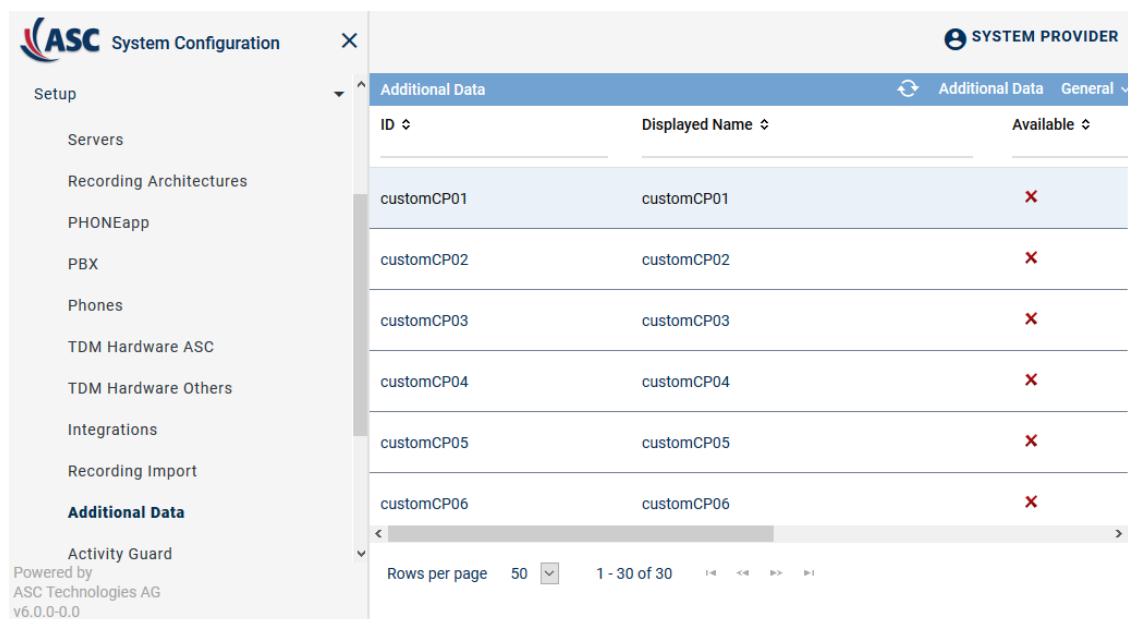


Fig. 179: Additional Data module main view

2. Select a set of data.  
⇒ The detail view displays the information you can configure.

### Change display name







Change Display Name		
Language	Content	
ar_SA	customCP01	
bg_BG	customCP01	
de_DE	Universal Call ID	
en_GB	customCP01	
en_US	Universal Call ID	 

Fig. 180: Configure additional data

1. To change the display name, click on the pen in the line of the language you would like to change.
2. Enter a display name and click on the check mark at the end of the line to confirm the entry.

### Availability

Availability	
Available	<input checked="" type="checkbox"/>
Editable	<input checked="" type="checkbox"/>
External recording control	<input checked="" type="checkbox"/>

Save
Reset

Fig. 181: Additional data - configure availability

1. To make the data field available to the entire system, activate the check box of the option *Available*.
2. To make the data field in the search and replay applications editable later on, activate the check box of the option *Editable*.
3. To be able to use the data field for external recording control, activate the check box of the option *External recording control*. This option is only available if recording control has been activated in the *Servers module* in the tab *Usage*.
4. Click on the button *Save* to save the settings.



For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.



Additional data which is not delivered along with the protocol is not available for further use.

#### 7.1.2.3.6 Create integration for All-in-one Parallel Recording

In the Integrations module, the PBX-related recording settings are configured.

You first have to create and activate a recording architecture to be able to create a integration and to assign it here.

Depending on the recording solution, you additionally have to configure IP addresses, ports, protocols, sniffer cards, CTI connection data, phones, monitor points, and, where required, add-ons.

1. In the navigation bar, select the menu item *Setup > Integrations*.  
⇒ The following window appears:



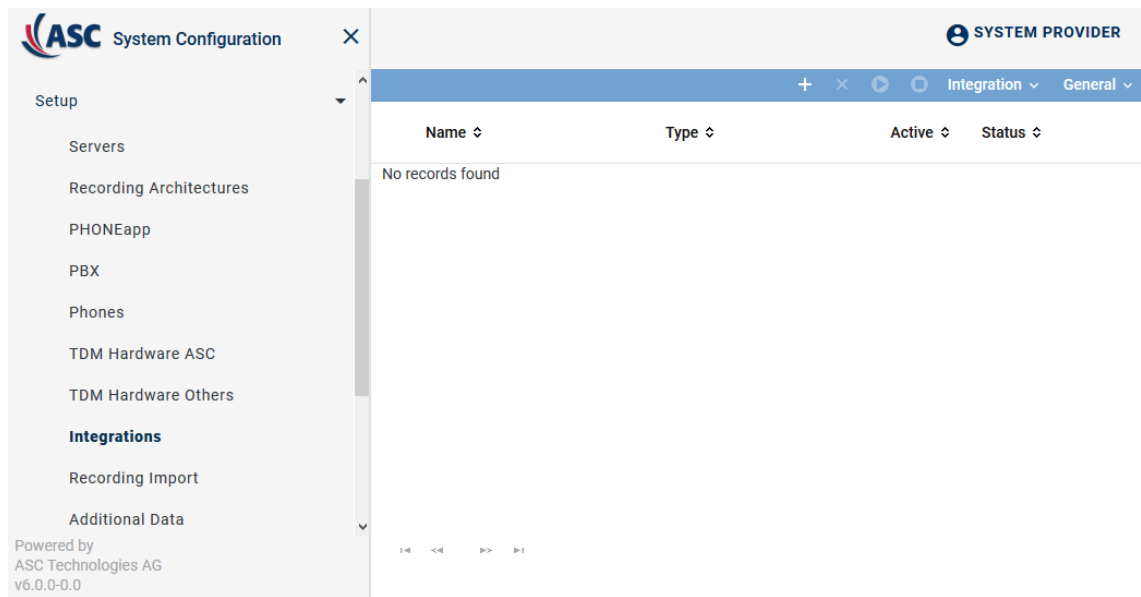




Fig. 182: Integrations - main view

In the table in the main view, the following information is displayed:





<b>Name</b>	Name of the integration
<b>Type</b>	Type of the integration
<b>Active</b>	Shows whether the integration has been activated and is used for the recording. <div> <span>✓</span> = Integration is active, can be deactivated in the toolbar via the icon .         </div> <div> <span>✗</span> = Integration is not active, can be activated in the toolbar via the icon .         </div>
<b>Status</b>	Shows whether the configuration has been carried out completely. <div> <span>✓</span> = Configuration is complete.         </div> <div> <span>✗</span> = Configuration is incomplete.         </div>

### Toolbar of the Integrations module


The toolbar offers the following functions.



Fig. 183: Toolbar Integrations module

	<b>Create</b>	Opens the detail view so that you can create a new integration.
	<b>Delete</b>	Deletes the selected integration. The integration can only be deleted if it has been deactivated.
	<b>Activate</b>	Activates the selected integration. The integration can only be activated if it has been configured completely.
	<b>Deactivate</b>	Deactivates the selected integration. This stops running recordings.
<b>Integration</b>	<b>Import Grammar</b>	By clicking on this menu item, you can import a customized grammar which you can then configure in the configuration step for the CTI connection data.
<b>General</b>	<b>General Help</b>	Opens the online help.
	<b>Module Help</b>	Opens the module-specific online help.

### Assign integration type

- Click on the icon  (*Create*) in the toolbar of the main view to create a new integration.  
⇒ In the detail view, the tab *Integration Type* appears.

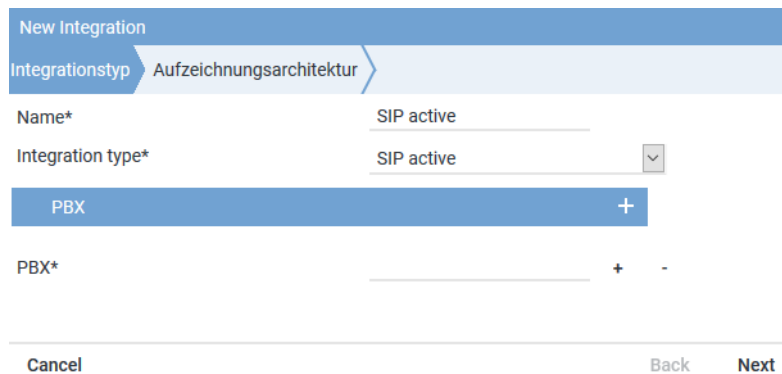



Fig. 184: Create integration type

- Enter the following parameters:

Parameter	Value
<i>Name</i>	In the entry field, enter a descriptive name for the integration. This name is used as the identifier of this integration in the system.
<i>Integration type</i>	Select the entry <i>SIP active</i> from the drop-down list <i>Integration type</i> .

Tab. 49: Create integration type

- To assign the PBX, click on the button  behind the field *PBX*.  
⇒ The window *PBX* appears.

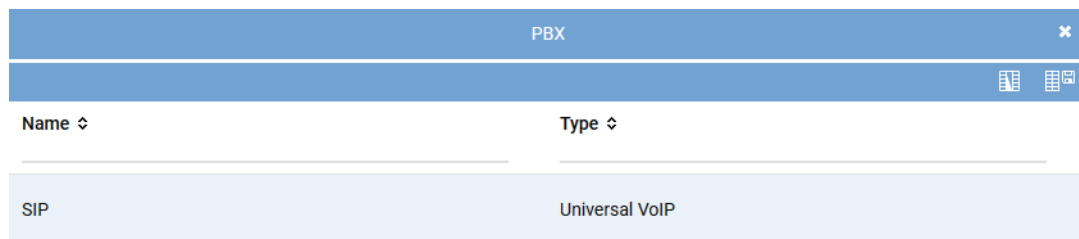
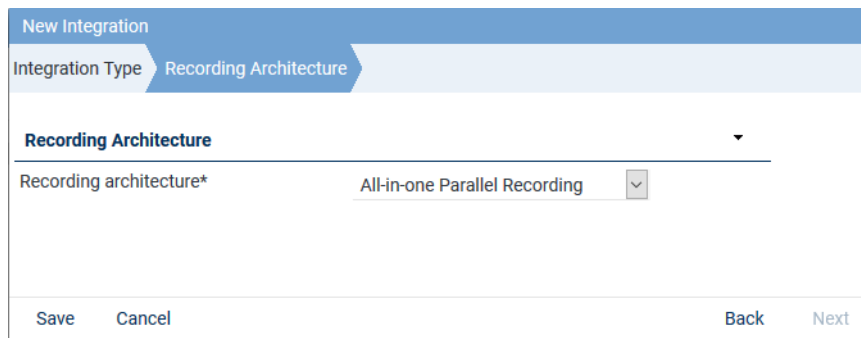



Fig. 185: Select PBX

- Select the respective *PBX* from the list of available PBXs.
- Click on the button *Add*.

### Assign recording architecture for All-in-one Parallel Recording

- In the detail view on the bottom right, click on the button *Next*.  
⇒ The tab *Recording Architecture* appears.



New Integration

Integration Type Recording Architecture

Recording Architecture

Recording architecture\* All-in-one Parallel Recording

Save Cancel Back Next

Fig. 186: Assign recording architecture - All-in-one Parallel

2. Select the respective recording architecture from the drop-down list *Recording architecture*.



Only activated recording architectures in which the appropriate integration type has been configured appear in the drop-down list.


3. Click on the button *Save*.

⇒ The integration now appears in the main view.



When using a recording architecture with parallel recording, the tab *Parallel Recording* appears in the detail view. In this tab, you can adjust the settings for the duplicate detection of parallel configured servers, see [chapter "Duplicates in parallel recording architectures", p. 359](#).

### Configuration steps

1. To complete the configuration of the integration, click on the icon  in front of the name of the new integration.

⇒ The following configuration steps appear:

SIP active


SIP active

Step	Configuration
Configure recording architecture	<div><div>✓</div><div></div></div>
Global recording settings	<div><div></div><div>X</div></div>
Configure recording servers	<div><div></div><div>X</div></div>
Configure add-on	<div><div>✓</div><div></div></div>
Configure miscellaneous settings	<div><div>✓</div><div></div></div>

Fig. 187: Configuration steps of the integration

### Configure recording architecture

The section *Configure recording architecture* has already been configured in previous steps.

1. Click on the button  (*Edit configuration step*) in the line *Configure recording architecture* in the main view to show the configuration.


⇒ In the detail view, the configuration step appears with the information of the assigned recording architecture.



Fig. 188: Configuration step - Configure Recording Architecture

2. Click on the button *Save* to save changes and to finish the configuration step.
3. Click on the button *Cancel* to cancel the configuration step without applying changes.

### Global recording settings for All-in-one Parallel Recording

1. Click on the button  (*Edit configuration step*) in the line *Global recording settings* in the main view.  
⇒ The window *Step: Global Recording Settings* appears.

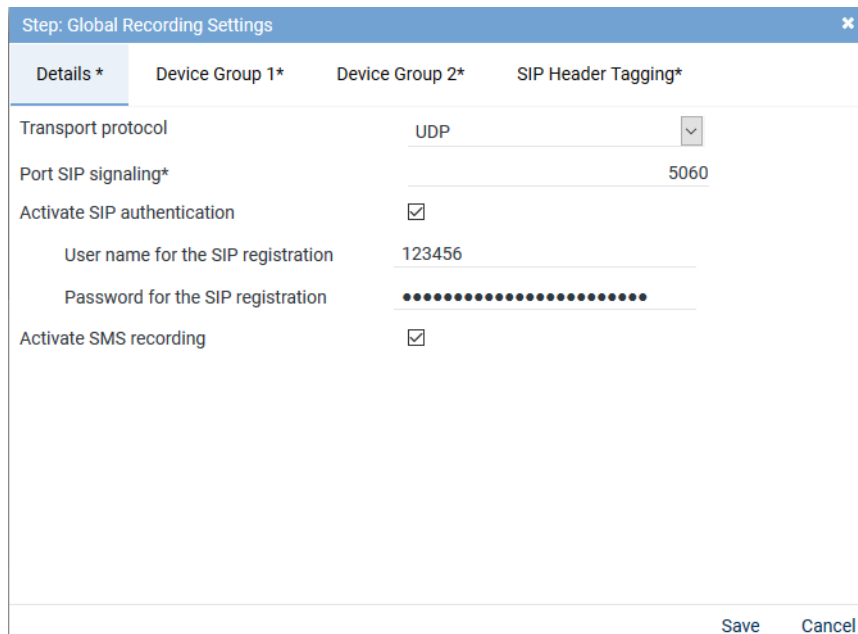


Fig. 189: Configuration step - Global Recording Settings

2. Set the following parameters in the tab *Details*:

Parameter	Value/Description
<i>Transport protocol</i>	From the drop-down list, select the used transport protocol for the SIP signaling between the recording server and the PBX. The following protocols are available: <b>TCP</b> = unencrypted <b>UDP</b> = unencrypted <b>TLS</b> = encrypted
<i>Port SIP signaling</i>	Enter the port for the <b>SIP</b> signaling, where the recording server is expecting the signaling. The default value is <b>5060</b> .
<i>Activate SIP authentication</i>	Activate this option if you would like to use the SIP digest authentication.
<i>User name of the SIP registration</i>	Enter the user name for the <b>SIP</b> registration, e. g. <b>123456</b> .

Parameter	Value/Description
<i>Password of the SIP registration</i>	Enter the password, if an authentication for the <a href="#">SIP</a> registration is used.
<i>Activate SMS recording</i>	Activate the check box if you would like to use SMS recording.

Tab. 50: Global recording settings



To make the registration on the SIP registrar or on the PBX work, SIP authentication as well as the PBX connection have to be activated.

The corresponding parameters have to be assigned to the correct values. In addition, the extensions of the recording server which are supposed to be registered must be configured.

- To save the entries, click on the button *Save*.  
To discard entries, click on the button *Cancel*.

### Tab Device Groups

In parallel recording, you can configure connections to different PBXs.

- Select the tab *Device Group 1* to configure the connection to PBX 1.

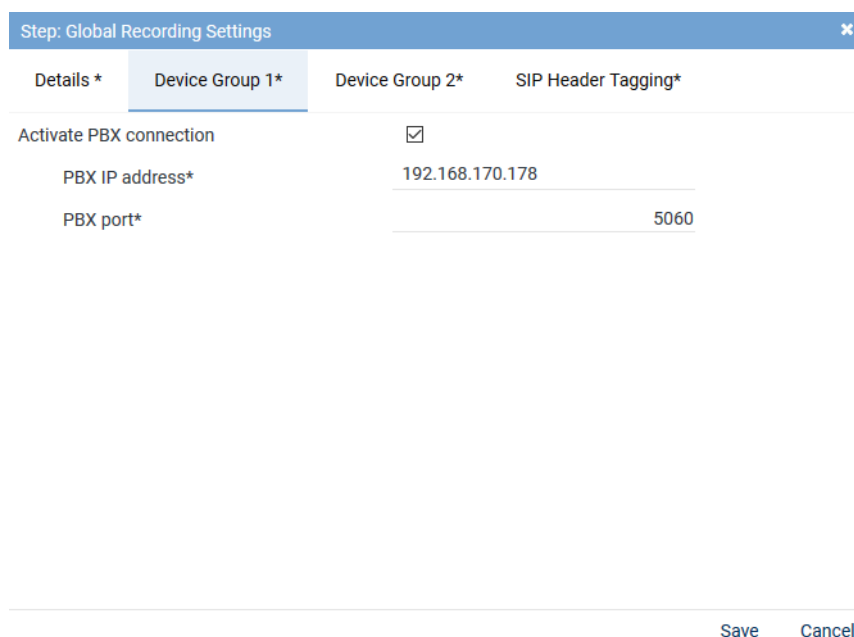


Fig. 190: Configure device group 1

Parameter	Description
<i>Activate PBX connection</i>	Activate the check box to configure the connection data. If the option has been activated, the entry fields for the IP address and the port become active.
<i>PBX IP address</i>	Enter the IP address of the PBX for the first device group.
<i>PBX port</i>	Enter the port of the PBX which is used to communicate with the PBX.

- Select the tab *Device Group 2* to configure the connection to PBX 2.

Step: Global Recording Settings ✕

Details \*    Device Group 1\*    **Device Group 2\***    SIP Header Tagging\*

Activate PBX connection ☒

PBX IP address\* 192.168.170.178

PBX port\* 5060

Save Cancel

Fig. 191: Configure device group 2

Parameter	Description
<i>Activate PBX connection</i>	Activate the check box to configure the connection data. If the option has been activated, the entry fields for the IP address and the port become active.
<i>PBX IP address</i>	Enter the IP address of the PBX for the second device group.
<i>PBX port</i>	Enter the port of the PBX which is used to communicate with the PBX.

- To save the entries, click on the button *Save* in the detail view.  
To reset the entries, click on the button *Reset* in the detail view.

### Tab SIP Header Tagging

- If you would like to configure the SIP header tagging, select the tab *SIP Header Tagging*.

Step: Global Recording Settings ✕

Details \*    Device Group 1\*    Device Group 2\*    **SIP Header Tagging\***

SIP header conference initiator\* FROM\_HEADER ▼

SIP header conference participant

TO\_HEADER  
CONTACT\_HEADER  
FROM\_HEADER  
DIVERSION\_HEADER  
X\_CISCO\_RECORDING  
HISTORY\_INFO

Additional data ⇅ SIP header ⇅

No records found

Add Delete

Save Cancel

Fig. 192: Tab SIP Header Tagging Configure sources

- Enter the following parameters:

Parameter	Value/Description
<i>SIP header conference initiator</i>	Select the SIP header which contains the extension of the conference initiator.
<i>SIP header conference participant</i>	Select the SIP header which contains the extension of the additional conference participants.

Tab. 51: Configure SIP header tagging



It is possible to select several entries; the information is then displayed one after the other in the respective replay application.

To select several entries, highlight the respective entries while holding the [Ctrl] key down. To deselect an entry, click on it again without releasing the [Ctrl] key.

- If you would like to configure individual additional data that you have defined previously in the Additional Data module, click on the button *Add* in the section *Additional data*.

⇒ The window *SIP Additional Data* appears.

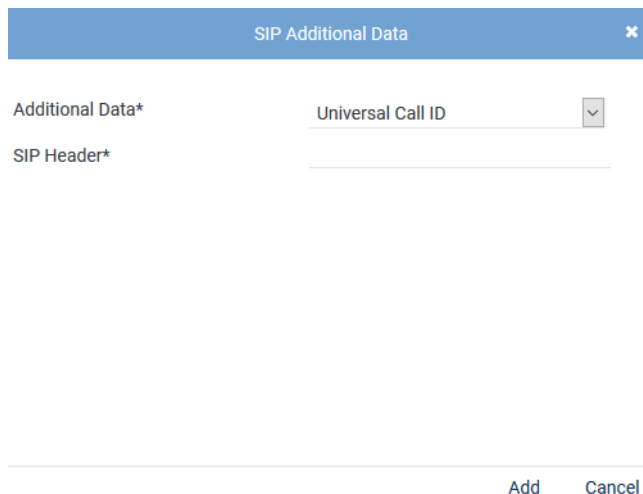


Fig. 193: SIP Additional Data



Only those entries appear in the drop-down list which have been configured in the application System Configuration in the Additional Data module. For further information refer to the administration manual *Additional Data module*.

- Enter the following parameters:

Parameter	Value/Description
<i>Additional Data</i>	In the drop-down list, select the display name of the field in which the information of the SIP header is supposed to be released.
<i>SIP Header</i>	Enter the source from the SIP header from where the information is to be extracted. Observe the correct spelling.


Tab. 52: Configure SIP conversation parameters

- Click on the button *Save* to close the window.
- Click on the button *Save* to finish the configuration in this step.

### Configure recording server for All-in-one Parallel Recording

To guarantee smooth parallel recording, you must configure a port range for both recording servers. The range may be the same for both recording servers. Make sure, though, that the port range lies within the range of ports activated in the firewall, refer to the installation manual Installation requirements in chapter Communication matrix.

This configuration takes place in the configuration step *Configure recording servers*.

1. Click on the button  (*Edit configuration step*) in the line *Configure recording servers* in the main view.

⇒ The window *Step: Configure Recording Servers* appears.

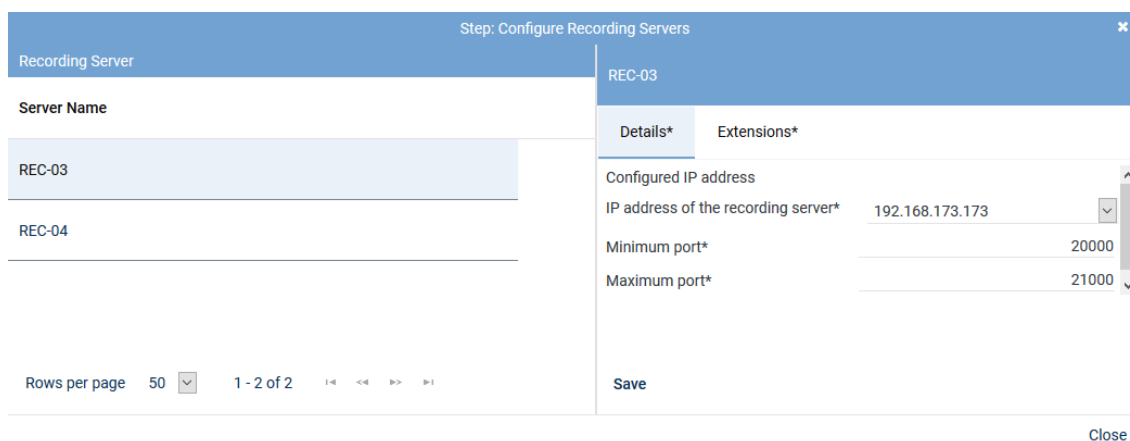


Fig. 194: Configuration step - Configure recording servers

2. Enter the following parameters in the tab *Details*:

Parameter	Value/Description
<i>Configured IP address</i>	Here, the IP address is displayed which has been configured for this recording server and via which the data to be recorded are received.
<i>IP address of the recording server</i>	From the drop-down list, select one of the available IP addresses of the recording server for the recording data.
<i>Minimum port</i>	Enter the lowest port of the port range configured on the PBX that is used to receive the <b>RTP</b> data from the recording server, e. g. <b>20000</b> .
<i>Maximum port</i>	Enter the highest port configured on the PBX that is used to receive the <b>RTP</b> data from the recording server, e. g. <b>21000</b> .

Tab. 53: Configure recording servers



This recording solutions allows recording data streams in stereo. For stereo recording, reckon with 4 ports as only even ports are used to receive **RTP**.

Stereo recording requires more storage space, too.



If you use several active integrations in one recording architecture, you must configure different port ranges for each integration in the configuration step *Configure recording servers*.



If you use several active integrations in one recording architecture, you must configure different port ranges for each integration in the configuration step *Configure recording servers*.



## Tab Extensions

### Configure extensions for SIP trunk

To register the [SIP](#) trunk, you can enter a registration phone number in the tab *Extensions*.

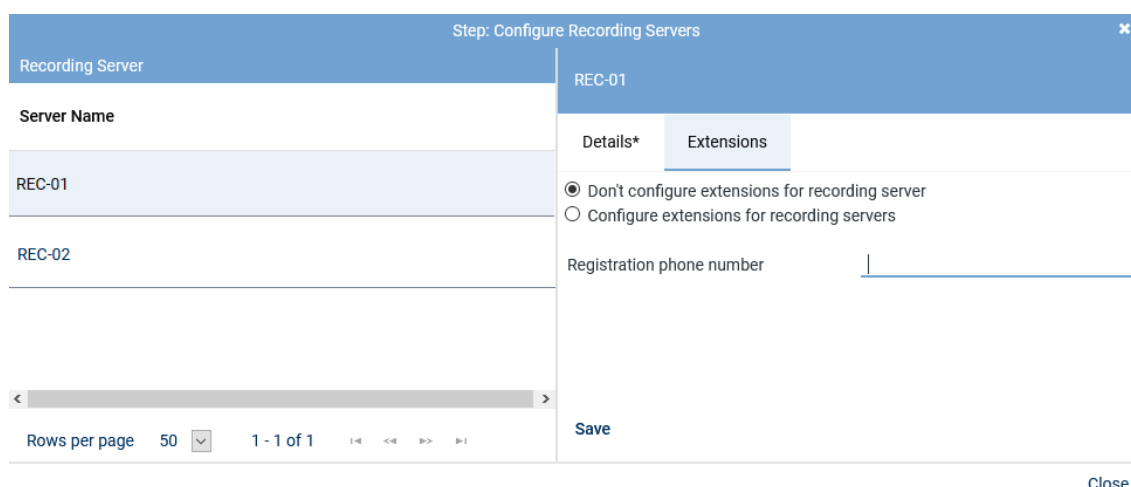


Fig. 195: Recording server - Configure extension for SIP trunk



Ask your provider whether registering 2 servers in parallel mode is supported. To do so, it must be possible to assign a [SIP](#) trunk phone number to 2 different IP addresses at the same time.

**Don't configure extensions for recording server** - Activate this option if you do not have configured extensions for the recording server in the PBX and would like to configure a [SIP](#) trunk phone number instead.



If you do not define a phone number for the [SIP](#) trunk of the recording server, all incoming [SIP](#) connections are accepted without being examined.

**Registration phone number** Enter a registration phone number for the [SIP](#) trunk.

For a successful registration, registration must have been activated in the section *Global recording settings*. The user name and password entered there are used to register the [SIP](#) trunk, see [chapter "Global recording settings for All-in-one Parallel Recording"](#), p. 164.

1. Click on the button *Save*.
2. Click on the button *Close* to finish this configuration step.

### Configure extensions for the recording server

1. If you have defined extensions for the recording servers in the PBX, you can configure these extensions in the tab *Extensions*.

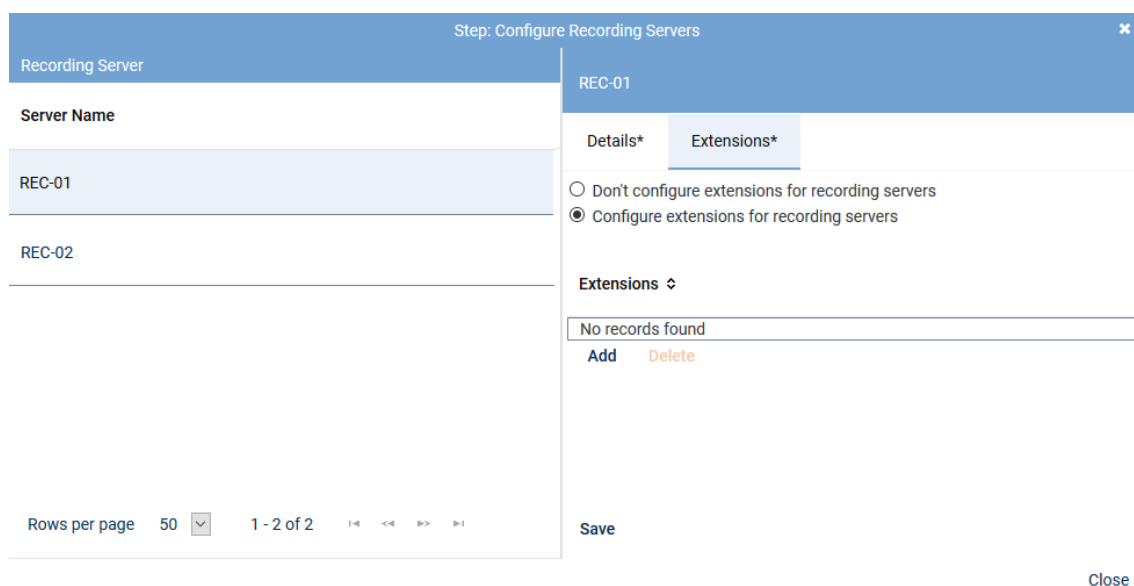


Fig. 196: Tab Extensions

**Configure extensions of the recording server** Activate this option if you have configured extensions for the recording server in the PBX and add the extensions.

- To add extensions, click on the button *Add* in the table *Extensions*.  
⇒ The window *Add Extensions* appears.

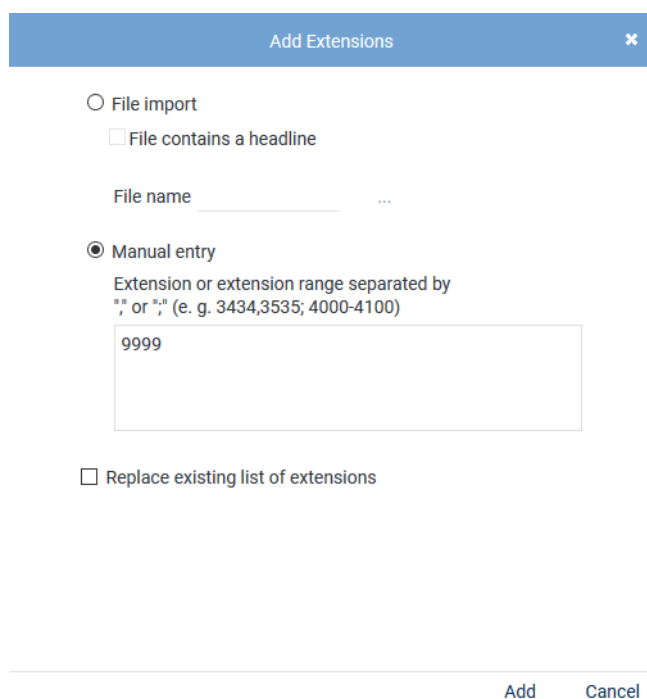


Fig. 197: Add extensions

- In the window *Add Extensions*, enter either a single extension or an extension range that the recording server is to use when registering on the PBX.
- Click on the button *Add*.  
⇒ The extensions are added in the table of extensions.
- If errors have been detected, the window *Result* appears. Click on the button *Display Error Report* to open the window *Error Report*. To close the window *Error Report*, click on the button *Close*. To close the window *Result*, click on the button *Close*.

6. The configured extensions now appear in the detail view.

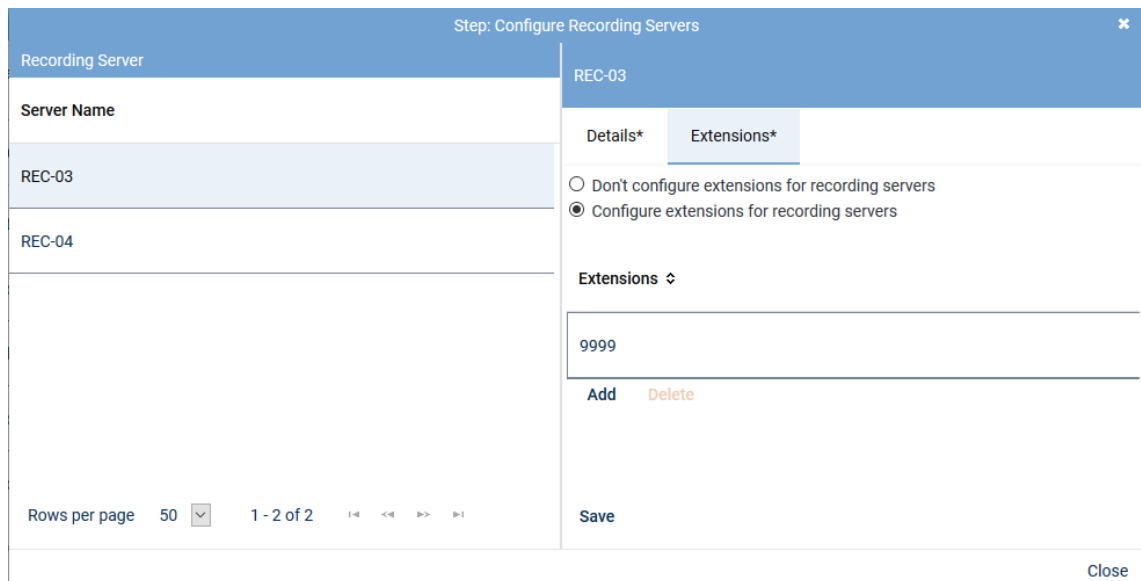


Fig. 198: Added extensions

7. Repeat the steps for additional servers. For each server, configure its own extension or extension range depending on how it can be reached.



In failover architectures, it is recommended to set up a separate extension or extension range for each recording server. If the **SIP** registration timer has expired for the extension for the recording server, problems may occur when switching back to the primary recording server. If the primary recording server displays an error, it is not yet possible to register the **SIP** end-points again.

8. Click on the button *Save*.  
9. Click on the button *Close* to finish this configuration step.

### Configure add-on



The use of the add-on in the integration is optional. The status of this configuration step has been set to *No selection* by default and is considered to be completely configured that way. You can activate and use the integration without an add-on, too.

If you use an application with add-on, you can select the required grammar in the corresponding version in this configuration step. Additionally, you can configure the connection data and the additional data.



The additional data delivered by an add-on supplements the additional data which is delivered by the CTIconnect module of the integration.

### Configure add-on for Sparkassen FI ISP (optional)

The add-on refers to the usage of CTIconnect for Sparkassen FI ISP in the DACH region and only has to be configured if the add-on is used.



The add-on cannot be used in a failover architecture. The application Sparkassen FI ISP cannot connect to more than one IP address.

The integration runs in combination with a PBX and the recording server. The service CTIconnect for Sparkassen FI ISP receives the additional data from the PBX and sends them to the recording server. In addition, the recording decision which is initiated by the user on the end device is processed via CTIconnect for Sparkassen FI ISP and sent to the recording server.

### Sparkassen FI Interaktive Service Plattform

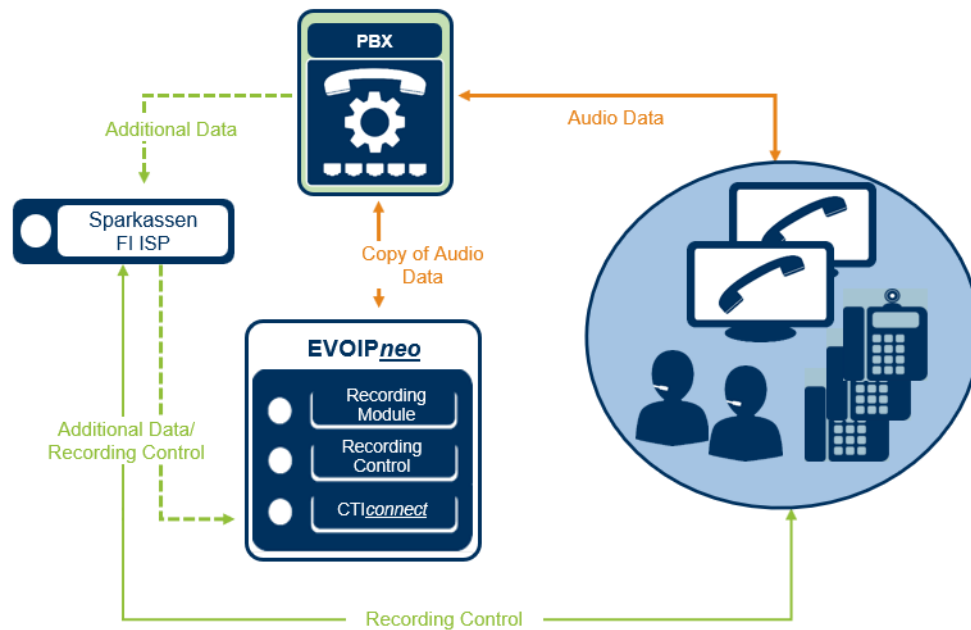



Fig. 199: Overview of Sparkassen FI ISP

#### Configure add-on in the integration

1. To configure the add-on, click on the button  (*Edit configuration step*) in the main view in the line *Configure add-on*.
2. Select the add-on *Sparkassen FI ISP* in the detail view.

Step: Configure Add-on

Details \*

Select add-on  
☐ None  
☒ Sparkassen FI ISP

**CTIconnect Module**

Type	CTIconnect passive	
Grammar name*	ISP Sparkassen FI	▼
Grammar version*	1.00.05	▼

**Connection Data**

Listener port*	3468
----------------	------

**Additional Data**

ID des Call Centers	Call Center ID	▼
ID des Calls aus Genesys	Universal Call ID	▼
Anmeldename des Kunden	User name	▼
Name des Kunden	Customer name	▼
Personennummer des Kunden	Customer ID	▼

Arbitrary assignment
+

	Please select...	▼	⊖
	Please select...	▼	⊖
	Please select...	▼	⊖

Save Cancel

Fig. 200: Configure add-on for Sparkassen FI ISP

### Group field CTIconnect Module

1. Enter the following parameters for the grammar:

Parameter	Value/Description
Type	Is filled automatically.
Grammar name	A default grammar has been preset. If required, select the name of the grammar from the drop-down list.
Grammar version	Select the current version of the grammar from the drop-down list.

Tab. 54: Configure CTIconnect module



For recording control via the add-on of the Sparkassen FI ISP, grammar version 1.00.05 or higher is required. If the grammar in the respective version is not available yet, you can import it. See [chapter "Import grammar", p. 276](#).

### Group field Connection Data

Set the following parameter in the group field *Connection Data*; the IP address for the PBX does not have to be entered, since the PBX connects to our recording server:

Parameter	Value/Description
<i>Listener port</i>	Enter the port that the add-on connects to, e. g. 3468.

Tab. 55: Configure connection data

### Group field Additional Data



This add-on is used exclusively in the DACH region; for this reason the additional data is only available in German, too. The names of the fields refer to the assignment of the strings which are delivered by the interface.

When using CTIconnect for Sparkassen FI ISP, the following additional data is delivered with the protocol:

- *ID of the call center*
- *ID of the call from Genesys*
- *Login name of the customer*
- *Name of the customer*
- *Employee number of the customer*

### Arbitrary assignment

In the section *Arbitrary assignment*, you can configure the additional data which is additionally delivered by the PBX or by an add-on but which is not listed yet. Upon assigning the delivered additional data, it appears in the search and replay applications.



The names of the column headlines which are supposed to appear in the players must be configured and made available in the Additional Data module first.

For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.



The drop-down list only contains those additional data that you have configured and made available in the Additional Data module. The display name then appears in the column headlines in the players.

For more information about the configuration of additional data refer to the administration manual for system providers *Additional Data module*

1. In the group field headline *Additional Data*, click on the arrow ► to expand the group field and to assign the additional data to the data fields of the search and replay applications.

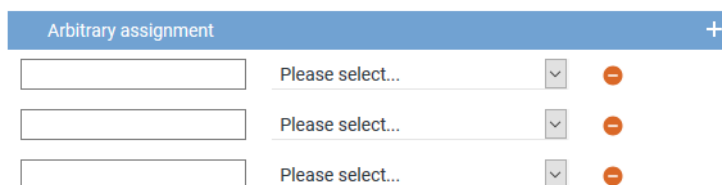



Fig. 201: Arbitrary assignment of the additional data

The following additional data are always available:

- *Start time*
- *End time*
- *Duration*
- *Calling Party Phone Number*
- *Called Party Phone Number*

- *Conversation Direction*
- 2. In the entry field on the left, enter the description of the additional data type from the protocol. Observe the same spelling as it is used in the protocol. The information which is read out of the protocol is displayed in the columns in the players.
- 3. From the drop-down list, select the respective display name that you have configured in the Additional Data module. Only those display names are displayed for which the option *Available* has been activated in the Additional Data module.
- 4. To add a new assignment, click on the icon  (*Create*) in the toolbar of the table.
  - ⇒ An additional row appears to assign another additional data type.
- 5. Click on the button *Save* in the detail view to save the entries and finish this configuration step.

The add-on provides additional data that can be tagged in customer-specific additional data fields (customCP fields). By means of these additional data fields, the respective recording behavior can be reached by means of the recording planner, e. g. recording start beginning with tagging or threat call scenario.



To allow users to control the recording by means of keys, you must configure the recording profile accordingly in the Recording Planner module.



For information about the Recording Planner module refer to the administration manual for tenants *Recording Planner*.


### **Configure add-on for OpenScape Contact Center (optional)**

The add-on refers to the usage of the OpenScape Contact Center and must only be configured if a OpenScape Contact Center is used.

The integration runs in combination with a Unify PBX which is responsible for recording. The CTIconnect service receives the conversation events of the agents via a SDK link in the OpenScape Contact Center and sends the additional data to the EVOIPneo recording service.

For information about the configuration of the OpenScape Contact Center, see [chapter "Configure OpenScape Contact Center \(optional\)", p. 372](#).

### **Configure add-on in the integration**

1. To configure the add-on, click on the button  (*Edit configuration step*) in the main view in the line *Configure add-on*.
2. Select the add-on OpenScape Contact Center in the detail view.

Step: Configure Add-on

Details

Select add-on  
☐ None  
☒ OpenScape Contact Center

**CTIconnect Module**

TypeCTIconnect passive  
Grammar name\*Unify OpenScape Contact Center  
Grammar version\*1.00.04

**Connection Data**

**Connection data**

6000@192.168.170.29

Add Edit Delete

**Additional Data**

Business UnitBusiness Unit  
DepartmentDepartment  
Department KeyDepartment Key  
Call IDUniversal Call ID  
To PartyTo Party  
ACD Group NumberACD Group Number

Arbitrary assignment

Please select...

Please select...

Save Cancel

Fig. 202: Configure add-on for OSCC

### Group field CTIconnect Module

- Enter the following parameters for the grammar:

Parameter	Value/Description
Type	Is filled automatically.
Grammar name	A default grammar has been preset. If required, select the name of the grammar from the drop-down list.
Grammar version	Select the current version of the grammar from the drop-down list.

Tab. 56: Configure CTIconnect module

### Group field Connection Data

In the table Connection Data, you can enter one or several sets of connection data.

If you are configuring several connections, several connections to different business units are established simultaneously in the recording solution with OpenScape Contact Center.

- In the group field *Connection Data* in the table, click on the button *Add*.



⇒ The following window appears:

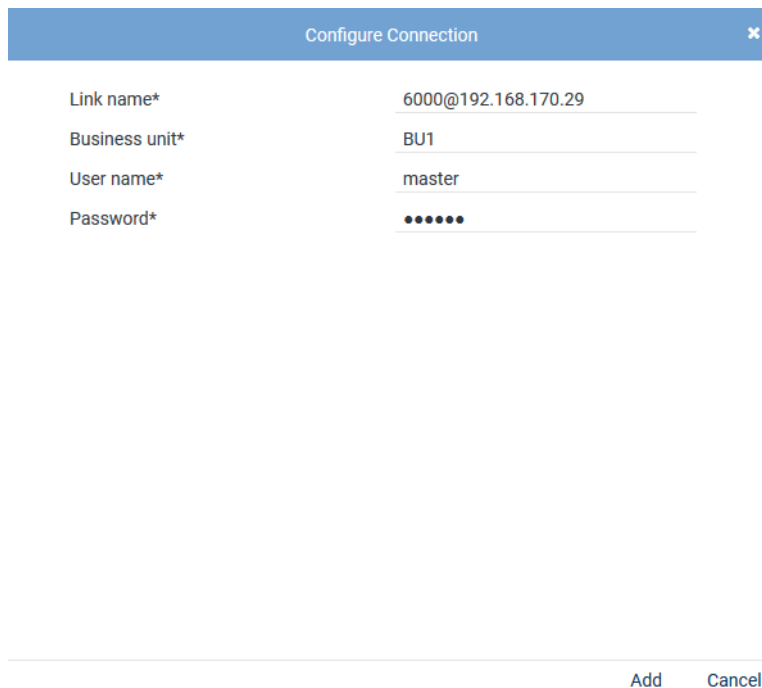


Fig. 203: Configure connection data

2. Enter the following parameters:

Parameter	Value/Description
<i>Link name</i>	Enter the link to the <b>OSCC</b> server in the format <i>osccport@ascserver</i> . The default value for the <b>OSCC</b> port is 6000 and the name of the OSCC server is usually spelled in minor letters. A valid link can look like this: 6000@osccv7r3. Ensure that the server name (e. g. osccv7r3) can be resolved to an IP address. Check whether the address can be reached via the ping command. Alternatively, you can also enter the IP address.
<i>Business unit</i>	The default name of a business unit is <i>default</i> . This is a predefined name for the business unit after a new <b>OSCC</b> server installation. Enter the business unit's actual name you would like to use in the future.
<i>User name</i>	Create a valid user for the business unit that you have created on the <b>OSCC</b> server, so the <b>CTIconnect</b> service can establish the connection to the <b>OSCC</b> server. See <a href="#">chapter "Create user for CTIconnect", p. 372</a> .
<i>Password</i>	Enter the password for the user of the business unit.

Tab. 57: Configure connection data

- Click on the button *Add* to save the entries and to close the window.
- To configure additional connections, repeat the configuration steps accordingly.

### Group field Additional Data

When using **CTIconnect** for Unify OpenScope Contact Center, the following additional data is delivered with the protocol by default:

- *Business unit*
- *Department*
- *Department Key*
- *Call ID*

- *To Party*
- *ACD Group Number*

### Arbitrary assignment

In the section *Arbitrary assignment*, you can configure the additional data which is additionally delivered by the PBX or by an add-on but which is not listed yet. Upon assigning the delivered additional data, it appears in the search and replay applications.



The names of the column headlines which are supposed to appear in the players must have been configured and made available in the Additional Data module previously.

For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.

Here, you can map the database fields for the additional data which is delivered by the [OSCC](#). The contact data of the processed contacts of the OpenScape Contact Center provides a list of key pairs/value pairs. The keyword of this key pair/value pair can be chosen arbitrarily and adjusted customer-specifically. If you would like to use more than one word, avoid spaces. Use underscores instead of spaces, e. g. *ACD\_group*.

1. In the group field headline *Additional Data*, click on the arrow ▶ to expand the group field and to assign the additional data to the data fields of the search and replay applications.

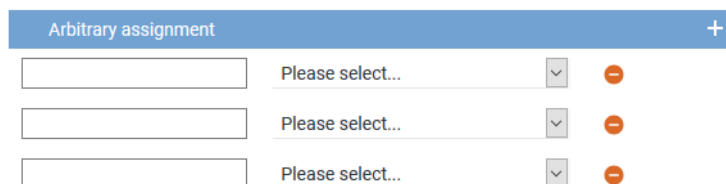




Fig. 204: Arbitrary assignment of the additional data

2. In the entry field on the left, enter the description of the additional data type from the protocol. Observe the same spelling as it is used in the protocol. The information which is read out of the protocol is displayed in the columns in the players.
3. From the drop-down list, select a configured display name of the additional data type which is supposed to appear as column headline in the players. Here, you can only select the display names for the additional data that you have configured and made available in the Additional Data module.
4. To add a new assignment, click on the icon  (*Create*) in the toolbar of the table.  
⇒ An additional row appears to assign another additional data type.
5. To delete an assignment, click on the icon  in the respective row.
6. Click on the button *Save* in the detail view to save the entries and finish this configuration step.

### Configure add-on for Genesys T-Server (optional)

The add-on refers to the usage of Genesys T-Servers and must only be configured if you use Genesys T-Servers.

The integration runs in combination with the PBX and the recording server. The CTI<sup>connect</sup> service receives the information which Genesys T-Server the monitor points have been assigned to from the Genesys Configuration Server. The monitor points must register on the respective Genesys T-Server. Upon successful registration, the respective Genesys T-Server sends all conversation events and additional data of the agents to the recording server.

## CTIconnect for Genesys T-Server

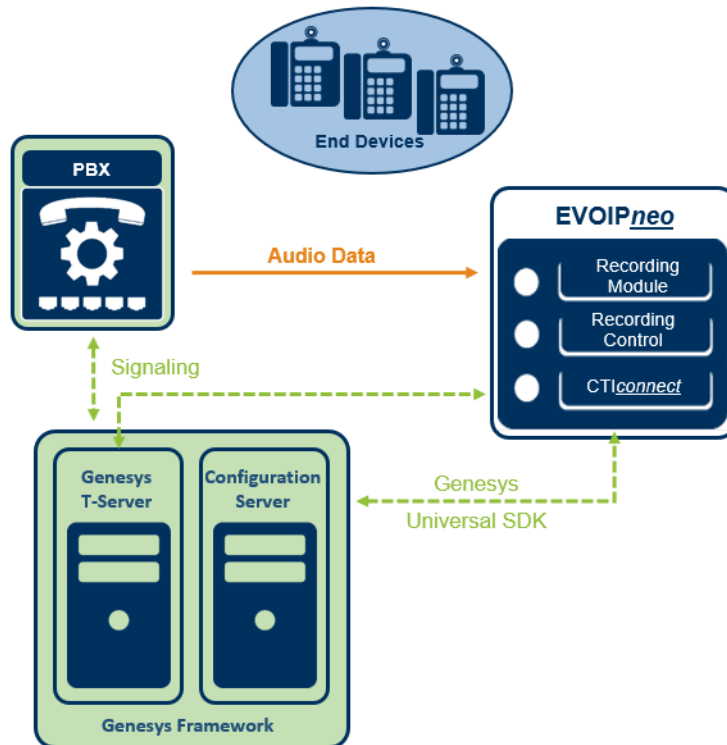


Fig. 205: Overview of the add on of Genesys T-Server



For further information about the configuration of Genesys T-Servers, see [chapter "Configure Genesys T-Server \(optional\)", p. 373](#).

The Genesys add-on uses either a unique call ID or the extension to unambiguously identify the conversations to be recorded.



The additional data delivered by an add-on supplements the additional data which is delivered by the CTIconnect module of the integration.

When using a CTIconnect for Genesys T-Server, a Genesys Framework with T-Servers and Genesys Configuration Servers are required.


By default, the Genesys data field *CallID* has been selected as identifier. If a different data field is supposed to be used for internal control, this can be changed in the configuration file *basic.pif.properties*.

### Adjust configuration file for Genesys add-on

The data field which is supposed to be used by the Genesys add-on is selected by means of the parameter *pifgenesys.call\_identifier*.

1. To adjust the identifier, change to the path  
C:\ASC Product Suite\data\CTIConnectForGenesysT\.
2. Open the file *basic.pif.properties*.
3. Enter the respective data field for the parameter *pifgenesys.call\_identifier*.
4. Save the changes in the file.
5. Restart the recording architecture after completing the change.

### Configure add-on in the integration

1. To configure the add-on, click on the button  (*Edit configuration step*) in the main view in the line *Configure add-on*.
2. In the detail view, select the add-on *Genesys T-Server*.

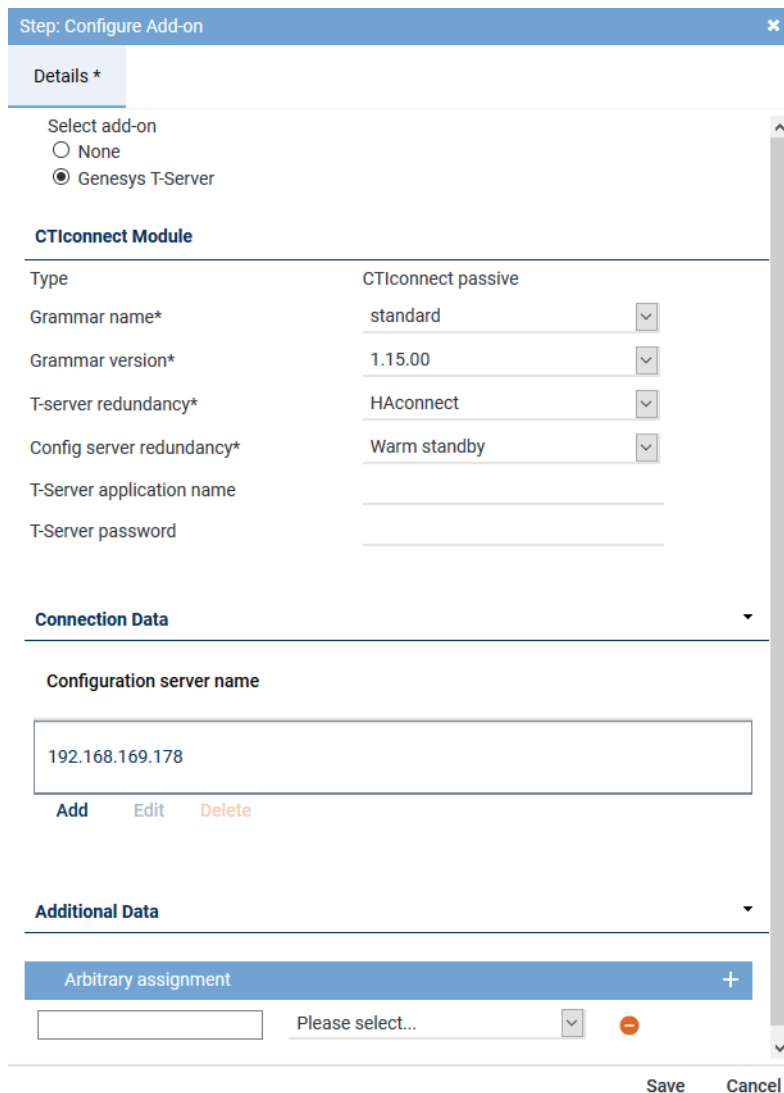


Fig. 206: Configure add-on for Genesys T-Server

### Group field CTIconnect Module

1. Enter the following parameters:

Parameter	Value/Description
<i>Type</i>	Here, the type of the CTI <u>connect</u> module is displayed.
<i>Grammar name</i>	Select the respective grammar.
<i>Grammar version</i>	Select the respective grammar version.
<i>T-server redundancy</i>	Select the redundancy which is used from the drop-down list. <ul style="list-style-type: none"> <li>• <i>No redundancy</i></li> <li>• <i>HAconnect</i> - for High Availability Connection</li> <li>• <i>Warm Standby</i> - for a connectable redundancy</li> </ul>
<i>Config server redundancy</i>	From the drop-down list, select the redundancy which is used for the Configuration Server of Genesys.

Parameter	Value/Description
	<ul style="list-style-type: none"> <li>• <i>No redundancy</i></li> <li>• <i>HAconnect</i> - for High Availability Connection</li> <li>• <i>Warm Standby</i> - for a connectable redundancy</li> </ul>
<i>T-Server application name</i>	<p>This parameter must only be entered, if authentication on the Genesys T-Server is required.</p> <p>Enter the application name that the CTI<u>connect</u> module is supposed to use to log in to the Genesys T-Server.</p> <p>If you use several Genesys T-Servers, the login data must be identical for all servers.</p>
<i>T-Server password</i>	<p>This parameter must only be entered, if authentication on the Genesys T-Server is required.</p> <p>Enter the password that the CTI<u>connect</u> module is supposed to use to log in to the Genesys T-Server.</p> <p>If you use several Genesys T-Servers, the login data must be identical for all servers.</p>

Tab. 58: Configure add-on for Genesys T-Server

### Group field Connection Data

In this group field, you can enter one or several sets of connection data.

1. In the group field *Connection Data* in the table, click on the button *Add*.  
⇒ The following window appears:

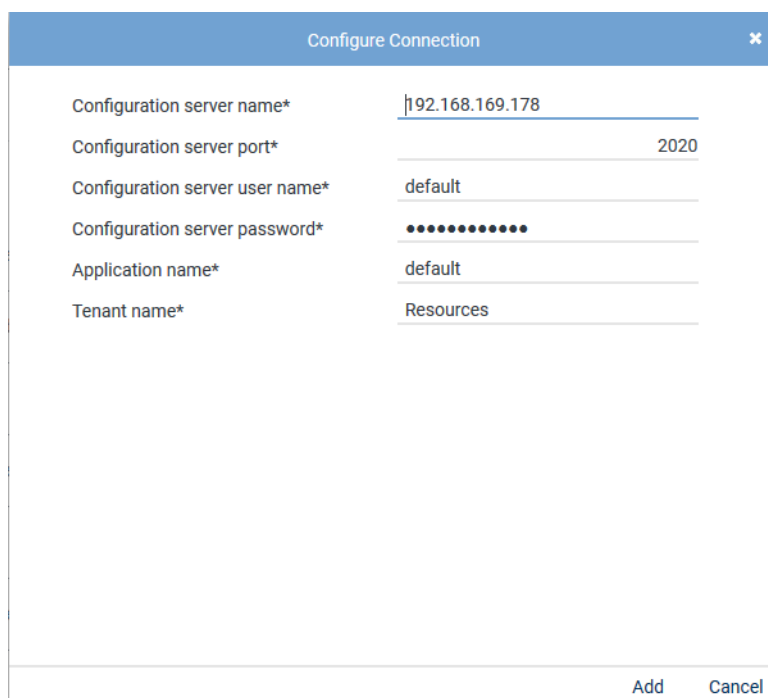


Fig. 207: Configure connection data

2. Enter the following parameters:

Parameter	Value/Description
<i>Configuration Server: Name</i>	Enter the IP address or the name of the computer that the Genesys Configuration Server runs on.
<i>Configuration Server: Port</i>	Enter the port of the Genesys Configuration Server.

Parameter	Value/Description
<i>Configuration Server: User name</i>	Enter the user name to log in to the Genesys Configuration Server.
<i>Configuration Server: Password</i>	Enter the password to log in to the Genesys Configuration Server.
<i>Application name</i>	Enter the application name that the recording servers uses to log in to the Genesys Configuration Server. Default is <i>default</i> .
<i>Tenant name</i>	Enter the name of the Genesys tenant(s) that are supposed to request the configuration data. Default is <i>Resources</i> . Several tenants can be added separated by commas.

Tab. 59: Configure connection data

### Group field Additional Data

The following additional data is delivered by default in the protocol when using Genesys T-Server:

- *CallID*
- *ANI*
- *CallUuid*
- *DNIS*



Further additional data depend on the configuration of the Genesys T-Servers. Check the list *AttributeUserData* in the trace files to find out which further additional data have been delivered by the Genesys T-Servers. Put the addition *UserData* in front of the additional data type when configuring customer-specific additional data, e. g. for *RTargetAgentGroup* you have to configure *UserDataRTargetAgentGroup*.

### Arbitrary assignment

In the section *Arbitrary assignment*, you can configure the additional data which is additionally delivered by the PBX or by an add-on but which is not listed yet. Upon assigning the delivered additional data, it appears in the search and replay applications.



The names of the column headlines which are supposed to appear in the players must be configured and made available in the Additional Data module first.

For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.



The drop-down list only contains those additional data that you have configured and made available in the Additional Data module. The display name then appears in the column headlines in the players.


For more information about the configuration of additional data refer to the administration manual for system providers *Additional Data module*

1. In the group field headline *Additional Data*, click on the arrow ► to expand the group field and to assign the additional data to the data fields of the search and replay applications.

Arbitrary assignment			+
<input type="text"/>	Please select...	▼	⊖
<input type="text"/>	Please select...	▼	⊖
<input type="text"/>	Please select...	▼	⊖

Fig. 208: Arbitrary assignment of the additional data

The following additional data are always available:

- *Start time*
  - *End time*
  - *Duration*
  - *Calling Party Phone Number*
  - *Called Party Phone Number*
  - *Conversation Direction*
2. In the entry field on the left, enter the description of the additional data type from the protocol. Observe the same spelling as it is used in the protocol. The information which is read out of the protocol is displayed in the columns in the players.
  3. From the drop-down list, select the respective display name that you have configured in the Additional Data module. Only those display names are displayed for which the option *Available* has been activated in the Additional Data module.
  4. To add a new assignment, click on the icon  (*Create*) in the toolbar of the table.
    - ⇒ An additional row appears to assign another additional data type.
  5. Click on the button *Save* in the detail view to save the entries and finish this configuration step.

The add-on provides additional data that can be tagged in customer-specific additional data fields (customCP fields). By means of these additional data fields, the respective recording behavior can be reached by means of the recording planner, e. g. recording start beginning with tagging or threat call scenario.




To allow users to control the recording by means of keys, you must configure the recording profile accordingly in the Recording Planner module.



For information about the Recording Planner module refer to the administration manual for tenants *Recording Planner*.

### Configure miscellaneous settings

1. Click on the button  (*Edit configuration step*) in the line *Configure recording servers* in the main view.
  - ⇒ The window *Step: Miscellaneous Settings* appears.

Step: Miscellaneous Settings

×

Details

Dispatcher

Please select...

▼

Save

Cancel

Fig. 209: Configure miscellaneous settings

2. Enter the following parameter:


Parameters	Description
<i>Dispatcher</i>	From the drop-down list, select the previously created additional data field that the participant information is supposed to be connected with.





Only those entries appear in the drop-down list which have been configured in the application System Configuration in the Additional Data module. For further information refer to the administration manual *Additional Data module*.

### Activate integration

The integration can only be activated after the configuration is complete.

If not all configuration steps have been carried out completely, the icon  (*Incomplete*) will appear in the main view, in the line of the created integration, in the column *Status*.

If the configuration has been carried out completely, the icon  (*Complete*) will appear in the line of the respective step, in the column *Configuration*.

If all settings are complete, the icon  (*OK*) will appear in the main view, in the line of the created integration, in the column *Status*.

















+ × ⏮ ⏭ Integration ▾ General ▾			
Name ▾	Type ▾	Active ▾	Status ▾
 SIP active	SIP active		
Step		Configuration	
Configure recording architecture			
Global recording settings			
Configure recording servers			
Configure add-on			
Configure miscellaneous settings			

Fig. 210: Activate integration

1. Mark the integration in the main view, so that the icon  (*Activate*) becomes active in the toolbar.
2. To activate the integration, click on the icon  (*Activate*).  
⇒ In the column *Active*, the icon  (*Active*) appears.




+ × ⏮ ⏭ Integration ▾ General ▾			
Name ▾	Type ▾	Active ▾	Status ▾
 SIP active	SIP active		

Fig. 211: Activated integration





If you use several PBXs, you can create and activate several integrations with the same recording architecture.



If you take advantage of the grace period and there is no valid license file in the system after its expiration, all integrations are deactivated. After uploading a valid license file, you have to activate the integrations again.






Upon activating the standard configuration, a bulk recording will start.

To restrict the recording to particular end devices, the tenant can configure the Recording Planner in the System Configuration accordingly.

### Deactivate/Delete integration

To be able to delete an integration, it has to be deactivated.

- To deactivate the integration, click on the icon  (*Deactivate*) in the toolbar.
  - ⇒ In the column *Active*, the icon  (*Inactive*) appears.
  - ⇒ The icon  (*Delete*) becomes active in the toolbar.







+ ×   Integration ▾ General ▾			
Name ↕	Type ↕	Active ↕	Status ↕
 SIP active	SIP active		

Fig. 212: Deactivate integration

- Click on the icon  (*Delete*) and confirm the security prompt to delete the integration.

## 7.1.2.4 Configure recording solution Multi-Server Recording

### 7.1.2.4.1 Create recording architecture

Start the configuration in the Recording Architectures module because an activated recording architecture is required for further configuration.

The recording servers, recording types, and the integration types are assigned in the Recording Architectures module.

- Select the menu item *Setup > Recording Architectures* in the navigation bar.
  - ⇒ The following window appears:

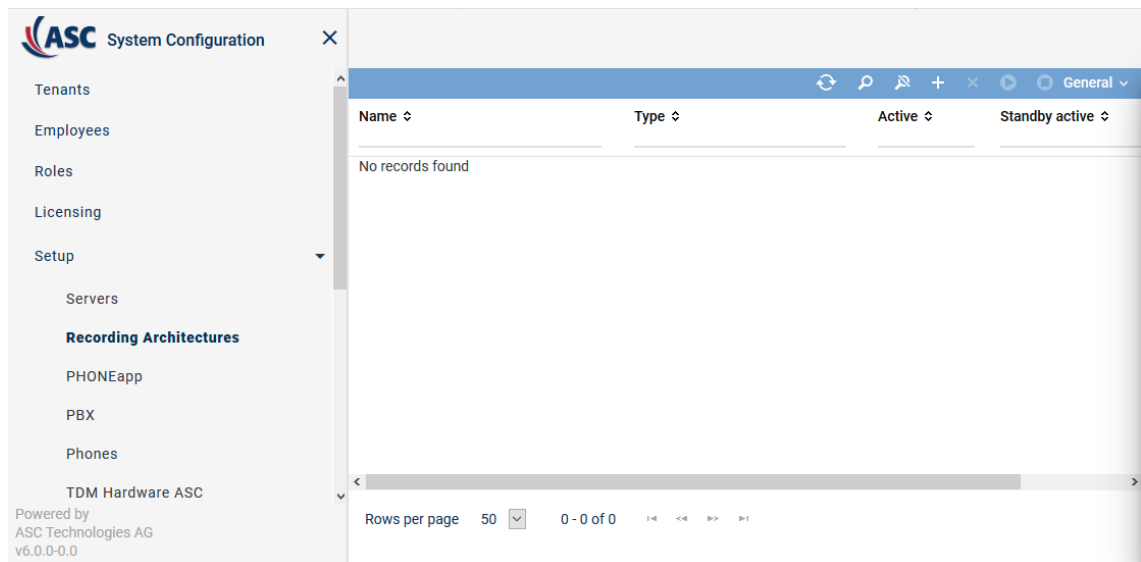




Fig. 213: Recording architectures - main view

<b>Name</b>	Name of the recording architecture
<b>Type</b>	Type of the recording architecture
<b>Active</b>	Shows whether the recording architecture has been activated and is ready to be used for the recording. <div> <span>✓</span> = Recording architecture is active and ready to be used for recording. It can be deactivated by clicking on the icon  (<i>Deactivate</i>) in the toolbar.  <span>✗</span> = Recording architecture is not active. It can be activated by clicking on the icon  (<i>Activate</i>) in the toolbar. </div>
<b>Standby Active</b>	Shows whether the standby server is active for one or several recording components in the recording architecture. <div> <span>✓</span> = At least 1 standby server is active.  <span>✗</span> = No standby server is active or no standby server has been defined. </div>
<b>Creation Date</b>	Date on which the recording architecture was installed.
<b>Updated</b>	Date on which the settings of the recording architecture were updated for the last time.





**NOTICE!** Hidden columns can be added by clicking on the menu item *General > Adjust Table*.





### Toolbar of the Recording Architectures module

The toolbar offers the following functions.



Fig. 214: Toolbar Recording Architectures module

	<b>Refresh</b>	Refreshes the main view.
	<b>Search</b>	Opens the window of the search function. The search function allows searching systematically for sets of data which meet certain criteria.  The icon  is displayed whenever the search has been adjusted by means of a filter.
	<b>Reset search</b>	Resets all search filters so that the main view displays all data sets again.


	<i>Create</i>	Creates a new recording architecture.
	<i>Delete</i>	Deletes the selected recording architecture. The recording architecture is removed from the list of the main view. <b>NOTICE!</b> You can only delete recording architectures which are inactive and have not been assigned to an integration or server for the import.
	<i>Activate</i>	Activates the selected recording architecture.
	<i>Deactivate</i>	Deactivates the selected recording architecture. <b>NOTICE!</b> You can only deactivate recording architectures which have neither been assigned to an active integration nor to an active import.
<i>Recording Architectures</i>	<i>Standby management</i>	The menu item is only available for recording architectures with failover possibilities. By clicking on the menu item Standby Management, you can open a window in which you can manually define the active server in architectures with failover concepts.
<i>General</i>	<i>Print</i>	Prints the table of the main view.
	<i>Adjust Table</i>	Opens a window in which you can adjust the following settings for the main view: <ul style="list-style-type: none"> <li>• <i>Displayed information</i></li> <li>• <i>Order of the displayed columns</i></li> <li>• <i>Number of rows per page</i></li> </ul>
	<i>Save Table Configuration</i>	Saves the current table configuration of the main view as default view of the user.
	<i>General Help</i>	Opens the online help.
	<i>Module Help</i>	Opens the module-specific online help.



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

### Create recording architecture Multi-Server Recording

If there are several recording servers which are supposed to record different tracks, you have to create a recording architecture of the type *Multi-Server Recording*.

1. To create a new recording architecture, click on the icon  (*Create*) in the toolbar of the main view.

⇒ The window *New Recording Architecture* appears.

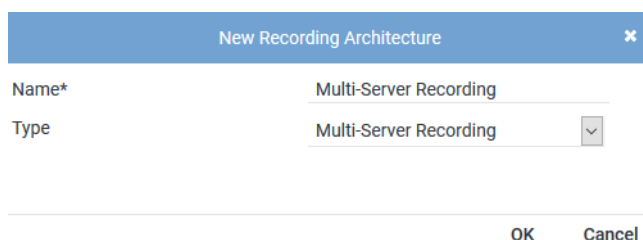


Fig. 215: Create recording architecture - Multi-Server Recording

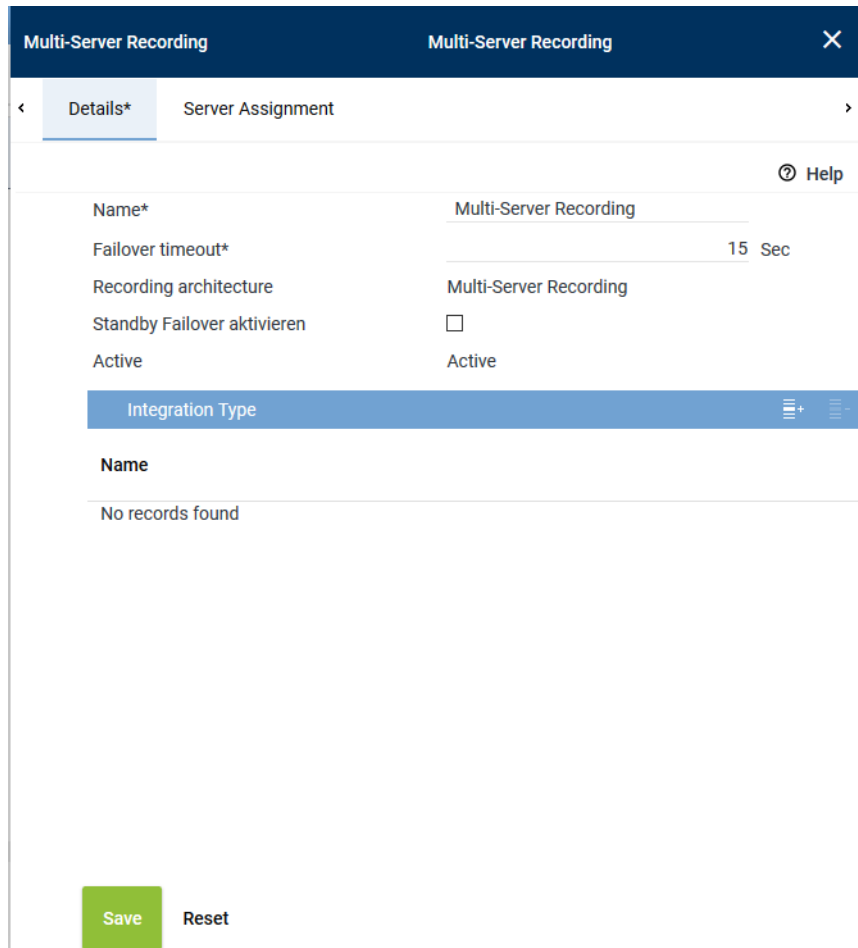
2. In the entry field *Name*, enter a descriptive name for the recording architecture.

- From the drop-down list *Type*, select the recording architecture type *Multi-Server Recording*.

**NOTICE!** The drop-down list only displays the supported recording architecture types.

- Click on the button *OK*.

⇒ Your entries now appear in the detail view.



The screenshot shows a configuration window titled "Multi-Server Recording" with a close button (X) in the top right. Below the title bar, there are two tabs: "Details\*" (selected) and "Server Assignment". A "Help" icon is visible in the top right of the main area. The configuration fields are as follows:

Name*	Multi-Server Recording
Failover timeout*	15 Sec
Recording architecture	Multi-Server Recording
Standby Failover aktivieren	<input type="checkbox"/>
Active	Active


Below these fields is a section titled "Integration Type" with a toolbar containing icons for adding, deleting, and refreshing. Underneath, there is a "Name" label and a message "No records found". At the bottom left, there are "Save" and "Reset" buttons.

Fig. 216: Recording architecture - tab Details - Multi-Server Recording

As standby components may have been configured for the different active recording servers, a failover timeout may be configured in this recording architecture.

- Enter a failover timeout of a minimum of 15 seconds after which the failover process is supposed to start. Depending on the system architecture it may make sense to configure a longer timeout period. The timeout defines the elapse time until the failover process starts. If the status returns to *OK* within this time, then the failover process is not triggered.

### Add integration type

- Click on the icon  (*Add*) in the toolbar of the list *Integration Type*.  
⇒ The window *Integration Type* appears.

Integrationstyp

Name

SIP active

Hinzufügen

Abbrechen

Fig. 217: Select integration type



Only those integration types are displayed which have a license in the system and which support the selected architecture type.



Any number of integration types can be assigned to a recording architecture.

2. Select *SIP active* from the list of the available integration types and click on the button *Add*.  
⇒ The name of the integration type now appears in the list in the detail window.

### **Assign servers for Multi-Server Recording**

1. Click on the tab *Server Assignment* to configure the distribution of the recording components for the *Multi-Server Recording* recording architecture.

### **Group field Recording Control and CTIconnect**

In this group field, you can configure recording control. You can configure two different servers for this purpose or select the same server.

Multi-Server Recording

Multi-Server Recording

×

<

Details\*

Server Assignment\*

>

Recording Control and CTIconnect

▼

Recording Control*	RC-01	+	-
Used in activated architecture	No		
CTIconnect*	CTI-01	+	-
Used in activated architecture	No		

Recording Server

▼

<

Recording Server

+

✎

☰

Server ↕


Standby ↕

REC-01	REC-02
--------	--------

Save

Reset

Fig. 218: Recording Architecture - tab Server Assignment

- Click on the button  behind the entry field *Recording control*.  
⇒ The window *Servers* appears.

Servers

Name	IP Address	Path
RC-02	192.168.173.176	C:\
REC-01	192.168.173.171	C:\
REC-04	192.168.173.174	C:\
REC-02	192.168.173.172	C:\
RC-01	192.168.173.175	C:\
CTI-01	192.168.173.177	C:\
CTI-02	192.168.173.178	C:\

<

>

Rows per page

20

1 - 8 of 8


<<

>>

Add

Cancel

Fig. 219: Recording Architecture - assign server - example


2. Select the server for the *recording control module*.
3. Click on the button *Add*.  
⇒ The name of the server now appears in the detail view.
4. To delete an assignment, click on the button .



A server can be configured in several recording architectures, but you cannot activate several recording architectures with the same server at the same time.  
If you would like to activate several recording architectures at the same time, you have to use different servers to do so.

5. Repeat the steps and select the server for the *CTIconnect module* in the entry field *CTIconnect*.

### Group field Recording Server

1. In the table headline *Recording Server*, click on the icon .
- ⇒ The following window appears:

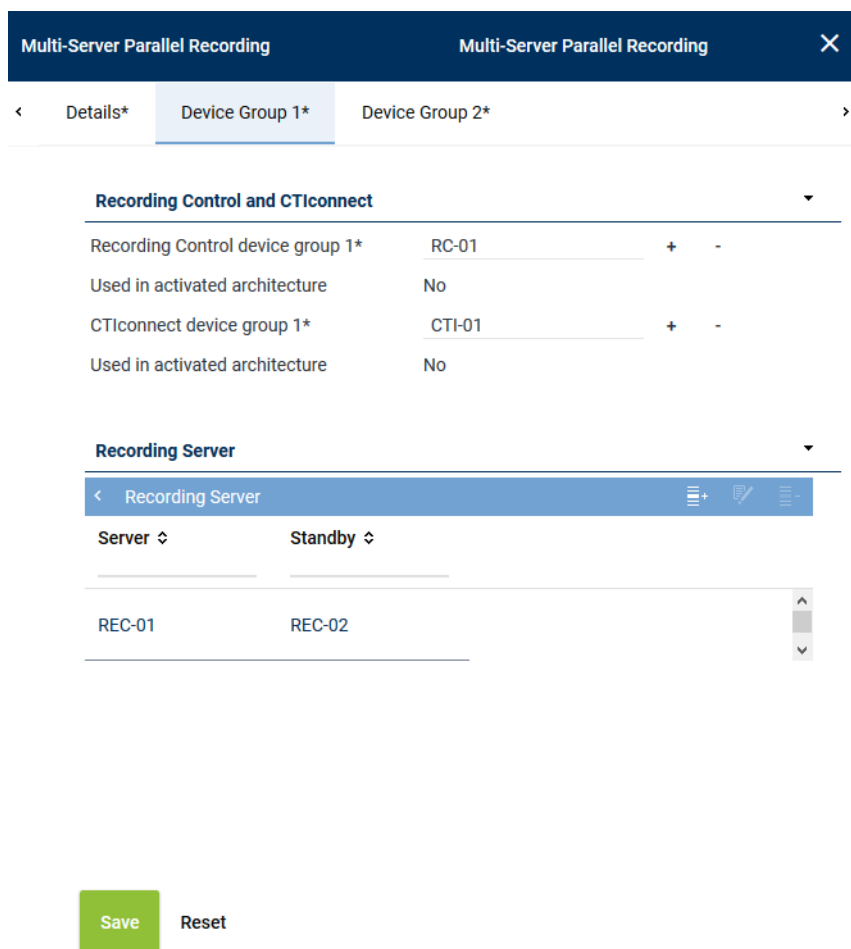









Fig. 220: Add Recording Server

2. As described in the previous steps, go to the entry field *Primary server* and click on the icon  to select the primary server on which the recording is supposed to run.
3. In the entry field *Standby server*, click on the icon  to select the standby server which is supposed to take over recording in case of an error.

4. Select the recording type you would like to use for these servers by activating the check box.  
**NOTICE!** You can activate several recording types if the integration has been designed for this and if you have installed the respective licenses.
5. Click on the button *OK* to close the window.  
⇒ The name of the server now appears in the detail view.
6. To edit the assignment subsequently, click on the icon .  
To delete an assignment, click on the icon .
7. If you would like to add further recording servers, repeat the steps described above.

#### Activate recording architecture

1. Once all servers have been assigned, click on the button *Save*.
2. Select the recording architecture in the main view so that the icon  (*Activate*) in the tool-bar becomes active.
3. To activate the recording architecture, click on the icon  (*Activate*).  
⇒ In the column *Active*, the icon  (*Active*) appears.










     Recording Architecture ▾ General ▾			
Name ▾	Type ▾	Active ▾	Standby active ▾
Multi-Server Recording	Multi-Server Recording		

Fig. 221: Recording architecture - activate recording architecture

4. To deactivate the recording architecture, if required, click on the icon  (*Deactivate*).  
⇒ In the column *Active*, the icon  (*Inactive*) appears.



The recording architecture must have been activated so that the integration can be configured.



For updates, the recording architecture is stopped and deactivated. Once the update has been completed, check that the recording architecture has been activated again.



If you install an add-on for the integration subsequently, you must deactivate the recording architecture and activate it again after having installed the license.

#### 7.1.2.4.2 Configure servers

Every server in your network that the *neo* software has been installed on is automatically identified as a server of the recording system and displayed in the main view of the Servers module. In the Servers module, you can configure the usage of the servers in your recording system.

1. Select the menu item *Setup > Servers* in the navigation bar.  
⇒ The following window appears:



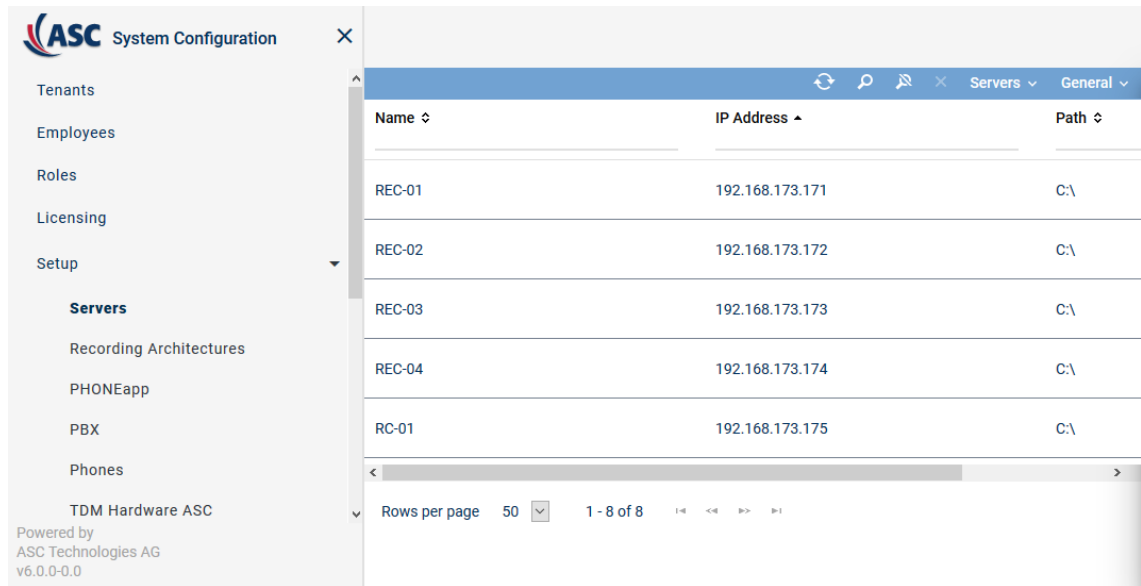


Fig. 222: Servers - main view

Depending on the configuration of the columns, the following information is displayed in the main view:

<i>Name</i>	Shows the name of the server.
<i>IP Address</i>	Shows the <a href="#">IP</a> address of the server.
<i>Path</i>	Shows the path of the server.
<i>Creation Date</i>	Date on which the server was installed.
<i>Updated</i>	Date on which the settings of the server were updated for the last time.

**NOTICE!** Hidden columns can be added by clicking on the menu item *General > Adjust Table*.

### Toolbar of the Servers module

The toolbar offers the following functions.

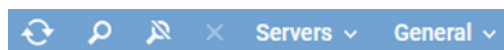







Fig. 223: Toolbar Servers module

	<i>Refresh</i>	Refreshes the main view.
	<i>Search</i>	Opens the window of the search function. The search function allows searching systematically for sets of data which meet certain criteria.  The icon  is displayed whenever the search has been adjusted by means of a filter.
	<i>Reset search</i>	Resets all search filters so that all sets of data are displayed in the main view again.
	<i>Delete</i>	Deletes the selected server configuration.  This function is meant to delete the server configuration if the hardware of a server has been removed and there is no connection to the <a href="#">neo</a> system.
<i>Servers</i>	<i>Administrate Server Locations</i>	Opens a window in which you can create and administrate locations of the servers, see <a href="#">chapter "Administrate server locations"</a> , p. 194.

	<i>Administrate NTP server</i>	Opens a window in which you can administrate the servers for the time synchronization, see <i>Administrate NTP server</i> .
	<i>Manage Synchronization Configurations</i>	Opens a window in which you can manage the synchronization configurations.
<i>General</i>	<i>Adjust Table</i>	Opens a window in which you can adjust the following settings for the main view: <ul style="list-style-type: none"> <li>• <i>Displayed information</i></li> <li>• <i>Order of the displayed columns</i></li> <li>• <i>Number of rows per page</i></li> </ul>
	<i>Save Table Configuration</i>	Saves the current table configuration of the main view as default view of the user.
	<i>General Help</i>	Opens the online help.
	<i>Module Help</i>	Opens the module-specific online help.



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

### Administrate server locations

You can create and manage a list of server locations. In the tab *Details*, you can assign locations to the servers.

#### Add server locations

- Click on the menu item *Servers > Administrate Server Locations* in the toolbar of the main view.  
⇒ The window *Server Locations* appears.

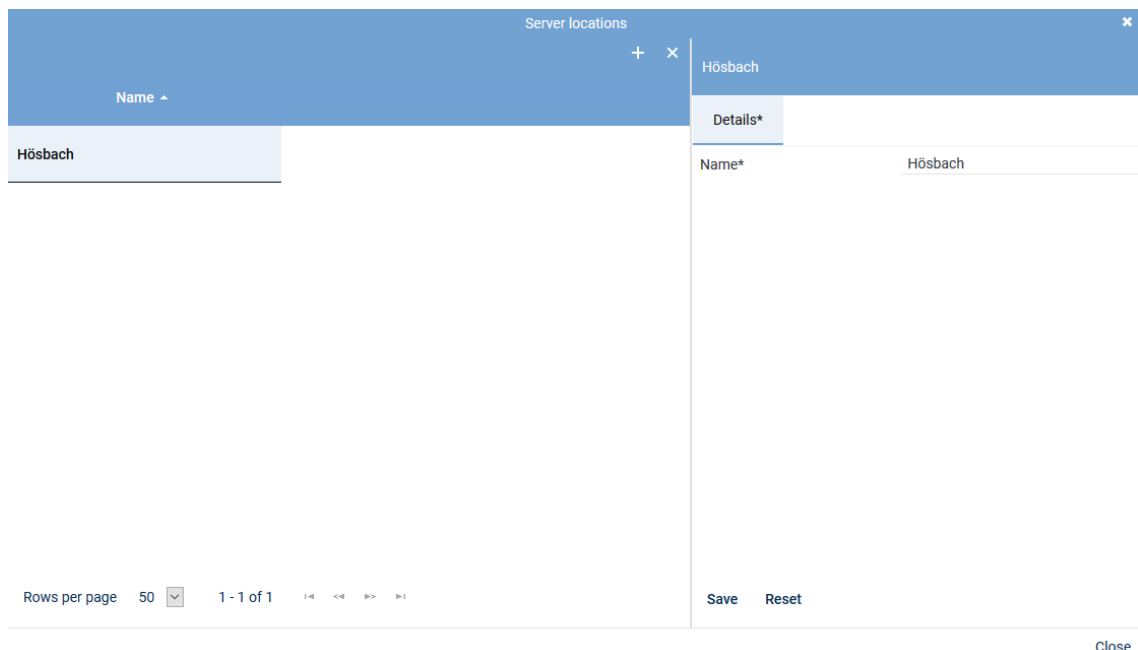



Fig. 224: Add server locations

- Click on the icon  (*Create*) in the toolbar of the window *Server Locations*.
- Enter the name of the location on the right side in the tab *Details*.
- To save the entry, click on the button *Save*.  
To discard the entry, click on the button *Reset*.

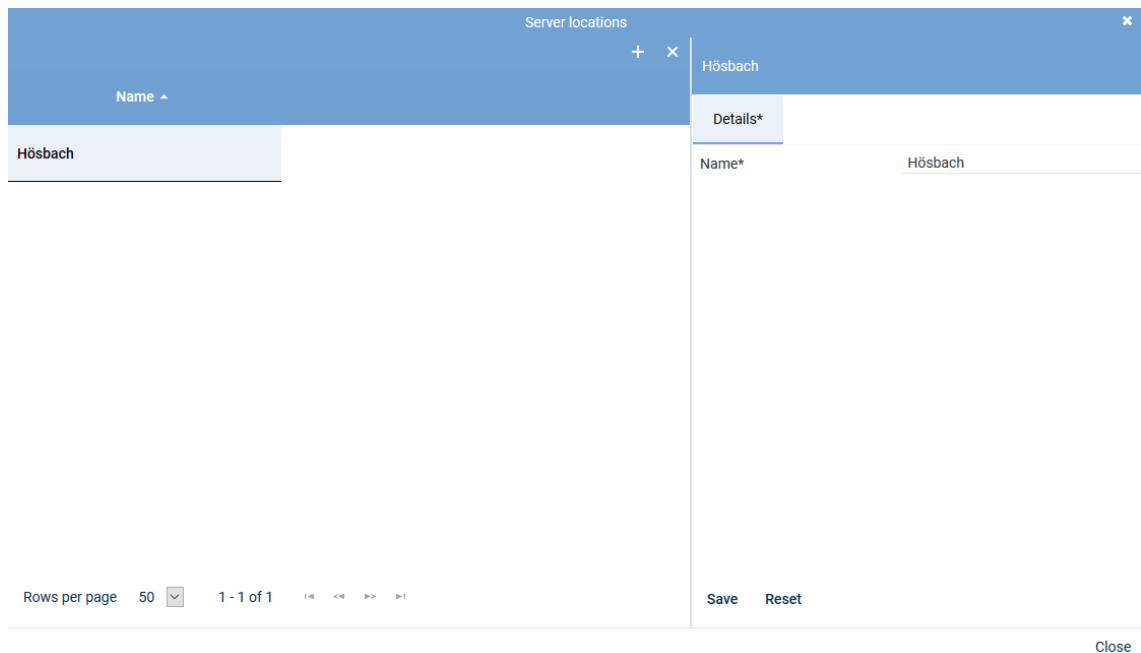
5. To add further locations, repeat the last 3 steps.
6. To close the window, click on the button *Close*.

### Delete server location




A server location can only be deleted when it has not been assigned. To be able to delete a server location, you must first delete possible assignments.

1. Click on the menu item *Servers > Administrate Server Locations* in the toolbar of the main view.  
⇒ The window *Server Locations* appears.
2. Select the location you would like to delete.



The screenshot shows a window titled "Server locations" with a close button (x) in the top right corner. Below the title bar is a table with a header "Name" and a dropdown arrow. The table contains one row with the value "Hösbach". To the right of the table is a "Details\*" tab. Below the tab, there is a form field labeled "Name\*" with the value "Hösbach". At the bottom of the window, there are buttons for "Save" and "Reset".

Fig. 225: Delete server location

3. Click on the icon  (*Delete*) in the toolbar of the window.
4. To delete further locations, repeat the last 2 steps.
5. To close the window, click on the button *Close*.

### Tab Details

1. To configure the server, select the entry of the corresponding server in the main view.  
⇒ In the detail view, the tab *Details* appears.  
The information *Name* and *Configured IP address* has already been entered during the installation and is displayed for your information only.

<
Details\*
Usage\*
Media Streamer
Replay Server Address Mapping
Key Ma >

? Help

Name	REC-01
Configured IP address	192.168.173.171
IP address*	192.168.173.171 <input type="button" value="v"/>
Server location	Hörsbach <input type="button" value="v"/>

Save
Reset

Fig. 226: Servers - tab Details

- From the drop-down list, select the IP address which is supposed to be used as default address of the server in the system.
- Select the *Server location* in the drop-down list. The drop-down list displays all locations which have been created in the location management.
- Click on the button **Save** if the entries are correct.

### Tab Usage

- Click on the tab *Usage* to configure the intended purpose.



As a server may be used for several recording solutions, all intended purposes are displayed. Note that some intended purposes do not apply for certain recording solutions. In chat recording, for instance, audio analysis or replay via phone cannot be used.

<
Details\*
Usage\*
Media Streamer\*
Replay Server Address Mapping
Key M >

API Server	▶
Audio Analysis	▶
Recording Control/Key Management	▶
Data Processing	▶
Replay	▶
Virtualization	▶

Save
Reset

Fig. 227: Servers - tab usage

### Group field API Server

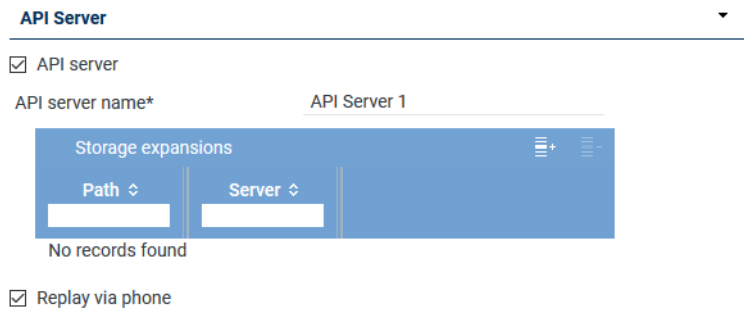


Fig. 228: Group field API Server


The ASC API Server is a service within the *neo* software.




The ASC API Server must have been activated on every server where the Recording Control service runs.


The ASC API Server does not only offer an interface for the internal modules; additionally, the client applications communicate with the *neo* system by means of this interface, too, using defined commands.

Furthermore, the ASC API Server is responsible for replay by means of the web browser. Not until the ASC API Server has started, can the replay server be activated and the corresponding ASC API Server assigned for replay in the web applications.

Parameter	Value/Description
<i>API server</i>	<p>Tick the check box to start the API server.</p> <p><input checked="" type="checkbox"/> = Function has been activated. You have to complete the entry field <i>API server</i>.</p> <p><input type="checkbox"/> = Function has not been activated.</p> <p>In order to be able to reach the API server from a public network and with configured port forwarding, too, you have to adjust the settings in the tab <i>Replay Server Address Mapping</i>, see <a href="#">chapter "Tab Replay Server Address Mapping"</a>, p. 206.</p>
<i>API server name</i>	<p>Enter the name which is supposed to denote the server in the system. The displayed name can be selected arbitrarily and is a kind of pseudonym.</p> <p>The displayed name is meant to make it easier for users to select a server as different API servers may be used across the system by different tenants. When selecting the API server, these pseudonyms are displayed on the client computers instead of the real server name or the IP address.</p>
<i>List Storage expansions</i>	<p>Here, you can add storage expansions for replay. If a recording which is supposed to be replayed cannot be found on the server, the search is continued on the storage expansions which have been entered here. That way, even recordings can be replayed which have not been transferred to the server.</p> <p>If the function <i>Replay</i> has been activated, you can adjust the following settings:</p> <ul style="list-style-type: none"> <li>By clicking on the icon  (Add), you can add the storage expansions, see <a href="#">chapter "Add storage expansion for replay"</a>, p. 198.</li> </ul>

Parameter	Value/Description
	<ul style="list-style-type: none"> <li>By clicking on the icon  (<i>Remove</i>), you can remove the storage expansions from the list.</li> </ul> <p>If you use several recording servers in your system for which storage expansions have been configured, you can add any storage expansion of any recording server on every API server of the system.</p>
<i>Replay via phone</i>	<p>Activate this function if you would like to use the functions <i>Replay via phone</i> or <i>Last Call Repeat</i>.</p> <p><input checked="" type="checkbox"/> = Function has been activated.  <input type="checkbox"/> = Function has not been activated.</p> <p><b>NOTICE!</b> The function <i>Replay via phone</i> has been implemented in the following <i>neo</i> components:</p> <ul style="list-style-type: none"> <li>Application POWERplay Pro</li> <li>Application POWERplay Instant</li> <li>Replay module</li> </ul> <p>In order to enable a client to use the functionality <i>Replay via phone</i>, you have to assign this client an identifier either in the Employees module or in the Phones module which allows the system to clearly identify the phone.</p> <p><b>NOTICE!</b> In the tab <i>Media Streamer</i>, you have to assign this function to a PBX, see <a href="#">chapter "Tab Media Streamer", p. 205</a>. To be able to do so, at least 1 PBX must have been configured in the system.</p>

### Add storage expansion for replay

- Click on the icon  (*Add*) in the toolbar of the list.
- Select 1 or several storage expansions.  
If you would like to select several storage expansions or revoke a selection, click on the respective line while holding the [Ctrl] key down.

Storage Expansion for Replay

Device Type

Name

Path

Free Disk Space

Server

NAS	NAS 2	NAS 2	<div></div>	REC-02
-----	-------	-------	-------------	--------

Rows per page

20

1 - 1 of 1

<<

>>

Add

Cancel

Fig. 229: Select storage expansion

3. To apply the selected storage expansions, click on the button *Add*.  
To discard the selection and close the window, click on the button *Cancel*.

### Group field Audio analysis

**Audio Analysis** ▼

---

☐ Emotion detection

Stream audio data from\* \_\_\_\_\_ + -

Fig. 230: Group field Audio analysis

Parameter	Value/Description
<i>Emotion detection</i>	<p>Activate this check box to activate emotion detection for audio analysis.</p> <p><input checked="" type="checkbox"/> = Function has been activated. Tenants can use the function emotion detection.</p> <p><input type="checkbox"/> = Function has not been activated.</p>

Tab. 60: Configure audio analysis

### Group field Recording Control/Key Management

**Recording Control/Key Management** ▼

---

☒ Recording control/Monitoring

Recording architecture      Please choose... ▼

☒ neo key management

Fig. 231: Group field Recording Control/Key Management

Parameter	Value/Description
<i>Recording control/monitoring</i>	<p>Activate the check box, if you would like to use <u>CLIENT</u><i>command</i> or API recording control. The function is only available if a recording architecture has been configured and activated.</p> <ul style="list-style-type: none"> <li>• Recording architecture From the drop-down list, select the recording architecture via which you would like to control the recording.</li> </ul>
<i>neo key management</i>	<p>This function serves for customer-specific recording encryption. To be able to configure the conditions for key management, activate the check box <i>Key management</i>.</p> <p>The function can only be activated if the license <code>ASC_KEY_MANAGEMENT</code> is available.</p> <p>For more information about the configuration of key management refer to the administration manual <i>Configuration server and recording architectures</i> and to the installation manual <i>Installation Dongle Manager</i>.</p>

Tab. 61: Configure recording control/key management

### Group field Data Processing

**Data Processing** ▼

☒ Data storage

☒ Transfer data for replay

Target Server

Name	IP Address ↕
No records found	

☒ Transfer data for data storage

Target Server

Name	IP Address ↕
No records found	

Activate period of time ☒

from 11:59:36 ↕

to 11:59:36 ↕

Receives data from

Name	Only Replay
No records found	



☒ Archiving

☒ Export





☒ Import

Recording architecture Please choose... ▼

Fig. 232: Group field Data Processing


Parameter	Value/Description
<i>Data storage</i>	Activate the check box to allow the modification of the additional functions of data processing.
<i>Transfer data for replay</i>	<p>Activate the check box if you would like to transfer data only for replay to another server.</p> <p>If the function has been activated, you can select a server from the list <i>Target Server</i> to which the recorded data is supposed to be transferred for replay. The data is not stored on the target server but deposited in a cache temporarily in order to be replayed.</p> <ul style="list-style-type: none"> <li>By clicking on the icon  (<i>Add</i>), you can add the target server, see <a href="#">chapter "Add target server to a list", p. 201</a>.</li> <li>By clicking on the icon  (<i>Remove</i>), you can remove the target server from the list.</li> </ul> <p><b>NOTICE!</b> Only those servers are displayed on which an API server and a replay server have been configured.</p>
<i>Transfer data for data storage</i>	<p>Activate the check box if you would like to transfer data for storage to another server.</p> <p>If the function has been activated, you can select a server from the list <i>Target Server</i> to which the recorded data is supposed to be transferred for data storage purposes. In the drop-down list, all servers are displayed on which the function <i>Data Storage</i> has been activated. The data is copied to the target server and stored there.</p>



Parameter	Value/Description
	<ul style="list-style-type: none"> <li>By clicking on the icon  (Add), you can add the target server, see <a href="#">chapter "Add target server to a list", p. 201</a>.</li> <li>By clicking on the icon  (Remove), you can remove the target server from the list.</li> </ul> <p><b>NOTICE!</b> Only those servers are displayed on which the function <i>Data Storage</i> has been activated.</p> <p>If the function has been activated, you can activate the transfer for a certain period of time.</p> <ul style="list-style-type: none"> <li>Activate period of time <input checked="" type="checkbox"/> = Function has been activated. The fields for entering the time become active. Select the time via the rotating field for the period from – to.</li> <li>Active period of time <input type="checkbox"/> = Function has not been activated.</li> </ul> <p><b>NOTICE!</b> In distributed systems with slow network connections, the storage interval for the data transfer can be adjusted. The storage interval for the data transfer has to be configured by an ASC service technician or by an authorized partner company.</p>
<i>Receives data from</i>	<p>This table contains those servers which transfer data to this server.</p> <p>In the column <i>Name</i>, the name of the server appears from which data has been transferred.</p> <p>In the column <i>Only Replay</i>, the purpose of the transfer is displayed:</p> <p> = Data is transferred only for replay.</p> <p> = Data is transferred for data storage.</p>
<i>Archiving</i>	Activate the check box <i>Archiving</i> if you would like to use the server for archiving purposes.
<i>Export</i>	Activate the check box <i>Export</i> to allow the export from this server.
<i>Import</i>	<p>Activate the check box <i>Import</i> so that the imported data can be stored on this server.</p> <ul style="list-style-type: none"> <li>Recording architecture From the drop-down list, select the recording architecture that fulfills this function. In the drop-down list, all recording architectures are displayed which enable this function as well.</li> </ul> <p><b>NOTICE!</b> If you would like to use a server for the import function on which no recording is supposed to take place, you can configure an architecture exclusively for the import.</p>

Tab. 62: Configure data storage

### Add target server to a list

- In the toolbar of the list *Target Server*, click on the icon  (Add).
- Select the server from the list to which you would like to transfer the data.  
If you would like to select several servers or revoke a selection, click on the respective line while holding the [Ctrl] key down.



Target Server

Name ↕	IP Address ↕
RC-02	192.168.173.176
REC-04	192.168.173.174
RC-01	192.168.173.175
REC-02	192.168.173.172
CTI-01	192.168.173.177
REC-03	192.168.173.173

Rows per page 20 1 - 6 of 6

Add Cancel

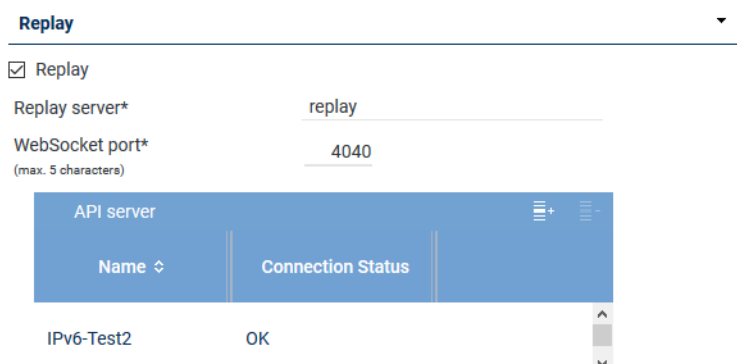
Fig. 233: Select server



Only those servers are available on which the function *Data storage* has been activated.

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

### Group field Replay



Replay

☒ Replay



Replay server\* replay

WebSocket port\* 4040  
(max. 5 characters)

API server	
Name ↕	Connection Status
IPv6-Test2	OK

Fig. 234: Group field Replay

Parameter	Value/Description
<i>Replay</i>	<p>A replay server can replay recordings via the integrated <i>Replay Feature</i>. Only data which has either been recorded directly on this server or which has been transferred to this server for data storage or only for replay purposes can be replayed. The client computers of the system can connect to a replay server for replay purposes.</p> <p>Activate the check box <i>Replay</i> to be able to use the replay function of the players and the phones.</p> <p><input checked="" type="checkbox"/> = Function has been activated. You have to complete the entry field <i>Replay server</i>.</p> <p><input type="checkbox"/> = Function has not been activated.</p>

Parameter	Value/Description
<i>Replay server</i>	<p>If the function has been activated, you can enter a displayed name which is supposed to denote the server as the replay server in the system in the entry field <i>Replay server</i>. The displayed name can be selected arbitrarily and is a kind of pseudonym. As the replay server and the <a href="#">API</a> server must not be identical, you can select different pseudonyms.</p> <p>The displayed name is meant to make it easier for users to select a server as different replay servers may be used across the system by different tenants. When selecting the replay server, these pseudonyms are displayed on the client computers instead of the real server name or the IP address.</p> <p>In order to be able to reach the server activated for replay from a public network and with configured port forwarding, you have to set the configuration in the tab <i>Replay Server Address Mapping</i>. For further details about the configuration refer to the administration manual <i>Configuration of servers and recording architectures</i>.</p>
<i>WebSocket port (maximum of 5 characters)</i>	Enter the port via which the data to be replayed in <i>POWERplay</i> Web are supposed to be transmitted.
<i>List API server</i>	<p>Here, you can add <a href="#">API servers</a> that the replay server may use. If a recording which is supposed to be replayed cannot be found on a server, the search is continued on the <a href="#">API servers</a> which have been entered here.</p> <p>If the function <i>Replay</i> has been activated, you can adjust the following settings:</p> <ul style="list-style-type: none"> <li>• By clicking on the icon  (<i>Add</i>), you can add the <a href="#">API server</a>, see <a href="#">chapter "Add API server to a list"</a>, p. 203.</li> <li>• By clicking on the icon  (<i>Remove</i>), you can remove selected <a href="#">API servers</a> from the list.</li> </ul>

Tab. 63: Configure replay

### Search and replay functions



To be able to use the search and replay functions via [LCR](#) as well as to use replay via phone, you have to create the users with the respective access rights in the application System Configuration in the Employees module. For information about the configuration refer to the administration manual *User management* for tenants.

### Add API server to a list

The replay server required the services of an [API](#) server. The configuration must be as follows:


- If the replay server runs on a server with a local [API](#) server, it must not necessarily be assigned as the replay server always addresses the local [API](#) server first.
  - If the replay server runs on a separate server, you must assign at least one [API](#) server that the replay server can address.
  - If several [API](#) servers are available in the network, you can assign further [API](#) servers in addition to the local [API](#) server. The assigned [API](#) servers are addressed in order. For this reason, the local [API](#) server should always be first in the list.
1. To assign an [API](#) server, click on the icon  (*Add*) in the toolbar of the list *API Server*.
  2. Select the server from the list on which the [API](#) service is running.



Fig. 235: Select server



Only those servers are available on which the [API](#) service has been installed and activated. See [chapter "Group field API Server", p. 197](#).

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

### Group field Virtualization



Fig. 236: Group field Virtualization

Parameter	Value/Description
<i>VM support</i>	<p>Activate the check box <i>VM support</i> to be able to use the licensing for several VM installations.</p> <p>This function can only be activated if the system has been installed in a VMware and no <i>TRUSTED_VIRTUALIZATION</i> license has been imported to the system.</p> <p>When activating the function <i>VM support</i>, you have to configure the respective settings in the tab <i>Keystore/VM Licensing</i>. For further details about the configuration of this function refer to the administration manual <i>Configuration of servers and recording architectures</i>.</p>

Tab. 64: Configure virtualization



For the *virtualization* without Internet connection, a dongle is required which contains the system information. The application *Dongle Manager*, required to read the dongle, has to be installed on the server that the dongle has been connected to.

- To save the entries, click on the button *Save* in the detail view.  
To reset the entries, click on the button *Reset* in the detail view.

### Tab Media Streamer

1. Click on the tab *Media Streamer* in the detail view.

In this tab, you can configure the Media Streamer for the functionalities *Replay via phone* and *Last Call Repeat Facility*.



The tab *Media Streamer* is only active if the function *Replay via phone* has been activated in the tab *Usage*.

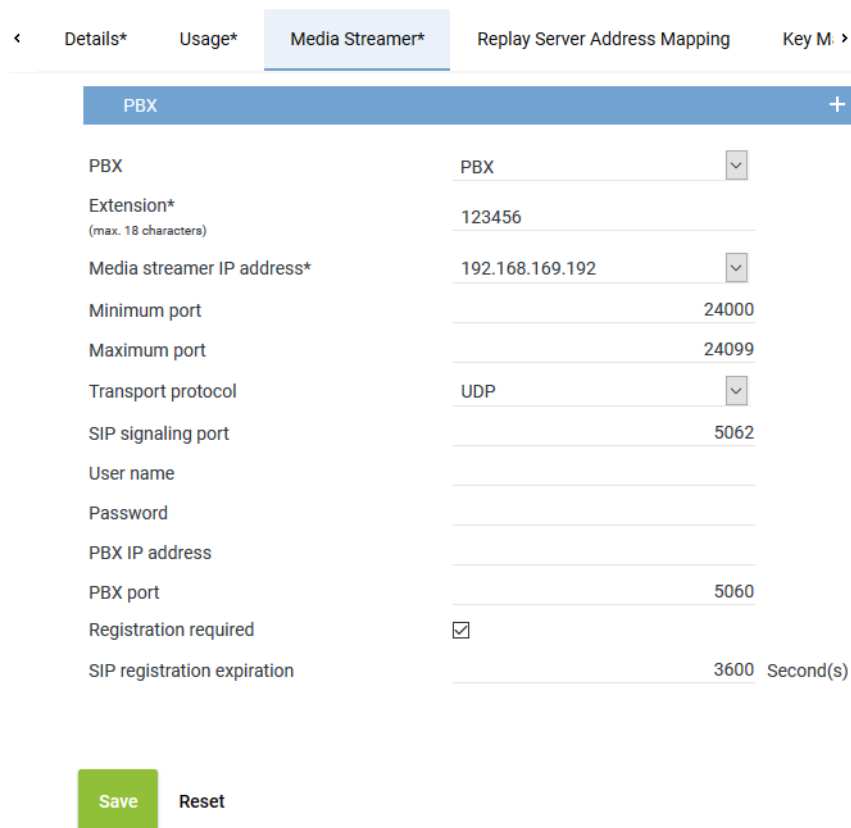


Fig. 237: Servers module - tab Media Streamer

2. Enter the following parameters:

<b>PBX</b>	<p><b>PBX</b> that the Media Streamer is supposed to be mapped to.</p> <p>Select a <b>PBX</b> from the drop-down list. The drop-down list displays all <b>PBXs</b> which have been created in the system.</p> <p>If no <b>PBX</b> has been created in the system yet, you can create a <b>PBX</b> via the blue bar <b>PBX</b>, see <a href="#">chapter "Create PBX"</a>, p. 210.</p>
<b>Extension</b>	<p>Extension which is supposed to be mapped to the Media Streamer. This is a mandatory field; the configuration cannot be saved if this information is missing.</p> <p>If an external analog gateway has been integrated, enter the value <b>8000</b>.</p>
<b>Media streamer IP address</b>	<p>IP address which is supposed to be used for the exchange of the audio data and for the <b>SIP</b> communication.</p> <p>Select an IP address from the drop-down list. In the drop-down list, all IP addresses of the server are displayed.</p> <p>If an external analog gateway has been integrated, select the IP address <b>169.254.254.100</b> in the drop-down list.</p>

<i>Minimum port</i>	Enter the minimum port which is supposed to be used for the audio data exchange.
<i>Maximum port</i>	Enter the maximum port which is supposed to be used for the audio data exchange.  A port range of 100 (e. g. 24000-24099) is sufficient for 50 licenses. The port range should be twice as wide as the number of available licenses.
<i>Transport protocol</i>	Select the transport protocol type you would like to use for the <b>SIP</b> communication from the drop-down list.  <b>TCP</b> = unencrypted <b>UDP</b> = unencrypted <b>TLS</b> = encrypted  If an external analog gateway has been integrated, select <b>UDP</b> in the drop-down list.
<i>SIP signaling port</i>	Enter the port for the <b>SIP</b> communication. Port for data exchange: 5062
<i>User name</i>	Enter the user name for the authentication on the <b>SIP</b> server.
<i>Password</i>	Enter the password for the authentication on the <b>SIP</b> server.
<i>PBX IP address</i>	Enter the IP address of the <b>SIP</b> registrar of the <b>PBX</b> .  If an external analog gateway has been integrated, enter the IP address 169.254.254.101.
<i>PBX port</i>	Enter the port of the <b>SIP</b> registrar of the <b>PBX</b> .  If an external analog gateway has been integrated, enter the value 5060.
<i>Registration required</i>	Select whether the <b>SIP</b> extension has to be registered with the <b>SIP</b> registrar of the <b>PBX</b> .  <input checked="" type="checkbox"/> = <b>SIP</b> extension has to be registered. <input type="checkbox"/> = <b>SIP</b> extension does not have to be registered.  If an external analog gateway has been integrated, deactivate the check box <i>Registration required</i> .
<i>SIP registration expiration</i>	Enter the time interval after which the registration has to be repeated.

### Tab Replay Server Address Mapping

1. Click on the tab *Replay Server Address Mapping* in the detail view.

In this tab, you can configure the replay server address mapping. Servers which have been activated for replay require this address mapping so that they can be reached from a public network and with configured port forwarding.



The tab *Replay Server Address Mapping* is only active if the function *Replay* has been enabled in the tab *Usage*.

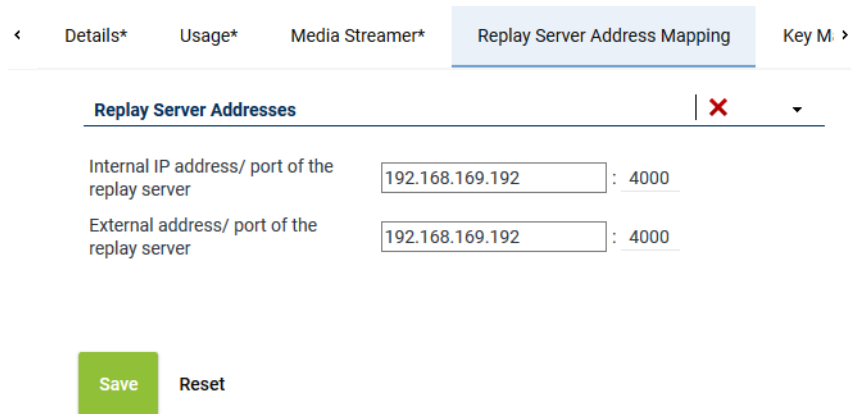


Fig. 238: Servers Module - tab Replay Server Address Mapping

### Group field Replay Server Addresses

1. Enter the following parameters:

<i>Internal IP address/ port of the replay server</i>	Enter the destination <b>IP</b> address and the port of the replay server at which the Replay module can be reached internally.
<i>External address / Port of the replay server</i>	Enter the <b>URL</b> or the <b>IP</b> address and the port at which the Replay module can be reached via the browser from outside. When entering the external address consider whether the SSL certificate has been created for an IP address or for a DNS address. In the latter case, it is imperative to enter the DNS name! Otherwise the certificate check in the replay applications will fail.

If you would like to remove the addresses, click on the icon  in the title bar of the group field.



If address mapping has been configured, the Replay module receives the configured address and the configured port.

If address mapping has not been configured, the Replay module receives the IP address and the default port **4040** as entered in the tab *Details*.



To allow the users of the respective tenant to access the replay server via the browser, an internal address and/or an external IP address or a DNS name must be configured in the *Tenants* module.



For information about the configuration refer to the administration manual for tenants *User management tenant*.

### Tab Key Management

1. Click on the tab *Key Management* in the detail view.

In this tab, you can configure the settings for the *neo* key management. This tab is only active if you have installed the corresponding license and enabled the function *neo Key Management* in the tab *Usage*.

< Usage\* Media Streamer\* Replay Server Address Mapping **Key Management** >

Key creation interval

☒ All

365 Day(s)

☐ Create key manually

Delay usage

until

0 Day(s)

0 Hour(s)

☐ Key expiration date

after

0 Day(s)

☒ In case of an error switch to simple key management automatically

Save

Reset

Fig. 239: Servers module - tab Key Management

<i>Key creation interval</i>	<p>Select whether a key is supposed to be generated automatically or manually. Select one of the following options:</p> <ul style="list-style-type: none"> <li>• <i>All</i> Select the intervals in which a new key is supposed to be generated automatically. Possible time interval: 1 to 365 days Default value: 365 days</li> <li>• <i>Create key manually</i> Select that a key is supposed to be generated manually.</li> </ul> <p>Old keys which are no longer used for encryption become inactive for the time being. They remain in the database, though, since they are still required for the decryption of old recordings.</p>
<i>Delay usage</i>	<p>If required, enter a time interval during which the new key is not supposed to be used yet after having been created. Not until after this time interval has passed can the key be actually used for encryption.</p> <p>Possible time interval: 0 to 14 days Default value: 0 days (new keys are immediately used for encryption)</p> <p>A delay guarantees that the key has been captured by a database backup before it will actually be used.</p>
<i>Key expiration date</i>	<p>Select whether an inactive key is supposed to become invalid after the expiration of the time interval defined here.</p> <p><input type="checkbox"/> = Key never becomes invalid.</p> <p><input checked="" type="checkbox"/> = Key becomes invalid. In the entry field, enter the time interval after which the key loses its validity. Once this time interval has passed, the key cannot be used anymore. If recording data must be deleted after a certain period of time, this option offers additional security on top of the configured date of deletion. This especially applies to the case when recording data has been transferred manually to a storage location where the deletion mechanism of the system cannot find it.</p>



**CAUTION!** All recordings which have been encrypted with a key which has meanwhile become invalid are useless and cannot be replayed anymore.

*In case of an error ... automatically*

Select whether simple key management is supposed to be used if the neo key management does not work (e. g. if the service *DongleMan* fails). If you have not activated the option, no recording takes place as long as the neo key management has been activated but does not work.

☒ = In case of an error, simple key management is used as replacement.

☐ = In case of an error, no recording takes place as long as the neo key management has been activated. In this case, disable key management in the tab *Usage*.



On top of the settings in this tab, each tenant who would like to use the neo key management has to define individual settings in his own user management (Tenants module).



For information about the configuration refer to the administration manual for tenants *User management tenant*.

### Tab Keystore/Virtualization

1. Click on the tab *Keystore/Virtualization* in the detail view.

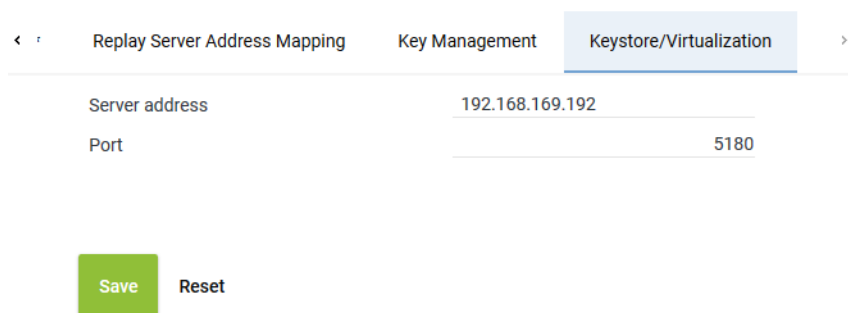
In this tab, you can configure the connection data for the service *DongleMan* for the neo key management and for the authentication of the VM.



If your system has been installed in a virtual environment, the application Dongle Manager must have been installed and started locally outside the VM so that the access to the dongle works. The dongle must have been connected to the server on which the VM has been installed.



For detailed information about neo key management refer to the administration manual *Encryption of recordings*.



Navigation: < Replay Server Address Mapping Key Management **Keystore/Virtualization** >

Server address	192.168.169.192
Port	5180

Buttons: Save Reset

Fig. 240: Servers module - tab Keystore/Virtualization

#### Server address

Enter the address of the server for this connection.

- If you use the neo key management as well as the virtualization:  
IP address of the server that the service *DongleMan* has been installed on.
- If you use only virtualization, you can authenticate the VM via the ASC License Management System, too. In this case, enter the following address:  
*licensing.asc.de*

- If you use only the ASC key management:  
IP address of the server with the master password database

**Port** Enter the port for the connection.  
Default value: 5180

- To save the settings, click on the button *Save*.  
To discard the settings, click on the button *Reset*.

### 7.1.2.4.3 Create PBX

The PBX can either be configured via the PBX module or via the Integrations module.

In this configuration step, the parameters for the PBX are configured, e. g. the name, the area code and the net code.

- Select the menu item *Setup > PBX* in the navigation bar.  
⇒ The following window appears:



Fig. 241: Create new PBX

### Toolbar of the PBX module

The toolbar offers the following functions.

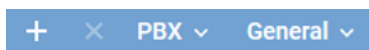




Fig. 242: Toolbar PBX module


	<i>Create</i>	In the detail view, you can enter the parameters of the new PBX.
	<i>Delete</i>	Deletes the selected PBX configuration. A PBX can only be deleted if it is not used in any configuration.
<i>PBX</i>	<i>Phone Configuration</i>	Opens a window in which you can create and configure phones.
	<i>Administrate Unused Extensions</i>	Opens a window in which you can delete extensions that are not used in any configuration.
<i>General</i>	<i>Print</i>	Prints the table of the main view.
	<i>Adjust Table</i>	Opens a window in which you can adjust the following settings for the main view: <ul style="list-style-type: none"> <li>• <i>Displayed information</i></li> <li>• <i>Order of the displayed columns</i></li> <li>• <i>Number of rows per page</i></li> </ul>

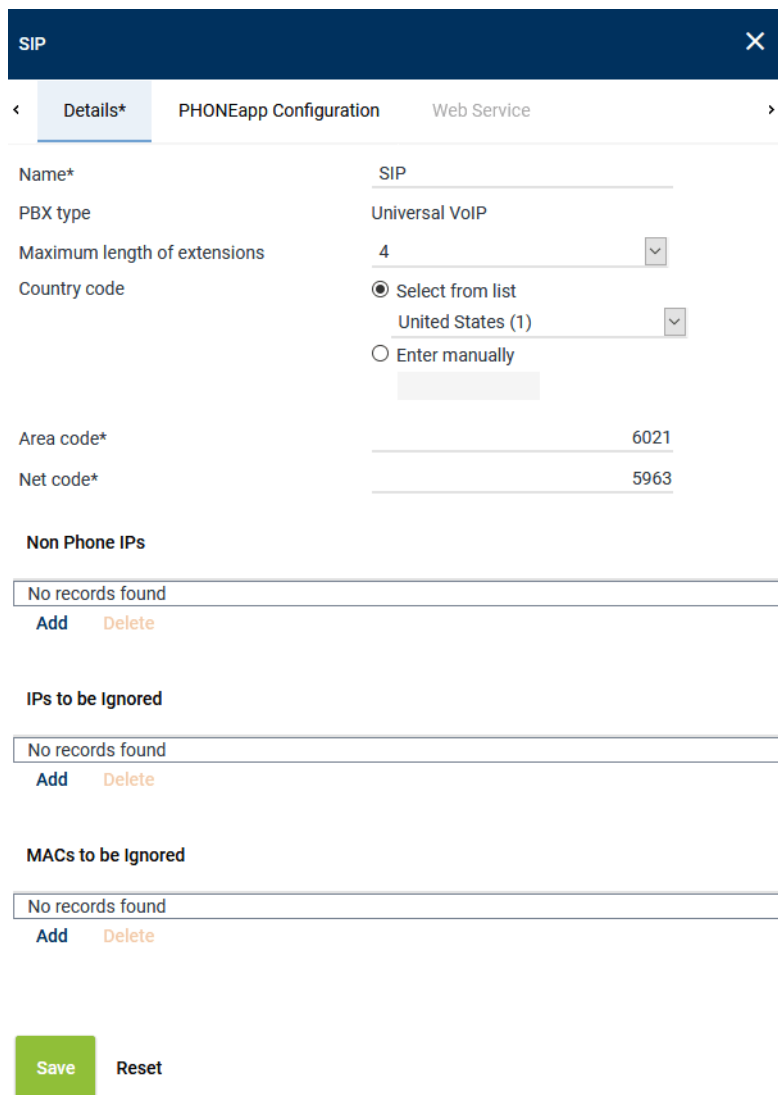
<i>Save Table Configuration</i>	Saves the current table configuration of the main view as default view of the user.
<i>General Help</i>	Opens the online help.
<i>Module Help</i>	Opens the module-specific online help.



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

### Create new PBX

- Click on the icon  (*Create*) in the toolbar of the main view of the PBX module.  
⇒ In the detail view, the tab *Details* appears.



**SIP** [X]

< Details\* PHONEapp Configuration Web Service >

Name\* SIP

PBX type Universal VoIP

Maximum length of extensions 4

Country code ☒ Select from list  
United States (1)

☐ Enter manually

Area code\* 6021

Net code\* 5963

**Non Phone IPs**

No records found

Add Delete

**IPs to be Ignored**

No records found

Add Delete

**MACs to be Ignored**

No records found

Add Delete

Save Reset

Fig. 243: Create new PBX - tab Details

- Set the following parameters in the detail view:

Parameter	Value/Description
<i>Name</i>	This <i>name</i> serves as the identifier of this PBX.
<i>PBX type</i>	Select the type of the <b>PBX</b> from the drop-down list.
<i>Maximum length of the extensions</i>	Enter the number of digits of the extensions, e. g. 4.
<i>Country code</i>	Select the option for the country code:

Parameter	Value/Description
	<ul style="list-style-type: none"> <li>• <i>Select from list</i> Select the country code from the drop-down list.</li> <li>• <i>Enter manually</i> If the corresponding country code is not available in the drop-down list, you can enter the 3-digit code manually. e. g. for Sri Lanka <i>094</i>.</li> </ul>
<i>Area code</i>	Enter the area code without the preceding <i>0</i> , e. g. <i>6021</i> .
<i>Net code</i>	Enter the net code, e. g. <i>5963</i> . Do not enter an extension here.

Tab. 65: Create PBX

If you would like to display the complete phone number, e. g. if you use more than one PBX, several area codes, or if you would like to record mobile phones, you have to configure the value *0* in the following parameters:

Parameter	Value/Description
<i>Maximum length of the extensions</i>	Enter the number <i>0</i> in the field maximum length of the extensions to display the complete phone number.
<i>Area code</i>	Enter the number <i>0</i> as area code to display the complete phone number.
<i>Net code</i>	Enter the number <i>0</i> as net code to display the complete phone number.

Tab. 66: PBX parameters with complete phone number

- To save the settings, click on the button *Save*.  
To discard the settings, click on the button *Reset*.

#### 7.1.2.4.4 Assign recording resources

In multi-tenant systems, you have to assign each tenant its own recording resources.

Depending on the recording type, agents can be assigned to the recording resource via the extension, via the PBX Agent ID or via the chat ID. Within one tenant, you can configure all three possibilities.

#### Assign extensions to tenants

If you would like to make an assignment based on extensions, you can assign the respective tenant the extension designated for recording in the Tenants module.



In 1-tenant systems, all extensions are automatically assigned to the tenant who has been created by the system (1st tenant). Extensions are assigned to the user in the Employees module.

When installing a 1-tenant system, you can skip this chapter.



In multi-tenant systems, you have to assign the extensions manually to each tenant who is supposed to be able to use them. There are multi-tenant systems, too, in which only 1 tenant has been set up.

The manual assignment of extensions is not possible until a PBX has been created since extensions are assigned in relation to the PBX.

- Select the menu item *Tenants* in the navigation bar.

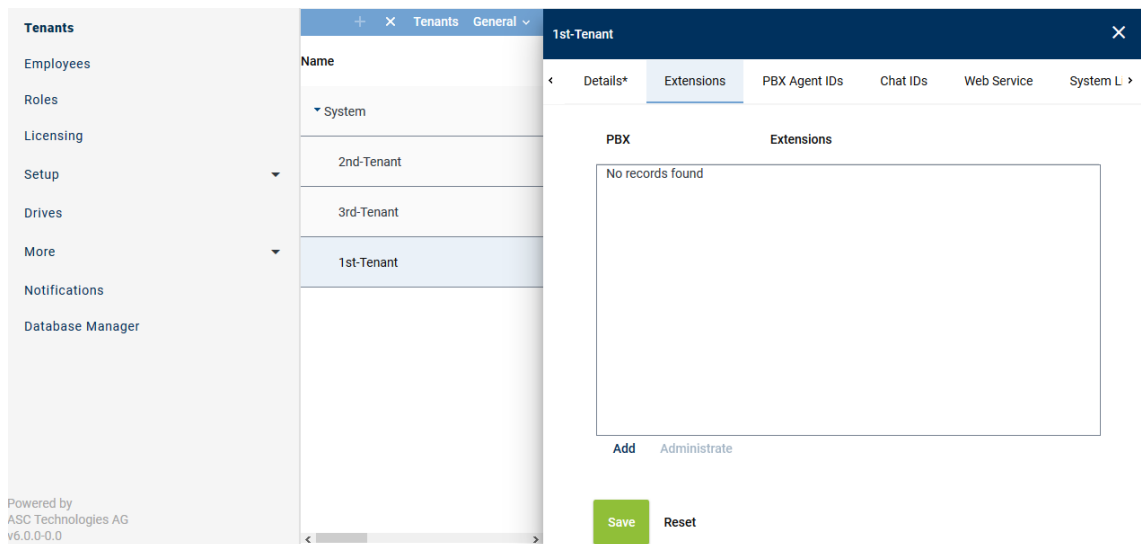


Fig. 244: Tenants - main view - tab Extensions

### Add extensions

1. In the main view, select the tenant to whom you would like to assign extensions.
2. Click on the tab *Extensions*.
3. Click on the button *Add*.

⇒ The following window appears:

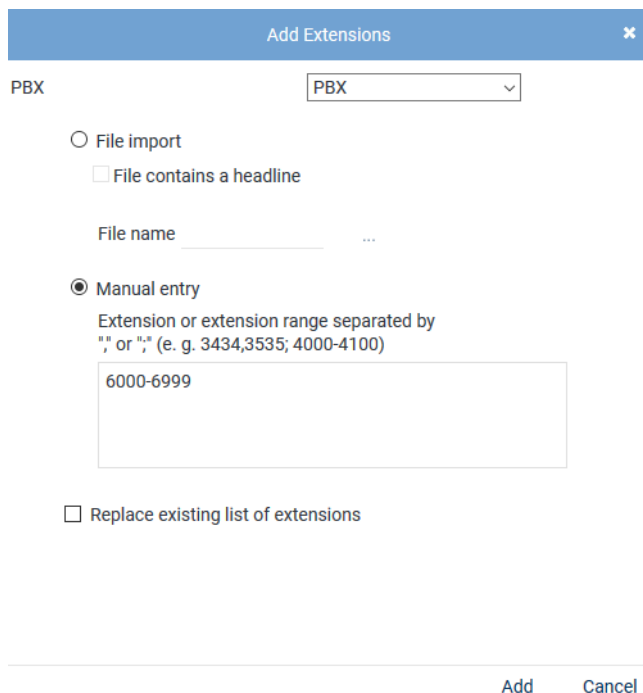


Fig. 245: Assign extensions to tenants

4. From the drop-down list, select the PBX in which the extensions for this tenant have been configured.

#### File import

Select the option to import extensions from an existing file and add them to the table of extensions.

The following file formats are supported:

- ZIP
- TXT

- CSV

**NOTICE! The maximum number of extensions in a file has been limited to 2000 for performance reasons. If more extensions are required, you can import several files.**



#### *File contains a headline*

Activate this option so that this structured is recognized correctly when importing the file.

The file must not contain more than one column. If commas or other column separators are detected in the file, the file is considered invalid and an error message is displayed.

#### *File name*

To import the file, proceed as follows:

- Click on the button  behind the field *File name*.
- Click on the button *Choose File*.
- Select the respective file in the Explorer and click on the button *Open*.
- Click on the button  *Upload File*.

#### *Manual entry*

Select this option to enter extensions or extension ranges manually.

To import number ranges, you must enter the same number of digits for the beginning and the end of the range, e. g. 1-9, 10-99, 01-20, 001-200, 4000-5000. If the end of the range asks for several digits, you have to add zeros for the beginning of the range, e. g. 01-10, 010-100.

Enter country codes as number ranges as follows:

+4984496800--+4984496810

**NOTICE! The number of digits must be equal. Add zeros in front of digits to level up possible incongruences.**

**NOTICE! Wildcards cannot be used!**

#### *Replace existing list of extensions*

Activate the check box to replace the list of extensions.

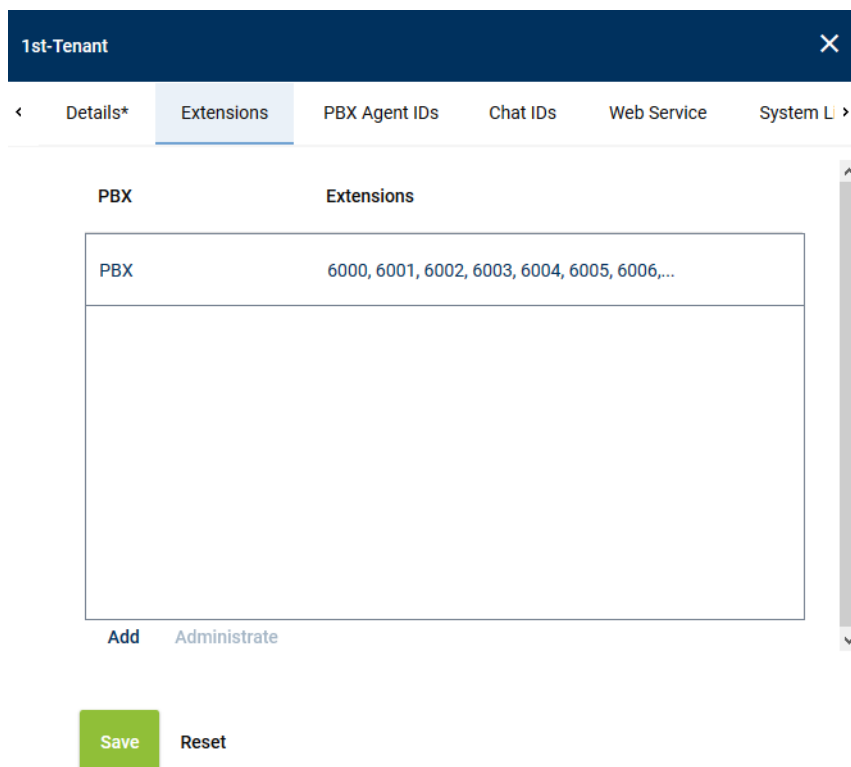
☒ = Function has been activated; the entry replaces the extensions of the selected PBX.

☐ = Function has not been activated; the configured extensions of all PBXs are kept and the new extensions are added to the selected PBX.

- Click on the button *Add*.  
⇒ The extensions are added in the table of extensions.
- If errors have been detected, the window *Result* appears.  
Click on the button *Display Error Report* to open the window *Error Report*.  
To close the window *Error Report*, click on the button *Close*.  
To close the window *Result*, click on the button *Close*.
- The configured extensions now appear in the detail view.
- Click on the button *Save* in the detail view to save the entries.

#### **Remove extensions**

- In the list, select the **PBX** for which you would like to remove the assigned extensions.



1st-Tenant

< Details\* Extensions PBX Agent IDs Chat IDs Web Service System L >

PBX	Extensions
PBX	6000, 6001, 6002, 6003, 6004, 6005, 6006,...

Add Administrate

Save Reset

Fig. 246: Remove extensions

- Click the button *Administrate*.
- Select one or several extensions you would like to remove from the assignment.  
To select several extensions or to revoke the selection, click on the respective line while holding the [Ctrl] key down.



Administrate Extensions

6993
6994
6995
6996
6997
6998
6999

Remove Cancel

Fig. 247: Select extensions

- To remove the selected extensions, click on the button *Remove*.  
To cancel the process and close the window, click on the button *Cancel*.

#### 7.1.2.4.5 Configure additional data

In the Additional Data module, you can configure the additional data which is delivered for a conversation with a protocol.

For selection fields to appear in the drop-down list, they have to be configured in the Additional Data module.

1. Select the menu item *Setup > Additional Data* in the navigation bar.

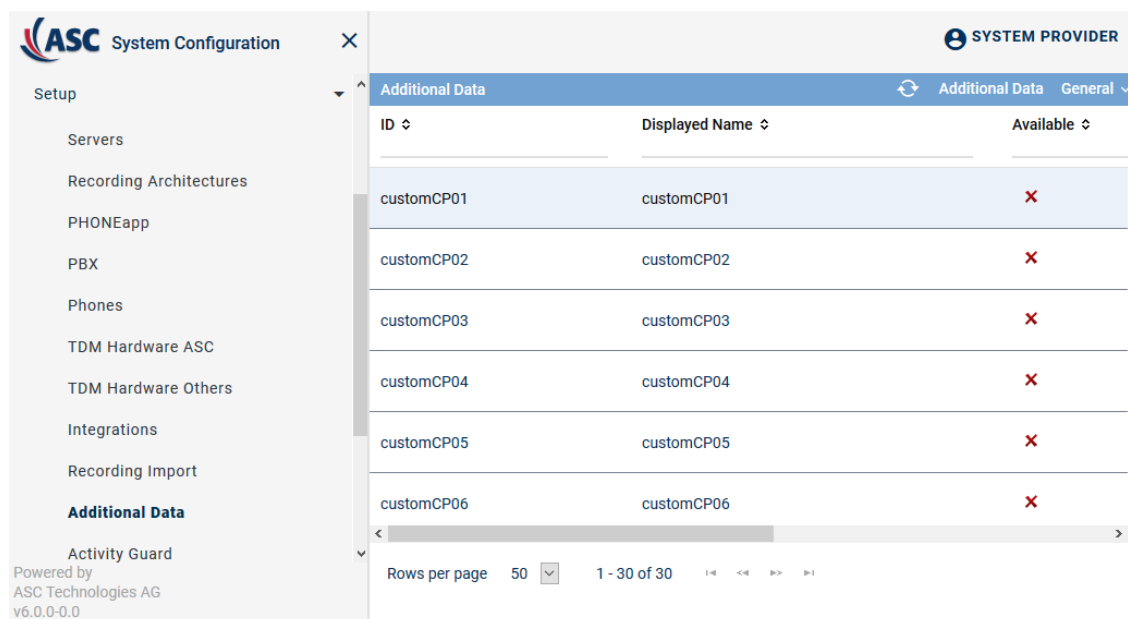


Fig. 248: Additional Data module main view

2. Select a set of data.  
⇒ The detail view displays the information you can configure.

### Change display name







Change Display Name		
Language	Content	
ar_SA	customCP01	
bg_BG	customCP01	
de_DE	Universal Call ID	
en_GB	customCP01	
en_US	Universal Call ID	 

Fig. 249: Configure additional data

1. To change the display name, click on the pen in the line of the language you would like to change.
2. Enter a display name and click on the check mark at the end of the line to confirm the entry.



### Availability

Availability	
Available	<input checked="" type="checkbox"/>
Editable	<input checked="" type="checkbox"/>
External recording control	<input checked="" type="checkbox"/>

Save
Reset

Fig. 250: Additional data - configure availability

1. To make the data field available to the entire system, activate the check box of the option *Available*.
2. To make the data field in the search and replay applications editable later on, activate the check box of the option *Editable*.
3. To be able to use the data field for external recording control, activate the check box of the option *External recording control*. This option is only available if recording control has been activated in the *Servers module* in the tab *Usage*.
4. Click on the button *Save* to save the settings.



For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.



Additional data which is not delivered along with the protocol is not available for further use.

#### 7.1.2.4.6 Create integration for Multi-Server Recording

In the Integrations module, the PBX-related recording settings are configured.

You first have to create and activate a recording architecture to be able to create a integration and to assign it here.

Depending on the recording solution, you additionally have to configure IP addresses, ports, protocols, sniffer cards, CTI connection data, phones, monitor points, and, where required, add-ons.

1. In the navigation bar, select the menu item *Setup > Integrations*.  
⇒ The following window appears:

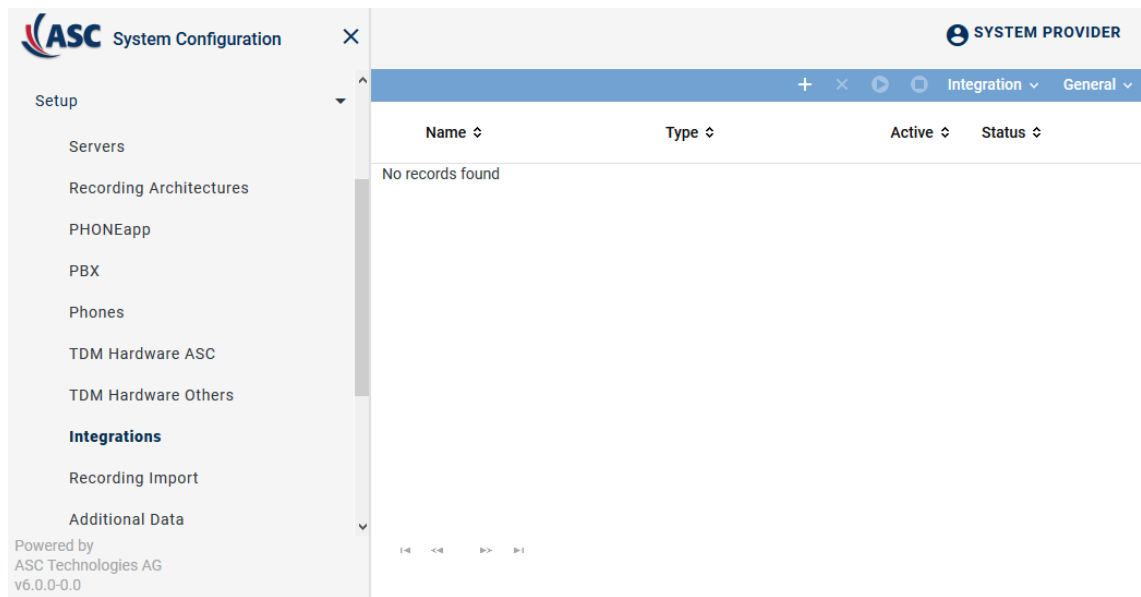




Fig. 251: Integrations - main view

In the table in the main view, the following information is displayed:





<b>Name</b>	Name of the integration
<b>Type</b>	Type of the integration
<b>Active</b>	Shows whether the integration has been activated and is used for the recording. <div> <span>✓</span> = Integration is active, can be deactivated in the toolbar via the icon .           <span>✗</span> = Integration is not active, can be activated in the toolbar via the icon .         </div>
<b>Status</b>	Shows whether the configuration has been carried out completely. <div> <span>✓</span> = Configuration is complete.           <span>✗</span> = Configuration is incomplete.         </div>

### Toolbar of the Integrations module


The toolbar offers the following functions.



Fig. 252: Toolbar Integrations module

	<b>Create</b>	Opens the detail view so that you can create a new integration.
	<b>Delete</b>	Deletes the selected integration. The integration can only be deleted if it has been deactivated.
	<b>Activate</b>	Activates the selected integration. The integration can only be activated if it has been configured completely.
	<b>Deactivate</b>	Deactivates the selected integration. This stops running recordings.
<b>Integration</b>	<b>Import Grammar</b>	By clicking on this menu item, you can import a customized grammar which you can then configure in the configuration step for the CTI connection data.
<b>General</b>	<b>General Help</b>	Opens the online help.
	<b>Module Help</b>	Opens the module-specific online help.

### Assign integration type

- Click on the icon  (*Create*) in the toolbar of the main view to create a new integration.  
⇒ In the detail view, the tab *Integration Type* appears.

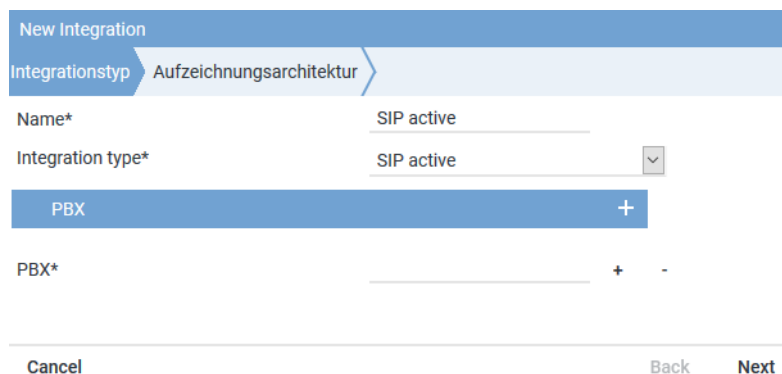



Fig. 253: Create integration type

- Enter the following parameters:

Parameter	Value
<i>Name</i>	In the entry field, enter a descriptive name for the integration. This name is used as the identifier of this integration in the system.
<i>Integration type</i>	Select the entry <i>SIP active</i> from the drop-down list <i>Integration type</i> .

Tab. 67: Create integration type

- To assign the PBX, click on the button  behind the field *PBX*.  
⇒ The window *PBX* appears.

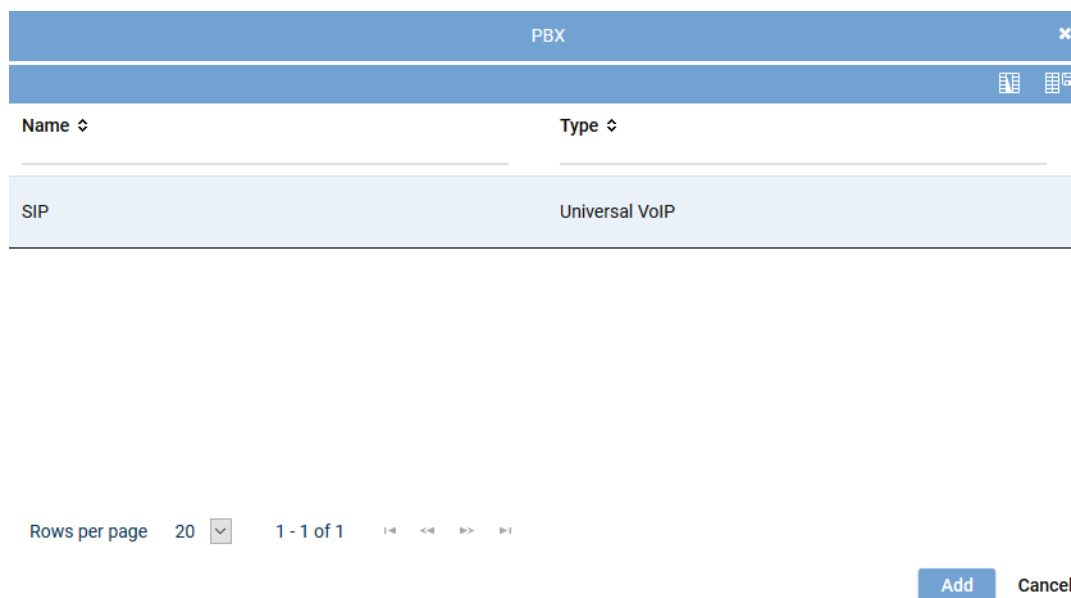
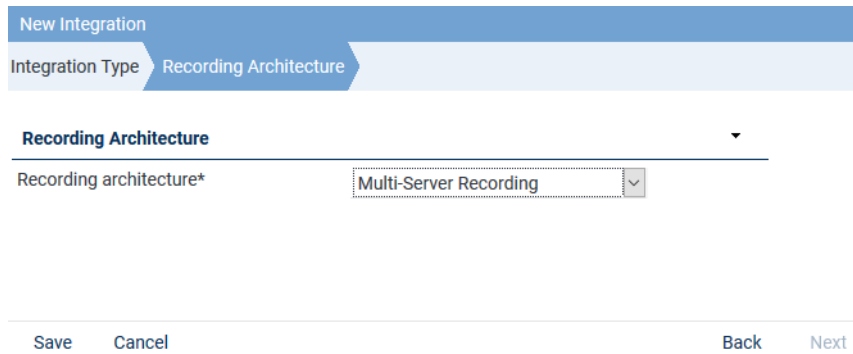


Fig. 254: Select PBX

- Select the respective *PBX* from the list of available PBXs.
- Click on the button *Add*.

### Assign recording architecture for Multi-Server Recording

- In the detail view on the bottom right, click on the button *Next*.  
⇒ The tab *Recording Architecture* appears.



New Integration

Integration Type Recording Architecture

Recording Architecture

Recording architecture\* Multi-Server Recording

Save Cancel Back Next

Fig. 255: Assign recording architecture - Multi-Server Recording


2. Select the respective recording architecture from the drop-down list *Recording architecture*.



Only activated recording architectures in which the appropriate integration type has been configured appear in the drop-down list.

3. Click on the button *Save*.  
⇒ The integration now appears in the main view.

### Configuration steps


1. To complete the configuration of the integration, click on the icon  in front of the name of the new integration.  
⇒ The following configuration steps appear:

SIP active		SIP active		X		⚙️	
Step				Configuration			
Configure recording architecture				✓		✎	
Global recording settings				X		✎	
Configure recording servers				X		✎	
Configure add-on				✓		✎	
Configure miscellaneous settings				✓		✎	

Fig. 256: Configuration steps of the integration

### Configure recording architecture

The section *Configure recording architecture* has already been configured in previous steps.

1. Click on the button  (*Edit configuration step*) in the line *Configure recording architecture* in the main view to show the configuration.  
⇒ In the detail view, the configuration step appears with the information of the assigned recording architecture.

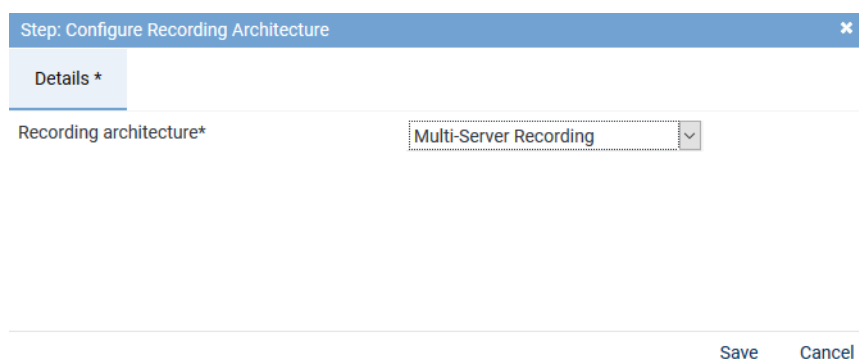



Fig. 257: Configuration step - Configure Recording Architecture

- Click on the button *Save* to save changes and to finish the configuration step.
- Click on the button *Cancel* to cancel the configuration step without applying changes.

### Global recording settings for Multi-Server Recording

- Click on the button  (*Edit configuration step*) in the line *Global recording settings* in the main view.  
⇒ The window *Step: Global Recording Settings* appears.

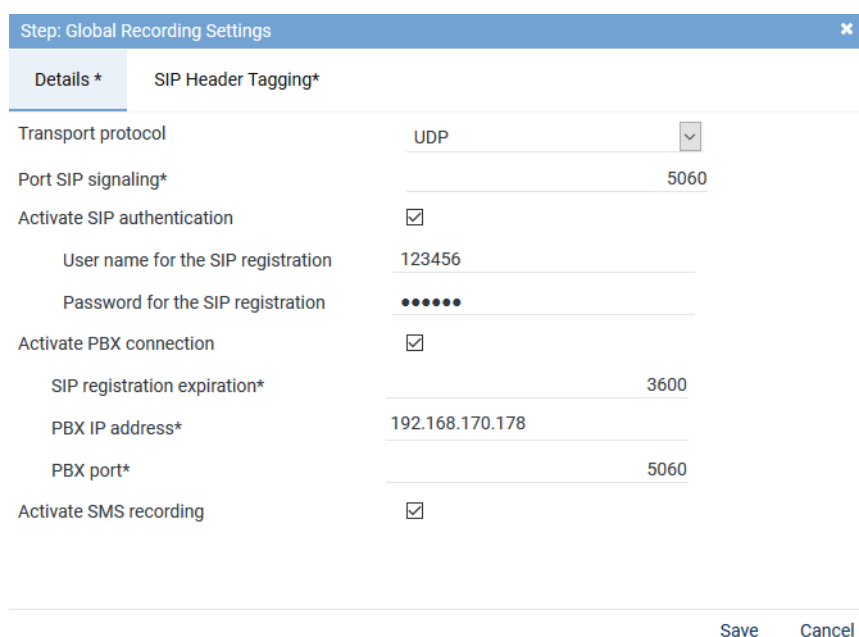


Fig. 258: Configuration step - Global Recording Settings

- Set the following parameters in the tab *Details*:

Parameter	Value/Description
<i>Transport protocol</i>	From the drop-down list, select the used transport protocol for the SIP signaling between the recording server and the PBX. The following protocols are available: <b>TCP</b> = unencrypted <b>UDP</b> = unencrypted <b>TLS</b> = encrypted
<i>Port SIP signaling</i>	Enter the port for the <b>SIP</b> signaling, where the recording server is expecting the signaling. Default value for <b>UDP</b> and <b>TCP</b> is 5060.

Parameter	Value/Description
	Default value with TLS encryption is 5061. <b>NOTICE!</b> If you would like to use several integrations, you have to configure a separate SIP port for each integration. <b>NOTICE!</b> If you would like to use a media streamer for replay, configure another SIP port for it, too. In case of communication issues with the media streamer, this could otherwise affect the recording.
Activate SIP authentication	Activate this option if you would like to use SIP Digest Authentication.
User name of the SIP registration	Enter the user name for the SIP registration, e. g. 123456.
Password of the SIP registration	Enter the password, if an authentication for the SIP registration is used.
Activate PBX connection	Activate this check box if the recording server is supposed to register itself on the PBX.
SIP registration expiration	Enter the time in seconds after which the SIP registration runs out, e. g. 3600.
PBX IP address	Enter the IP address of the PBX.
PBX port	Enter the port on which the SIP signaling is sent to the PBX. The default value is 5060.
Activate SMS recording	Activate the check box if you would like to use SMS recording.

Tab. 68: Global recording settings

**Tab SIP Header Tagging**

1. If you would like to configure the SIP header tagging, click on the tab *SIP Header Tagging*.

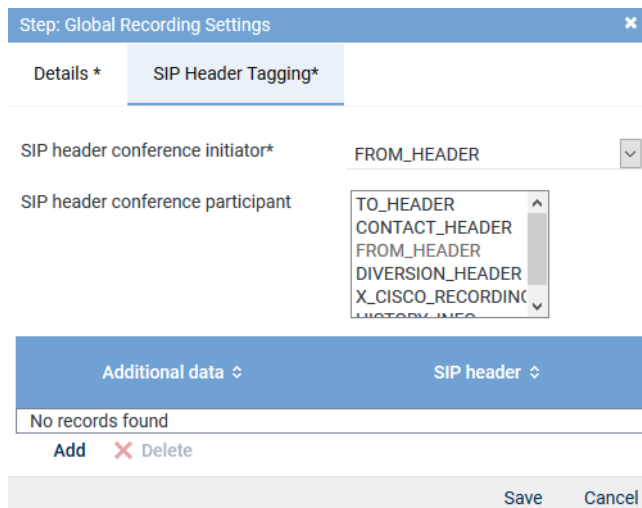


Fig. 259: Tab SIP Header Tagging Configure sources

2. Enter the following parameters:

Parameter	Value/Description
<i>SIP header conference initiator</i>	Select the SIP header which contains the extension of the conference initiator.
<i>SIP header conference participant</i>	Select the SIP header which contains the extension of the additional conference participants.

Parameter	Value/Description
-----------	-------------------

Tab. 69: Configure SIP header tagging



It is possible to select several entries; the information is then displayed one after the other in the respective replay application.

To select several entries, highlight the respective entries while holding the [Ctrl] key down. To deselect an entry, click on it again without releasing the [Ctrl] key.

- If you would like to configure individual additional data that you have defined previously in the Additional Data module, click on the button *Add* in the section *Additional data*.

⇒ The window *SIP Additional Data* appears.

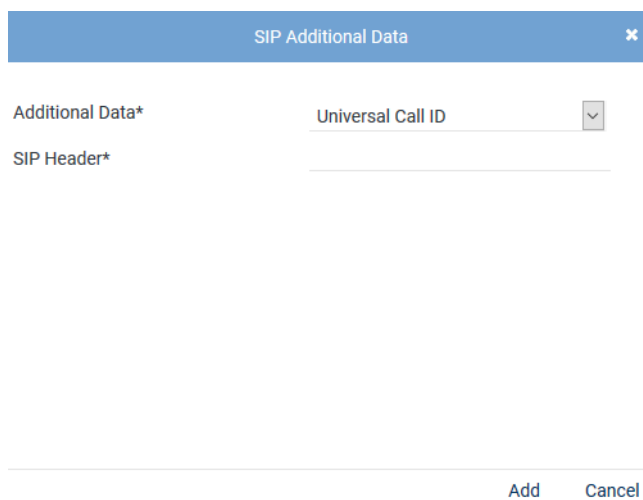


Fig. 260: SIP Additional Data



Only those entries appear in the drop-down list which have been configured in the application System Configuration in the Additional Data module. For further information refer to the administration manual *Additional Data module*.

- Enter the following parameters:

Parameter	Value/Description
<i>Additional Data</i>	In the drop-down list, select the display name of the field in which the information of the SIP header is supposed to be released.
<i>SIP Header</i>	Enter the source from the SIP header from where the information is to be extracted. Observe the correct spelling.


Tab. 70: Configure SIP conversation parameters

- Click on the button *Save* to close the window.
- Click on the button *Save* to finish the configuration in this step.

### Configure recording server for Multi-Server Recording

In case of several recording servers, you have to define the port range for each recording server. The range may be the same for all recording servers. Make sure, though, that the port range lies within the range of ports activated in the firewall, refer to the installation manual *Installation requirements* in chapter *Communication matrix*.

This configuration takes place in the configuration step *Configure recording servers*.

- Click on the button  (*Edit configuration step*) in the line *Configure recording servers* in the main view.  
⇒ The window *Step: Configure Recording Servers* appears.

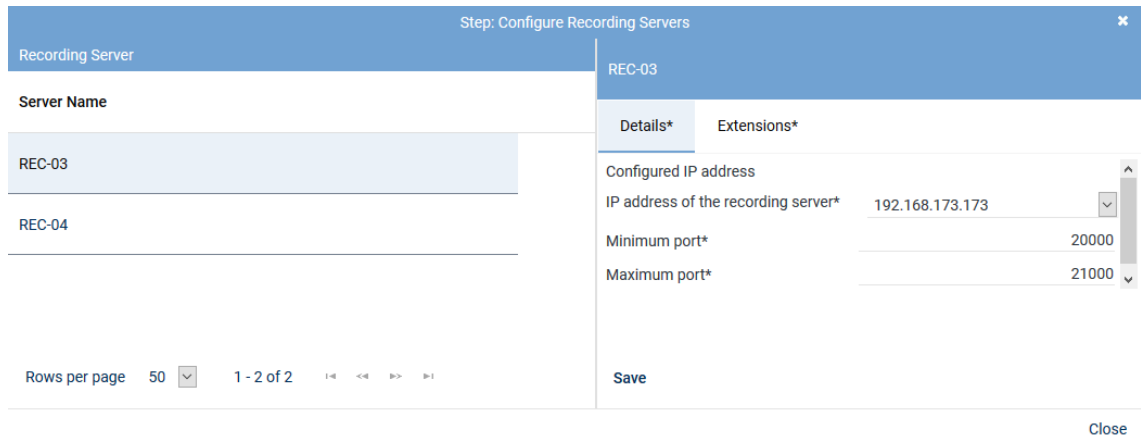


Fig. 261: Configuration step - Configure recording servers

- Enter the following parameters in the tab *Details*:

Parameter	Value/Description
<i>Configured IP address</i>	Here, the IP address is displayed which has been configured for this recording server and via which the data to be recorded are received.
<i>IP address of the recording server</i>	From the drop-down list, select one of the available IP addresses of the recording server for the recording data.
<i>Minimum port</i>	Enter the lowest port of the port range configured on the PBX that is used to receive the <b>RTP</b> data from the recording server, e. g. 20000.
<i>Maximum port</i>	Enter the highest port configured on the PBX that is used to receive the <b>RTP</b> data from the recording server, e. g. 21000.

Tab. 71: Configure recording servers



This recording solutions allows recording data streams in stereo. For stereo recording, reckon with 4 ports as only even ports are used to receive **RTP**.

Stereo recording requires more storage space, too.



If you use several active integrations in one recording architecture, you must configure different port ranges for each integration in the configuration step *Configure recording servers*.



If you use several active integrations in one recording architecture, you must configure different port ranges for each integration in the configuration step *Configure recording servers*.

### Tab Extensions

#### Configure extensions for SIP trunk

To register the **SIP** trunk, you can enter a registration phone number in the tab *Extensions*.



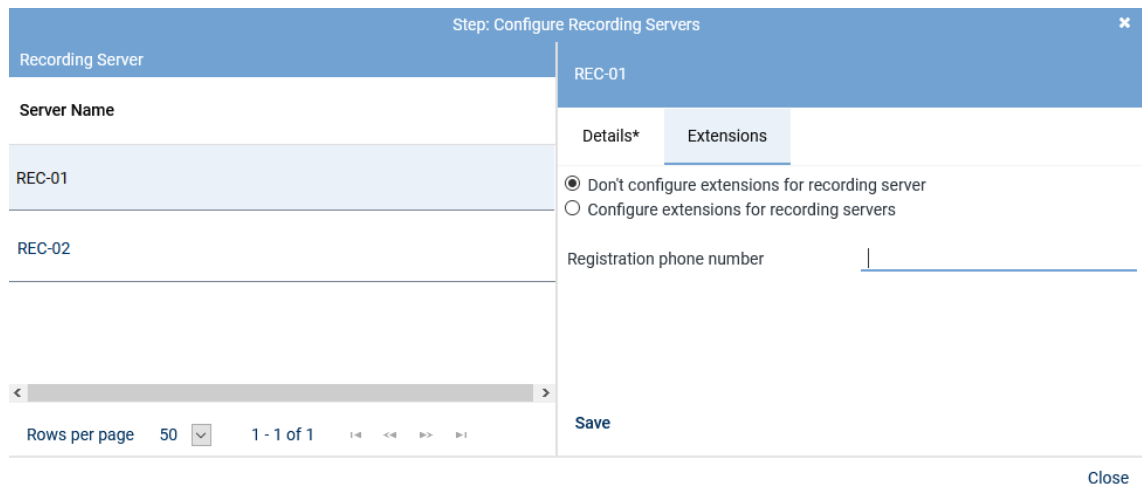


Fig. 262: Recording server - Configure extension for SIP trunk



Ask your provider whether registering 2 servers in parallel mode is supported. To do so, it must be possible to assign a [SIP](#) trunk phone number to 2 different IP addresses at the same time.

*Don't configure extensions for recording server* - Activate this option if you do not have configured extensions for the recording server in the PBX and would like to configure a [SIP](#) trunk phone number instead.



If you do not define a phone number for the [SIP](#) trunk of the recording server, all incoming [SIP](#) connections are accepted without being examined.

Registration phone number      Enter a registration phone number for the [SIP](#) trunk.

For a successful registration, registration must have been activated in the section *Global recording settings*. The user name and password entered there are used to register the [SIP](#) trunk, see [chapter "Global recording settings for All-in-one Parallel Recording", p. 164](#).

1. Click on the button *Save*.
2. Click on the button *Close* to finish this configuration step.

### Configure extensions for the recording server

1. If you have defined extensions for the recording servers in the PBX, you can configure these extensions in the tab *Extensions*.

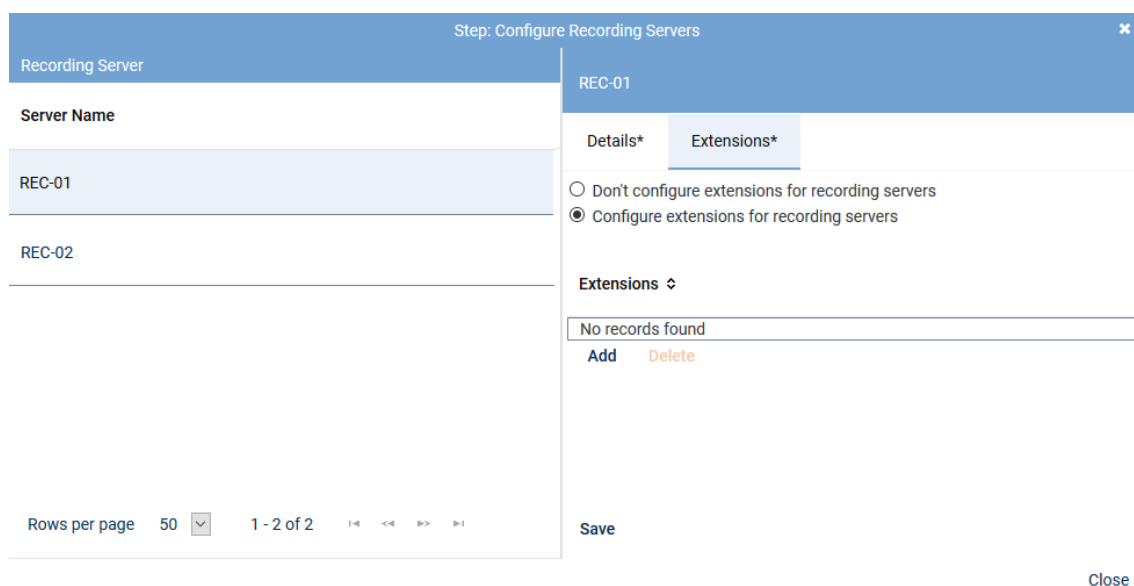


Fig. 263: Tab Extensions

*Configure extensions of the recording server* Activate this option if you have configured extensions for the recording server in the PBX and add the extensions.

- To add extensions, click on the button *Add* in the table *Extensions*.  
⇒ The window *Add Extensions* appears.

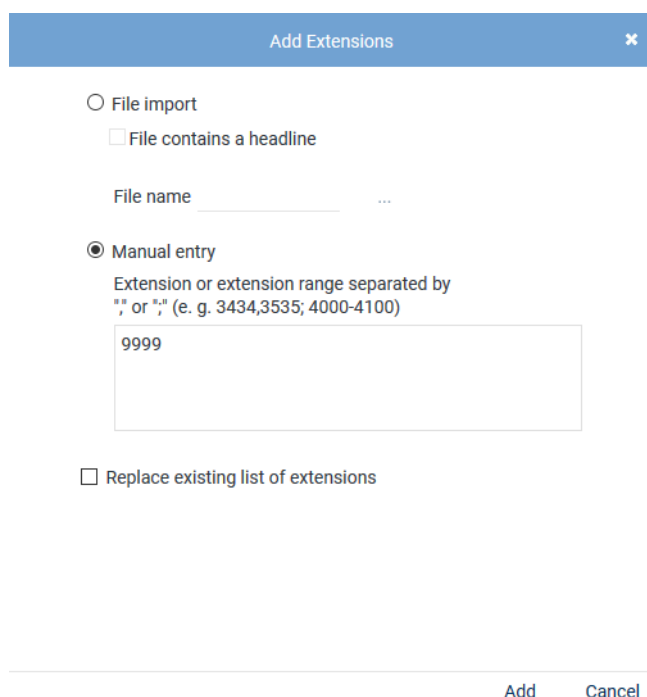


Fig. 264: Add extensions

- In the window *Add Extensions*, enter either a single extension or an extension range that the recording server is to use when registering on the PBX.
- Click on the button *Add*.  
⇒ The extensions are added in the table of extensions.
- If errors have been detected, the window *Result* appears. Click on the button *Display Error Report* to open the window *Error Report*. To close the window *Error Report*, click on the button *Close*. To close the window *Result*, click on the button *Close*.

6. The configured extensions now appear in the detail view.

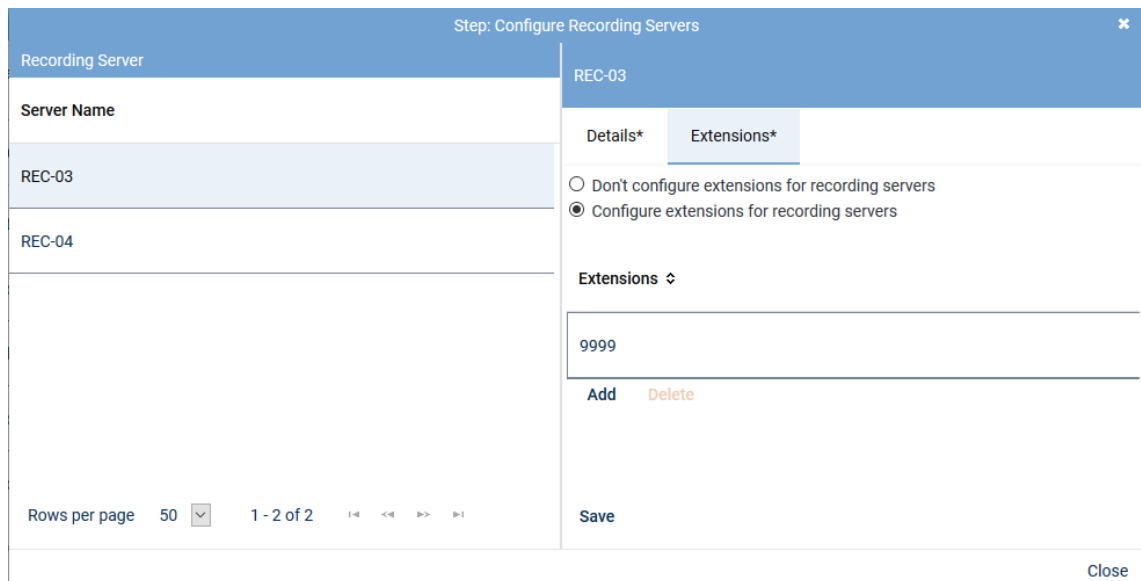


Fig. 265: Added extensions

7. Repeat the steps for additional servers. For each server, configure its own extension or extension range depending on how it can be reached.



In failover architectures, it is recommended to set up a separate extension or extension range for each recording server. If the [SIP](#) registration timer has expired for the extension for the recording server, problems may occur when switching back to the primary recording server. If the primary recording server displays an error, it is not yet possible to register the [SIP](#) end-points again.

8. Click on the button *Save*.  
9. Click on the button *Close* to finish this configuration step.

### Configure add-on



The use of the add-on in the integration is optional. The status of this configuration step has been set to *No selection* by default and is considered to be completely configured that way. You can activate and use the integration without an add-on, too.

If you use an application with add-on, you can select the required grammar in the corresponding version in this configuration step. Additionally, you can configure the connection data and the additional data.



The additional data delivered by an add-on supplements the additional data which is delivered by the CTIconnect module of the integration.

### Configure add-on for Sparkassen FI ISP (optional)

The add-on refers to the usage of CTIconnect for Sparkassen FI ISP in the DACH region and only has to be configured if the add-on is used.



The add-on cannot be used in a failover architecture. The application Sparkassen FI ISP cannot connect to more than one IP address.

The integration runs in combination with a PBX and the recording server. The service **CTIconnect** for Sparkassen FI ISP receives the additional data from the PBX and sends them to the recording server. In addition, the recording decision which is initiated by the user on the end device is processed via **CTIconnect** for Sparkassen FI ISP and sent to the recording server.

### Sparkassen FI Interaktive Service Plattform

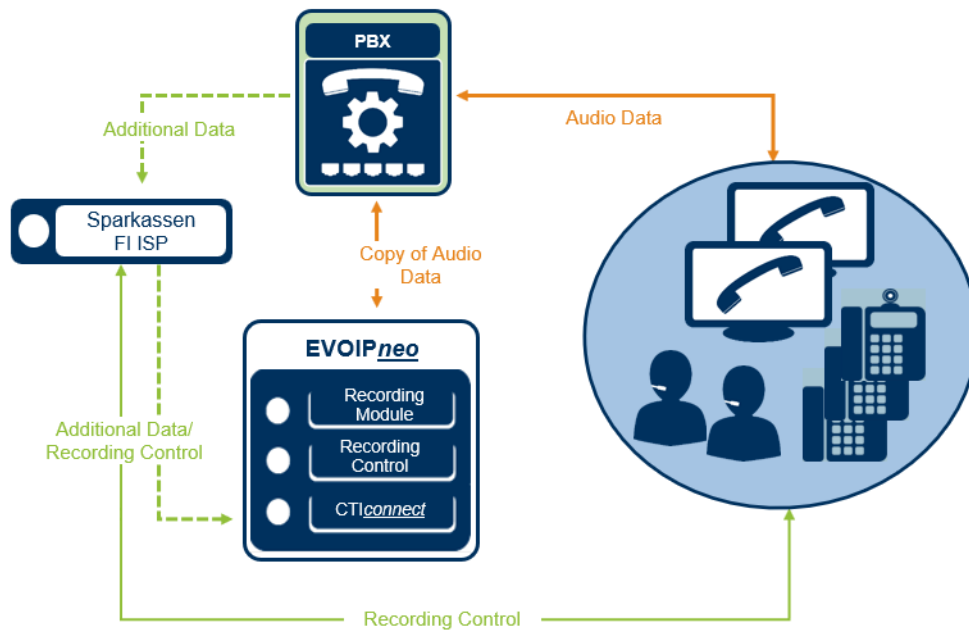



Fig. 266: Overview of Sparkassen FI ISP

#### Configure add-on in the integration

1. To configure the add-on, click on the button  (*Edit configuration step*) in the main view in the line *Configure add-on*.
2. Select the add-on *Sparkassen FI ISP* in the detail view.

Step: Configure Add-on
✕

Details \*

Select add-on

☐ None

☒ Sparkassen FI ISP

**CTIconnect Module**

Type	CTIconnect passive	
Grammar name*	ISP Sparkassen FI	<span>▼</span>
Grammar version*	1.00.05	<span>▼</span>

**Connection Data** ▼

Listener port*	3468
----------------	------

**Additional Data** ▼

ID des Call Centers	Call Center ID	<span>▼</span>
ID des Calls aus Genesys	Universal Call ID	<span>▼</span>
Anmeldename des Kunden	User name	<span>▼</span>
Name des Kunden	Customer name	<span>▼</span>
Personennummer des Kunden	Customer ID	<span>▼</span>

Arbitrary assignment
+

	Please select...	<span>▼</span>	<span>⊖</span>
	Please select...	<span>▼</span>	<span>⊖</span>
	Please select...	<span>▼</span>	<span>⊖</span>

Save Cancel

Fig. 267: Configure add-on for Sparkassen FI ISP

### Group field CTIconnect Module

1. Enter the following parameters for the grammar:

Parameter	Value/Description
Type	Is filled automatically.
Grammar name	A default grammar has been preset. If required, select the name of the grammar from the drop-down list.
Grammar version	Select the current version of the grammar from the drop-down list.

Tab. 72: Configure CTIconnect module



For recording control via the add-on of the Sparkassen FI ISP, grammar version 1.00.05 or higher is required. If the grammar in the respective version is not available yet, you can import it. See [chapter "Import grammar", p. 276](#).

### Group field Connection Data

Set the following parameter in the group field *Connection Data*; the IP address for the PBX does not have to be entered, since the PBX connects to our recording server:

Parameter	Value/Description
<i>Listener port</i>	Enter the port that the add-on connects to, e. g. 3468.

Tab. 73: Configure connection data

### Group field Additional Data



This add-on is used exclusively in the DACH region; for this reason the additional data is only available in German, too. The names of the fields refer to the assignment of the strings which are delivered by the interface.

When using CTIconnect for Sparkassen FI ISP, the following additional data is delivered with the protocol:

- *ID of the call center*
- *ID of the call from Genesys*
- *Login name of the customer*
- *Name of the customer*
- *Employee number of the customer*

### Arbitrary assignment

In the section *Arbitrary assignment*, you can configure the additional data which is additionally delivered by the PBX or by an add-on but which is not listed yet. Upon assigning the delivered additional data, it appears in the search and replay applications.



The names of the column headlines which are supposed to appear in the players must be configured and made available in the Additional Data module first.

For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.



The drop-down list only contains those additional data that you have configured and made available in the Additional Data module. The display name then appears in the column headlines in the players.

For more information about the configuration of additional data refer to the administration manual for system providers *Additional Data module*

1. In the group field headline *Additional Data*, click on the arrow ► to expand the group field and to assign the additional data to the data fields of the search and replay applications.

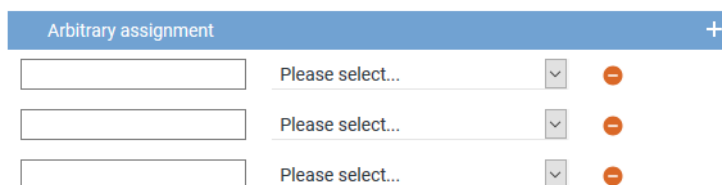



Fig. 268: Arbitrary assignment of the additional data

The following additional data are always available:

- *Start time*
- *End time*
- *Duration*
- *Calling Party Phone Number*
- *Called Party Phone Number*

- *Conversation Direction*
- 2. In the entry field on the left, enter the description of the additional data type from the protocol. Observe the same spelling as it is used in the protocol. The information which is read out of the protocol is displayed in the columns in the players.
- 3. From the drop-down list, select the respective display name that you have configured in the Additional Data module. Only those display names are displayed for which the option *Available* has been activated in the Additional Data module.
- 4. To add a new assignment, click on the icon  (*Create*) in the toolbar of the table.
  - ⇒ An additional row appears to assign another additional data type.
- 5. Click on the button *Save* in the detail view to save the entries and finish this configuration step.

The add-on provides additional data that can be tagged in customer-specific additional data fields (customCP fields). By means of these additional data fields, the respective recording behavior can be reached by means of the recording planner, e. g. recording start beginning with tagging or threat call scenario.



To allow users to control the recording by means of keys, you must configure the recording profile accordingly in the Recording Planner module.



For information about the Recording Planner module refer to the administration manual for tenants *Recording Planner*.


### **Configure add-on for OpenScape Contact Center (optional)**

The add-on refers to the usage of the OpenScape Contact Center and must only be configured if a OpenScape Contact Center is used.

The integration runs in combination with a Unify PBX which is responsible for recording. The CTIconnect service receives the conversation events of the agents via a SDK link in the OpenScape Contact Center and sends the additional data to the EVOIPneo recording service.

For information about the configuration of the OpenScape Contact Center, see [chapter "Configure OpenScape Contact Center \(optional\)", p. 372](#).

### **Configure add-on in the integration**

1. To configure the add-on, click on the button  (*Edit configuration step*) in the main view in the line *Configure add-on*.
2. Select the add-on OpenScape Contact Center in the detail view.

Step: Configure Add-on

Details

Select add-on  
☐ None  
☒ OpenScape Contact Center

**CTIconnect Module**

TypeCTIconnect passive  
Grammar name\*Unify OpenScape Contact Center  
Grammar version\*1.00.04

**Connection Data**

**Connection data**

6000@192.168.170.29

Add Edit Delete

**Additional Data**

Business UnitBusiness Unit  
DepartmentDepartment  
Department KeyDepartment Key  
Call IDUniversal Call ID  
To PartyTo Party  
ACD Group NumberACD Group Number

Arbitrary assignment

Please select...

Please select...

Save Cancel

Fig. 269: Configure add-on for OSCC

### Group field CTIconnect Module

- Enter the following parameters for the grammar:

Parameter	Value/Description
Type	Is filled automatically.
Grammar name	A default grammar has been preset. If required, select the name of the grammar from the drop-down list.
Grammar version	Select the current version of the grammar from the drop-down list.

Tab. 74: Configure CTIconnect module

### Group field Connection Data

In the table Connection Data, you can enter one or several sets of connection data.

If you are configuring several connections, several connections to different business units are established simultaneously in the recording solution with OpenScape Contact Center.

- In the group field *Connection Data* in the table, click on the button *Add*.



⇒ The following window appears:

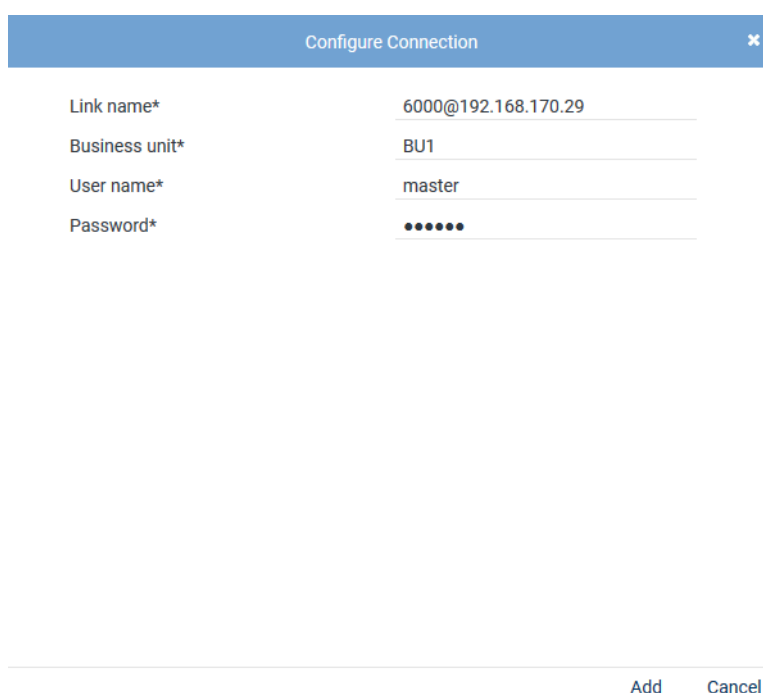


Fig. 270: Configure connection data

2. Enter the following parameters:

Parameter	Value/Description
<i>Link name</i>	Enter the link to the <b>OSCC</b> server in the format <i>osccport@ascserver</i> . The default value for the <b>OSCC</b> port is 6000 and the name of the OSCC server is usually spelled in minor letters. A valid link can look like this: 6000@osccv7r3. Ensure that the server name (e. g. osccv7r3) can be resolved to an IP address. Check whether the address can be reached via the ping command. Alternatively, you can also enter the IP address.
<i>Business unit</i>	The default name of a business unit is <i>default</i> . This is a predefined name for the business unit after a new <b>OSCC</b> server installation. Enter the business unit's actual name you would like to use in the future.
<i>User name</i>	Create a valid user for the business unit that you have created on the <b>OSCC</b> server, so the <b>CTIconnect</b> service can establish the connection to the <b>OSCC</b> server. See <a href="#">chapter "Create user for CTIconnect", p. 372</a> .
<i>Password</i>	Enter the password for the user of the business unit.

Tab. 75: Configure connection data

- Click on the button *Add* to save the entries and to close the window.
- To configure additional connections, repeat the configuration steps accordingly.

### Group field Additional Data

When using **CTIconnect** for Unify OpenScope Contact Center, the following additional data is delivered with the protocol by default:

- *Business unit*
- *Department*
- *Department Key*
- *Call ID*

- *To Party*
- *ACD Group Number*

### Arbitrary assignment

In the section *Arbitrary assignment*, you can configure the additional data which is additionally delivered by the PBX or by an add-on but which is not listed yet. Upon assigning the delivered additional data, it appears in the search and replay applications.



The names of the column headlines which are supposed to appear in the players must have been configured and made available in the Additional Data module previously.

For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.

Here, you can map the database fields for the additional data which is delivered by the [OSCC](#). The contact data of the processed contacts of the OpenScape Contact Center provides a list of key pairs/value pairs. The keyword of this key pair/value pair can be chosen arbitrarily and adjusted customer-specifically. If you would like to use more than one word, avoid spaces. Use underscores instead of spaces, e. g. *ACD\_group*.

1. In the group field headline *Additional Data*, click on the arrow ▶ to expand the group field and to assign the additional data to the data fields of the search and replay applications.

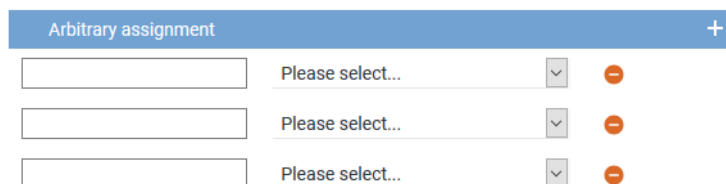




Fig. 271: Arbitrary assignment of the additional data

2. In the entry field on the left, enter the description of the additional data type from the protocol. Observe the same spelling as it is used in the protocol. The information which is read out of the protocol is displayed in the columns in the players.
3. From the drop-down list, select a configured display name of the additional data type which is supposed to appear as column headline in the players. Here, you can only select the display names for the additional data that you have configured and made available in the Additional Data module.
4. To add a new assignment, click on the icon  (*Create*) in the toolbar of the table.  
⇒ An additional row appears to assign another additional data type.
5. To delete an assignment, click on the icon  in the respective row.
6. Click on the button *Save* in the detail view to save the entries and finish this configuration step.

### Configure add-on for Genesys T-Server (optional)

The add-on refers to the usage of Genesys T-Servers and must only be configured if you use Genesys T-Servers.

The integration runs in combination with the PBX and the recording server. The CTI<sup>connect</sup> service receives the information which Genesys T-Server the monitor points have been assigned to from the Genesys Configuration Server. The monitor points must register on the respective Genesys T-Server. Upon successful registration, the respective Genesys T-Server sends all conversation events and additional data of the agents to the recording server.

## CTIconnect for Genesys T-Server

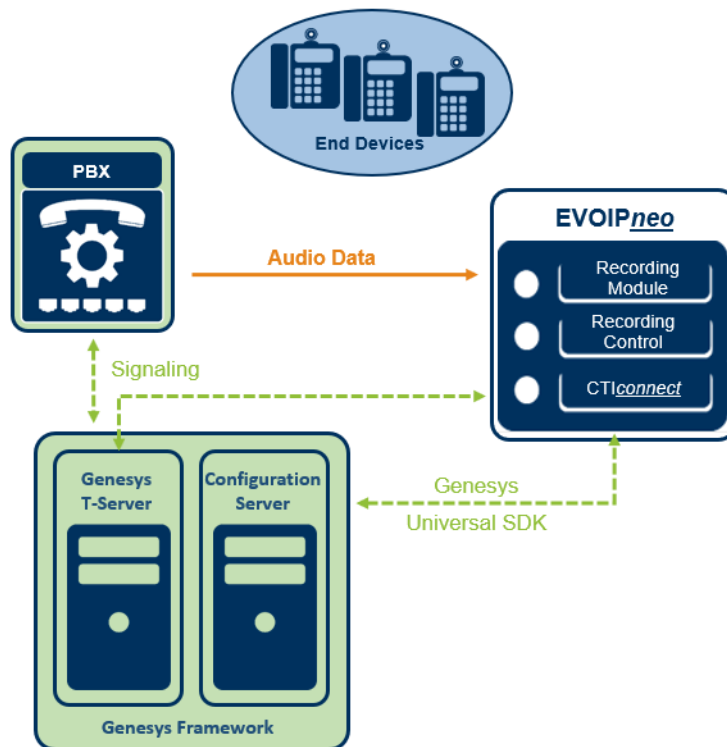


Fig. 272: Overview of the add on of Genesys T-Server



For further information about the configuration of Genesys T-Servers, see [chapter "Configure Genesys T-Server \(optional\)", p. 373](#).

The Genesys add-on uses either a unique call ID or the extension to unambiguously identify the conversations to be recorded.



The additional data delivered by an add-on supplements the additional data which is delivered by the CTIconnect module of the integration.

When using a CTIconnect for Genesys T-Server, a Genesys Framework with T-Servers and Genesys Configuration Servers are required.


By default, the Genesys data field *CallID* has been selected as identifier. If a different data field is supposed to be used for internal control, this can be changed in the configuration file *basic.pif.properties*.

### Adjust configuration file for Genesys add-on

The data field which is supposed to be used by the Genesys add-on is selected by means of the parameter *pifgenesys.call\_identifier*.

1. To adjust the identifier, change to the path  
C:\ASC Product Suite\data\CTIConnectForGenesysT\.
2. Open the file *basic.pif.properties*.
3. Enter the respective data field for the parameter *pifgenesys.call\_identifier*.
4. Save the changes in the file.
5. Restart the recording architecture after completing the change.

### Configure add-on in the integration

1. To configure the add-on, click on the button  (*Edit configuration step*) in the main view in the line *Configure add-on*.
2. In the detail view, select the add-on *Genesys T-Server*.

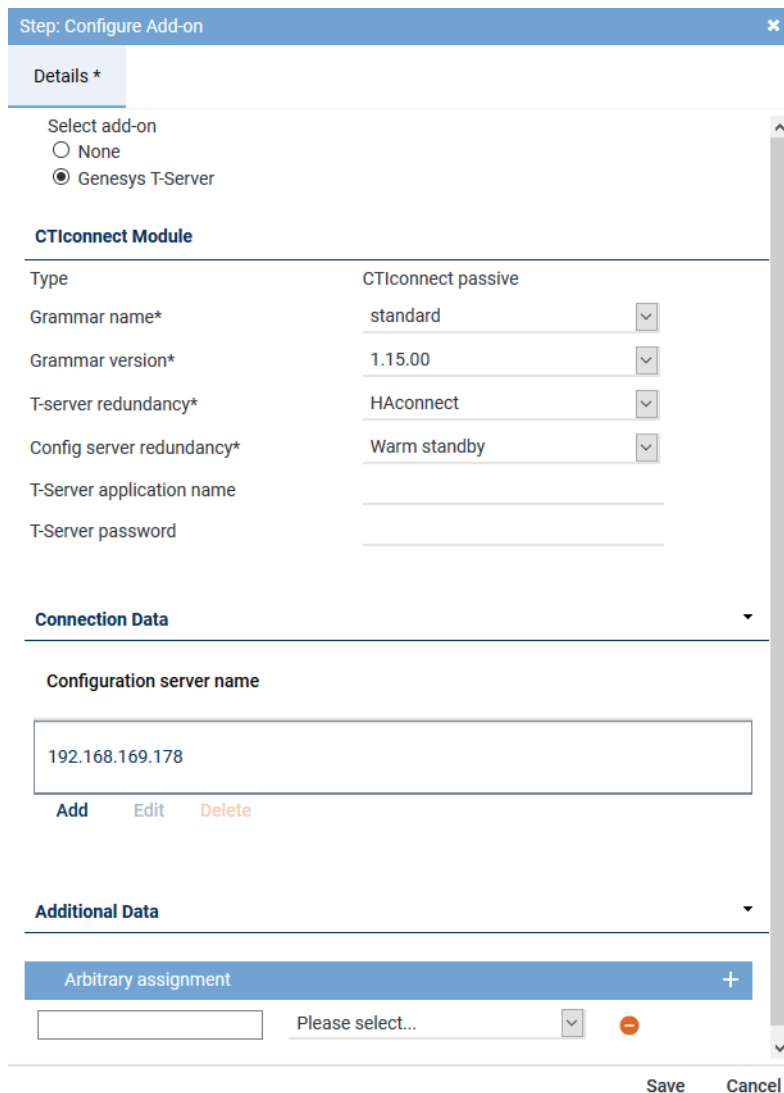


Fig. 273: Configure add-on for Genesys T-Server

### Group field CTIconnect Module

1. Enter the following parameters:

Parameter	Value/Description
<i>Type</i>	Here, the type of the CTI <u>connect</u> module is displayed.
<i>Grammar name</i>	Select the respective grammar.
<i>Grammar version</i>	Select the respective grammar version.
<i>T-server redundancy</i>	Select the redundancy which is used from the drop-down list. <ul style="list-style-type: none"> <li>• <i>No redundancy</i></li> <li>• <i>HAconnect</i> - for High Availability Connection</li> <li>• <i>Warm Standby</i> - for a connectable redundancy</li> </ul>
<i>Config server redundancy</i>	From the drop-down list, select the redundancy which is used for the Configuration Server of Genesys.

Parameter	Value/Description
	<ul style="list-style-type: none"> <li>• <i>No redundancy</i></li> <li>• <i>HAconnect</i> - for High Availability Connection</li> <li>• <i>Warm Standby</i> - for a connectable redundancy</li> </ul>
<i>T-Server application name</i>	<p>This parameter must only be entered, if authentication on the Genesys T-Server is required.</p> <p>Enter the application name that the CTI<u>connect</u> module is supposed to use to log in to the Genesys T-Server.</p> <p>If you use several Genesys T-Servers, the login data must be identical for all servers.</p>
<i>T-Server password</i>	<p>This parameter must only be entered, if authentication on the Genesys T-Server is required.</p> <p>Enter the password that the CTI<u>connect</u> module is supposed to use to log in to the Genesys T-Server.</p> <p>If you use several Genesys T-Servers, the login data must be identical for all servers.</p>

Tab. 76: Configure add-on for Genesys T-Server

### Group field Connection Data

In this group field, you can enter one or several sets of connection data.

1. In the group field *Connection Data* in the table, click on the button *Add*.  
⇒ The following window appears:

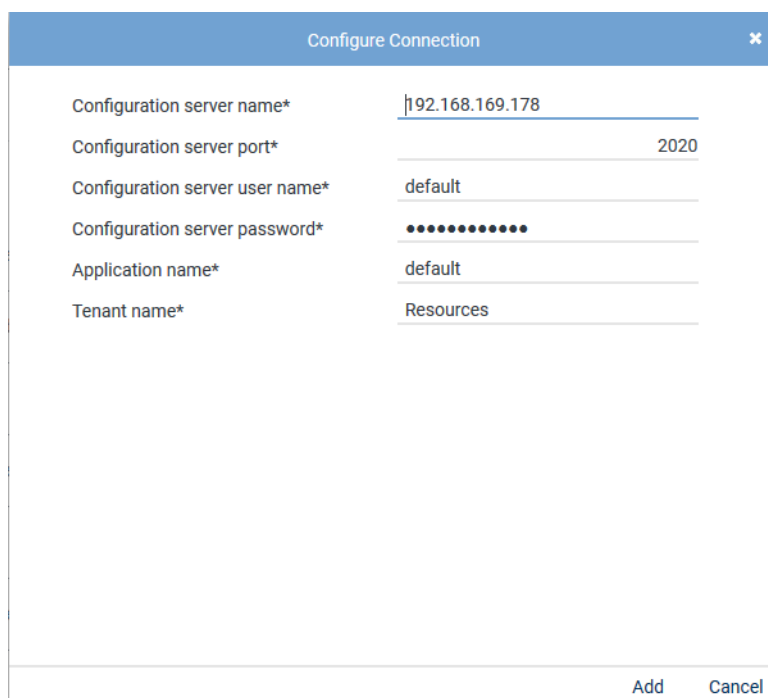


Fig. 274: Configure connection data

2. Enter the following parameters:

Parameter	Value/Description
<i>Configuration Server: Name</i>	Enter the IP address or the name of the computer that the Genesys Configuration Server runs on.
<i>Configuration Server: Port</i>	Enter the port of the Genesys Configuration Server.

Parameter	Value/Description
<i>Configuration Server: User name</i>	Enter the user name to log in to the Genesys Configuration Server.
<i>Configuration Server: Password</i>	Enter the password to log in to the Genesys Configuration Server.
<i>Application name</i>	Enter the application name that the recording servers uses to log in to the Genesys Configuration Server. Default is <i>default</i> .
<i>Tenant name</i>	Enter the name of the Genesys tenant(s) that are supposed to request the configuration data. Default is <i>Resources</i> . Several tenants can be added separated by commas.

Tab. 77: Configure connection data

### Group field Additional Data

The following additional data is delivered by default in the protocol when using Genesys T-Server:

- *CallID*
- *ANI*
- *CallUuid*
- *DNIS*



Further additional data depend on the configuration of the Genesys T-Servers. Check the list *AttributeUserData* in the trace files to find out which further additional data have been delivered by the Genesys T-Servers. Put the addition *UserData* in front of the additional data type when configuring customer-specific additional data, e. g. for *RTargetAgentGroup* you have to configure *UserDataRTargetAgentGroup*.

### Arbitrary assignment

In the section *Arbitrary assignment*, you can configure the additional data which is additionally delivered by the PBX or by an add-on but which is not listed yet. Upon assigning the delivered additional data, it appears in the search and replay applications.



The names of the column headlines which are supposed to appear in the players must be configured and made available in the Additional Data module first.

For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.



The drop-down list only contains those additional data that you have configured and made available in the Additional Data module. The display name then appears in the column headlines in the players.


For more information about the configuration of additional data refer to the administration manual for system providers *Additional Data module*

1. In the group field headline *Additional Data*, click on the arrow ► to expand the group field and to assign the additional data to the data fields of the search and replay applications.

Arbitrary assignment			+
<input type="text"/>	Please select...	▼	⊖
<input type="text"/>	Please select...	▼	⊖
<input type="text"/>	Please select...	▼	⊖

Fig. 275: Arbitrary assignment of the additional data

The following additional data are always available:

- *Start time*
  - *End time*
  - *Duration*
  - *Calling Party Phone Number*
  - *Called Party Phone Number*
  - *Conversation Direction*
2. In the entry field on the left, enter the description of the additional data type from the protocol. Observe the same spelling as it is used in the protocol. The information which is read out of the protocol is displayed in the columns in the players.
  3. From the drop-down list, select the respective display name that you have configured in the Additional Data module. Only those display names are displayed for which the option *Available* has been activated in the Additional Data module.
  4. To add a new assignment, click on the icon  (*Create*) in the toolbar of the table.
    - ⇒ An additional row appears to assign another additional data type.
  5. Click on the button *Save* in the detail view to save the entries and finish this configuration step.

The add-on provides additional data that can be tagged in customer-specific additional data fields (customCP fields). By means of these additional data fields, the respective recording behavior can be reached by means of the recording planner, e. g. recording start beginning with tagging or threat call scenario.




To allow users to control the recording by means of keys, you must configure the recording profile accordingly in the Recording Planner module.



For information about the Recording Planner module refer to the administration manual for tenants *Recording Planner*.

### Configure miscellaneous settings

1. Click on the button  (*Edit configuration step*) in the line *Configure recording servers* in the main view.
  - ⇒ The window *Step: Miscellaneous Settings* appears.

Step: Miscellaneous Settings

×

Details

Dispatcher

Please select...

▼

Save

Cancel

Fig. 276: Configure miscellaneous settings

- Enter the following parameter:


Parameters	Description
<i>Dispatcher</i>	From the drop-down list, select the previously created additional data field that the participant information is supposed to be connected with.





Only those entries appear in the drop-down list which have been configured in the application System Configuration in the Additional Data module. For further information refer to the administration manual *Additional Data module*.

### Activate integration

The integration can only be activated after the configuration is complete.

If not all configuration steps have been carried out completely, the icon  (*Incomplete*) will appear in the main view, in the line of the created integration, in the column *Status*.

If the configuration has been carried out completely, the icon  (*Complete*) will appear in the line of the respective step, in the column *Configuration*.

If all settings are complete, the icon  (*OK*) will appear in the main view, in the line of the created integration, in the column *Status*.

















+ × ⏮ ⏭ Integration ▾ General ▾			
Name ▾	Type ▾	Active ▾	Status ▾
 SIP active	SIP active		
Step		Configuration	
Configure recording architecture			
Global recording settings			
Configure recording servers			
Configure add-on			
Configure miscellaneous settings			

Fig. 277: Activate integration

- Mark the integration in the main view, so that the icon  (*Activate*) becomes active in the toolbar.
- To activate the integration, click on the icon  (*Activate*).  
⇒ In the column *Active*, the icon  (*Active*) appears.




+ × ⏮ ⏭ Integration ▾ General ▾			
Name ▾	Type ▾	Active ▾	Status ▾
 SIP active	SIP active		

Fig. 278: Activated integration





If you use several PBXs, you can create and activate several integrations with the same recording architecture.



If you take advantage of the grace period and there is no valid license file in the system after its expiration, all integrations are deactivated. After uploading a valid license file, you have to activate the integrations again.






Upon activating the standard configuration, a bulk recording will start.

To restrict the recording to particular end devices, the tenant can configure the Recording Planner in the System Configuration accordingly.

### Deactivate/Delete integration

To be able to delete an integration, it has to be deactivated.

- To deactivate the integration, click on the icon  (*Deactivate*) in the toolbar.
  - ⇒ In the column *Active*, the icon  (*Inactive*) appears.
  - ⇒ The icon  (*Delete*) becomes active in the toolbar.







+ ×   Integration ▾ General ▾			
Name ↕	Type ↕	Active ↕	Status ↕
 SIP active	SIP active		

Fig. 279: Deactivate integration

- Click on the icon  (*Delete*) and confirm the security prompt to delete the integration.

## 7.1.2.5 Configure recording solution Multi-Server Failover

### 7.1.2.5.1 Create recording architecture

Start the configuration in the Recording Architectures module because an activated recording architecture is required for further configuration.

The recording servers, recording types, and the integration types are assigned in the Recording Architectures module.

- Select the menu item *Setup > Recording Architectures* in the navigation bar.
  - ⇒ The following window appears:

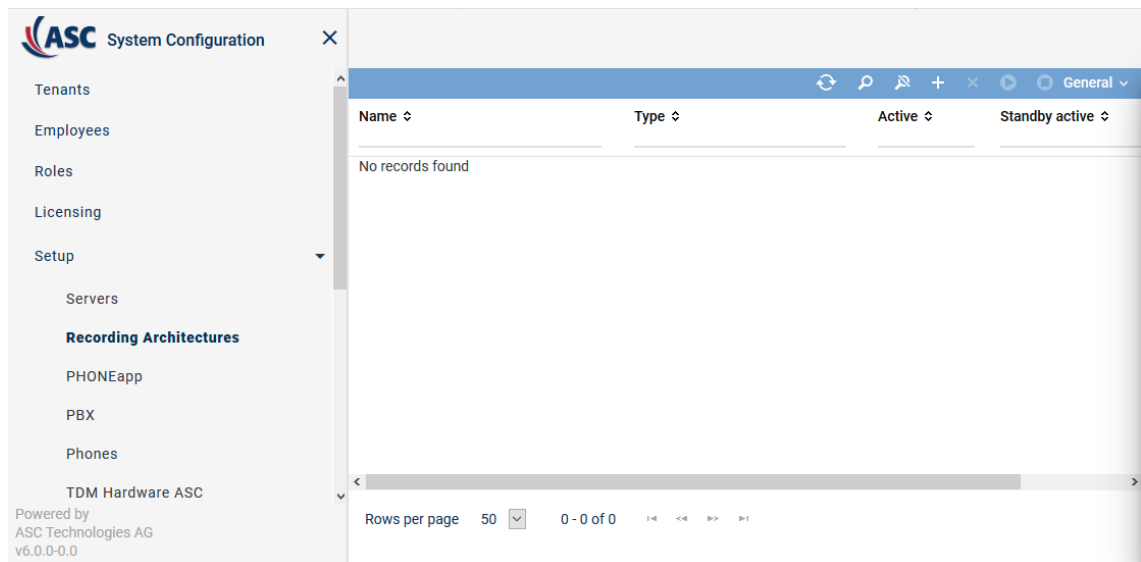




Fig. 280: Recording architectures - main view

<b>Name</b>	Name of the recording architecture
<b>Type</b>	Type of the recording architecture
<b>Active</b>	Shows whether the recording architecture has been activated and is ready to be used for the recording. <div> <span>✓</span> = Recording architecture is active and ready to be used for recording. It can be deactivated by clicking on the icon  (<i>Deactivate</i>) in the toolbar.  <span>✗</span> = Recording architecture is not active. It can be activated by clicking on the icon  (<i>Activate</i>) in the toolbar. </div>
<b>Standby Active</b>	Shows whether the standby server is active for one or several recording components in the recording architecture. <div> <span>✓</span> = At least 1 standby server is active.  <span>✗</span> = No standby server is active or no standby server has been defined. </div>
<b>Creation Date</b>	Date on which the recording architecture was installed.
<b>Updated</b>	Date on which the settings of the recording architecture were updated for the last time.





**NOTICE!** Hidden columns can be added by clicking on the menu item *General > Adjust Table*.





### Toolbar of the Recording Architectures module

The toolbar offers the following functions.



Fig. 281: Toolbar Recording Architectures module

	<b>Refresh</b>	Refreshes the main view.
	<b>Search</b>	Opens the window of the search function. The search function allows searching systematically for sets of data which meet certain criteria.  The icon  is displayed whenever the search has been adjusted by means of a filter.
	<b>Reset search</b>	Resets all search filters so that the main view displays all data sets again.


	<i>Create</i>	Creates a new recording architecture.
	<i>Delete</i>	Deletes the selected recording architecture. The recording architecture is removed from the list of the main view. <b>NOTICE!</b> You can only delete recording architectures which are inactive and have not been assigned to an integration or server for the import.
	<i>Activate</i>	Activates the selected recording architecture.
	<i>Deactivate</i>	Deactivates the selected recording architecture. <b>NOTICE!</b> You can only deactivate recording architectures which have neither been assigned to an active integration nor to an active import.
<i>Recording Architectures</i>	<i>Standby management</i>	The menu item is only available for recording architectures with failover possibilities. By clicking on the menu item Standby Management, you can open a window in which you can manually define the active server in architectures with failover concepts.
<i>General</i>	<i>Print</i>	Prints the table of the main view.
	<i>Adjust Table</i>	Opens a window in which you can adjust the following settings for the main view: <ul style="list-style-type: none"> <li>• <i>Displayed information</i></li> <li>• <i>Order of the displayed columns</i></li> <li>• <i>Number of rows per page</i></li> </ul>
	<i>Save Table Configuration</i>	Saves the current table configuration of the main view as default view of the user.
	<i>General Help</i>	Opens the online help.
	<i>Module Help</i>	Opens the module-specific online help.



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

### Create recording architecture Multi-Server Failover

If there are several recording servers which are supposed to take over the tasks of another recording server in case of an error, you have to create a recording architecture of the type *Multi-Server Failover*.

- To create a new recording architecture, click on the icon  (*Create*) in the toolbar of the main view.  
⇒ The window *New Recording Architecture* appears.

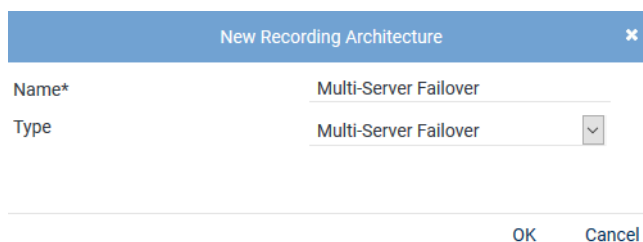


Fig. 282: Create recording architecture - Multi-Server Failover

- In the entry field *Name*, enter a descriptive name for the recording architecture.

- From the drop-down list *Type*, select the recording architecture type *Multi-Server Failover*. **NOTICE!** The drop-down list only displays the supported recording architecture types.
- Click on the button *OK*.  
⇒ Your entries now appear in the detail view.

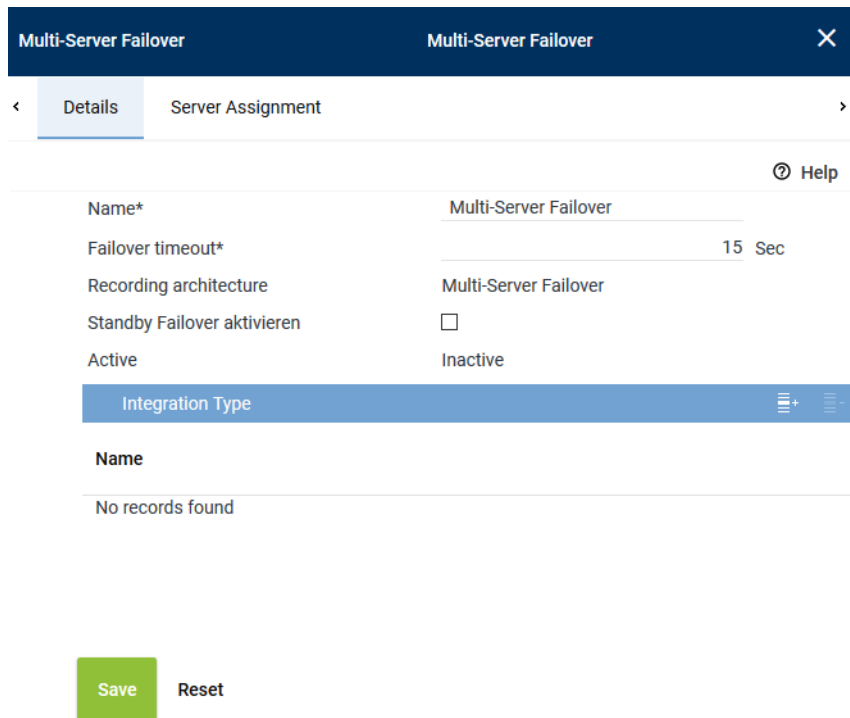


Fig. 283: Recording architecture - tab Details - Multi-Server Failover

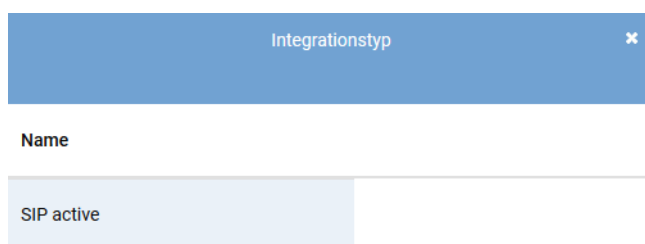
As standby components may have been configured for the different active recording servers, a failover timeout may be configured in this recording architecture. For further information about the configuration of failover architectures, see [chapter "Standby management for failover architectures", p. 363](#).

<i>Failover timeout</i>	<p>Enter a timeout of a minimum of 15 seconds after which the failover process is supposed to start. Depending on the system architecture it may make sense to configure a longer timeout period. The timeout defines the elapse time until the failover process starts. If the status returns to <i>OK</i> within this time, then the failover process is not triggered.</p> <p><b>NOTICE!</b> Check these parameters after an update and set the timeout to 15 seconds, if required.</p>
<i>Activate standby failover</i>	<p>Activate this option if you would like to ensure that the system switches back to the primary server in case of an error of the standby server.</p> <p><b>NOTICE!</b> There is no check whether the primary database is working properly before switching back. As a result it is possible that both databases are in an undefined state.</p> <p><b>NOTICE!</b> After switching back to the original primary server from the standby server, this option is deactivated. If the switching process is supposed to be carried out automatically in the event of a new error, you must activate this option again.</p>
<i>Active</i>	Shows the status of the recording architecture.

### Add integration type

- Click on the icon  (Add) in the toolbar of the list *Integration Type*.

⇒ The window *Integration Type* appears.



Name
SIP active

Hinzufügen Abbrechen

Fig. 284: Select integration type



Only those integration types are displayed which have a license in the system and which support the selected architecture type.



Any number of integration types can be assigned to a recording architecture.

2. Select *SIP active* from the list of the available integration types and click on the button *Add*.  
⇒ The name of the integration type now appears in the list in the detail window.

### **Assign servers for Multi-Server Failover**

1. Click on the tab *Server Assignment* to assign the recording components to the corresponding recording servers for the *Multi-Server Failover* recording architecture.

### **Group field Recording Control and CTIconnect**

In this group field, you can configure recording control. You can configure two different servers for this purpose or select the same server.

Multi-Server Failover
Multi-Server Failover
X

<
Details\*
Server Assignment\*
>

Recording Control and CTIconnect

Recording Control*	RC-01	+	-
Used in activated architecture	No		
CTIconnect*	CTI-01	+	-
Used in activated architecture	No		

Standby Server

Recording Control standby*	RC-02	+	-
Used in activated architecture	No		
CTIconnect standby*	CTI-02	+	-
Used in activated architecture	No		

Recording Server

<
Recording Server
+
-

Server ↕	Standby ↕
REC-01	REC-02

Save
Reset

Fig. 285: Recording Architecture - tab Server Assignment


- Click on the button **+** behind the entry field *Recording control*.  
⇒ The window *Servers* appears.

Servers		
Name ↕	IP Address ↕	Path ↕
RC-02	192.168.173.176	C:\
REC-01	192.168.173.171	C:\
REC-04	192.168.173.174	C:\
REC-02	192.168.173.172	C:\
RC-01	192.168.173.175	C:\
CTI-01	192.168.173.177	C:\
CTI-02	192.168.173.178	C:\

Rows per page 20 1 - 8 of 8

Add Cancel

Fig. 286: Recording Architecture - assign server - example



2. Select the server for the *recording control module*.
3. Click on the button *Add*.  
⇒ The name of the server now appears in the detail view.
4. To delete an assignment, click on the button .




A server can be configured in several recording architectures, but you cannot activate several recording architectures with the same server at the same time. If you would like to activate several recording architectures at the same time, you have to use different servers to do so.

5. Repeat the steps and select the server for the *CTIconnect module* in the entry field *CTIconnect*.

#### Group field Standby Server

1. Click on the button  behind the entry field *Recording control*.
2. Select the standby server for the *recording control module*.
3. Click on the button *Add*.  
⇒ The name of the server now appears in the detail view.
4. Click on the button  behind the entry field *CTIconnect*.
5. Select the standby server for the *CTIconnect module*.
6. Click on the button *Add*.  
⇒ The name of the server now appears in the detail view.

#### Group field Recording Server

1. In the table headline *Recording Server*, click on the icon .
- ⇒ The following window appears:

Multi-Server Parallel Recording
Multi-Server Parallel Recording
×

< Details\*
Device Group 1\*
Device Group 2\*
>

Recording Control and CTIconnect

Recording Control device group 1*	RC-01	+	-	
Used in activated architecture	No			
CTIconnect device group 1*	CTI-01	+	-	
Used in activated architecture	No			

Recording Server



< Recording Server
⋮ + ✎ ⋮

Server ↕	Standby ↕	
REC-01	REC-02	⬆ ⬇ ⬇ ⬆

Save



Reset

Fig. 287: Add Recording Server




2. As described in the previous steps, go to the entry field *Primary server* and click on the icon  to select the primary server on which the recording is supposed to run.
3. In the entry field *Standby server*, click on the icon  to select the standby server which is supposed to take over recording in case of an error.
4. Select the recording type you would like to use for these servers by activating the check box.



You can activate several recording types if the integration has been designed for this and if you have installed the respective licenses.

5. Click on the button *OK* to close the window.
  - ⇒ The name of the server now appears in the detail view.
6. To edit the assignment subsequently, click on the icon .  
To delete an assignment, click on the icon .
7. If you would like to add further recording servers, repeat the steps described above.



### Activate recording architecture

1. Once all servers have been assigned, click on the button *Save*.
2. Select the recording architecture in the main view so that the icon  (*Activate*) in the toolbar becomes active.
3. To activate the recording architecture, click on the icon  (*Activate*).
  - ⇒ In the column *Active*, the icon  (*Active*) appears.



Recording Architecture ▾ General ▾			
Name ▾	Type ▾	Active ▾	Standby active ▾
Multi-Server Failover	Multi-Server Failover	✓	✗

Fig. 288: Recording architecture - activate recording architecture

- To deactivate the recording architecture, if required, click on the icon  (Deactivate).  
⇒ In the column *Active*, the icon  (*Inactive*) appears.



The recording architecture must have been activated so that the integration can be configured.



For updates, the recording architecture is stopped and deactivated. Once the update has been completed, check that the recording architecture has been activated again.



For all recording architectures with failover components, you can manage to the standby components via standby management. This holds true for Multi-Server Recording and Multi-Server Parallel Recording systems if redundancy options are available for these systems. See [chapter "Standby management for failover architectures"](#), p. 363.



If you install an add-on for the integration subsequently, you must deactivate the recording architecture and activate it again after having installed the license.

#### 7.1.2.5.2 Configure servers

Every server in your network that the *neo* software has been installed on is automatically identified as a server of the recording system and displayed in the main view of the Servers module. In the Servers module, you can configure the usage of the servers in your recording system.

- Select the menu item *Setup > Servers* in the navigation bar.  
⇒ The following window appears:

ASC

System Configuration

Tenants

Employees

Roles

Licensing

Setup

Servers

Recording Architectures

PHONEapp

PBX

Phones

TDM Hardware ASC

Servers

General

Name

IP Address

Path

REC-01

192.168.173.171

C:\

REC-02

192.168.173.172

C:\

REC-03

192.168.173.173

C:\

REC-04

192.168.173.174

C:\

RC-01

192.168.173.175

C:\

Rows per page

50

1 - 8 of 8

Powered by

ASC Technologies AG

v6.0.0-0.0

Fig. 289: Servers - main view

Depending on the configuration of the columns, the following information is displayed in the main view:

**Name** Shows the name of the server.

**IP Address** Shows the [IP](#) address of the server.

<i>Path</i>	Shows the path of the server.
<i>Creation Date</i>	Date on which the server was installed.
<i>Updated</i>	Date on which the settings of the server were updated for the last time.






**NOTICE!** Hidden columns can be added by clicking on the menu item *General > Adjust Table*.

### Toolbar of the Servers module

The toolbar offers the following functions.



Fig. 290: Toolbar Servers module

	<i>Refresh</i>	Refreshes the main view.
	<i>Search</i>	Opens the window of the search function. The search function allows searching systematically for sets of data which meet certain criteria.  The icon  is displayed whenever the search has been adjusted by means of a filter.
	<i>Reset search</i>	Resets all search filters so that all sets of data are displayed in the main view again.
	<i>Delete</i>	Deletes the selected server configuration.  This function is meant to delete the server configuration if the hardware of a server has been removed and there is no connection to the <i>neo</i> system.
<i>Servers</i>	<i>Administrate Server Locations</i>	Opens a window in which you can create and administrate locations of the servers, see <a href="#">chapter "Administrate server locations", p. 250</a> .
	<i>Administrate NTP server</i>	Opens a window in which you can administrate the servers for the time synchronization, see <i>Administrate NTP server</i> .
	<i>Manage Synchronization Configurations</i>	Opens a window in which you can manage the synchronization configurations.
<i>General</i>	<i>Adjust Table</i>	Opens a window in which you can adjust the following settings for the main view: <ul style="list-style-type: none"> <li>• <i>Displayed information</i></li> <li>• <i>Order of the displayed columns</i></li> <li>• <i>Number of rows per page</i></li> </ul>
	<i>Save Table Configuration</i>	Saves the current table configuration of the main view as default view of the user.
	<i>General Help</i>	Opens the online help.
	<i>Module Help</i>	Opens the module-specific online help.



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

### Administrate server locations

You can create and manage a list of server locations. In the tab *Details*, you can assign locations to the servers.

### Add server locations

- Click on the menu item *Servers > Administrate Server Locations* in the toolbar of the main view.  
⇒ The window *Server Locations* appears.

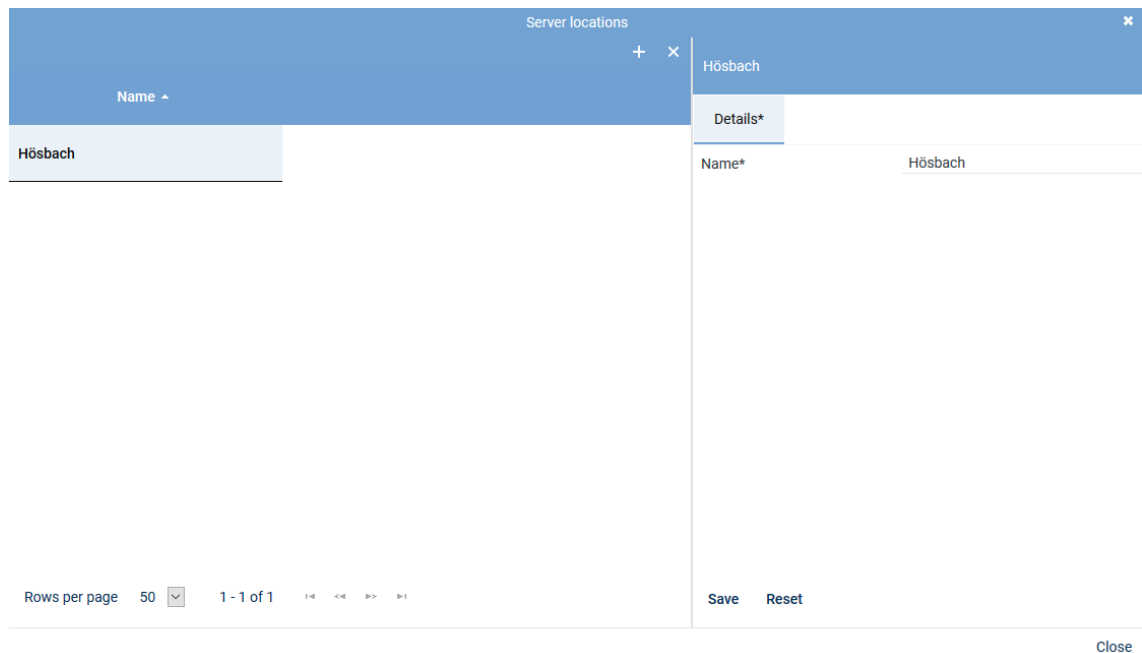



Fig. 291: Add server locations

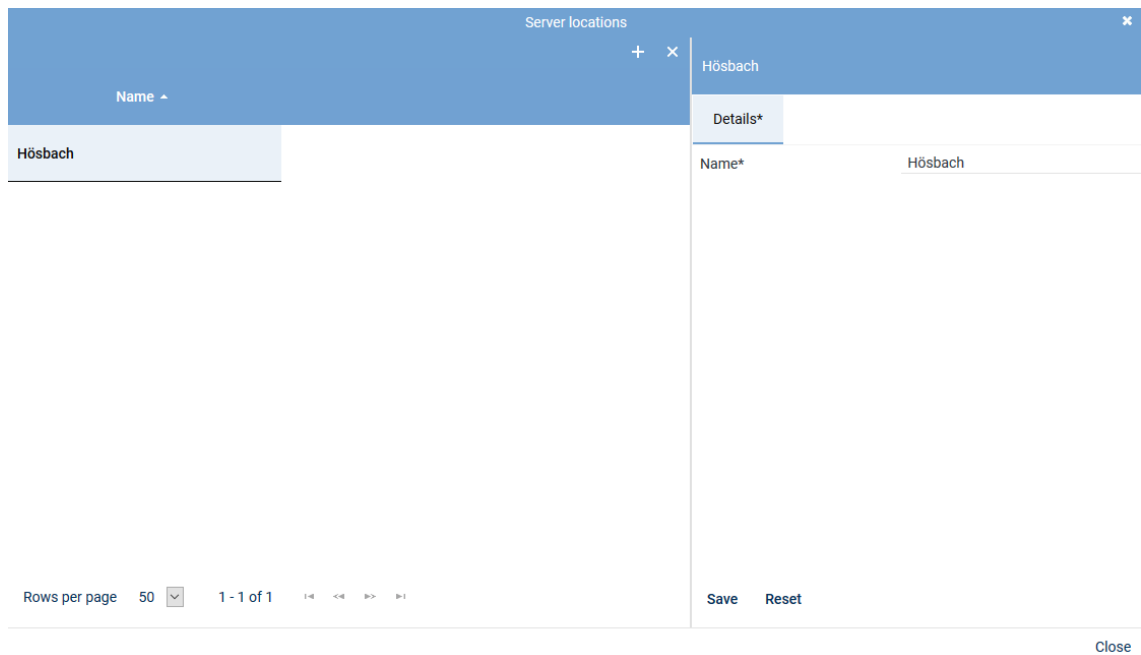
- Click on the icon  (*Create*) in the toolbar of the window *Server Locations*.
- Enter the name of the location on the right side in the tab *Details*.
- To save the entry, click on the button *Save*.  
To discard the entry, click on the button *Reset*.
- To add further locations, repeat the last 3 steps.
- To close the window, click on the button *Close*.

### Delete server location




A server location can only be deleted when it has not been assigned. To be able to delete a server location, you must first delete possible assignments.

- Click on the menu item *Servers > Administrate Server Locations* in the toolbar of the main view.  
⇒ The window *Server Locations* appears.
- Select the location you would like to delete.



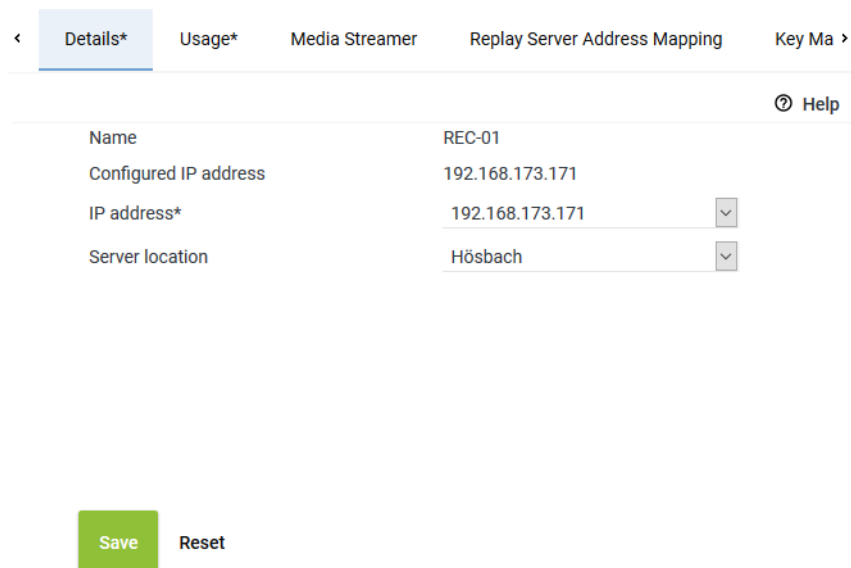
The screenshot shows a window titled "Server locations" with a close button (x) in the top right. Inside, there's a table with a header "Name" and one row containing "Hörsbach". To the right of the table is a "Details\*" tab. Below the table, there's a pagination bar showing "Rows per page 50" and "1 - 1 of 1". At the bottom right of the window, there are "Save" and "Reset" buttons, and a "Close" button outside the window frame.

Fig. 292: Delete server location



3. Click on the icon  (*Delete*) in the toolbar of the window.
4. To delete further locations, repeat the last 2 steps.
5. To close the window, click on the button *Close*.

### Tab Details

1. To configure the server, select the entry of the corresponding server in the main view.
  - ⇒ In the detail view, the tab *Details* appears.
  - The information *Name* and *Configured IP address* has already been entered during the installation and is displayed for your information only.



The screenshot shows a window titled "Servers - tab Details" with a close button (x) in the top right. The window has a tabbed interface with "Details\*" selected. Below the tabs, there's a table with the following fields:

Name	REC-01
Configured IP address	192.168.173.171
IP address*	192.168.173.171 
Server location	Hörsbach 

At the bottom left, there are "Save" and "Reset" buttons. At the top right, there's a "Help" icon.

Fig. 293: Servers - tab Details

2. From the drop-down list, select the IP address which is supposed to be used as default address of the server in the system.
3. Select the *Server location* in the drop-down list. The drop-down list displays all locations which have been created in the location management.

- Click on the button **Save** if the entries are correct.

### Tab Usage

- Click on the tab **Usage** to configure the intended purpose.



As a server may be used for several recording solutions, all intended purposes are displayed. Note that some intended purposes do not apply for certain recording solutions. In chat recording, for instance, audio analysis or replay via phone cannot be used.

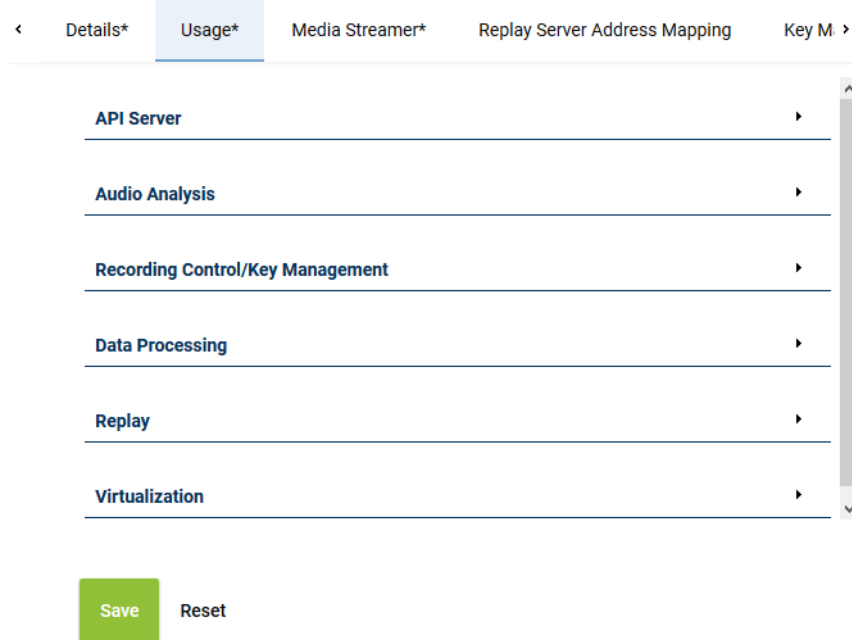


Fig. 294: Servers - tab usage

### Group field API Server

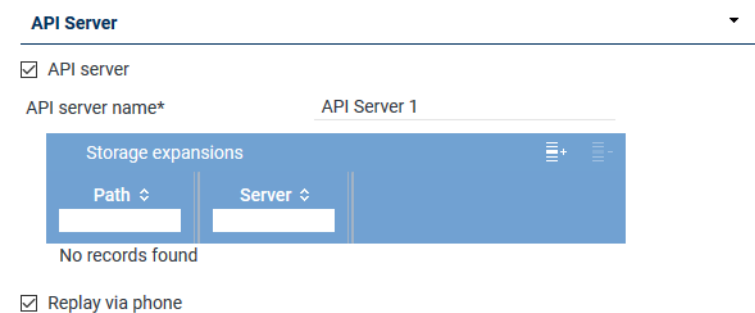


Fig. 295: Group field API Server



The ASC API Server is a service within the neo software.



The ASC API Server must have been activated on every server where the Recording Control service runs.


The ASC API Server does not only offer an interface for the internal modules; additionally, the client applications communicate with the neo system by means of this interface, too, using defined commands.

Furthermore, the ASC API Server is responsible for replay by means of the web browser. Not until the ASC API Server has started, can the replay server be activated and the corresponding ASC API Server assigned for replay in the web applications.

Parameter	Value/Description
<i>API server</i>	<p>Tick the check box to start the API server.</p> <p><input checked="" type="checkbox"/> = Function has been activated. You have to complete the entry field <i>API server</i>.</p> <p><input type="checkbox"/> = Function has not been activated.</p> <p>In order to be able to reach the API server from a public network and with configured port forwarding, too, you have to adjust the settings in the tab <i>Replay Server Address Mapping</i>, see <a href="#">chapter "Tab Replay Server Address Mapping"</a>, p. 263.</p>
<i>API server name</i>	<p>Enter the name which is supposed to denote the server in the system. The displayed name can be selected arbitrarily and is a kind of pseudonym.</p> <p>The displayed name is meant to make it easier for users to select a server as different API servers may be used across the system by different tenants. When selecting the API server, these pseudonyms are displayed on the client computers instead of the real server name or the IP address.</p>
<i>List</i> <i>Storage expansions</i>	<p>Here, you can add storage expansions for replay. If a recording which is supposed to be replayed cannot be found on the server, the search is continued on the storage expansions which have been entered here. That way, even recordings can be replayed which have not been transferred to the server.</p> <p>If the function <i>Replay</i> has been activated, you can adjust the following settings:</p> <ul style="list-style-type: none"> <li>By clicking on the icon  (<i>Add</i>), you can add the storage expansions, see <a href="#">chapter "Add storage expansion for replay"</a>, p. 255.</li> <li>By clicking on the icon  (<i>Remove</i>), you can remove the storage expansions from the list.</li> </ul> <p>If you use several recording servers in your system for which storage expansions have been configured, you can add any storage expansion of any recording server on every API server of the system.</p>
<i>Replay via phone</i>	<p>Activate this function if you would like to use the functions <i>Replay via phone</i> or <i>Last Call Repeat</i>.</p> <p><input checked="" type="checkbox"/> = Function has been activated.</p> <p><input type="checkbox"/> = Function has not been activated.</p> <p><b>NOTICE!</b> The function <i>Replay via phone</i> has been implemented in the following <i>neo</i> components:</p> <ul style="list-style-type: none"> <li>Application POWERplay Pro</li> <li>Application POWERplay Instant</li> <li>Replay module</li> </ul> <p>In order to enable a client to use the functionality <i>Replay via phone</i>, you have to assign this client an identifier either in the Employees module or in the Phones module which allows the system to clearly identify the phone.</p>

Parameter	Value/Description
	<b>NOTICE!</b> In the tab <i>Media Streamer</i> , you have to assign this function to a <a href="#">PBX</a> , see <a href="#">chapter "Tab Media Streamer", p. 262</a> . To be able to do so, at least 1 <a href="#">PBX</a> must have been configured in the system.

### Add storage expansion for replay

1. Click on the icon  (*Add*) in the toolbar of the list.
2. Select 1 or several storage expansions.  
If you would like to select several storage expansions or revoke a selection, click on the respective line while holding the [Ctrl] key down.

Storage Expansion for Replay				
Device Type	Name	Path	Free Disk Space	Server
NAS	NAS 2	NAS 2	<div></div>	REC-02

Rows per page 20 1 - 1 of 1

Add Cancel

Fig. 296: Select storage expansion

3. To apply the selected storage expansions, click on the button *Add*.  
To discard the selection and close the window, click on the button *Cancel*.

### Group field Audio analysis

Audio Analysis

☐ Emotion detection

Stream audio data from\*

Fig. 297: Group field Audio analysis

Parameter	Value/Description
<i>Emotion detection</i>	Activate this check box to activate emotion detection for audio analysis. <input checked="" type="checkbox"/> = Function has been activated. Tenants can use the function emotion detection. <input type="checkbox"/> = Function has not been activated.

Tab. 78: Configure audio analysis

### Group field Recording Control/Key Management

**Recording Control/Key Management** ▼

---

☒ Recording control/Monitoring

Recording architecture      Please choose... ▼

☒ neo key management

Fig. 298: Group field Recording Control/Key Management

Parameter	Value/Description
<i>Recording control/monitoring</i>	<p>Activate the check box, if you would like to use CLIENT<code>command</code> or API recording control. The function is only available if a recording architecture has been configured and activated.</p> <ul style="list-style-type: none"> <li>Recording architecture From the drop-down list, select the recording architecture via which you would like to control the recording.</li> </ul>
<i>neo key management</i>	<p>This function serves for customer-specific recording encryption. To be able to configure the conditions for key management, activate the check box <i>Key management</i>.</p> <p>The function can only be activated if the license <code>ASC_KEY_MANAGEMENT</code> is available.</p> <p>For more information about the configuration of key management refer to the administration manual <i>Configuration server and recording architectures</i> and to the installation manual <i>Installation Dongle Manager</i>.</p>

Tab. 79: Configure recording control/key management



### Group field Data Processing

**Data Processing** ▼

☒ Data storage

☒ Transfer data for replay

Target Server

Name	IP Address ↕
No records found	

☒ Transfer data for data storage

Target Server

Name	IP Address ↕
No records found	

Activate period of time ☒

from 11:59:36

to 11:59:36

Receives data from

Name	Only Replay
No records found	



☒ Archiving





☒ Export

☒ Import

Recording architecture Please choose... ▼


Fig. 299: Group field Data Processing

Parameter	Value/Description
<i>Data storage</i>	Activate the check box to allow the modification of the additional functions of data processing.
<i>Transfer data for replay</i>	<p>Activate the check box if you would like to transfer data only for replay to another server.</p> <p>If the function has been activated, you can select a server from the list <i>Target Server</i> to which the recorded data is supposed to be transferred for replay. The data is not stored on the target server but deposited in a cache temporarily in order to be replayed.</p> <ul style="list-style-type: none"> <li>By clicking on the icon  (<i>Add</i>), you can add the target server, see <a href="#">chapter "Add target server to a list", p. 258</a>.</li> <li>By clicking on the icon  (<i>Remove</i>), you can remove the target server from the list.</li> </ul> <p><b>NOTICE!</b> Only those servers are displayed on which an API server and a replay server have been configured.</p>
<i>Transfer data for data storage</i>	<p>Activate the check box if you would like to transfer data for storage to another server.</p> <p>If the function has been activated, you can select a server from the list <i>Target Server</i> to which the recorded data is supposed to be transferred for data storage purposes. In the drop-down list, all servers are displayed on which the function <i>Data Storage</i> has been activated. The data is copied to the target server and stored there.</p>

Parameter	Value/Description
	<ul style="list-style-type: none"> <li>By clicking on the icon  (Add), you can add the target server, see <a href="#">chapter "Add target server to a list", p. 258</a>.</li> <li>By clicking on the icon  (Remove), you can remove the target server from the list.</li> </ul> <p><b>NOTICE!</b> Only those servers are displayed on which the function <i>Data Storage</i> has been activated.</p> <p>If the function has been activated, you can activate the transfer for a certain period of time.</p> <ul style="list-style-type: none"> <li>Activate period of time <input checked="" type="checkbox"/> = Function has been activated. The fields for entering the time become active. Select the time via the rotating field for the period from – to.</li> <li>Active period of time <input type="checkbox"/> = Function has not been activated.</li> </ul> <p><b>NOTICE!</b> In distributed systems with slow network connections, the storage interval for the data transfer can be adjusted. The storage interval for the data transfer has to be configured by an ASC service technician or by an authorized partner company.</p>
<i>Receives data from</i>	<p>This table contains those servers which transfer data to this server.</p> <p>In the column <i>Name</i>, the name of the server appears from which data has been transferred.</p> <p>In the column <i>Only Replay</i>, the purpose of the transfer is displayed:</p> <p> = Data is transferred only for replay.</p> <p> = Data is transferred for data storage.</p>
<i>Archiving</i>	Activate the check box <i>Archiving</i> if you would like to use the server for archiving purposes.
<i>Export</i>	Activate the check box <i>Export</i> to allow the export from this server.
<i>Import</i>	<p>Activate the check box <i>Import</i> so that the imported data can be stored on this server.</p> <ul style="list-style-type: none"> <li>Recording architecture From the drop-down list, select the recording architecture that fulfills this function. In the drop-down list, all recording architectures are displayed which enable this function as well.</li> </ul> <p><b>NOTICE!</b> If you would like to use a server for the import function on which no recording is supposed to take place, you can configure an architecture exclusively for the import.</p>

Tab. 80: Configure data storage

### Add target server to a list

- In the toolbar of the list *Target Server*, click on the icon  (Add).
- Select the server from the list to which you would like to transfer the data.  
If you would like to select several servers or revoke a selection, click on the respective line while holding the [Ctrl] key down.



Target Server

Name ↕	IP Address ↕
RC-02	192.168.173.176
REC-04	192.168.173.174
RC-01	192.168.173.175
REC-02	192.168.173.172
CTI-01	192.168.173.177
REC-03	192.168.173.173

Rows per page 20 1 - 6 of 6

Add Cancel

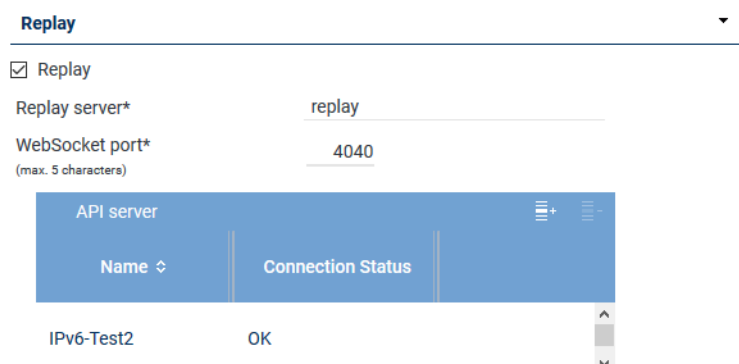
Fig. 300: Select server



Only those servers are available on which the function *Data storage* has been activated.

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

### Group field Replay



Replay

☒ Replay



Replay server\* replay

WebSocket port\* 4040  
(max. 5 characters)

API server	
Name ↕	Connection Status
IPv6-Test2	OK

Fig. 301: Group field Replay

Parameter	Value/Description
<i>Replay</i>	<p>A replay server can replay recordings via the integrated <i>Replay Feature</i>. Only data which has either been recorded directly on this server or which has been transferred to this server for data storage or only for replay purposes can be replayed. The client computers of the system can connect to a replay server for replay purposes.</p> <p>Activate the check box <i>Replay</i> to be able to use the replay function of the players and the phones.</p> <p><input checked="" type="checkbox"/> = Function has been activated. You have to complete the entry field <i>Replay server</i>.</p> <p><input type="checkbox"/> = Function has not been activated.</p>

Parameter	Value/Description
<i>Replay server</i>	<p>If the function has been activated, you can enter a displayed name which is supposed to denote the server as the replay server in the system in the entry field <i>Replay server</i>. The displayed name can be selected arbitrarily and is a kind of pseudonym. As the replay server and the <a href="#">API</a> server must not be identical, you can select different pseudonyms.</p> <p>The displayed name is meant to make it easier for users to select a server as different replay servers may be used across the system by different tenants. When selecting the replay server, these pseudonyms are displayed on the client computers instead of the real server name or the IP address.</p> <p>In order to be able to reach the server activated for replay from a public network and with configured port forwarding, you have to set the configuration in the tab <i>Replay Server Address Mapping</i>. For further details about the configuration refer to the administration manual <i>Configuration of servers and recording architectures</i>.</p>
<i>WebSocket port (maximum of 5 characters)</i>	Enter the port via which the data to be replayed in <i>POWERplay</i> Web are supposed to be transmitted.
<i>List API server</i>	<p>Here, you can add <a href="#">API servers</a> that the replay server may use. If a recording which is supposed to be replayed cannot be found on a server, the search is continued on the <a href="#">API servers</a> which have been entered here.</p> <p>If the function <i>Replay</i> has been activated, you can adjust the following settings:</p> <ul style="list-style-type: none"> <li>By clicking on the icon  (<i>Add</i>), you can add the <a href="#">API server</a>, see <a href="#">chapter "Add API server to a list"</a>, p. 260.</li> <li>By clicking on the icon  (<i>Remove</i>), you can remove selected <a href="#">API servers</a> from the list.</li> </ul>

Tab. 81: Configure replay

### Search and replay functions



To be able to use the search and replay functions via [LCR](#) as well as to use replay via phone, you have to create the users with the respective access rights in the application System Configuration in the Employees module. For information about the configuration refer to the administration manual *User management* for tenants.

### Add API server to a list

The replay server required the services of an [API](#) server. The configuration must be as follows:


- If the replay server runs on a server with a local [API](#) server, it must not necessarily be assigned as the replay server always addresses the local [API](#) server first.
  - If the replay server runs on a separate server, you must assign at least one [API](#) server that the replay server can address.
  - If several [API](#) servers are available in the network, you can assign further [API](#) servers in addition to the local [API](#) server. The assigned [API](#) servers are addressed in order. For this reason, the local [API](#) server should always be first in the list.
- To assign an [API](#) server, click on the icon  (*Add*) in the toolbar of the list *API Server*.
  - Select the server from the list on which the [API](#) service is running.



Fig. 302: Select server



Only those servers are available on which the [API](#) service has been installed and activated. See [chapter "Group field API Server", p. 253](#).

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

### Group field Virtualization



Fig. 303: Group field Virtualization

Parameter	Value/Description
<i>VM support</i>	<p>Activate the check box <i>VM support</i> to be able to use the licensing for several VM installations.</p> <p>This function can only be activated if the system has been installed in a VMware and no <i>TRUSTED_VIRTUALIZATION</i> license has been imported to the system.</p> <p>When activating the function <i>VM support</i>, you have to configure the respective settings in the tab <i>Keystore/VM Licensing</i>. For further details about the configuration of this function refer to the administration manual <i>Configuration of servers and recording architectures</i>.</p>

Tab. 82: Configure virtualization



For the *virtualization* without Internet connection, a dongle is required which contains the system information. The application *Dongle Manager*, required to read the dongle, has to be installed on the server that the dongle has been connected to.

- To save the entries, click on the button *Save* in the detail view.  
To reset the entries, click on the button *Reset* in the detail view.

### Tab Media Streamer

1. Click on the tab *Media Streamer* in the detail view.

In this tab, you can configure the Media Streamer for the functionalities *Replay via phone* and *Last Call Repeat Facility*.



The tab *Media Streamer* is only active if the function *Replay via phone* has been activated in the tab *Usage*.

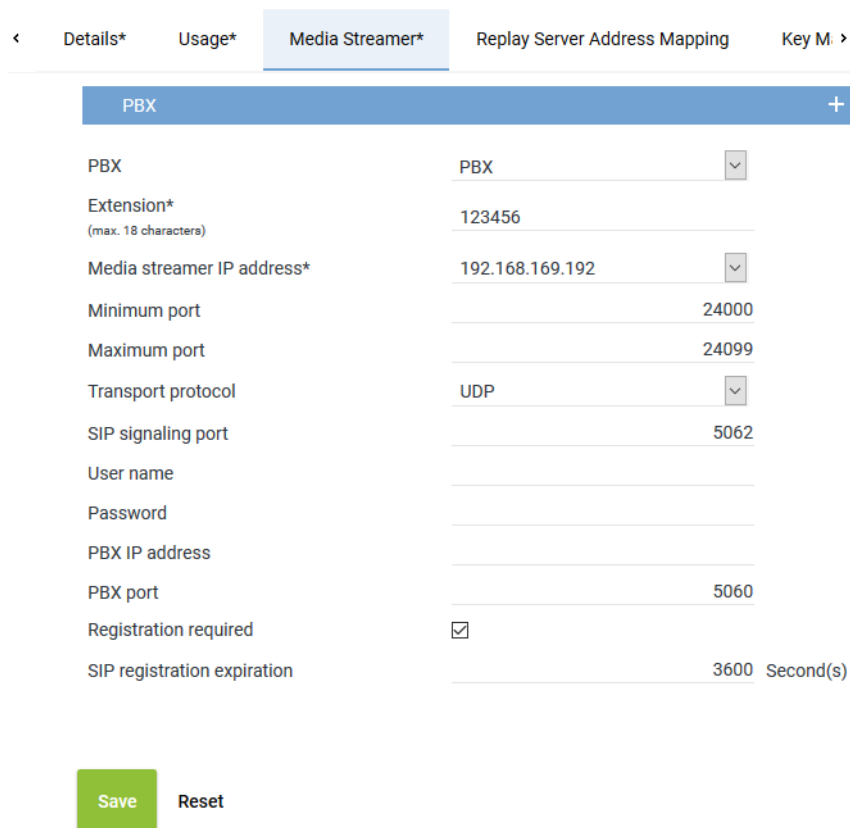


Fig. 304: Servers module - tab Media Streamer

2. Enter the following parameters:

<b>PBX</b>	<p><b>PBX</b> that the Media Streamer is supposed to be mapped to.</p> <p>Select a <b>PBX</b> from the drop-down list. The drop-down list displays all <b>PBXs</b> which have been created in the system.</p> <p>If no <b>PBX</b> has been created in the system yet, you can create a <b>PBX</b> via the blue bar <b>PBX</b>, see <a href="#">chapter "Create PBX"</a>, p. 267.</p>
<b>Extension</b>	<p>Extension which is supposed to be mapped to the Media Streamer. This is a mandatory field; the configuration cannot be saved if this information is missing.</p> <p>If an external analog gateway has been integrated, enter the value <b>8000</b>.</p>
<b>Media streamer IP address</b>	<p>IP address which is supposed to be used for the exchange of the audio data and for the <b>SIP</b> communication.</p> <p>Select an IP address from the drop-down list. In the drop-down list, all IP addresses of the server are displayed.</p> <p>If an external analog gateway has been integrated, select the IP address <b>169.254.254.100</b> in the drop-down list.</p>

<i>Minimum port</i>	Enter the minimum port which is supposed to be used for the audio data exchange.
<i>Maximum port</i>	Enter the maximum port which is supposed to be used for the audio data exchange.  A port range of 100 (e. g. 24000-24099) is sufficient for 50 licenses. The port range should be twice as wide as the number of available licenses.
<i>Transport protocol</i>	Select the transport protocol type you would like to use for the <b>SIP</b> communication from the drop-down list.  <b>TCP</b> = unencrypted <b>UDP</b> = unencrypted <b>TLS</b> = encrypted  If an external analog gateway has been integrated, select <b>UDP</b> in the drop-down list.
<i>SIP signaling port</i>	Enter the port for the <b>SIP</b> communication. Port for data exchange: 5062
<i>User name</i>	Enter the user name for the authentication on the <b>SIP</b> server.
<i>Password</i>	Enter the password for the authentication on the <b>SIP</b> server.
<i>PBX IP address</i>	Enter the IP address of the <b>SIP</b> registrar of the <b>PBX</b> .  If an external analog gateway has been integrated, enter the IP address 169.254.254.101.
<i>PBX port</i>	Enter the port of the <b>SIP</b> registrar of the <b>PBX</b> .  If an external analog gateway has been integrated, enter the value 5060.
<i>Registration required</i>	Select whether the <b>SIP</b> extension has to be registered with the <b>SIP</b> registrar of the <b>PBX</b> .  <input checked="" type="checkbox"/> = <b>SIP</b> extension has to be registered. <input type="checkbox"/> = <b>SIP</b> extension does not have to be registered.  If an external analog gateway has been integrated, deactivate the check box <i>Registration required</i> .
<i>SIP registration expiration</i>	Enter the time interval after which the registration has to be repeated.

### Tab Replay Server Address Mapping

1. Click on the tab *Replay Server Address Mapping* in the detail view.

In this tab, you can configure the replay server address mapping. Servers which have been activated for replay require this address mapping so that they can be reached from a public network and with configured port forwarding.



The tab *Replay Server Address Mapping* is only active if the function *Replay* has been enabled in the tab *Usage*.

[Details\\*](#)
[Usage\\*](#)
[Media Streamer\\*](#)
[Replay Server Address Mapping](#)
[Key M. >](#)

---

**Replay Server Addresses**
✖

Internal IP address/ port of the replay server
  : 4000

External address/ port of the replay server
  : 4000

Save
Reset

Fig. 305: Servers Module - tab Replay Server Address Mapping

### Group field Replay Server Addresses

1. Enter the following parameters:

<i>Internal IP address/ port of the replay server</i>	Enter the destination <b>IP</b> address and the port of the replay server at which the Replay module can be reached internally.
<i>External address / Port of the replay server</i>	Enter the <b>URL</b> or the <b>IP</b> address and the port at which the Replay module can be reached via the browser from outside. When entering the external address consider whether the SSL certificate has been created for an IP address or for a DNS address. In the latter case, it is imperative to enter the DNS name! Otherwise the certificate check in the replay applications will fail.

If you would like to remove the addresses, click on the icon ✖ in the title bar of the group field.



If address mapping has been configured, the Replay module receives the configured address and the configured port.

If address mapping has not been configured, the Replay module receives the IP address and the default port 4040 as entered in the tab *Details*.



To allow the users of the respective tenant to access the replay server via the browser, an internal address and/or an external IP address or a DNS name must be configured in the Tenants module.



For information about the configuration refer to the administration manual for tenants *User management tenant*.

### Tab Key Management

1. Click on the tab *Key Management* in the detail view.

In this tab, you can configure the settings for the *neo* key management. This tab is only active if you have installed the corresponding license and enabled the function *neo Key Management* in the tab *Usage*.



< Usage\* Media Streamer\* Replay Server Address Mapping
Key Management >

Key creation interval

☒ All

365 Day(s)

☐ Create key manually

Delay usage
until

0 Day(s)

0 Hour(s)

☐ Key expiration date
after

0 Day(s)

☒ In case of an error switch to simple key management automatically

Save

Reset

Fig. 306: Servers module - tab Key Management

<i>Key creation interval</i>	<p>Select whether a key is supposed to be generated automatically or manually. Select one of the following options:</p> <ul style="list-style-type: none"> <li>• <i>All</i> Select the intervals in which a new key is supposed to be generated automatically. Possible time interval: 1 to 365 days Default value: 365 days</li> <li>• <i>Create key manually</i> Select that a key is supposed to be generated manually.</li> </ul> <p>Old keys which are no longer used for encryption become inactive for the time being. They remain in the database, though, since they are still required for the decryption of old recordings.</p>
<i>Delay usage</i>	<p>If required, enter a time interval during which the new key is not supposed to be used yet after having been created. Not until after this time interval has passed can the key be actually used for encryption.</p> <p>Possible time interval: 0 to 14 days Default value: 0 days (new keys are immediately used for encryption)</p> <p>A delay guarantees that the key has been captured by a database backup before it will actually be used.</p>
<i>Key expiration date</i>	<p>Select whether an inactive key is supposed to become invalid after the expiration of the time interval defined here.</p> <p><input type="checkbox"/> = Key never becomes invalid.</p> <p><input checked="" type="checkbox"/> = Key becomes invalid. In the entry field, enter the time interval after which the key loses its validity. Once this time interval has passed, the key cannot be used anymore. If recording data must be deleted after a certain period of time, this option offers additional security on top of the configured date of deletion. This especially applies to the case when recording data has been transferred manually to a storage location where the deletion mechanism of the system cannot find it.</p>

**CAUTION!** All recordings which have been encrypted with a key which has meanwhile become invalid are useless and cannot be replayed anymore.

*In case of an error ... automatically*

Select whether simple key management is supposed to be used if the neo key management does not work (e. g. if the service *DongleMan* fails). If you have not activated the option, no recording takes place as long as the neo key management has been activated but does not work.

☒ = In case of an error, simple key management is used as replacement.

☐ = In case of an error, no recording takes place as long as the neo key management has been activated. In this case, disable key management in the tab *Usage*.



On top of the settings in this tab, each tenant who would like to use the neo key management has to define individual settings in his own user management (Tenants module).



For information about the configuration refer to the administration manual for tenants *User management tenant*.

### Tab Keystore/Virtualization

1. Click on the tab *Keystore/Virtualization* in the detail view.

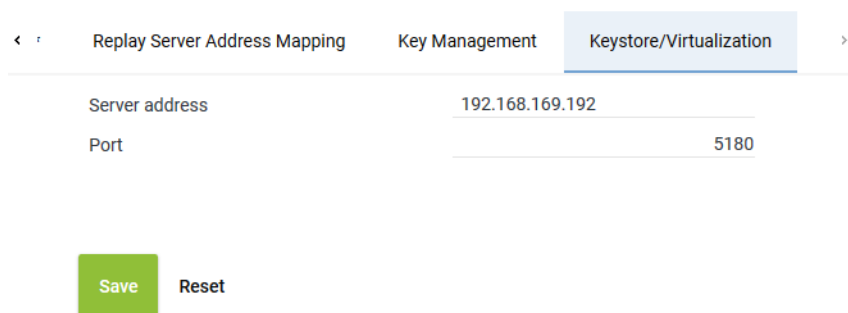
In this tab, you can configure the connection data for the service *DongleMan* for the neo key management and for the authentication of the VM.



If your system has been installed in a virtual environment, the application Dongle Manager must have been installed and started locally outside the VM so that the access to the dongle works. The dongle must have been connected to the server on which the VM has been installed.



For detailed information about neo key management refer to the administration manual *Encryption of recordings*.



<a href="#">Replay Server Address Mapping</a> <a href="#">Key Management</a> <a href="#">Keystore/Virtualization</a>	
Server address	192.168.169.192
Port	5180
<input type="button" value="Save"/> <input type="button" value="Reset"/>	

Fig. 307: Servers module - tab Keystore/Virtualization

#### Server address

Enter the address of the server for this connection.

- If you use the neo key management as well as the virtualization:  
IP address of the server that the service *DongleMan* has been installed on.
- If you use only virtualization, you can authenticate the VM via the ASC License Management System, too. In this case, enter the following address:  
*licensing.asc.de*

- If you use only the ASC key management:  
IP address of the server with the master password database

**Port** Enter the port for the connection.  
Default value: 5180

- To save the settings, click on the button *Save*.  
To discard the settings, click on the button *Reset*.

### 7.1.2.5.3 Create PBX

The PBX can either be configured via the PBX module or via the Integrations module.

In this configuration step, the parameters for the PBX are configured, e. g. the name, the area code and the net code.

- Select the menu item *Setup > PBX* in the navigation bar.

⇒ The following window appears:



Fig. 308: Create new PBX

### Toolbar of the PBX module

The toolbar offers the following functions.

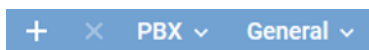




Fig. 309: Toolbar PBX module


	<i>Create</i>	In the detail view, you can enter the parameters of the new PBX.
	<i>Delete</i>	Deletes the selected PBX configuration. A PBX can only be deleted if it is not used in any configuration.
<b>PBX</b>	<i>Phone Configuration</i>	Opens a window in which you can create and configure phones.
	<i>Administrate Unused Extensions</i>	Opens a window in which you can delete extensions that are not used in any configuration.
<b>General</b>	<i>Print</i>	Prints the table of the main view.
	<i>Adjust Table</i>	Opens a window in which you can adjust the following settings for the main view: <ul style="list-style-type: none"> <li>• <i>Displayed information</i></li> <li>• <i>Order of the displayed columns</i></li> <li>• <i>Number of rows per page</i></li> </ul>

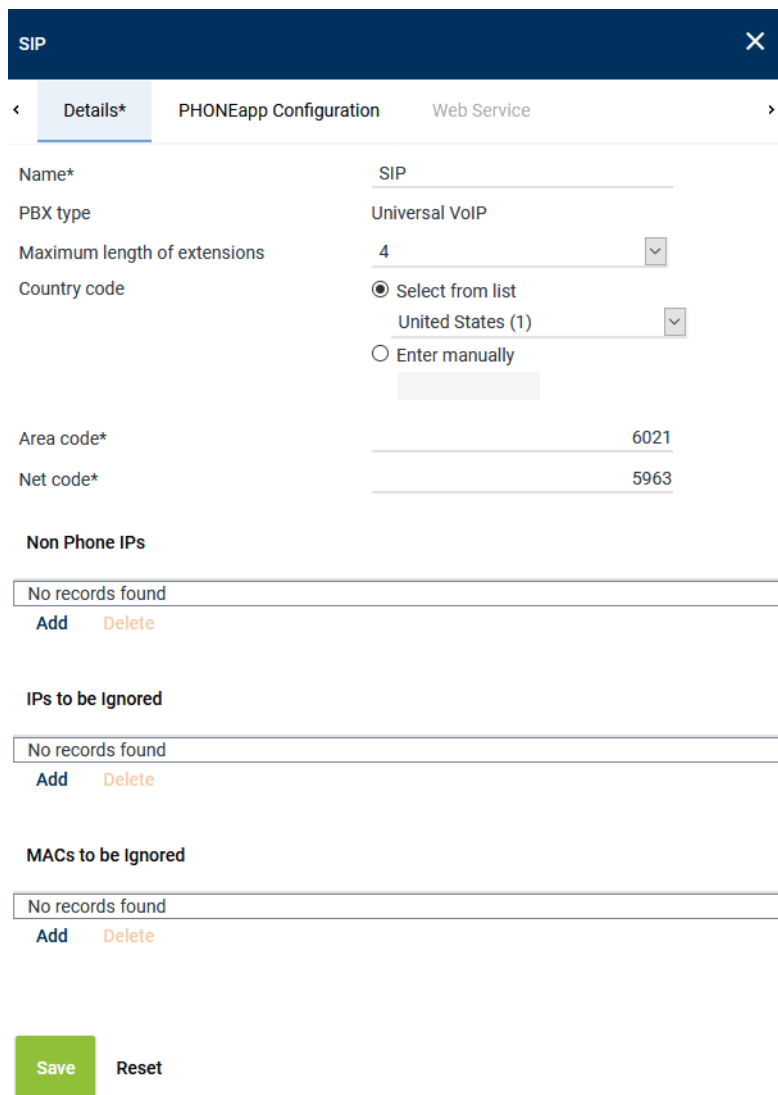
<i>Save Table Configuration</i>	Saves the current table configuration of the main view as default view of the user.
<i>General Help</i>	Opens the online help.
<i>Module Help</i>	Opens the module-specific online help.



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

### Create new PBX

- Click on the icon  (*Create*) in the toolbar of the main view of the PBX module.  
⇒ In the detail view, the tab *Details* appears.



**SIP** [X]

< Details\* PHONEapp Configuration Web Service >

Name\* SIP

PBX type Universal VoIP

Maximum length of extensions 4

Country code ☒ Select from list  
United States (1)

☐ Enter manually

Area code\* 6021

Net code\* 5963

**Non Phone IPs**

No records found  
[Add](#) [Delete](#)

**IPs to be Ignored**

No records found  
[Add](#) [Delete](#)

**MACs to be Ignored**

No records found  
[Add](#) [Delete](#)

[Save](#) [Reset](#)

Fig. 310: Create new PBX - tab Details

- Set the following parameters in the detail view:

Parameter	Value/Description
<i>Name</i>	This <i>name</i> serves as the identifier of this PBX.
<i>PBX type</i>	Select the type of the <a href="#">PBX</a> from the drop-down list.
<i>Maximum length of the extensions</i>	Enter the number of digits of the extensions, e. g. 4.
<i>Country code</i>	Select the option for the country code:

Parameter	Value/Description
	<ul style="list-style-type: none"> <li>• <i>Select from list</i> Select the country code from the drop-down list.</li> <li>• <i>Enter manually</i> If the corresponding country code is not available in the drop-down list, you can enter the 3-digit code manually. e. g. for Sri Lanka <i>094</i>.</li> </ul>
<i>Area code</i>	Enter the area code without the preceding <i>0</i> , e. g. <i>6021</i> .
<i>Net code</i>	Enter the net code, e. g. <i>5963</i> . Do not enter an extension here.

Tab. 83: Create PBX

If you would like to display the complete phone number, e. g. if you use more than one PBX, several area codes, or if you would like to record mobile phones, you have to configure the value *0* in the following parameters:

Parameter	Value/Description
<i>Maximum length of the extensions</i>	Enter the number <i>0</i> in the field maximum length of the extensions to display the complete phone number.
<i>Area code</i>	Enter the number <i>0</i> as area code to display the complete phone number.
<i>Net code</i>	Enter the number <i>0</i> as net code to display the complete phone number.

Tab. 84: PBX parameters with complete phone number

- To save the settings, click on the button *Save*.  
To discard the settings, click on the button *Reset*.

#### 7.1.2.5.4 Assign recording resources

In multi-tenant systems, you have to assign each tenant its own recording resources.

Depending on the recording type, agents can be assigned to the recording resource via the extension, via the PBX Agent ID or via the chat ID. Within one tenant, you can configure all three possibilities.

##### Assign extensions to tenants

If you would like to make an assignment based on extensions, you can assign the respective tenant the extension designated for recording in the Tenants module.



In 1-tenant systems, all extensions are automatically assigned to the tenant who has been created by the system (1st tenant). Extensions are assigned to the user in the Employees module.

When installing a 1-tenant system, you can skip this chapter.



In multi-tenant systems, you have to assign the extensions manually to each tenant who is supposed to be able to use them. There are multi-tenant systems, too, in which only 1 tenant has been set up.

The manual assignment of extensions is not possible until a PBX has been created since extensions are assigned in relation to the PBX.

- Select the menu item *Tenants* in the navigation bar.

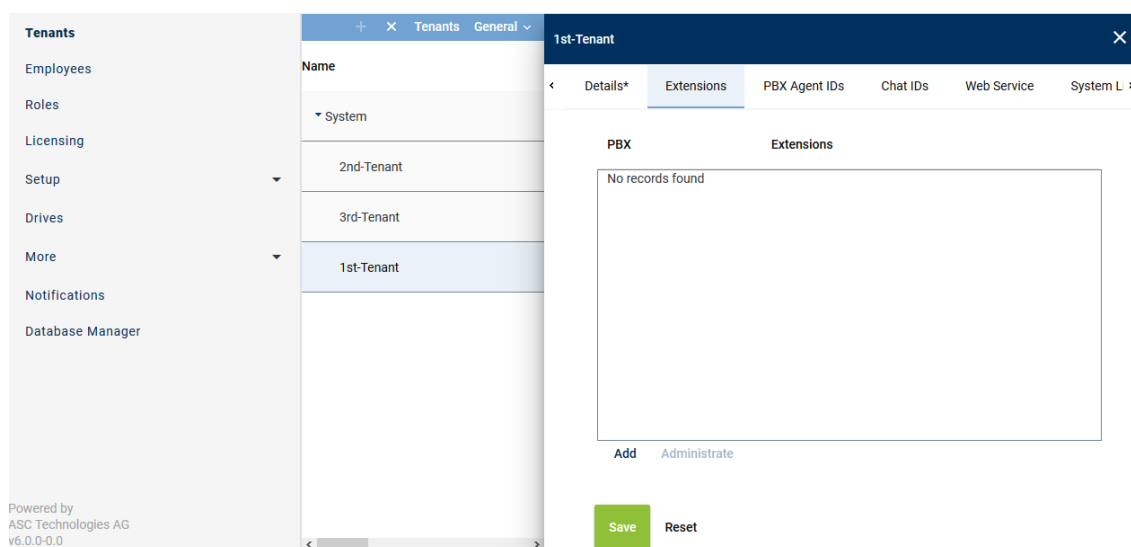


Fig. 311: Tenants - main view - tab Extensions

### Add extensions

1. In the main view, select the tenant to whom you would like to assign extensions.
2. Click on the tab *Extensions*.
3. Click on the button *Add*.

⇒ The following window appears:

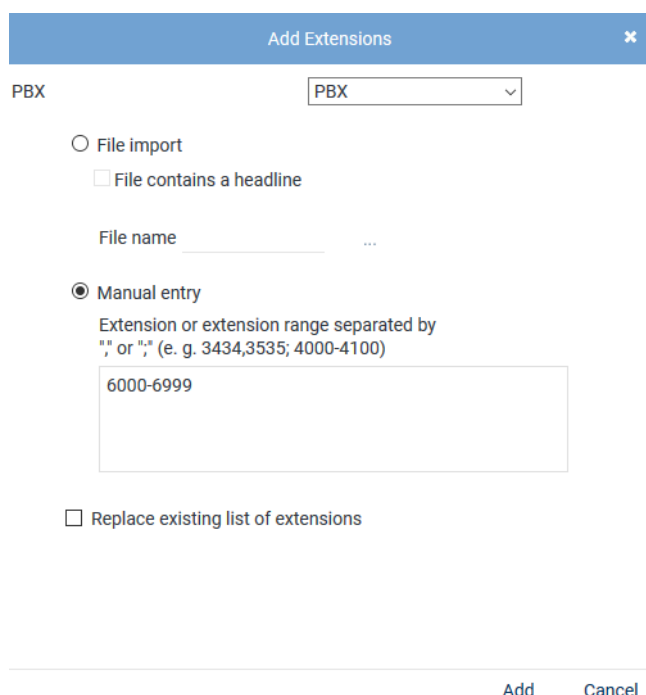


Fig. 312: Assign extensions to tenants

4. From the drop-down list, select the PBX in which the extensions for this tenant have been configured.

**File import** Select the option to import extensions from an existing file and add them to the table of extensions.  
The following file formats are supported:

- *ZIP*
- *TXT*

- CSV

**NOTICE! The maximum number of extensions in a file has been limited to 2000 for performance reasons. If more extensions are required, you can import several files.**



#### *File contains a headline*

Activate this option so that this structured is recognized correctly when importing the file.

The file must not contain more than one column. If commas or other column separators are detected in the file, the file is considered invalid and an error message is displayed.

#### *File name*

To import the file, proceed as follows:

- Click on the button  behind the field *File name*.
- Click on the button *Choose File*.
- Select the respective file in the Explorer and click on the button *Open*.
- Click on the button  *Upload File*.

#### *Manual entry*

Select this option to enter extensions or extension ranges manually.

To import number ranges, you must enter the same number of digits for the beginning and the end of the range, e. g. 1-9, 10-99, 01-20, 001-200, 4000-5000. If the end of the range asks for several digits, you have to add zeros for the beginning of the range, e. g. 01-10, 010-100.

Enter country codes as number ranges as follows:

+4984496800--+4984496810

**NOTICE! The number of digits must be equal. Add zeros in front of digits to level up possible incongruences.**

**NOTICE! Wildcards cannot be used!**

#### *Replace existing list of extensions*

Activate the check box to replace the list of extensions.

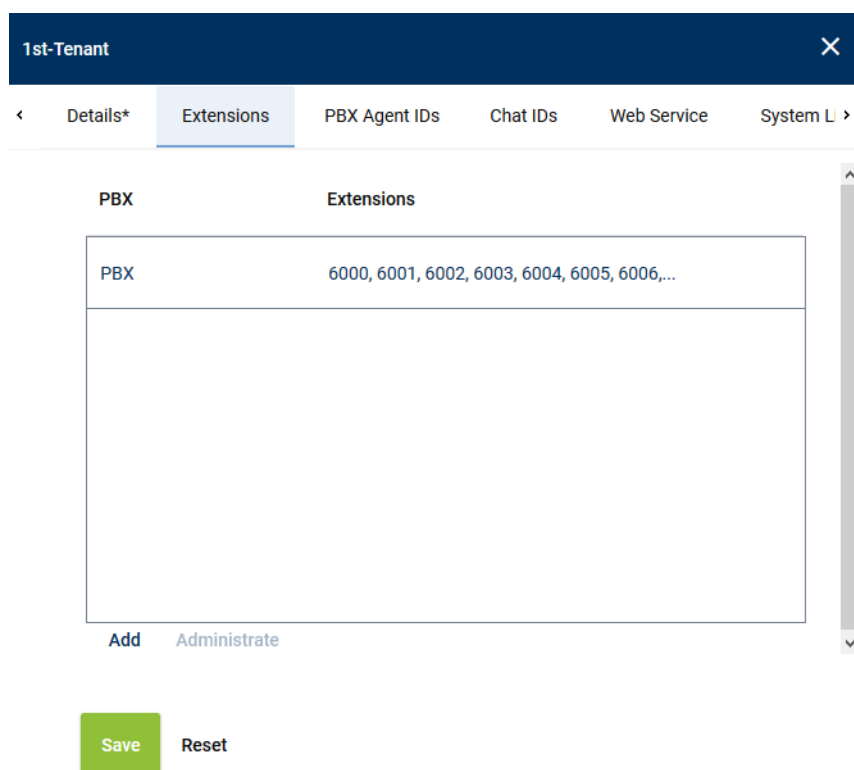
☒ = Function has been activated; the entry replaces the extensions of the selected PBX.

☐ = Function has not been activated; the configured extensions of all PBXs are kept and the new extensions are added to the selected PBX.

- Click on the button *Add*.  
⇒ The extensions are added in the table of extensions.
- If errors have been detected, the window *Result* appears.  
Click on the button *Display Error Report* to open the window *Error Report*.  
To close the window *Error Report*, click on the button *Close*.  
To close the window *Result*, click on the button *Close*.
- The configured extensions now appear in the detail view.
- Click on the button *Save* in the detail view to save the entries.

#### **Remove extensions**

- In the list, select the **PBX** for which you would like to remove the assigned extensions.



1st-Tenant

< Details\* Extensions PBX Agent IDs Chat IDs Web Service System L >

PBX	Extensions
PBX	6000, 6001, 6002, 6003, 6004, 6005, 6006,...

Add Administrate

Save Reset

Fig. 313: Remove extensions

- Click the button *Administrate*.
- Select one or several extensions you would like to remove from the assignment.  
To select several extensions or to revoke the selection, click on the respective line while holding the [Ctrl] key down.



Administrate Extensions

6993
6994
6995
6996
6997
6998
6999

Remove Cancel

Fig. 314: Select extensions

- To remove the selected extensions, click on the button *Remove*.  
To cancel the process and close the window, click on the button *Cancel*.

#### 7.1.2.5.5 Configure additional data

In the Additional Data module, you can configure the additional data which is delivered for a conversation with a protocol.



For selection fields to appear in the drop-down list, they have to be configured in the Additional Data module.

1. Select the menu item *Setup > Additional Data* in the navigation bar.

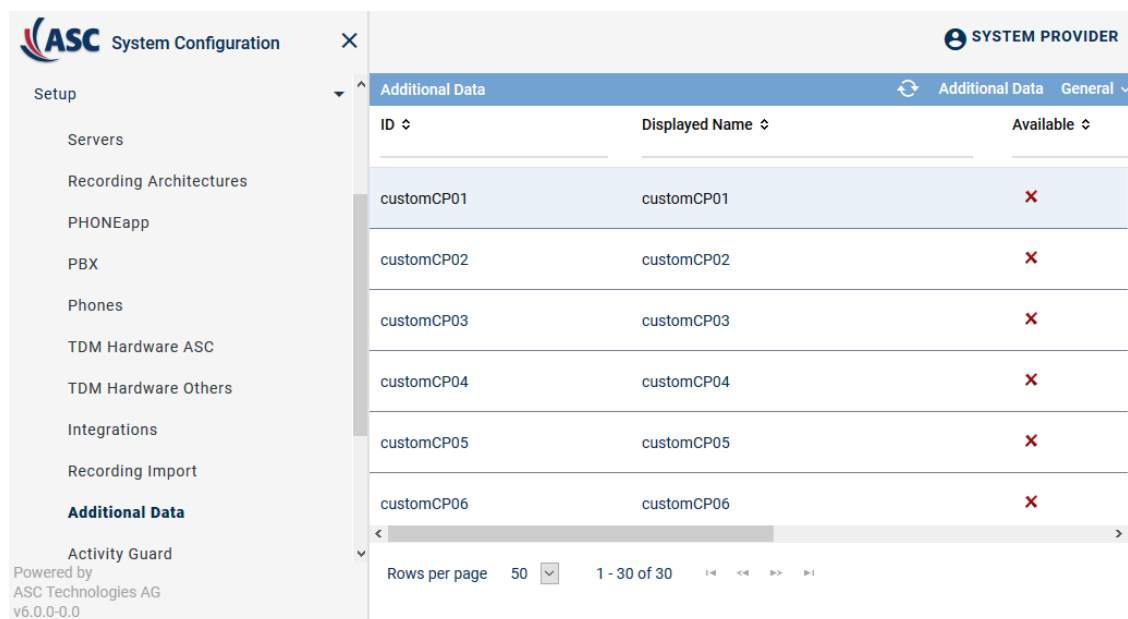


Fig. 315: Additional Data module main view

2. Select a set of data.  
⇒ The detail view displays the information you can configure.

### Change display name







Change Display Name		
Language	Content	
ar_SA	customCP01	
bg_BG	customCP01	
de_DE	Universal Call ID	
en_GB	customCP01	
en_US	Universal Call ID	 

Fig. 316: Configure additional data

1. To change the display name, click on the pen in the line of the language you would like to change.
2. Enter a display name and click on the check mark at the end of the line to confirm the entry.

### Availability

Availability	
Available	<input checked="" type="checkbox"/>
Editable	<input checked="" type="checkbox"/>
External recording control	<input checked="" type="checkbox"/>

Save
Reset

Fig. 317: Additional data - configure availability

1. To make the data field available to the entire system, activate the check box of the option *Available*.
2. To make the data field in the search and replay applications editable later on, activate the check box of the option *Editable*.
3. To be able to use the data field for external recording control, activate the check box of the option *External recording control*. This option is only available if recording control has been activated in the *Servers module* in the tab *Usage*.
4. Click on the button *Save* to save the settings.



For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.



Additional data which is not delivered along with the protocol is not available for further use.

#### 7.1.2.5.6 Create integration for Multi-Server Failover

In the Integrations module, the PBX-related recording settings are configured.

You first have to create and activate a recording architecture to be able to create a integration and to assign it here.

Depending on the recording solution, you additionally have to configure IP addresses, ports, protocols, sniffer cards, CTI connection data, phones, monitor points, and, where required, add-ons.

1. In the navigation bar, select the menu item *Setup > Integrations*.  
⇒ The following window appears:

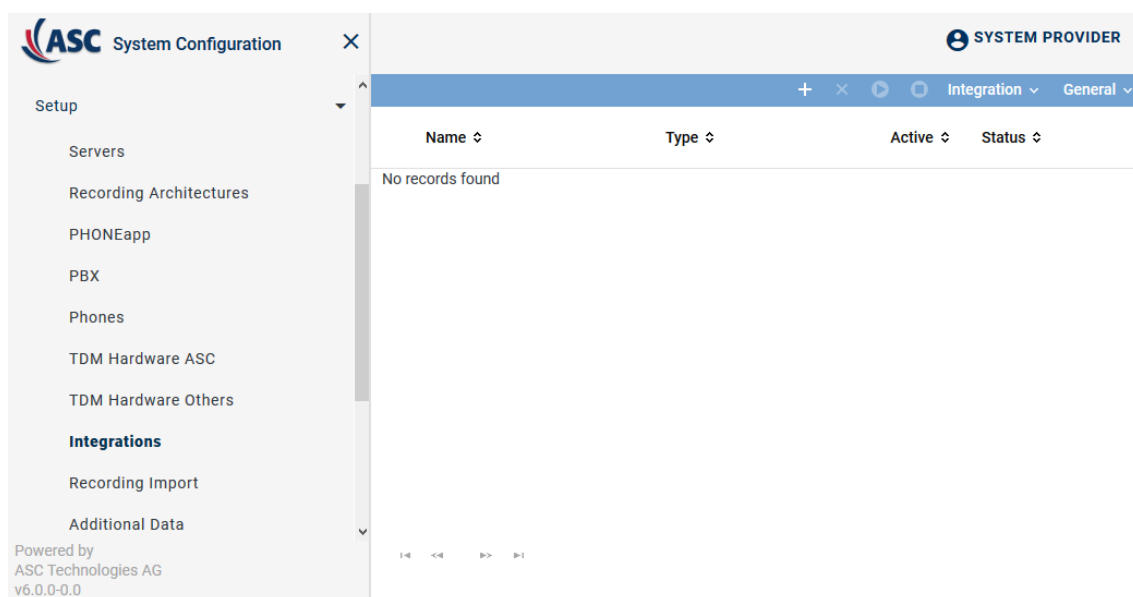




Fig. 318: Integrations - main view

In the table in the main view, the following information is displayed:





<b>Name</b>	Name of the integration
<b>Type</b>	Type of the integration
<b>Active</b>	Shows whether the integration has been activated and is used for the recording. ✓ = Integration is active, can be deactivated in the toolbar via the icon  . ✗ = Integration is not active, can be activated in the toolbar via the icon  .
<b>Status</b>	Shows whether the configuration has been carried out completely. ✓ = Configuration is complete. ✗ = Configuration is incomplete.

### Toolbar of the Integrations module

The toolbar offers the following functions.



Fig. 319: Toolbar Integrations module

	<b>Create</b>	Opens the detail view so that you can create a new integration.
	<b>Delete</b>	Deletes the selected integration. The integration can only be deleted if it has been deactivated.
	<b>Activate</b>	Activates the selected integration. The integration can only be activated if it has been configured completely.
	<b>Deactivate</b>	Deactivates the selected integration. This stops running recordings.
<b>Integration</b>	<b>Import Grammar</b>	By clicking on this menu item, you can import a customized grammar which you can then configure in the configuration step for the CTI connection data.
<b>General</b>	<b>General Help</b>	Opens the online help.
	<b>Module Help</b>	Opens the module-specific online help.

### Import grammar

Depending on the deployed PBX, conversation events are signaled differently.

A grammar recognizes and processes the events occurring during a call such as ringing, answering, consultation, hanging up. A grammar contains rules which are required to correctly translate PBX-specific call information and call states into a PBX-neutral format.

1. To import a new grammar, click on the menu item *Integration > Import Grammar* in the toolbar of the main view.  
⇒ The window *Upload File* appears.

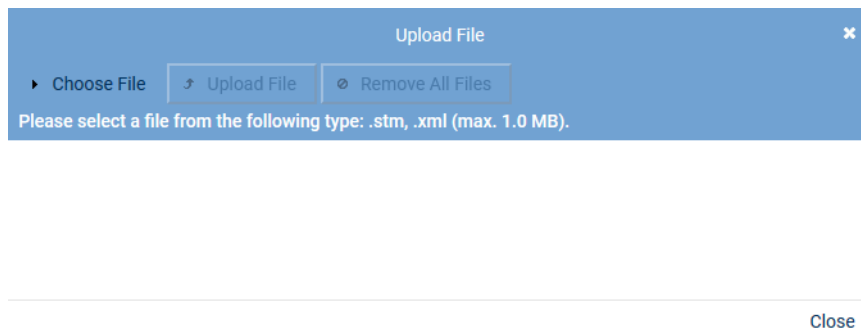


Fig. 320: Choose file

2. Click on the button *Choose File*.
3. Select the respective grammar of the file type *.stm* or *.xml* via the Explorer.
4. Click on the button *Open*.  
⇒ The selected file appears in the window *Upload File*.

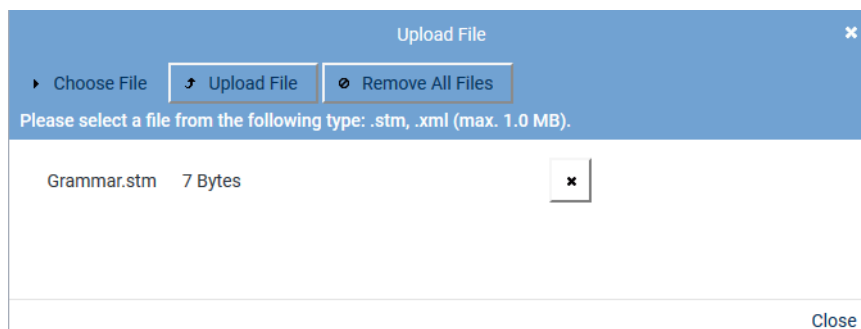




Fig. 321: Upload grammar

5. To remove a selected file from the list, click on the button  (*Remove file*) next to the respective file.  
To upload the file, click on the button *Upload File*.  
⇒ The window closes and a notification appears in the main view that the file has been uploaded successfully.

### Assign integration type

1. Click on the icon  (*Create*) in the toolbar of the main view to create a new integration.  
⇒ In the detail view, the tab *Integration Type* appears.

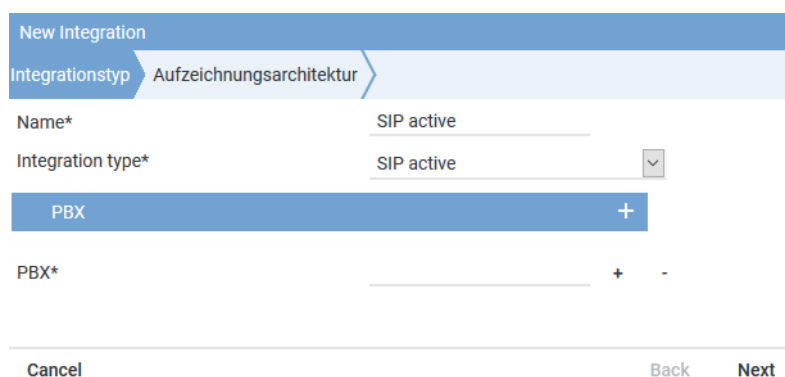


Fig. 322: Create integration type

2. Enter the following parameters:

Parameter	Value
<i>Name</i>	In the entry field, enter a descriptive name for the integration. This name is used as the identifier of this integration in the system.
<i>Integration type</i>	Select the entry <i>SIP active</i> from the drop-down list <i>Integration type</i> .

Tab. 85: Create integration type

3. To assign the PBX, click on the button **+** behind the field *PBX*.  
⇒ The window *PBX* appears.

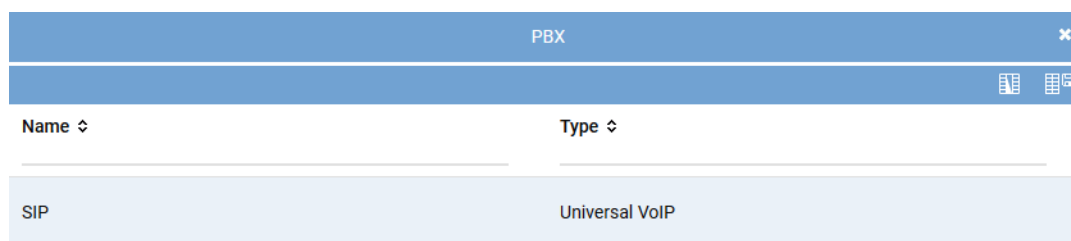



Fig. 323: Select PBX

4. Select the respective *PBX* from the list of available PBXs.
5. Click on the button *Add*.

### Assign recording architecture for Multi-Server Failover

1. In the detail view on the bottom right, click on the button *Next*.  
⇒ The tab *Recording Architecture* appears.

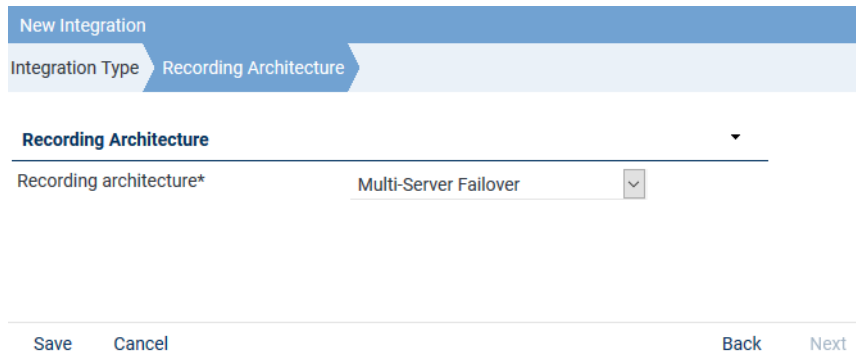


Fig. 324: Assign recording architecture - Multi-Server Failover


2. Select the respective recording architecture from the drop-down list *Recording architecture*.



Only activated recording architectures in which the appropriate integration type has been configured appear in the drop-down list.

3. Click on the button *Save*.  
⇒ The integration now appears in the main view.

### Configuration steps

1. To complete the configuration of the integration, click on the icon  in front of the name of the new integration.  
⇒ The following configuration steps appear:







SIP active		SIP active		X		x	
Step		Configuration					
Configure recording architecture				✓			
Global recording settings				X			
Configure recording servers				X			
Configure add-on				✓			
Configure miscellaneous settings				✓			

Fig. 325: Configuration steps of the integration

### Configure recording architecture

The section *Configure recording architecture* has already been configured in previous steps.

1. Click on the button  (*Edit configuration step*) in the line *Configure recording architecture* in the main view to show the configuration.  
⇒ In the detail view, the configuration step appears with the information of the assigned recording architecture.

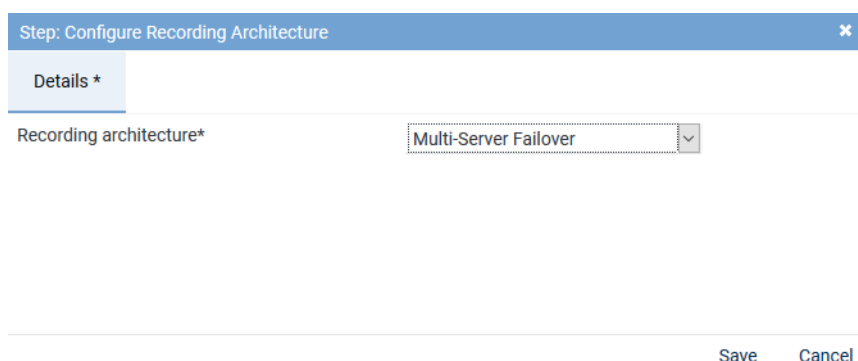



Fig. 326: Configuration step - Configure Recording Architecture

2. Click on the button *Save* to save changes and to finish the configuration step.
3. Click on the button *Cancel* to cancel the configuration step without applying changes.

### Global recording settings for Multi-Server Failover

1. Click on the button  (*Edit configuration step*) in the line *Global recording settings* in the main view.  
⇒ The window *Step: Global Recording Settings* appears.

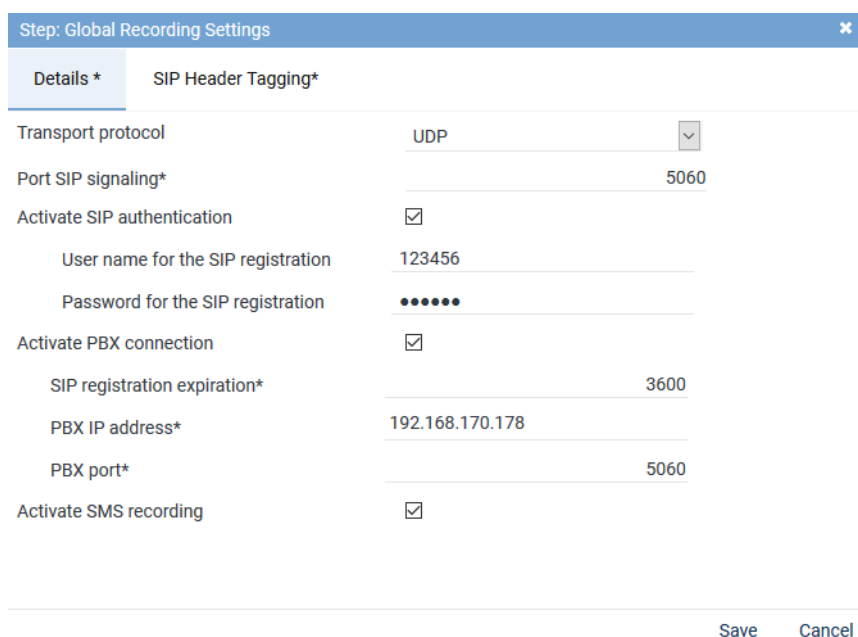


Fig. 327: Configuration step - Global Recording Settings

2. Set the following parameters in the tab *Details*:

Parameter	Value/Description
<i>Transport protocol</i>	From the drop-down list, select the used transport protocol for the SIP signaling between the recording server and the PBX. The following protocols are available: <b>TCP</b> = unencrypted <b>UDP</b> = unencrypted <b>TLS</b> = encrypted
<i>Port SIP signaling</i>	Enter the port for the <b>SIP</b> signaling, where the recording server is expecting the signaling. Default value for <b>UDP</b> and <b>TCP</b> is 5060.

Parameter	Value/Description
	Default value with TLS encryption is 5061. <b>NOTICE!</b> If you would like to use several integrations, you have to configure a separate SIP port for each integration. <b>NOTICE!</b> If you would like to use a media streamer for replay, configure another SIP port for it, too. In case of communication issues with the media streamer, this could otherwise affect the recording.
Activate SIP authentication	Activate this option if you would like to use SIP Digest Authentication.
User name of the SIP registration	Enter the user name for the SIP registration, e. g. 123456.
Password of the SIP registration	Enter the password, if an authentication for the SIP registration is used.
Activate PBX connection	Activate this check box if the recording server is supposed to register itself on the PBX.
SIP registration expiration	Enter the time in seconds after which the SIP registration runs out, e. g. 3600.
PBX IP address	Enter the IP address of the PBX.
PBX port	Enter the port on which the SIP signaling is sent to the PBX. The default value is 5060.
Activate SMS recording	Activate the check box if you would like to use SMS recording.

Tab. 86: Global recording settings

### Tab SIP Header Tagging

- If you would like to configure the SIP header tagging, click on the tab *SIP Header Tagging*.

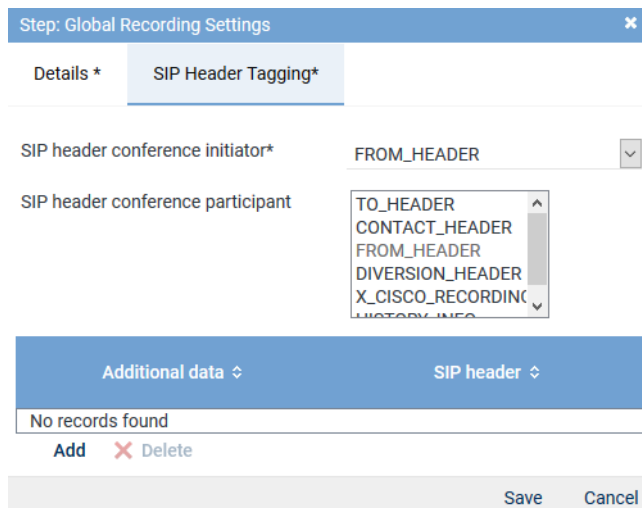


Fig. 328: Tab SIP Header Tagging Configure sources

- Enter the following parameters:

Parameter	Value/Description
<i>SIP header conference initiator</i>	Select the SIP header which contains the extension of the conference initiator.
<i>SIP header conference participant</i>	Select the SIP header which contains the extension of the additional conference participants.



Parameter	Value/Description
-----------	-------------------

Tab. 87: Configure SIP header tagging



It is possible to select several entries; the information is then displayed one after the other in the respective replay application.

To select several entries, highlight the respective entries while holding the [Ctrl] key down. To deselect an entry, click on it again without releasing the [Ctrl] key.

- If you would like to configure individual additional data that you have defined previously in the Additional Data module, click on the button *Add* in the section *Additional data*.

⇒ The window *SIP Additional Data* appears.

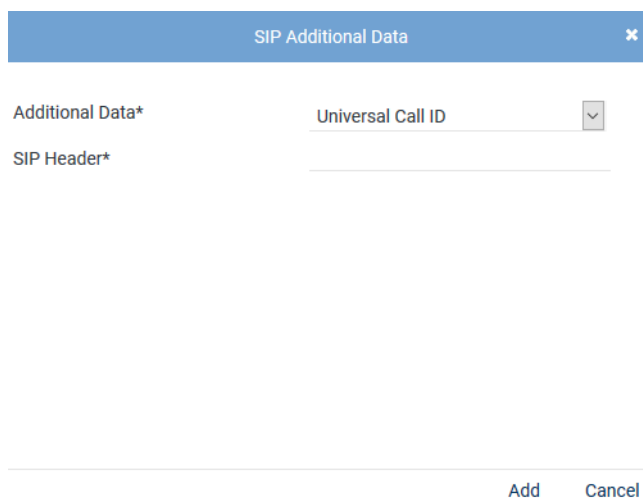


Fig. 329: SIP Additional Data



Only those entries appear in the drop-down list which have been configured in the application System Configuration in the Additional Data module. For further information refer to the administration manual *Additional Data module*.

- Enter the following parameters:

Parameter	Value/Description
<i>Additional Data</i>	In the drop-down list, select the display name of the field in which the information of the SIP header is supposed to be released.
<i>SIP Header</i>	Enter the source from the SIP header from where the information is to be extracted. Observe the correct spelling.


Tab. 88: Configure SIP conversation parameters

- Click on the button *Save* to close the window.
- Click on the button *Save* to finish the configuration in this step.

### Configure recording server for Multi-Server Failover

To guarantee that recording works properly when switching servers in case of failover with several servers, you must configure a port range for each recording server. The range may be the same for all recording servers. Make sure, though, that the port range lies within the range of ports activated in the firewall, refer to the installation manual Installation requirements in chapter Communication matrix.

This configuration takes place in the configuration step *Configure recording servers*.

- Click on the button  (*Edit configuration step*) in the line *Configure recording servers* in the main view.  
⇒ The window *Step: Configure Recording Servers* appears.

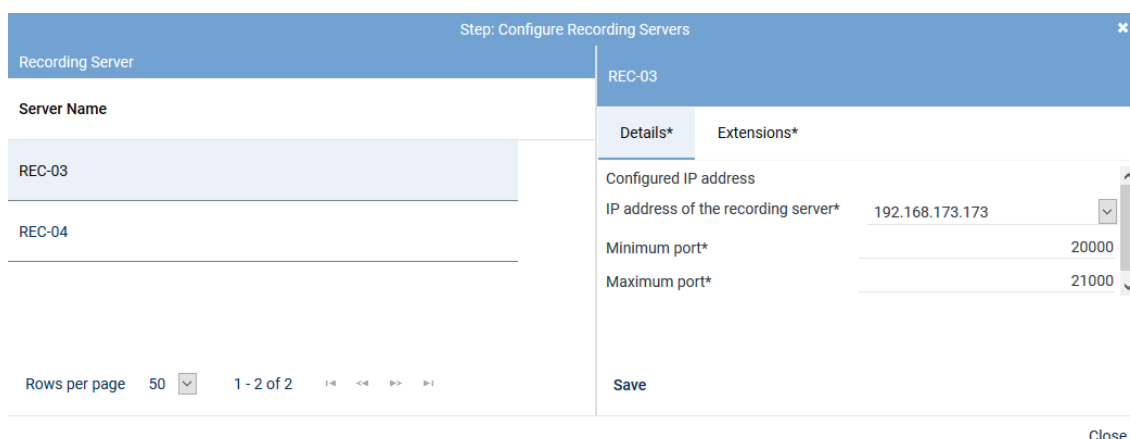


Fig. 330: Configuration step - Configure recording servers

- Enter the following parameters in the tab *Details*:

Parameter	Value/Description
<i>Configured IP address</i>	Here, the IP address is displayed which has been configured for this recording server and via which the data to be recorded are received.
<i>IP address of the recording server</i>	From the drop-down list, select one of the available IP addresses of the recording server for the recording data.
<i>Minimum port</i>	Enter the lowest port of the port range configured on the PBX that is used to receive the <b>RTP</b> data from the recording server, e. g. <i>20000</i> .
<i>Maximum port</i>	Enter the highest port configured on the PBX that is used to receive the <b>RTP</b> data from the recording server, e. g. <i>21000</i> .

Tab. 89: Configure recording servers



This recording solutions allows recording data streams in stereo. For stereo recording, reckon with 4 ports as only even ports are used to receive **RTP**.

Stereo recording requires more storage space, too.



If you use several active integrations in one recording architecture, you must configure different port ranges for each integration in the configuration step *Configure recording servers*.



If you use several active integrations in one recording architecture, you must configure different port ranges for each integration in the configuration step *Configure recording servers*.

### Tab Extensions

#### Configure extensions for SIP trunk

To register the **SIP** trunk, you can enter a registration phone number in the tab *Extensions*.

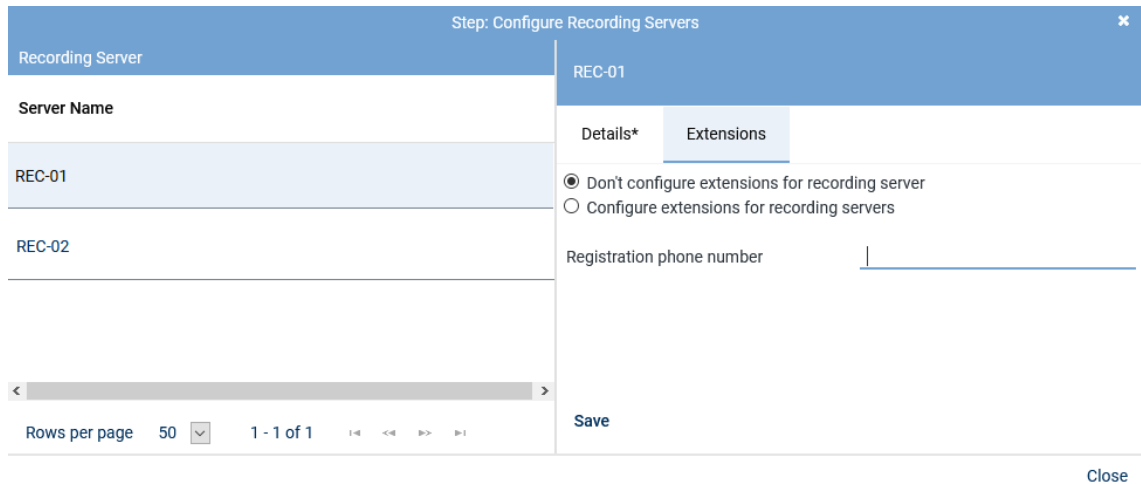


Fig. 331: Recording server - Configure extension for SIP trunk

**Don't configure extensions for recording server** - Activate this option if you do not have configured extensions for the recording server in the PBX and would like to configure a [SIP](#) trunk phone number instead.



If you do not define a phone number for the [SIP](#) trunk of the recording server, all incoming [SIP](#) connections are accepted without being examined.

**Registration phone number** Enter a registration phone number for the [SIP](#) trunk.

For a successful registration, registration must have been activated in the section *Global recording settings*. The user name and password entered there are used to register the [SIP](#) trunk, see [chapter "Global recording settings for All-in-one Failover"](#), p. 108.

1. Click on the button *Save*.
2. Click on the button *Close* to finish this configuration step.

### Configure extensions for the recording server

1. If you have defined extensions for the recording servers in the PBX, you can configure these extensions in the tab *Extensions*.

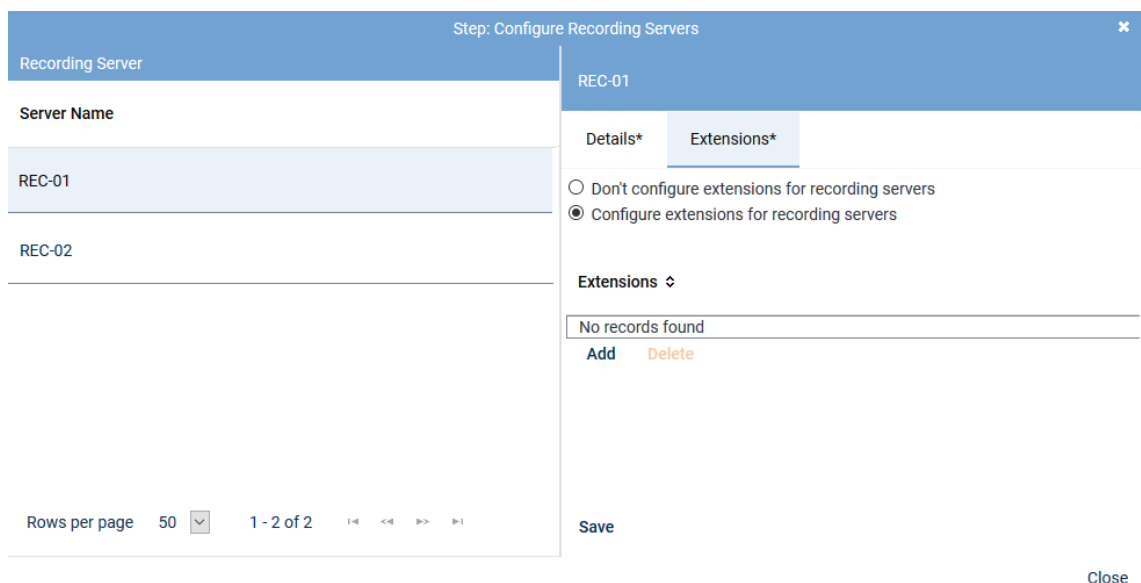


Fig. 332: Tab Extensions

*Configure extensions of the recording server* Activate this option if you have configured extensions for the recording server in the PBX and add the extensions.

2. To add extensions, click on the button *Add* in the table *Extensions*.  
⇒ The window *Add Extensions* appears.

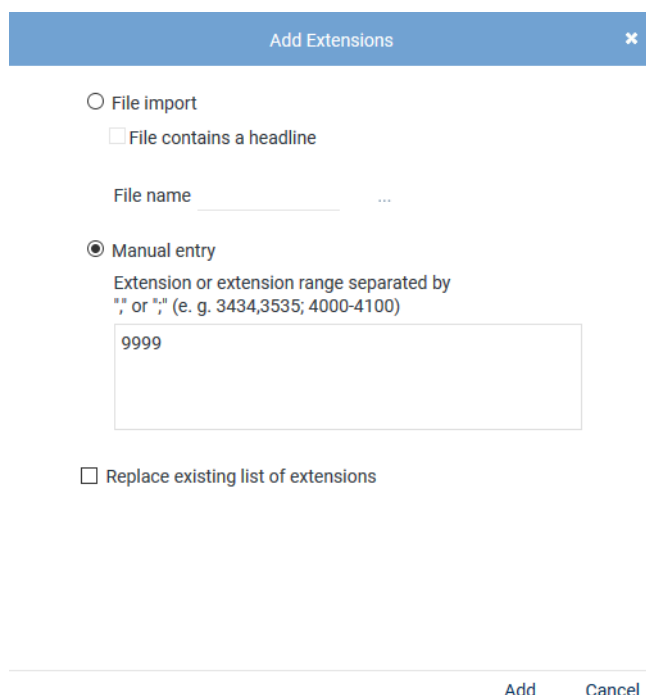


Fig. 333: Add extensions

3. In the window *Add Extensions*, enter either a single extension or an extension range that the recording server is to use when registering on the PBX.
4. Click on the button *Add*.  
⇒ The extensions are added in the table of extensions.
5. If errors have been detected, the window *Result* appears.  
Click on the button *Display Error Report* to open the window *Error Report*.  
To close the window *Error Report*, click on the button *Close*.  
To close the window *Result*, click on the button *Close*.
6. The configured extensions now appear in the detail view.

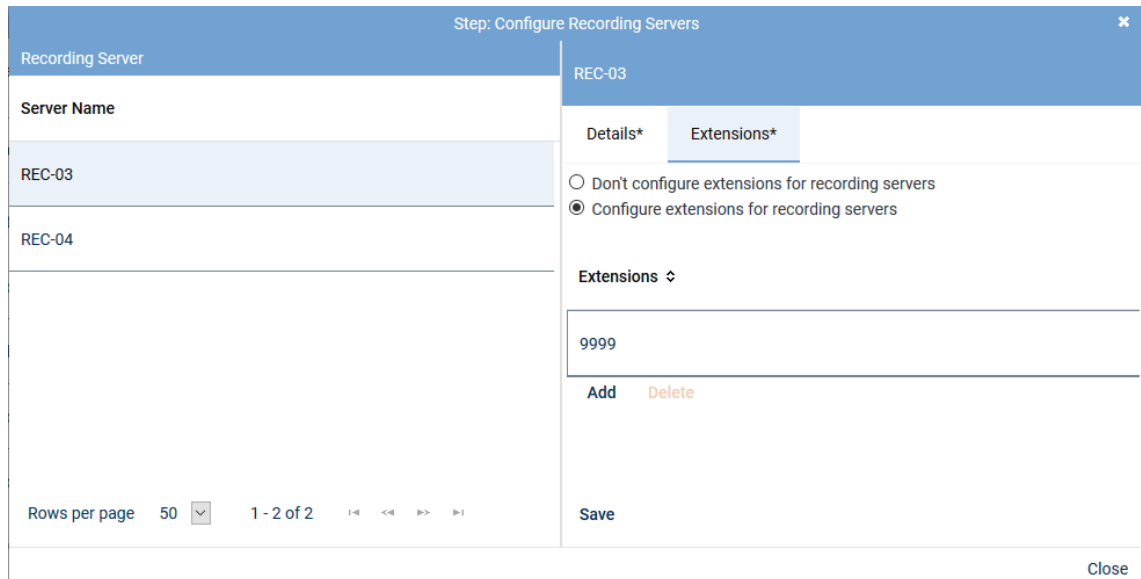


Fig. 334: Added extensions

- Repeat the steps for additional servers. For each server, configure its own extension or extension range depending on how it can be reached.



In failover architectures, it is recommended to set up a separate extension or extension range for each recording server. If the [SIP](#) registration timer has expired for the extension for the recording server, problems may occur when switching back to the primary recording server. If the primary recording server displays an error, it is not yet possible to register the [SIP](#) endpoints again.

- Click on the button *Save*.
- Click on the button *Close* to finish this configuration step.

### Configure add-on



The use of the add-on in the integration is optional. The status of this configuration step has been set to *No selection* by default and is considered to be completely configured that way. You can activate and use the integration without an add-on, too.

If you use an application with add-on, you can select the required grammar in the corresponding version in this configuration step. Additionally, you can configure the connection data and the additional data.



The additional data delivered by an add-on supplements the additional data which is delivered by the [CTIconnect](#) module of the integration.

### Configure add-on for Sparkassen FI ISP (optional)

The add-on refers to the usage of [CTIconnect](#) for Sparkassen FI ISP in the DACH region and only has to be configured if the add-on is used.



The add-on cannot be used in a failover architecture. The application Sparkassen FI ISP cannot connect to more than one IP address.

The integration runs in combination with a PBX and the recording server. The service [CTIconnect](#) for Sparkassen FI ISP receives the additional data from the PBX and sends them to the recording server. In addition, the recording decision which is initiated by the user on the end device is processed via [CTIconnect](#) for Sparkassen FI ISP and sent to the recording server.

### Sparkassen FI Interaktive Service Plattform

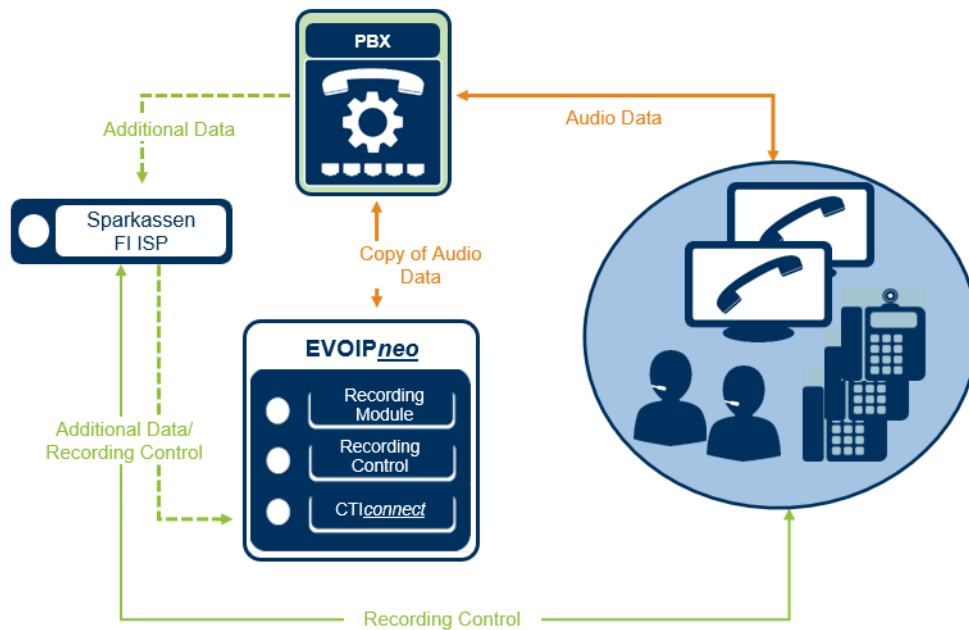



Fig. 335: Overview of Sparkassen FI ISP

#### Configure add-on in the integration

1. To configure the add-on, click on the button  (*Edit configuration step*) in the main view in the line *Configure add-on*.
2. Select the add-on *Sparkassen FI ISP* in the detail view.

Step: Configure Add-on
✕

Details \*

Select add-on

☐ None

☒ Sparkassen FI ISP

**CTIconnect Module**

Type	CTIconnect passive	
Grammar name*	ISP Sparkassen FI	<span>▼</span>
Grammar version*	1.00.05	<span>▼</span>

**Connection Data** ▼

Listener port*	3468
----------------	------

**Additional Data** ▼

ID des Call Centers	Call Center ID	<span>▼</span>
ID des Calls aus Genesys	Universal Call ID	<span>▼</span>
Anmeldename des Kunden	User name	<span>▼</span>
Name des Kunden	Customer name	<span>▼</span>
Personennummer des Kunden	Customer ID	<span>▼</span>

Arbitrary assignment
+

<input style="width: 90%;" type="text"/>	Please select...	<span>▼</span>	<span>⊖</span>
<input style="width: 90%;" type="text"/>	Please select...	<span>▼</span>	<span>⊖</span>
<input style="width: 90%;" type="text"/>	Please select...	<span>▼</span>	<span>⊖</span>

Save Cancel

Fig. 336: Configure add-on for Sparkassen FI ISP

### Group field CTIconnect Module

1. Enter the following parameters for the grammar:

Parameter	Value/Description
Type	Is filled automatically.
Grammar name	A default grammar has been preset. If required, select the name of the grammar from the drop-down list.
Grammar version	Select the current version of the grammar from the drop-down list.

Tab. 90: Configure CTIconnect module



For recording control via the add-on of the Sparkassen FI ISP, grammar version 1.00.05 or higher is required. If the grammar in the respective version is not available yet, you can import it. See [chapter "Import grammar", p. 276](#).

### Group field Connection Data

Set the following parameter in the group field *Connection Data*; the IP address for the PBX does not have to be entered, since the PBX connects to our recording server:

Parameter	Value/Description
<i>Listener port</i>	Enter the port that the add-on connects to, e. g. 3468.

Tab. 91: Configure connection data

### Group field Additional Data



This add-on is used exclusively in the DACH region; for this reason the additional data is only available in German, too. The names of the fields refer to the assignment of the strings which are delivered by the interface.

When using CTIconnect for Sparkassen FI ISP, the following additional data is delivered with the protocol:

- *ID of the call center*
- *ID of the call from Genesys*
- *Login name of the customer*
- *Name of the customer*
- *Employee number of the customer*

### Arbitrary assignment

In the section *Arbitrary assignment*, you can configure the additional data which is additionally delivered by the PBX or by an add-on but which is not listed yet. Upon assigning the delivered additional data, it appears in the search and replay applications.



The names of the column headlines which are supposed to appear in the players must be configured and made available in the Additional Data module first.

For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.



The drop-down list only contains those additional data that you have configured and made available in the Additional Data module. The display name then appears in the column headlines in the players.

For more information about the configuration of additional data refer to the administration manual for system providers *Additional Data module*

1. In the group field headline *Additional Data*, click on the arrow ► to expand the group field and to assign the additional data to the data fields of the search and replay applications.

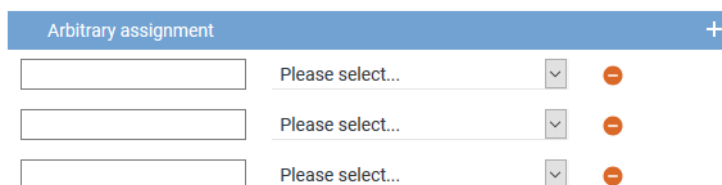



Fig. 337: Arbitrary assignment of the additional data

The following additional data are always available:

- *Start time*
- *End time*
- *Duration*
- *Calling Party Phone Number*
- *Called Party Phone Number*



- *Conversation Direction*
- 2. In the entry field on the left, enter the description of the additional data type from the protocol. Observe the same spelling as it is used in the protocol. The information which is read out of the protocol is displayed in the columns in the players.
- 3. From the drop-down list, select the respective display name that you have configured in the Additional Data module. Only those display names are displayed for which the option *Available* has been activated in the Additional Data module.
- 4. To add a new assignment, click on the icon  (*Create*) in the toolbar of the table.
  - ⇒ An additional row appears to assign another additional data type.
- 5. Click on the button *Save* in the detail view to save the entries and finish this configuration step.

The add-on provides additional data that can be tagged in customer-specific additional data fields (customCP fields). By means of these additional data fields, the respective recording behavior can be reached by means of the recording planner, e. g. recording start beginning with tagging or threat call scenario.



To allow users to control the recording by means of keys, you must configure the recording profile accordingly in the Recording Planner module.



For information about the Recording Planner module refer to the administration manual for tenants *Recording Planner*.


### **Configure add-on for OpenScape Contact Center (optional)**

The add-on refers to the usage of the OpenScape Contact Center and must only be configured if a OpenScape Contact Center is used.

The integration runs in combination with a Unify PBX which is responsible for recording. The CTIconnect service receives the conversation events of the agents via a SDK link in the OpenScape Contact Center and sends the additional data to the EVOIPneo recording service.

For information about the configuration of the OpenScape Contact Center, see [chapter "Configure OpenScape Contact Center \(optional\)", p. 372](#).

### **Configure add-on in the integration**

1. To configure the add-on, click on the button  (*Edit configuration step*) in the main view in the line *Configure add-on*.
2. Select the add-on OpenScape Contact Center in the detail view.

Step: Configure Add-on

Details

Select add-on  
☐ None  
☒ OpenScape Contact Center

**CTIconnect Module**

TypeCTIconnect passive  
Grammar name\*Unify OpenScape Contact Center  
Grammar version\*1.00.04

**Connection Data**

**Connection data**

6000@192.168.170.29

Add Edit Delete

**Additional Data**

Business UnitBusiness Unit  
DepartmentDepartment  
Department KeyDepartment Key  
Call IDUniversal Call ID  
To PartyTo Party  
ACD Group NumberACD Group Number

Arbitrary assignment

Please select...

Please select...

Save Cancel

Fig. 338: Configure add-on for OSCC

### Group field CTIconnect Module

- Enter the following parameters for the grammar:

Parameter	Value/Description
Type	Is filled automatically.
Grammar name	A default grammar has been preset. If required, select the name of the grammar from the drop-down list.
Grammar version	Select the current version of the grammar from the drop-down list.

Tab. 92: Configure CTIconnect module

### Group field Connection Data

In the table Connection Data, you can enter one or several sets of connection data.

If you are configuring several connections, several connections to different business units are established simultaneously in the recording solution with OpenScape Contact Center.

- In the group field *Connection Data* in the table, click on the button *Add*.

⇒ The following window appears:

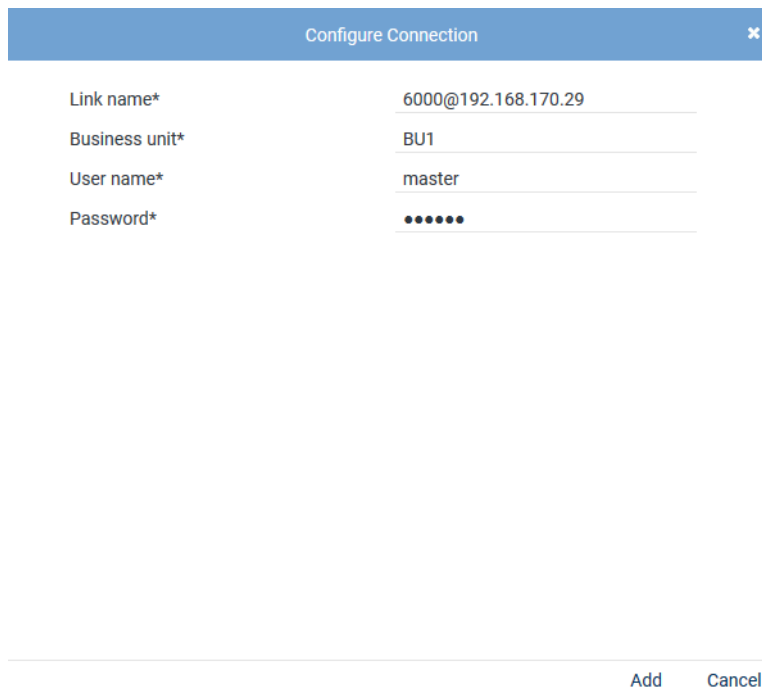


Fig. 339: Configure connection data

2. Enter the following parameters:

Parameter	Value/Description
<i>Link name</i>	Enter the link to the <b>OSCC</b> server in the format <i>osccport@ascserver</i> . The default value for the <b>OSCC</b> port is 6000 and the name of the OSCC server is usually spelled in minor letters. A valid link can look like this: 6000@osccv7r3. Ensure that the server name (e. g. osccv7r3) can be resolved to an IP address. Check whether the address can be reached via the ping command. Alternatively, you can also enter the IP address.
<i>Business unit</i>	The default name of a business unit is <i>default</i> . This is a predefined name for the business unit after a new <b>OSCC</b> server installation. Enter the business unit's actual name you would like to use in the future.
<i>User name</i>	Create a valid user for the business unit that you have created on the <b>OSCC</b> server, so the <b>CTIconnect</b> service can establish the connection to the <b>OSCC</b> server. See <a href="#">chapter "Create user for CTIconnect", p. 372</a> .
<i>Password</i>	Enter the password for the user of the business unit.

Tab. 93: Configure connection data

- Click on the button *Add* to save the entries and to close the window.
- To configure additional connections, repeat the configuration steps accordingly.

### Group field Additional Data

When using **CTIconnect** for Unify OpenScope Contact Center, the following additional data is delivered with the protocol by default:

- *Business unit*
- *Department*
- *Department Key*
- *Call ID*

- *To Party*
- *ACD Group Number*

### Arbitrary assignment

In the section *Arbitrary assignment*, you can configure the additional data which is additionally delivered by the PBX or by an add-on but which is not listed yet. Upon assigning the delivered additional data, it appears in the search and replay applications.



The names of the column headlines which are supposed to appear in the players must have been configured and made available in the Additional Data module previously.

For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.

Here, you can map the database fields for the additional data which is delivered by the [OSCC](#). The contact data of the processed contacts of the OpenScape Contact Center provides a list of key pairs/value pairs. The keyword of this key pair/value pair can be chosen arbitrarily and adjusted customer-specifically. If you would like to use more than one word, avoid spaces. Use underscores instead of spaces, e. g. *ACD\_group*.

1. In the group field headline *Additional Data*, click on the arrow ▶ to expand the group field and to assign the additional data to the data fields of the search and replay applications.

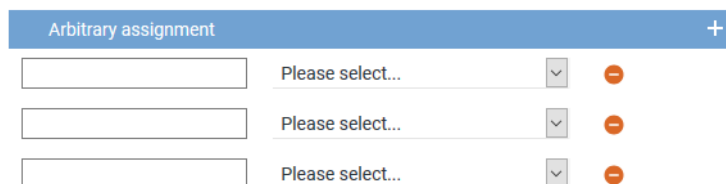




Fig. 340: Arbitrary assignment of the additional data

2. In the entry field on the left, enter the description of the additional data type from the protocol. Observe the same spelling as it is used in the protocol. The information which is read out of the protocol is displayed in the columns in the players.
3. From the drop-down list, select a configured display name of the additional data type which is supposed to appear as column headline in the players. Here, you can only select the display names for the additional data that you have configured and made available in the Additional Data module.
4. To add a new assignment, click on the icon  (*Create*) in the toolbar of the table.  
⇒ An additional row appears to assign another additional data type.
5. To delete an assignment, click on the icon  in the respective row.
6. Click on the button *Save* in the detail view to save the entries and finish this configuration step.

### Configure add-on for Genesys T-Server (optional)

The add-on refers to the usage of Genesys T-Servers and must only be configured if you use Genesys T-Servers.

The integration runs in combination with the PBX and the recording server. The CTI<sup>connect</sup> service receives the information which Genesys T-Server the monitor points have been assigned to from the Genesys Configuration Server. The monitor points must register on the respective Genesys T-Server. Upon successful registration, the respective Genesys T-Server sends all conversation events and additional data of the agents to the recording server.

## CTIconnect for Genesys T-Server

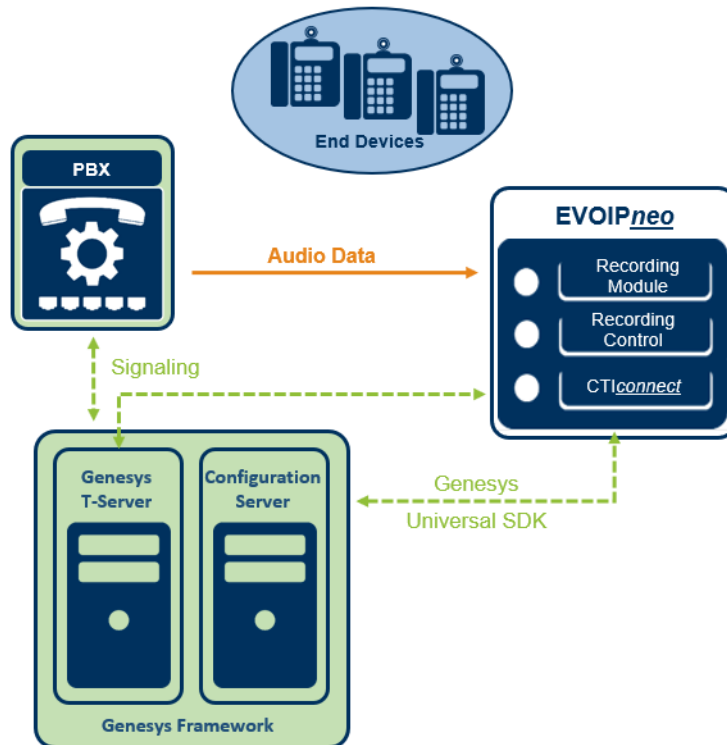


Fig. 341: Overview of the add on of Genesys T-Server



For further information about the configuration of Genesys T-Servers, see [chapter "Configure Genesys T-Server \(optional\)", p. 373](#).

The Genesys add-on uses either a unique call ID or the extension to unambiguously identify the conversations to be recorded.



The additional data delivered by an add-on supplements the additional data which is delivered by the CTIconnect module of the integration.

When using a CTIconnect for Genesys T-Server, a Genesys Framework with T-Servers and Genesys Configuration Servers are required.


By default, the Genesys data field *CallID* has been selected as identifier. If a different data field is supposed to be used for internal control, this can be changed in the configuration file *basic.pif.properties*.

### Adjust configuration file for Genesys add-on

The data field which is supposed to be used by the Genesys add-on is selected by means of the parameter *pifgenesys.call\_identifier*.

1. To adjust the identifier, change to the path  
C:\ASC Product Suite\data\CTIConnectForGenesysT\.
2. Open the file *basic.pif.properties*.
3. Enter the respective data field for the parameter *pifgenesys.call\_identifier*.
4. Save the changes in the file.
5. Restart the recording architecture after completing the change.

### Configure add-on in the integration

1. To configure the add-on, click on the button  (*Edit configuration step*) in the main view in the line *Configure add-on*.
2. In the detail view, select the add-on *Genesys T-Server*.

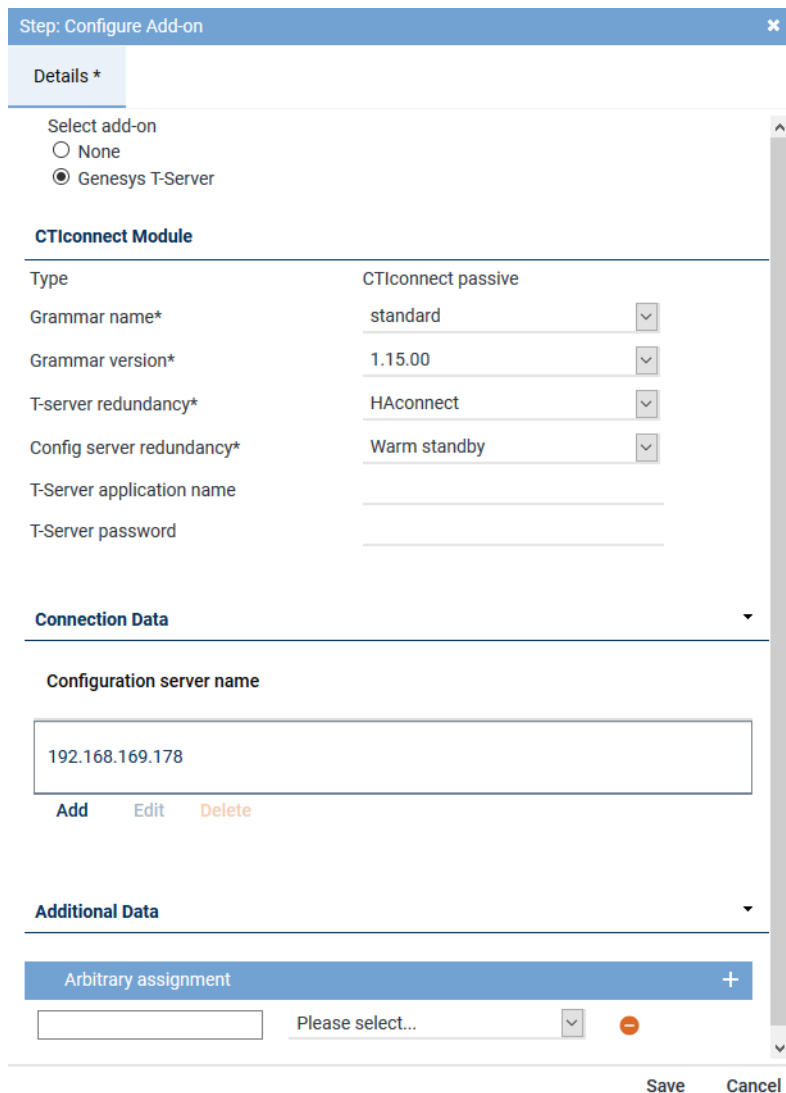


Fig. 342: Configure add-on for Genesys T-Server

### Group field CTIconnect Module

1. Enter the following parameters:

Parameter	Value/Description
<i>Type</i>	Here, the type of the CTI <u>connect</u> module is displayed.
<i>Grammar name</i>	Select the respective grammar.
<i>Grammar version</i>	Select the respective grammar version.
<i>T-server redundancy</i>	Select the redundancy which is used from the drop-down list. <ul style="list-style-type: none"> <li>• <i>No redundancy</i></li> <li>• <i>HAconnect</i> - for High Availability Connection</li> <li>• <i>Warm Standby</i> - for a connectable redundancy</li> </ul>
<i>Config server redundancy</i>	From the drop-down list, select the redundancy which is used for the Configuration Server of Genesys.

Parameter	Value/Description
	<ul style="list-style-type: none"> <li>• <i>No redundancy</i></li> <li>• <i>HAconnect</i> - for High Availability Connection</li> <li>• <i>Warm Standby</i> - for a connectable redundancy</li> </ul>
<i>T-Server application name</i>	<p>This parameter must only be entered, if authentication on the Genesys T-Server is required.</p> <p>Enter the application name that the CTI<u>connect</u> module is supposed to use to log in to the Genesys T-Server.</p> <p>If you use several Genesys T-Servers, the login data must be identical for all servers.</p>
<i>T-Server password</i>	<p>This parameter must only be entered, if authentication on the Genesys T-Server is required.</p> <p>Enter the password that the CTI<u>connect</u> module is supposed to use to log in to the Genesys T-Server.</p> <p>If you use several Genesys T-Servers, the login data must be identical for all servers.</p>

Tab. 94: Configure add-on for Genesys T-Server

### Group field Connection Data

In this group field, you can enter one or several sets of connection data.

1. In the group field *Connection Data* in the table, click on the button *Add*.  
⇒ The following window appears:

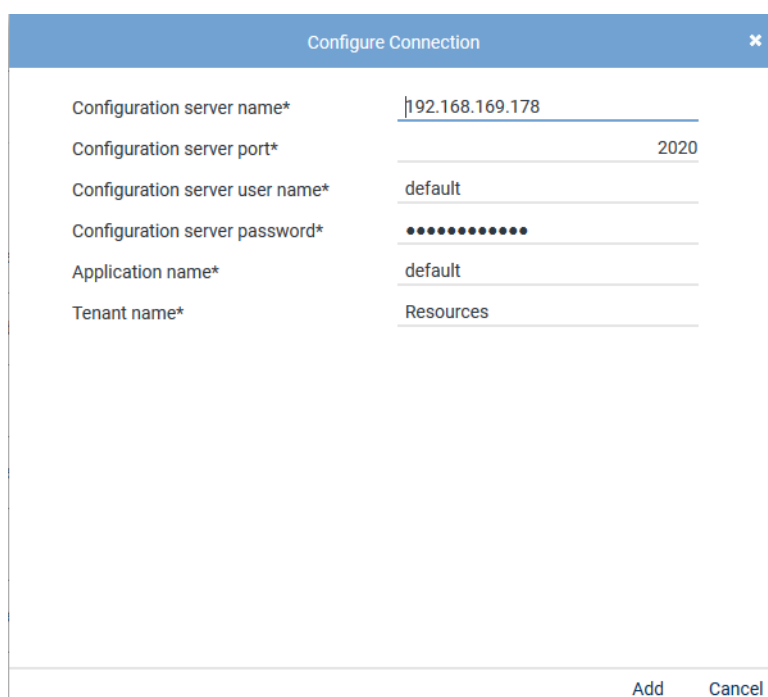


Fig. 343: Configure connection data

2. Enter the following parameters:

Parameter	Value/Description
<i>Configuration Server: Name</i>	Enter the IP address or the name of the computer that the Genesys Configuration Server runs on.
<i>Configuration Server: Port</i>	Enter the port of the Genesys Configuration Server.

Parameter	Value/Description
<i>Configuration Server: User name</i>	Enter the user name to log in to the Genesys Configuration Server.
<i>Configuration Server: Password</i>	Enter the password to log in to the Genesys Configuration Server.
<i>Application name</i>	Enter the application name that the recording servers uses to log in to the Genesys Configuration Server. Default is <i>default</i> .
<i>Tenant name</i>	Enter the name of the Genesys tenant(s) that are supposed to request the configuration data. Default is <i>Resources</i> . Several tenants can be added separated by commas.

Tab. 95: Configure connection data

### Group field Additional Data

The following additional data is delivered by default in the protocol when using Genesys T-Server:

- *CallID*
- *ANI*
- *CallUuid*
- *DNIS*



Further additional data depend on the configuration of the Genesys T-Servers. Check the list *AttributeUserData* in the trace files to find out which further additional data have been delivered by the Genesys T-Servers. Put the addition *UserData* in front of the additional data type when configuring customer-specific additional data, e. g. for *RTargetAgentGroup* you have to configure *UserDataRTargetAgentGroup*.

### Arbitrary assignment

In the section *Arbitrary assignment*, you can configure the additional data which is additionally delivered by the PBX or by an add-on but which is not listed yet. Upon assigning the delivered additional data, it appears in the search and replay applications.



The names of the column headlines which are supposed to appear in the players must be configured and made available in the Additional Data module first.

For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.



The drop-down list only contains those additional data that you have configured and made available in the Additional Data module. The display name then appears in the column headlines in the players.

For more information about the configuration of additional data refer to the administration manual for system providers *Additional Data module*


1. In the group field headline *Additional Data*, click on the arrow ► to expand the group field and to assign the additional data to the data fields of the search and replay applications.



Arbitrary assignment		+
<input type="text"/>	Please select...	⌵ -
<input type="text"/>	Please select...	⌵ -
<input type="text"/>	Please select...	⌵ -

Fig. 344: Arbitrary assignment of the additional data

The following additional data are always available:

- *Start time*
  - *End time*
  - *Duration*
  - *Calling Party Phone Number*
  - *Called Party Phone Number*
  - *Conversation Direction*
2. In the entry field on the left, enter the description of the additional data type from the protocol. Observe the same spelling as it is used in the protocol. The information which is read out of the protocol is displayed in the columns in the players.
  3. From the drop-down list, select the respective display name that you have configured in the Additional Data module. Only those display names are displayed for which the option *Available* has been activated in the Additional Data module.
  4. To add a new assignment, click on the icon  (*Create*) in the toolbar of the table.
    - ⇒ An additional row appears to assign another additional data type.
  5. Click on the button *Save* in the detail view to save the entries and finish this configuration step.

The add-on provides additional data that can be tagged in customer-specific additional data fields (customCP fields). By means of these additional data fields, the respective recording behavior can be reached by means of the recording planner, e. g. recording start beginning with tagging or threat call scenario.




To allow users to control the recording by means of keys, you must configure the recording profile accordingly in the Recording Planner module.



For information about the Recording Planner module refer to the administration manual for tenants *Recording Planner*.

### Configure miscellaneous settings

1. Click on the button  (*Edit configuration step*) in the line *Configure recording servers* in the main view.
  - ⇒ The window *Step: Miscellaneous Settings* appears.

Step: Miscellaneous Settings

×

Details

Dispatcher

Please select...

⌵

Save

Cancel

Fig. 345: Configure miscellaneous settings

2. Enter the following parameter:


Parameters	Description
<i>Dispatcher</i>	From the drop-down list, select the previously created additional data field that the participant information is supposed to be connected with.





Only those entries appear in the drop-down list which have been configured in the application System Configuration in the Additional Data module. For further information refer to the administration manual *Additional Data module*.

### Activate integration

The integration can only be activated after the configuration is complete.

If not all configuration steps have been carried out completely, the icon  (*Incomplete*) will appear in the main view, in the line of the created integration, in the column *Status*.

If the configuration has been carried out completely, the icon  (*Complete*) will appear in the line of the respective step, in the column *Configuration*.

If all settings are complete, the icon  (*OK*) will appear in the main view, in the line of the created integration, in the column *Status*.

















+ × ⏮ ⏭ Integration ▾ General ▾			
Name ▾	Type ▾	Active ▾	Status ▾
 SIP active	SIP active		
Step		Configuration	
Configure recording architecture			
Global recording settings			
Configure recording servers			
Configure add-on			
Configure miscellaneous settings			

Fig. 346: Activate integration

1. Mark the integration in the main view, so that the icon  (*Activate*) becomes active in the toolbar.
2. To activate the integration, click on the icon  (*Activate*).  
⇒ In the column *Active*, the icon  (*Active*) appears.




+ × ⏮ ⏭ Integration ▾ General ▾			
Name ▾	Type ▾	Active ▾	Status ▾
 SIP active	SIP active		

Fig. 347: Activated integration



If you use several PBXs, you can create and activate several integrations with the same recording architecture.



If you take advantage of the grace period and there is no valid license file in the system after its expiration, all integrations are deactivated. After uploading a valid license file, you have to activate the integrations again.






Upon activating the standard configuration, a bulk recording will start.

To restrict the recording to particular end devices, the tenant can configure the Recording Planner in the System Configuration accordingly.

### Deactivate/Delete integration

To be able to delete an integration, it has to be deactivated.

- To deactivate the integration, click on the icon  (*Deactivate*) in the toolbar.
  - ⇒ In the column *Active*, the icon  (*Inactive*) appears.
  - ⇒ The icon  (*Delete*) becomes active in the toolbar.







+ ×   Integration ▾ General ▾			
Name ↕	Type ↕	Active ↕	Status ↕
 SIP active	SIP active		

Fig. 348: Deactivate integration

- Click on the icon  (*Delete*) and confirm the security prompt to delete the integration.

## 7.1.2.6 Configure recording solution Multi-Server Parallel Recording

### 7.1.2.6.1 Create recording architecture

Start the configuration in the Recording Architectures module because an activated recording architecture is required for further configuration.

The recording servers, recording types, and the integration types are assigned in the Recording Architectures module.

- Select the menu item *Setup > Recording Architectures* in the navigation bar.
  - ⇒ The following window appears:

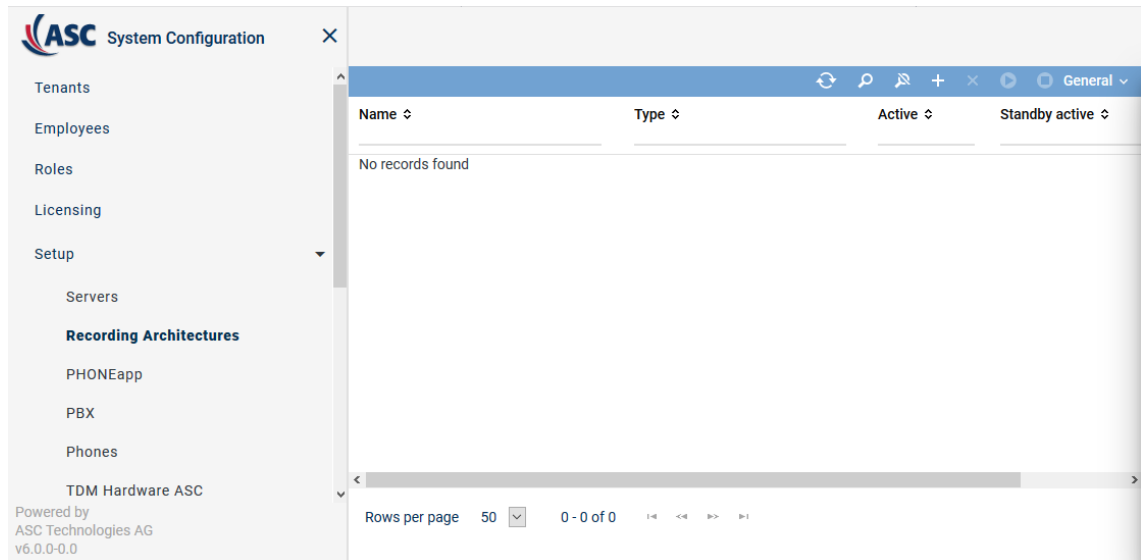




Fig. 349: Recording architectures - main view

<b>Name</b>	Name of the recording architecture
<b>Type</b>	Type of the recording architecture
<b>Active</b>	Shows whether the recording architecture has been activated and is ready to be used for the recording. <div> <span>✓</span> = Recording architecture is active and ready to be used for recording. It can be deactivated by clicking on the icon  (<i>Deactivate</i>) in the toolbar.  <span>✗</span> = Recording architecture is not active. It can be activated by clicking on the icon  (<i>Activate</i>) in the toolbar. </div>
<b>Standby Active</b>	Shows whether the standby server is active for one or several recording components in the recording architecture. <div> <span>✓</span> = At least 1 standby server is active.  <span>✗</span> = No standby server is active or no standby server has been defined. </div>
<b>Creation Date</b>	Date on which the recording architecture was installed.
<b>Updated</b>	Date on which the settings of the recording architecture were updated for the last time.





**NOTICE!** Hidden columns can be added by clicking on the menu item *General > Adjust Table*.





### Toolbar of the Recording Architectures module

The toolbar offers the following functions.



Fig. 350: Toolbar Recording Architectures module

	<b>Refresh</b>	Refreshes the main view.
	<b>Search</b>	Opens the window of the search function. The search function allows searching systematically for sets of data which meet certain criteria.  The icon  is displayed whenever the search has been adjusted by means of a filter.
	<b>Reset search</b>	Resets all search filters so that the main view displays all data sets again.


	<i>Create</i>	Creates a new recording architecture.
	<i>Delete</i>	Deletes the selected recording architecture. The recording architecture is removed from the list of the main view. <b>NOTICE!</b> You can only delete recording architectures which are inactive and have not been assigned to an integration or server for the import.
	<i>Activate</i>	Activates the selected recording architecture.
	<i>Deactivate</i>	Deactivates the selected recording architecture. <b>NOTICE!</b> You can only deactivate recording architectures which have neither been assigned to an active integration nor to an active import.
<i>Recording Architectures</i>	<i>Standby management</i>	The menu item is only available for recording architectures with failover possibilities. By clicking on the menu item Standby Management, you can open a window in which you can manually define the active server in architectures with failover concepts.
<i>General</i>	<i>Print</i>	Prints the table of the main view.
	<i>Adjust Table</i>	Opens a window in which you can adjust the following settings for the main view: <ul style="list-style-type: none"> <li>• <i>Displayed information</i></li> <li>• <i>Order of the displayed columns</i></li> <li>• <i>Number of rows per page</i></li> </ul>
	<i>Save Table Configuration</i>	Saves the current table configuration of the main view as default view of the user.
	<i>General Help</i>	Opens the online help.
	<i>Module Help</i>	Opens the module-specific online help.



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

### Create recording architecture Multi-Server Parallel Recording

If there are several recording servers which are supposed to record the same tracks in parallel, you have to create a recording architecture of the type *Multi-Server Parallel Recording*.

- To create a new recording architecture, click on the icon  (*Create*) in the toolbar of the main view.  
⇒ The window *New Recording Architecture* appears.

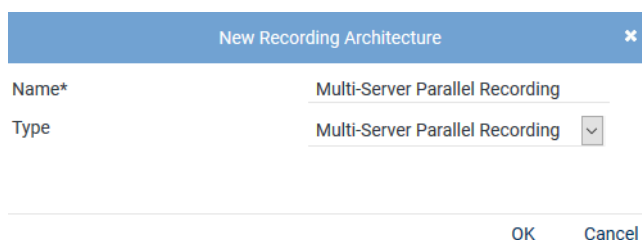


Fig. 351: Create recording architecture - Multi-Server Parallel Recording

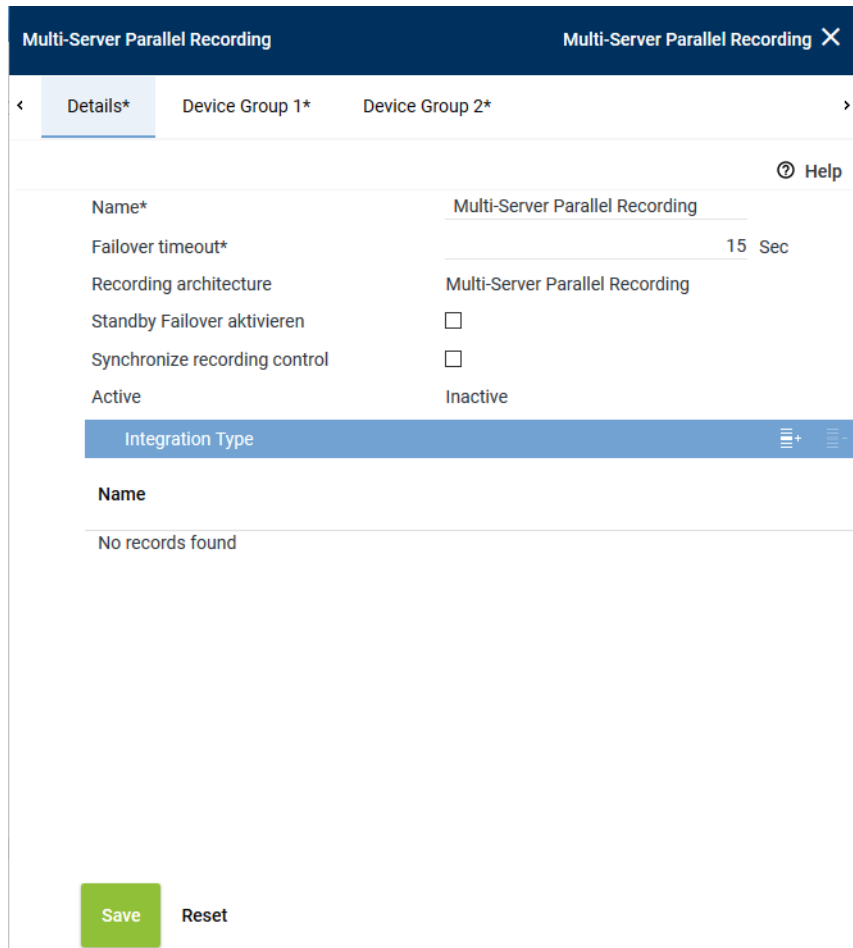
- In the entry field *Name*, enter a descriptive name for the recording architecture.

- From the drop-down list *Type*, select the recording architecture type *Multi-Server Parallel Recording*.

**NOTICE!** The drop-down list only displays the supported recording architecture types.

- Click on the button *OK*.

⇒ Your entries now appear in the detail view.



Multi-Server Parallel Recording

Multi-Server Parallel Recording X

< Details\* Device Group 1\* Device Group 2\* >

ⓘ Help

Name\* Multi-Server Parallel Recording

Failover timeout\* 15 Sec

Recording architecture Multi-Server Parallel Recording

Standby Failover aktivieren ☐

Synchronize recording control ☐

Active Inactive

Integration Type

Name

No records found

Save Reset

Fig. 352: Recording architecture - tab Details - Multi-Server Parallel Recording


As standby components may have been configured for the different active recording servers, a failover timeout may be configured in this recording architecture. For further information about the configuration of failover architectures, see [chapter "Standby management for failover architectures", p. 363](#).

- Enter a failover timeout of a minimum of 15 seconds after which the failover process is supposed to start. Depending on the system architecture it may make sense to configure a longer timeout period. The timeout defines the elapse time until the failover process starts. If the status returns to *OK* within this time, then the failover process is not triggered.
- Activate the check box *Synchronize recording control* so that the Recording Control services can be synchronized and only one service controls recording for the two recording servers, see [chapter "Synchronizing recording control", p. 355](#).

**NOTICE!** If you have activated the option *Synchronize recording control*, only one set of data is generated in the database but audio data is recorded on both recording servers. This methods makes duplicate detection impossible. Ensure that there is enough storage capacity for twice the amount of data.

If you do not want to synchronize recording control, you can configure duplicate detection, see [chapter "Duplicates in parallel recording architectures", p. 359](#).

### Add integration type

- Click on the icon  (Add) in the toolbar of the list *Integration Type*.  
⇒ The window *Integration Type* appears.

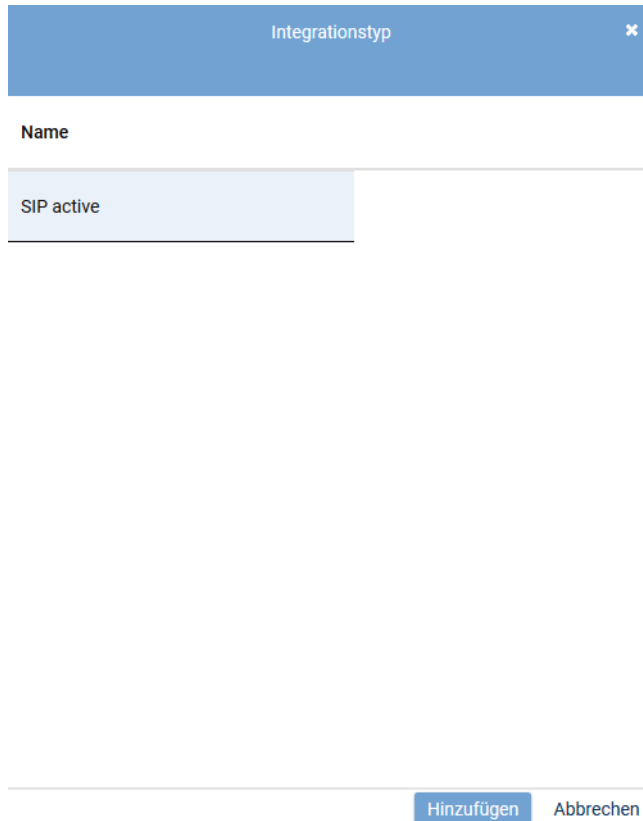


Fig. 353: Select integration type



Only those integration types are displayed which have a license in the system and which support the selected architecture type.



Any number of integration types can be assigned to a recording architecture.

- Select *SIP active* from the list of the available integration types and click on the button *Add*.  
⇒ The name of the integration type now appears in the list in the detail window.

### Assign servers for Multi-Server Parallel Recording

In the architecture type *Multi-Server Parallel Recording* one tab appears for each device group where you can configure the different servers.

#### Tab Device Group 1

- Click on the tab *Device Group 1* to configure the distribution of the recording components for the first device group.

### Group field Recording Control and CTIconnect

In this group field, you can configure recording control. You can configure two different server for this purpose or select the same server.

Multi-Server Parallel Recording

Multi-Server Parallel Recording

×

<

Details\*

Device Group 1\*

Device Group 2\*

>

Recording Control and CTIconnect

▼

Recording Control device group 1*	RC-01	+	-
Used in activated architecture	No		
CTIconnect device group 1*	CTI-01	+	-
Used in activated architecture	No		

Recording Server

▼

<

Recording Server

+

✎

⋮

Server ↕	Standby ↕
REC-01	REC-02

Save

Reset

Fig. 354: Recording architecture - server assignment device group 1

- Click on the button **+** behind the entry field *Recording control* to assign a server.  
⇒ The window *Servers* appears.

Servers			×
Name ↕	IP Address ↕	Path ↕	
RC-02	192.168.173.176	C:\	^
REC-01	192.168.173.171	C:\	
REC-04	192.168.173.174	C:\	
REC-02	192.168.173.172	C:\	
RC-01	192.168.173.175	C:\	
CTI-01	192.168.173.177	C:\	
CTI-02	192.168.173.178	C:\	▼

<

>

Rows per page

20

1 - 8 of 8

<<

<

>


>>

Add

Cancel

Fig. 355: Recording Architecture - assign server - example




2. Select the server for the *recording control module*.
3. Click on the button *Add*.  
⇒ The name of the server now appears in the detail view.
4. To delete an assignment, click on the button .

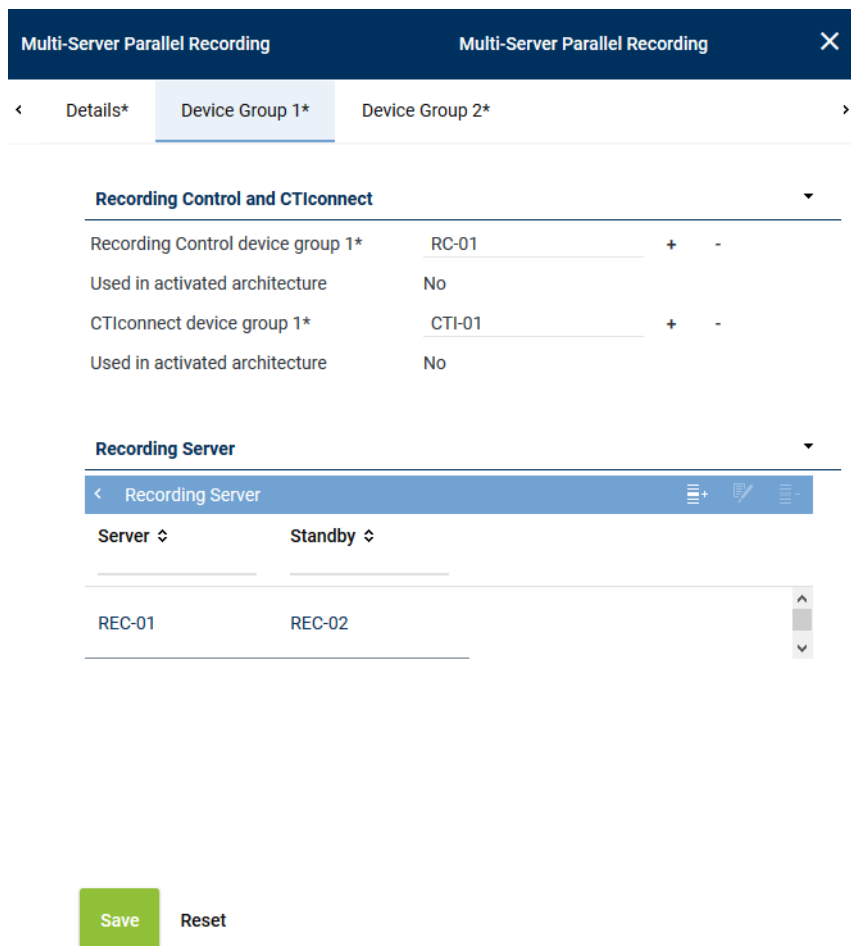


A server can be configured in several recording architectures, but you cannot activate several recording architectures with the same server at the same time.  
If you would like to activate several recording architectures at the same time, you have to use different servers to do so.

5. Repeat the steps and select the server for the *CTIconnect module* in the entry field *CTIconnect*.

### Group field Recording Server

1. In the table headline Recording Server, click on the icon  to add a recording server and a standby server.  
⇒ The following window appears:






**Multi-Server Parallel Recording** Multi-Server Parallel Recording ×

< Details\* **Device Group 1\*** Device Group 2\* >

**Recording Control and CTIconnect** ▼

Recording Control device group 1*	RC-01	+	-
Used in activated architecture	No		
CTIconnect device group 1*	CTI-01	+	-
Used in activated architecture	No		



**Recording Server** ▼



< Recording Server   

Server ↕	Standby ↕
REC-01	REC-02

**Save** **Reset**

Fig. 356: Add Recording Server

2. As described in the previous steps, go to the entry field *Primary server* and click on the icon  to select the primary server on which the recording is supposed to run.
3. In the entry field *Standby server*, click on the icon  to select the standby server which is supposed to take over recording in case of an error.

4. Select the recording type you would like to use for these servers by activating the check box.  
**NOTICE!** You can activate several recording types if the integration has been designed for this and if you have installed the respective licenses.
5. Click on the button *OK* to close the window.  
⇒ The name of the server now appears in the detail view.
6. To edit the assignment subsequently, click on the icon .  
To delete an assignment, click on the icon .
7. If you would like to add further recording servers, repeat the steps described above.




### Tab Device Group 2

1. Click on the tab *Device Group 2* to configure the distribution of the recording components for the second device group.
2. Proceed as described in the configuration of tab *Device Group 1*.



In the same device group, you can select the same server for both recording components. For device group 2, you cannot use a server which is already used in device group 1.

### Activate recording architecture

1. Once all servers have been assigned, click on the button *Save*.
2. Select the recording architecture in the main view so that the icon  (*Activate*) in the toolbar becomes active.
3. To activate the recording architecture, click on the icon  (*Activate*).  
⇒ In the column *Active*, the icon  (*Active*) appears.










     Recording Architecture ▾ General ▾			
Name ▾	Type ▾	Active ▾	Standby active ▾
Multi-Server Parallel Recording	Multi-Server Parallel Recording		

Fig. 357: Recording architecture - activate recording architecture - example

4. To deactivate the recording architecture, if required, click on the icon  (*Deactivate*).  
⇒ In the column *Active*, the icon  (*Inactive*) appears.



The recording architecture must have been activated so that the integration can be configured.



For updates, the recording architecture is stopped and deactivated. Once the update has been completed, check that the recording architecture has been activated again.



Parallel recording results in redundant recording data in the system. To make sure that this data does not remain in the system permanently, you can configure duplicate detection so that duplicate sets of data are deleted, see [chapter "Configure duplicate detection", p. 359](#).



If you install an add-on for the integration subsequently, you must deactivate the recording architecture and activate it again after having installed the license.

#### 7.1.2.6.2 Configure servers

Every server in your network that the *neo* software has been installed on is automatically identified as a server of the recording system and displayed in the main view of the Servers module. In the Servers module, you can configure the usage of the servers in your recording system.

1. Select the menu item *Setup > Servers* in the navigation bar.  
⇒ The following window appears:

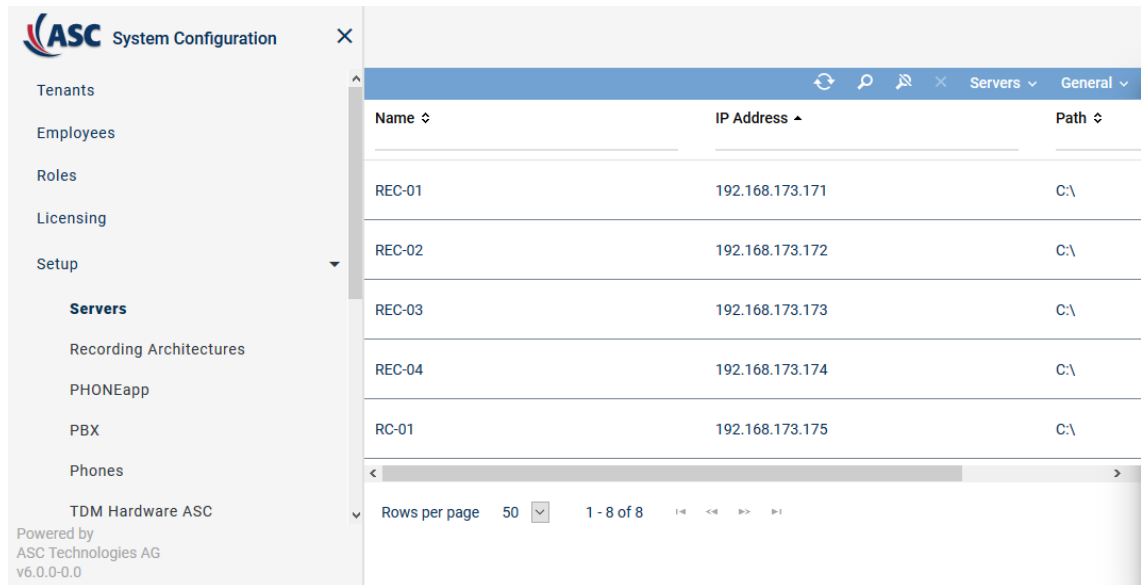


Fig. 358: Servers - main view

Depending on the configuration of the columns, the following information is displayed in the main view:

<i>Name</i>	Shows the name of the server.
<i>IP Address</i>	Shows the <a href="#">IP</a> address of the server.
<i>Path</i>	Shows the path of the server.
<i>Creation Date</i>	Date on which the server was installed.
<i>Updated</i>	Date on which the settings of the server were updated for the last time.

**NOTICE!** Hidden columns can be added by clicking on the menu item *General > Adjust Table*.

### Toolbar of the Servers module

The toolbar offers the following functions.

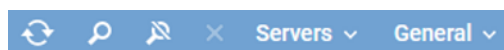







Fig. 359: Toolbar Servers module

	<i>Refresh</i>	Refreshes the main view.
	<i>Search</i>	Opens the window of the search function. The search function allows searching systematically for sets of data which meet certain criteria.  The icon  is displayed whenever the search has been adjusted by means of a filter.
	<i>Reset search</i>	Resets all search filters so that all sets of data are displayed in the main view again.
	<i>Delete</i>	Deletes the selected server configuration.  This function is meant to delete the server configuration if the hardware of a server has been removed and there is no connection to the <u>neo</u> system.

Servers	<i>Administrate Server Locations</i>	Opens a window in which you can create and administrate locations of the servers, see <a href="#">chapter "Administrate server locations"</a> , p. 308.
	<i>Administrate NTP server</i>	Opens a window in which you can administrate the servers for the time synchronization, see <i>Administrate NTP server</i> .
	<i>Manage Synchronization Configurations</i>	Opens a window in which you can manage the synchronization configurations.
General	<i>Adjust Table</i>	Opens a window in which you can adjust the following settings for the main view: <ul style="list-style-type: none"> <li>• <i>Displayed information</i></li> <li>• <i>Order of the displayed columns</i></li> <li>• <i>Number of rows per page</i></li> </ul>
	<i>Save Table Configuration</i>	Saves the current table configuration of the main view as default view of the user.
	<i>General Help</i>	Opens the online help.
	<i>Module Help</i>	Opens the module-specific online help.



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

### Administrate server locations

You can create and manage a list of server locations. In the tab *Details*, you can assign locations to the servers.

#### Add server locations

- Click on the menu item *Servers > Administrate Server Locations* in the toolbar of the main view.  
⇒ The window *Server Locations* appears.

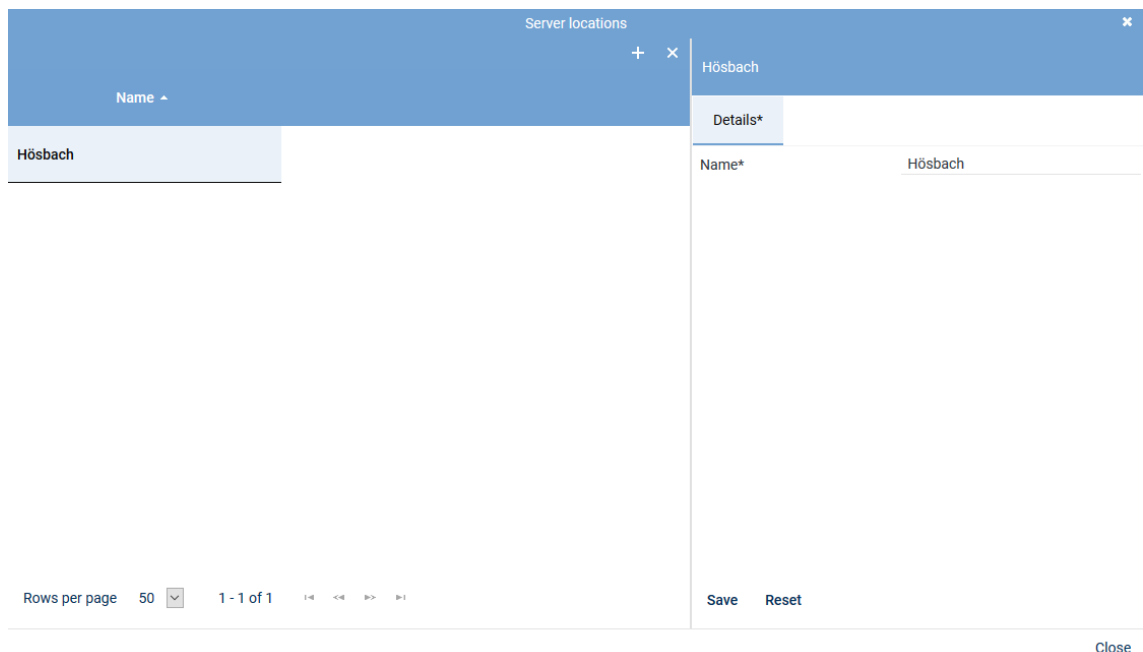



Fig. 360: Add server locations

- Click on the icon  (*Create*) in the toolbar of the window *Server Locations*.

3. Enter the name of the location on the right side in the tab *Details*.
4. To save the entry, click on the button *Save*.  
To discard the entry, click on the button *Reset*.
5. To add further locations, repeat the last 3 steps.
6. To close the window, click on the button *Close*.

### Delete server location



A server location can only be deleted when it has not been assigned. To be able to delete a server location, you must first delete possible assignments.

1. Click on the menu item *Servers > Administrate Server Locations* in the toolbar of the main view.  
⇒ The window *Server Locations* appears.
2. Select the location you would like to delete.

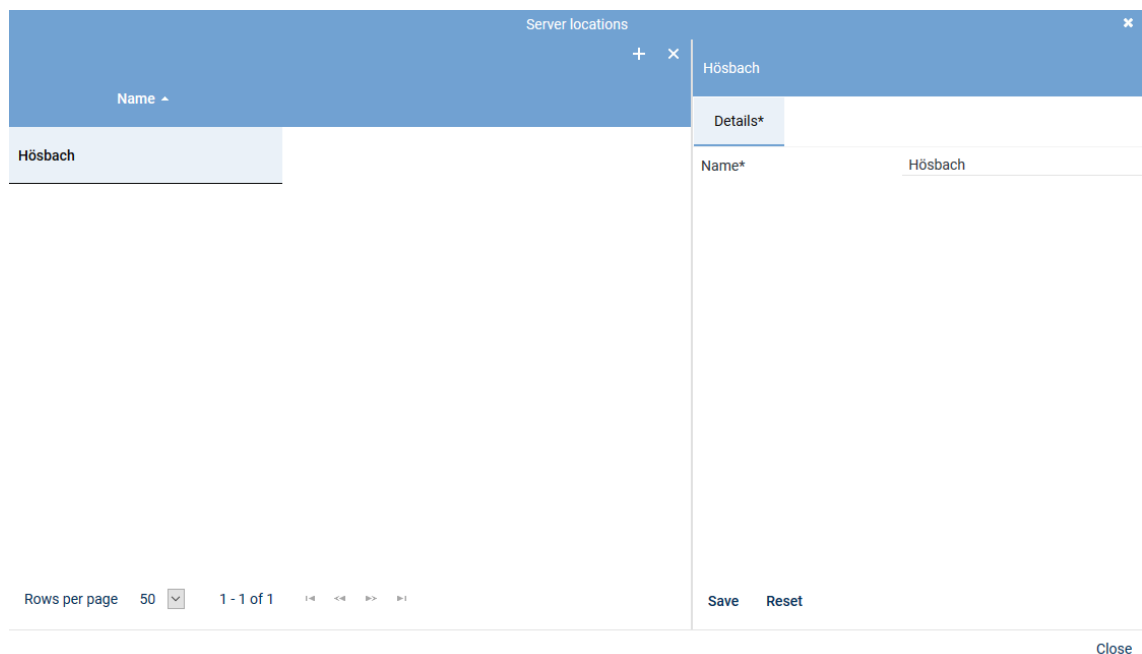



Fig. 361: Delete server location

3. Click on the icon  (*Delete*) in the toolbar of the window.
4. To delete further locations, repeat the last 2 steps.
5. To close the window, click on the button *Close*.

### Tab Details

1. To configure the server, select the entry of the corresponding server in the main view.  
⇒ In the detail view, the tab *Details* appears.  
The information *Name* and *Configured IP address* has already been entered during the installation and is displayed for your information only.

<
Details\*
Usage\*
Media Streamer
Replay Server Address Mapping
Key Ma >

? Help

Name	REC-01
Configured IP address	192.168.173.171
IP address*	192.168.173.171 <input type="button" value="v"/>
Server location	Hörsbach <input type="button" value="v"/>

Fig. 362: Servers - tab Details

- From the drop-down list, select the IP address which is supposed to be used as default address of the server in the system.
- Select the *Server location* in the drop-down list. The drop-down list displays all locations which have been created in the location management.
- Click on the button **Save** if the entries are correct.

### Tab Usage

- Click on the tab *Usage* to configure the intended purpose.



As a server may be used for several recording solutions, all intended purposes are displayed. Note that some intended purposes do not apply for certain recording solutions. In chat recording, for instance, audio analysis or replay via phone cannot be used.

<
Details\*
Usage\*
Media Streamer\*
Replay Server Address Mapping
Key M. >

API Server	▶
Audio Analysis	▶
Recording Control/Key Management	▶
Data Processing	▶
Replay	▶
Virtualization	▶

Fig. 363: Servers - tab usage

### Group field API Server

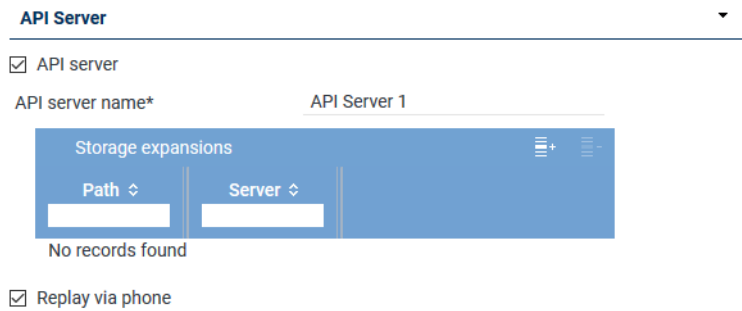


Fig. 364: Group field API Server


The ASC API Server is a service within the *neo* software.




The ASC API Server must have been activated on every server where the Recording Control service runs.


The ASC API Server does not only offer an interface for the internal modules; additionally, the client applications communicate with the *neo* system by means of this interface, too, using defined commands.

Furthermore, the ASC API Server is responsible for replay by means of the web browser. Not until the ASC API Server has started, can the replay server be activated and the corresponding ASC API Server assigned for replay in the web applications.

Parameter	Value/Description
<i>API server</i>	<p>Tick the check box to start the API server.</p> <p><input checked="" type="checkbox"/> = Function has been activated. You have to complete the entry field <i>API server</i>.</p> <p><input type="checkbox"/> = Function has not been activated.</p> <p>In order to be able to reach the API server from a public network and with configured port forwarding, too, you have to adjust the settings in the tab <i>Replay Server Address Mapping</i>, see <a href="#">chapter "Tab Replay Server Address Mapping"</a>, p. 320.</p>
<i>API server name</i>	<p>Enter the name which is supposed to denote the server in the system. The displayed name can be selected arbitrarily and is a kind of pseudonym.</p> <p>The displayed name is meant to make it easier for users to select a server as different API servers may be used across the system by different tenants. When selecting the API server, these pseudonyms are displayed on the client computers instead of the real server name or the IP address.</p>
<i>List Storage expansions</i>	<p>Here, you can add storage expansions for replay. If a recording which is supposed to be replayed cannot be found on the server, the search is continued on the storage expansions which have been entered here. That way, even recordings can be replayed which have not been transferred to the server.</p> <p>If the function <i>Replay</i> has been activated, you can adjust the following settings:</p> <ul style="list-style-type: none"> <li>By clicking on the icon  (<i>Add</i>), you can add the storage expansions, see <a href="#">chapter "Add storage expansion for replay"</a>, p. 312.</li> </ul>

Parameter	Value/Description
	<ul style="list-style-type: none"> <li>By clicking on the icon  (<i>Remove</i>), you can remove the storage expansions from the list.</li> </ul> <p>If you use several recording servers in your system for which storage expansions have been configured, you can add any storage expansion of any recording server on every API server of the system.</p>
<i>Replay via phone</i>	<p>Activate this function if you would like to use the functions <i>Replay via phone</i> or <i>Last Call Repeat</i>.</p> <p><input checked="" type="checkbox"/> = Function has been activated.  <input type="checkbox"/> = Function has not been activated.</p> <p><b>NOTICE!</b> The function <i>Replay via phone</i> has been implemented in the following <i>neo</i> components:</p> <ul style="list-style-type: none"> <li>Application POWERplay Pro</li> <li>Application POWERplay Instant</li> <li>Replay module</li> </ul> <p>In order to enable a client to use the functionality <i>Replay via phone</i>, you have to assign this client an identifier either in the Employees module or in the Phones module which allows the system to clearly identify the phone.</p> <p><b>NOTICE!</b> In the tab <i>Media Streamer</i>, you have to assign this function to a PBX, see <a href="#">chapter "Tab Media Streamer", p. 319</a>. To be able to do so, at least 1 PBX must have been configured in the system.</p>

### Add storage expansion for replay

- Click on the icon  (*Add*) in the toolbar of the list.
- Select 1 or several storage expansions.  
If you would like to select several storage expansions or revoke a selection, click on the respective line while holding the [Ctrl] key down.

Storage Expansion for Replay				
Device Type ↕	Name ↕	Path ↕	Free Disk Space ↕	Server ↕
NAS	NAS 2	NAS 2	<div></div>	REC-02

Rows per page 20 ▾ 1 - 1 of 1    < << >> >

Add Cancel

Fig. 365: Select storage expansion



3. To apply the selected storage expansions, click on the button *Add*.  
To discard the selection and close the window, click on the button *Cancel*.

### Group field Audio analysis

**Audio Analysis** ▼

---

☐ Emotion detection

Stream audio data from\* \_\_\_\_\_ + -

Fig. 366: Group field Audio analysis

Parameter	Value/Description
<i>Emotion detection</i>	<p>Activate this check box to activate emotion detection for audio analysis.</p> <p><input checked="" type="checkbox"/> = Function has been activated. Tenants can use the function emotion detection.</p> <p><input type="checkbox"/> = Function has not been activated.</p>

Tab. 96: Configure audio analysis

### Group field Recording Control/Key Management

**Recording Control/Key Management** ▼

---

☒ Recording control/Monitoring

Recording architecture      Please choose... ▼

☒ neo key management

Fig. 367: Group field Recording Control/Key Management

Parameter	Value/Description
<i>Recording control/monitoring</i>	<p>Activate the check box, if you would like to use <u>CLIENT</u><i>command</i> or API recording control. The function is only available if a recording architecture has been configured and activated.</p> <ul style="list-style-type: none"> <li>Recording architecture From the drop-down list, select the recording architecture via which you would like to control the recording.</li> </ul>
<i>neo key management</i>	<p>This function serves for customer-specific recording encryption. To be able to configure the conditions for key management, activate the check box <i>Key management</i>.</p> <p>The function can only be activated if the license <code>ASC_KEY_MANAGEMENT</code> is available.</p> <p>For more information about the configuration of key management refer to the administration manual <i>Configuration server and recording architectures</i> and to the installation manual <i>Installation Dongle Manager</i>.</p>

Tab. 97: Configure recording control/key management

### Group field Data Processing

**Data Processing** ▼

☒ Data storage

☒ Transfer data for replay

Target Server

Name	IP Address ↕
No records found	

☒ Transfer data for data storage

Target Server

Name	IP Address ↕
No records found	

Activate period of time ☒

from 11:59:36

to 11:59:36

Receives data from

Name	Only Replay
No records found	



☒ Archiving





☒ Export

☒ Import

Recording architecture Please choose... ▼


Fig. 368: Group field Data Processing

Parameter	Value/Description
<i>Data storage</i>	Activate the check box to allow the modification of the additional functions of data processing.
<i>Transfer data for replay</i>	<p>Activate the check box if you would like to transfer data only for replay to another server.</p> <p>If the function has been activated, you can select a server from the list <i>Target Server</i> to which the recorded data is supposed to be transferred for replay. The data is not stored on the target server but deposited in a cache temporarily in order to be replayed.</p> <ul style="list-style-type: none"> <li>By clicking on the icon  (<i>Add</i>), you can add the target server, see <a href="#">chapter "Add target server to a list", p. 315</a>.</li> <li>By clicking on the icon  (<i>Remove</i>), you can remove the target server from the list.</li> </ul> <p><b>NOTICE!</b> Only those servers are displayed on which an API server and a replay server have been configured.</p>
<i>Transfer data for data storage</i>	<p>Activate the check box if you would like to transfer data for storage to another server.</p> <p>If the function has been activated, you can select a server from the list <i>Target Server</i> to which the recorded data is supposed to be transferred for data storage purposes. In the drop-down list, all servers are displayed on which the function <i>Data Storage</i> has been activated. The data is copied to the target server and stored there.</p>

Parameter	Value/Description
	<ul style="list-style-type: none"> <li>By clicking on the icon  (Add), you can add the target server, see <a href="#">chapter "Add target server to a list", p. 315</a>.</li> <li>By clicking on the icon  (Remove), you can remove the target server from the list.</li> </ul> <p><b>NOTICE!</b> Only those servers are displayed on which the function <i>Data Storage</i> has been activated.</p> <p>If the function has been activated, you can activate the transfer for a certain period of time.</p> <ul style="list-style-type: none"> <li>Activate period of time <input checked="" type="checkbox"/> = Function has been activated. The fields for entering the time become active. Select the time via the rotating field for the period from – to.</li> <li>Active period of time <input type="checkbox"/> = Function has not been activated.</li> </ul> <p><b>NOTICE!</b> In distributed systems with slow network connections, the storage interval for the data transfer can be adjusted. The storage interval for the data transfer has to be configured by an ASC service technician or by an authorized partner company.</p>
<i>Receives data from</i>	<p>This table contains those servers which transfer data to this server.</p> <p>In the column <i>Name</i>, the name of the server appears from which data has been transferred.</p> <p>In the column <i>Only Replay</i>, the purpose of the transfer is displayed:</p> <p> = Data is transferred only for replay.</p> <p> = Data is transferred for data storage.</p>
<i>Archiving</i>	Activate the check box <i>Archiving</i> if you would like to use the server for archiving purposes.
<i>Export</i>	Activate the check box <i>Export</i> to allow the export from this server.
<i>Import</i>	<p>Activate the check box <i>Import</i> so that the imported data can be stored on this server.</p> <ul style="list-style-type: none"> <li>Recording architecture From the drop-down list, select the recording architecture that fulfills this function. In the drop-down list, all recording architectures are displayed which enable this function as well.</li> </ul> <p><b>NOTICE!</b> If you would like to use a server for the import function on which no recording is supposed to take place, you can configure an architecture exclusively for the import.</p>

Tab. 98: Configure data storage

### Add target server to a list

- In the toolbar of the list *Target Server*, click on the icon  (Add).
- Select the server from the list to which you would like to transfer the data.  
If you would like to select several servers or revoke a selection, click on the respective line while holding the [Ctrl] key down.



Name	IP Address
RC-02	192.168.173.176
REC-04	192.168.173.174
RC-01	192.168.173.175
REC-02	192.168.173.172
CTI-01	192.168.173.177
REC-03	192.168.173.173

Rows per page: 20 | 1 - 6 of 6

Add Cancel

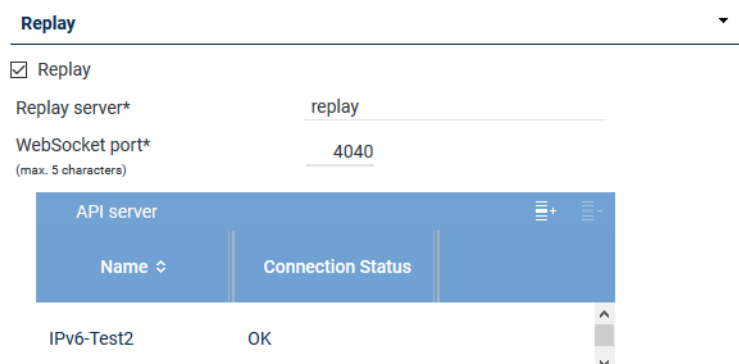
Fig. 369: Select server



Only those servers are available on which the function *Data storage* has been activated.

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

### Group field Replay



**Replay**

☒ Replay



Replay server\*

WebSocket port\*   
(max. 5 characters)

Name	Connection Status
IPv6-Test2	OK

Fig. 370: Group field Replay

Parameter	Value/Description
<i>Replay</i>	<p>A replay server can replay recordings via the integrated <i>Replay Feature</i>. Only data which has either been recorded directly on this server or which has been transferred to this server for data storage or only for replay purposes can be replayed. The client computers of the system can connect to a replay server for replay purposes.</p> <p>Activate the check box <i>Replay</i> to be able to use the replay function of the players and the phones.</p> <p><input checked="" type="checkbox"/> = Function has been activated. You have to complete the entry field <i>Replay server</i>.</p> <p><input type="checkbox"/> = Function has not been activated.</p>

Parameter	Value/Description
<i>Replay server</i>	<p>If the function has been activated, you can enter a displayed name which is supposed to denote the server as the replay server in the system in the entry field <i>Replay server</i>. The displayed name can be selected arbitrarily and is a kind of pseudonym. As the replay server and the <a href="#">API</a> server must not be identical, you can select different pseudonyms.</p> <p>The displayed name is meant to make it easier for users to select a server as different replay servers may be used across the system by different tenants. When selecting the replay server, these pseudonyms are displayed on the client computers instead of the real server name or the IP address.</p> <p>In order to be able to reach the server activated for replay from a public network and with configured port forwarding, you have to set the configuration in the tab <i>Replay Server Address Mapping</i>. For further details about the configuration refer to the administration manual <i>Configuration of servers and recording architectures</i>.</p>
<i>WebSocket port (maximum of 5 characters)</i>	Enter the port via which the data to be replayed in <i>POWERplay</i> Web are supposed to be transmitted.
<i>List API server</i>	<p>Here, you can add <a href="#">API servers</a> that the replay server may use. If a recording which is supposed to be replayed cannot be found on a server, the search is continued on the <a href="#">API servers</a> which have been entered here.</p> <p>If the function <i>Replay</i> has been activated, you can adjust the following settings:</p> <ul style="list-style-type: none"> <li>By clicking on the icon  (<i>Add</i>), you can add the <a href="#">API server</a>, see <a href="#">chapter "Add API server to a list"</a>, p. 317.</li> <li>By clicking on the icon  (<i>Remove</i>), you can remove selected <a href="#">API servers</a> from the list.</li> </ul>

Tab. 99: Configure replay

## Search and replay functions



To be able to use the search and replay functions via [LCR](#) as well as to use replay via phone, you have to create the users with the respective access rights in the application System Configuration in the Employees module. For information about the configuration refer to the administration manual *User management* for tenants.

### Add API server to a list

The replay server required the services of an [API](#) server. The configuration must be as follows:


- If the replay server runs on a server with a local [API](#) server, it must not necessarily be assigned as the replay server always addresses the local [API](#) server first.
  - If the replay server runs on a separate server, you must assign at least one [API](#) server that the replay server can address.
  - If several [API](#) servers are available in the network, you can assign further [API](#) servers in addition to the local [API](#) server. The assigned [API](#) servers are addressed in order. For this reason, the local [API](#) server should always be first in the list.
- To assign an [API](#) server, click on the icon  (*Add*) in the toolbar of the list *API Server*.
  - Select the server from the list on which the [API](#) service is running.



Fig. 371: Select server



Only those servers are available on which the [API](#) service has been installed and activated. See [chapter "Group field API Server", p. 311](#).

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

### Group field Virtualization



Fig. 372: Group field Virtualization

Parameter	Value/Description
<i>VM support</i>	<p>Activate the check box <i>VM support</i> to be able to use the licensing for several VM installations.</p> <p>This function can only be activated if the system has been installed in a VMware and no <i>TRUSTED_VIRTUALIZATION</i> license has been imported to the system.</p> <p>When activating the function <i>VM support</i>, you have to configure the respective settings in the tab <i>Keystore/VM Licensing</i>. For further details about the configuration of this function refer to the administration manual <i>Configuration of servers and recording architectures</i>.</p>

Tab. 100: Configure virtualization



For the *virtualization* without Internet connection, a dongle is required which contains the system information. The application *Dongle Manager*, required to read the dongle, has to be installed on the server that the dongle has been connected to.

- To save the entries, click on the button *Save* in the detail view.  
To reset the entries, click on the button *Reset* in the detail view.

### Tab Media Streamer

1. Click on the tab *Media Streamer* in the detail view.

In this tab, you can configure the Media Streamer for the functionalities *Replay via phone* and *Last Call Repeat Facility*.



The tab *Media Streamer* is only active if the function *Replay via phone* has been activated in the tab *Usage*.

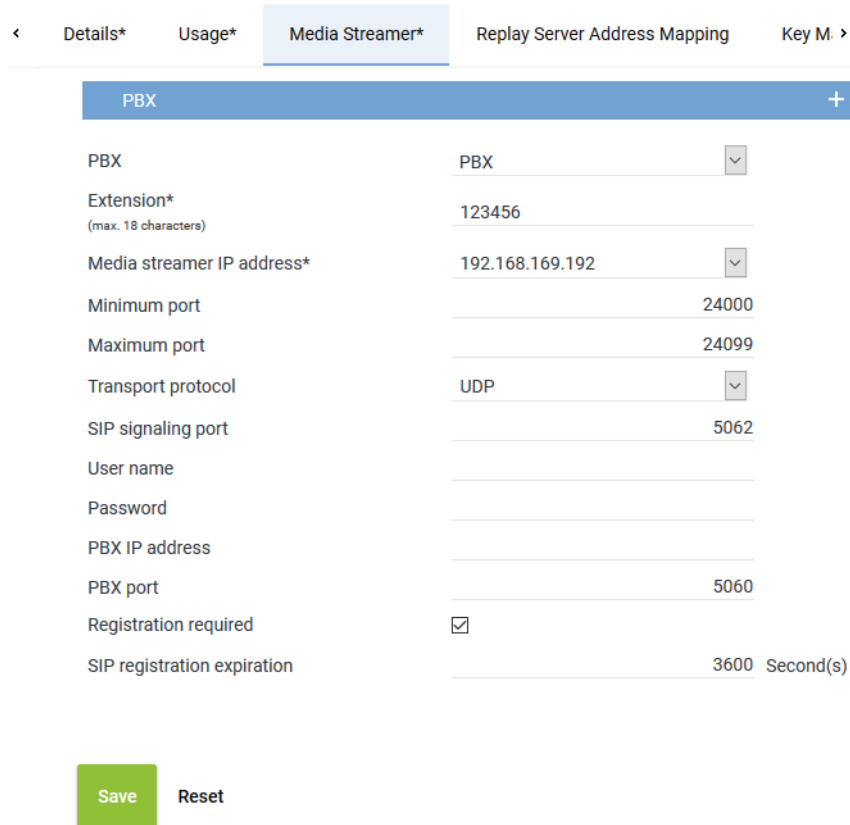


Fig. 373: Servers module - tab Media Streamer

2. Enter the following parameters:

<b>PBX</b>	<p><b>PBX</b> that the Media Streamer is supposed to be mapped to.</p> <p>Select a <b>PBX</b> from the drop-down list. The drop-down list displays all <b>PBXs</b> which have been created in the system.</p> <p>If no <b>PBX</b> has been created in the system yet, you can create a <b>PBX</b> via the blue bar <b>PBX</b>, see <a href="#">chapter "Create PBX"</a>, p. 324.</p>
<b>Extension</b>	<p>Extension which is supposed to be mapped to the Media Streamer. This is a mandatory field; the configuration cannot be saved if this information is missing.</p> <p>If an external analog gateway has been integrated, enter the value <b>8000</b>.</p>
<b>Media streamer IP address</b>	<p>IP address which is supposed to be used for the exchange of the audio data and for the <b>SIP</b> communication.</p> <p>Select an IP address from the drop-down list. In the drop-down list, all IP addresses of the server are displayed.</p> <p>If an external analog gateway has been integrated, select the IP address <b>169.254.254.100</b> in the drop-down list.</p>

<i>Minimum port</i>	Enter the minimum port which is supposed to be used for the audio data exchange.
<i>Maximum port</i>	Enter the maximum port which is supposed to be used for the audio data exchange.  A port range of 100 (e. g. 24000-24099) is sufficient for 50 licenses. The port range should be twice as wide as the number of available licenses.
<i>Transport protocol</i>	Select the transport protocol type you would like to use for the <b>SIP</b> communication from the drop-down list.  <b>TCP</b> = unencrypted <b>UDP</b> = unencrypted <b>TLS</b> = encrypted  If an external analog gateway has been integrated, select <b>UDP</b> in the drop-down list.
<i>SIP signaling port</i>	Enter the port for the <b>SIP</b> communication. Port for data exchange: 5062
<i>User name</i>	Enter the user name for the authentication on the <b>SIP</b> server.
<i>Password</i>	Enter the password for the authentication on the <b>SIP</b> server.
<i>PBX IP address</i>	Enter the IP address of the <b>SIP</b> registrar of the <b>PBX</b> .  If an external analog gateway has been integrated, enter the IP address 169.254.254.101.
<i>PBX port</i>	Enter the port of the <b>SIP</b> registrar of the <b>PBX</b> .  If an external analog gateway has been integrated, enter the value 5060.
<i>Registration required</i>	Select whether the <b>SIP</b> extension has to be registered with the <b>SIP</b> registrar of the <b>PBX</b> .  <input checked="" type="checkbox"/> = <b>SIP</b> extension has to be registered. <input type="checkbox"/> = <b>SIP</b> extension does not have to be registered.  If an external analog gateway has been integrated, deactivate the check box <i>Registration required</i> .
<i>SIP registration expiration</i>	Enter the time interval after which the registration has to be repeated.

### Tab Replay Server Address Mapping

1. Click on the tab *Replay Server Address Mapping* in the detail view.

In this tab, you can configure the replay server address mapping. Servers which have been activated for replay require this address mapping so that they can be reached from a public network and with configured port forwarding.



The tab *Replay Server Address Mapping* is only active if the function *Replay* has been enabled in the tab *Usage*.



[Details\\*](#)
[Usage\\*](#)
[Media Streamer\\*](#)
[Replay Server Address Mapping](#)
[Key M. >](#)

---

**Replay Server Addresses**
✖

Internal IP address/ port of the replay server
  : 4000

External address/ port of the replay server
  : 4000

Save
Reset

Fig. 374: Servers Module - tab Replay Server Address Mapping

### Group field Replay Server Addresses

1. Enter the following parameters:

<i>Internal IP address/ port of the replay server</i>	Enter the destination <b>IP</b> address and the port of the replay server at which the Replay module can be reached internally.
<i>External address / Port of the replay server</i>	Enter the <b>URL</b> or the <b>IP</b> address and the port at which the Replay module can be reached via the browser from outside. When entering the external address consider whether the SSL certificate has been created for an IP address or for a DNS address. In the latter case, it is imperative to enter the DNS name! Otherwise the certificate check in the replay applications will fail.

If you would like to remove the addresses, click on the icon ✖ in the title bar of the group field.



If address mapping has been configured, the Replay module receives the configured address and the configured port.

If address mapping has not been configured, the Replay module receives the IP address and the default port 4040 as entered in the tab *Details*.



To allow the users of the respective tenant to access the replay server via the browser, an internal address and/or an external IP address or a DNS name must be configured in the Tenants module.



For information about the configuration refer to the administration manual for tenants *User management tenant*.

### Tab Key Management

1. Click on the tab *Key Management* in the detail view.

In this tab, you can configure the settings for the *neo* key management. This tab is only active if you have installed the corresponding license and enabled the function *neo Key Management* in the tab *Usage*.

< Usage\* Media Streamer\* Replay Server Address Mapping
Key Management >

Key creation interval

☒ All

365 Day(s)

☐ Create key manually

Delay usage
until

0 Day(s)

0 Hour(s)

☐ Key expiration date
after

0 Day(s)

☒ In case of an error switch to simple key management automatically

Save Reset

Fig. 375: Servers module - tab Key Management

<i>Key creation interval</i>	<p>Select whether a key is supposed to be generated automatically or manually. Select one of the following options:</p> <ul style="list-style-type: none"> <li>• <i>All</i> Select the intervals in which a new key is supposed to be generated automatically. Possible time interval: 1 to 365 days Default value: 365 days</li> <li>• <i>Create key manually</i> Select that a key is supposed to be generated manually.</li> </ul> <p>Old keys which are no longer used for encryption become inactive for the time being. They remain in the database, though, since they are still required for the decryption of old recordings.</p>
<i>Delay usage</i>	<p>If required, enter a time interval during which the new key is not supposed to be used yet after having been created. Not until after this time interval has passed can the key be actually used for encryption.</p> <p>Possible time interval: 0 to 14 days Default value: 0 days (new keys are immediately used for encryption)</p> <p>A delay guarantees that the key has been captured by a database backup before it will actually be used.</p>
<i>Key expiration date</i>	<p>Select whether an inactive key is supposed to become invalid after the expiration of the time interval defined here.</p> <p><input type="checkbox"/> = Key never becomes invalid.</p> <p><input checked="" type="checkbox"/> = Key becomes invalid. In the entry field, enter the time interval after which the key loses its validity. Once this time interval has passed, the key cannot be used anymore. If recording data must be deleted after a certain period of time, this option offers additional security on top of the configured date of deletion. This especially applies to the case when recording data has been transferred manually to a storage location where the deletion mechanism of the system cannot find it.</p>

**CAUTION!** All recordings which have been encrypted with a key which has meanwhile become invalid are useless and cannot be replayed anymore.

*In case of an error ... automatically*

Select whether simple key management is supposed to be used if the neo key management does not work (e. g. if the service *DongleMan* fails). If you have not activated the option, no recording takes place as long as the neo key management has been activated but does not work.

☒ = In case of an error, simple key management is used as replacement.

☐ = In case of an error, no recording takes place as long as the neo key management has been activated. In this case, disable key management in the tab *Usage*.



On top of the settings in this tab, each tenant who would like to use the neo key management has to define individual settings in his own user management (Tenants module).



For information about the configuration refer to the administration manual for tenants *User management tenant*.

### Tab Keystore/Virtualization

1. Click on the tab *Keystore/Virtualization* in the detail view.

In this tab, you can configure the connection data for the service *DongleMan* for the neo key management and for the authentication of the VM.



If your system has been installed in a virtual environment, the application Dongle Manager must have been installed and started locally outside the VM so that the access to the dongle works. The dongle must have been connected to the server on which the VM has been installed.



For detailed information about neo key management refer to the administration manual *Encryption of recordings*.

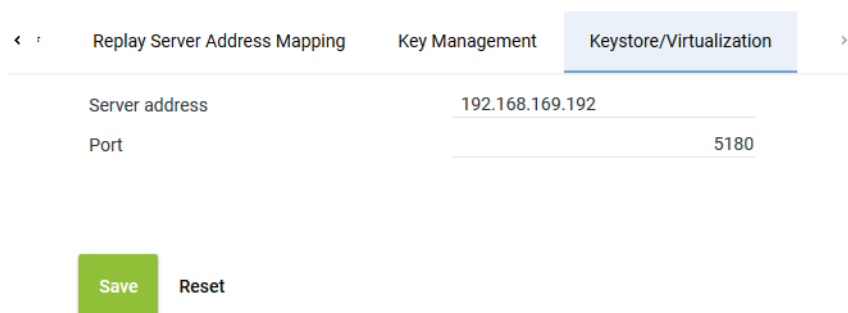


Fig. 376: Servers module - tab Keystore/Virtualization

#### Server address

Enter the address of the server for this connection.

- If you use the neo key management as well as the virtualization:  
IP address of the server that the service *DongleMan* has been installed on.
- If you use only virtualization, you can authenticate the VM via the ASC License Management System, too. In this case, enter the following address:  
*licensing.asc.de*

- If you use only the ASC key management:  
IP address of the server with the master password database

**Port** Enter the port for the connection.  
Default value: 5180

- To save the settings, click on the button *Save*.  
To discard the settings, click on the button *Reset*.

### 7.1.2.6.3 Create PBX

The PBX can either be configured via the PBX module or via the Integrations module.

In this configuration step, the parameters for the PBX are configured, e. g. the name, the area code and the net code.

- Select the menu item *Setup > PBX* in the navigation bar.

⇒ The following window appears:

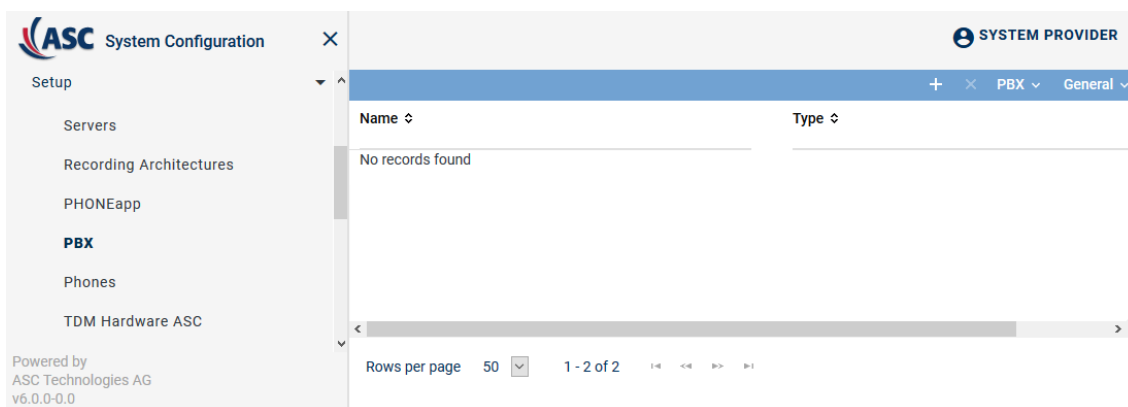


Fig. 377: Create new PBX

### Toolbar of the PBX module

The toolbar offers the following functions.

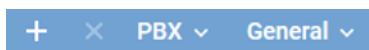




Fig. 378: Toolbar PBX module


	<i>Create</i>	In the detail view, you can enter the parameters of the new PBX.
	<i>Delete</i>	Deletes the selected PBX configuration. A PBX can only be deleted if it is not used in any configuration.
<i>PBX</i>	<i>Phone Configuration</i>	Opens a window in which you can create and configure phones.
	<i>Administratre Unused Extensions</i>	Opens a window in which you can delete extensions that are not used in any configuration.
<i>General</i>	<i>Print</i>	Prints the table of the main view.
	<i>Adjust Table</i>	Opens a window in which you can adjust the following settings for the main view: <ul style="list-style-type: none"> <li>• <i>Displayed information</i></li> <li>• <i>Order of the displayed columns</i></li> <li>• <i>Number of rows per page</i></li> </ul>

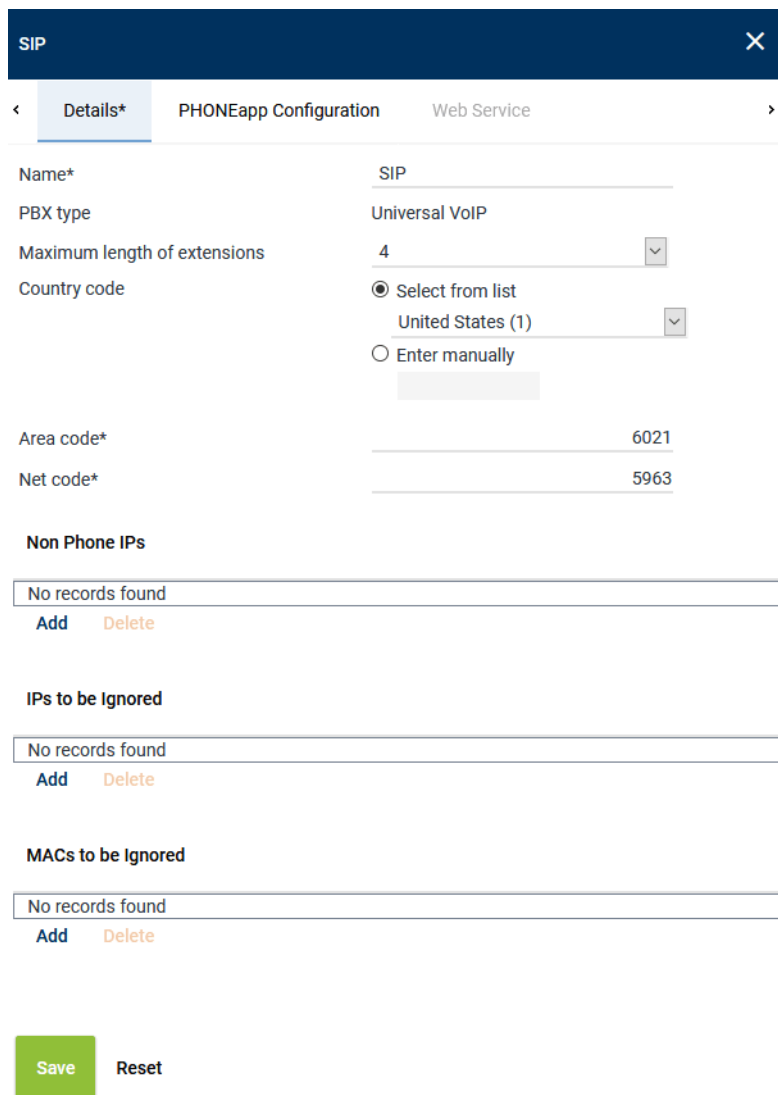
<i>Save Table Configuration</i>	Saves the current table configuration of the main view as default view of the user.
<i>General Help</i>	Opens the online help.
<i>Module Help</i>	Opens the module-specific online help.



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

### Create new PBX

- Click on the icon  (*Create*) in the toolbar of the main view of the PBX module.  
⇒ In the detail view, the tab *Details* appears.



**SIP** [X]

< Details\* PHONEapp Configuration Web Service >

Name\* SIP

PBX type Universal VoIP

Maximum length of extensions 4

Country code ☒ Select from list  
United States (1)

☐ Enter manually

Area code\* 6021

Net code\* 5963

**Non Phone IPs**

No records found

Add Delete

**IPs to be Ignored**

No records found

Add Delete

**MACs to be Ignored**

No records found

Add Delete

Save Reset

Fig. 379: Create new PBX - tab Details

- Set the following parameters in the detail view:

Parameter	Value/Description
<i>Name</i>	This <i>name</i> serves as the identifier of this PBX.
<i>PBX type</i>	Select the type of the <b>PBX</b> from the drop-down list.
<i>Maximum length of the extensions</i>	Enter the number of digits of the extensions, e. g. 4.
<i>Country code</i>	Select the option for the country code:

Parameter	Value/Description
	<ul style="list-style-type: none"> <li>• <i>Select from list</i> Select the country code from the drop-down list.</li> <li>• <i>Enter manually</i> If the corresponding country code is not available in the drop-down list, you can enter the 3-digit code manually. e. g. for Sri Lanka <i>094</i>.</li> </ul>
<i>Area code</i>	Enter the area code without the preceding <i>0</i> , e. g. <i>6021</i> .
<i>Net code</i>	Enter the net code, e. g. <i>5963</i> . Do not enter an extension here.

Tab. 101: Create PBX

If you would like to display the complete phone number, e. g. if you use more than one PBX, several area codes, or if you would like to record mobile phones, you have to configure the value *0* in the following parameters:

Parameter	Value/Description
<i>Maximum length of the extensions</i>	Enter the number <i>0</i> in the field maximum length of the extensions to display the complete phone number.
<i>Area code</i>	Enter the number <i>0</i> as area code to display the complete phone number.
<i>Net code</i>	Enter the number <i>0</i> as net code to display the complete phone number.

Tab. 102: PBX parameters with complete phone number

- To save the settings, click on the button *Save*.  
To discard the settings, click on the button *Reset*.

#### 7.1.2.6.4 Assign recording resources

In multi-tenant systems, you have to assign each tenant its own recording resources.

Depending on the recording type, agents can be assigned to the recording resource via the extension, via the PBX Agent ID or via the chat ID. Within one tenant, you can configure all three possibilities.

##### Assign extensions to tenants

If you would like to make an assignment based on extensions, you can assign the respective tenant the extension designated for recording in the Tenants module.



In 1-tenant systems, all extensions are automatically assigned to the tenant who has been created by the system (1st tenant). Extensions are assigned to the user in the Employees module.

When installing a 1-tenant system, you can skip this chapter.



In multi-tenant systems, you have to assign the extensions manually to each tenant who is supposed to be able to use them. There are multi-tenant systems, too, in which only 1 tenant has been set up.

The manual assignment of extensions is not possible until a PBX has been created since extensions are assigned in relation to the PBX.

- Select the menu item *Tenants* in the navigation bar.

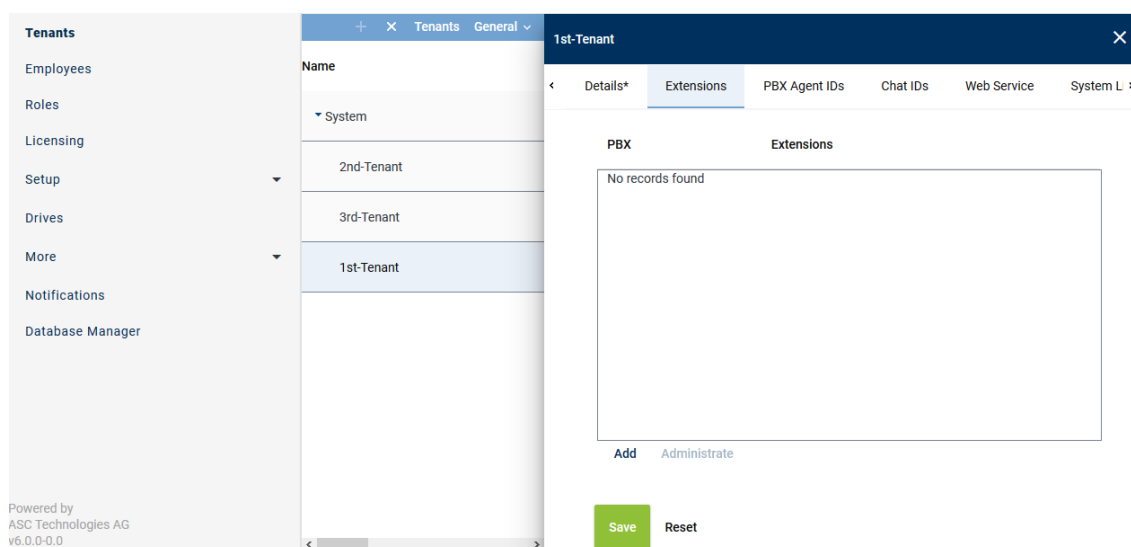


Fig. 380: Tenants - main view - tab Extensions

### Add extensions

1. In the main view, select the tenant to whom you would like to assign extensions.
2. Click on the tab *Extensions*.
3. Click on the button *Add*.

⇒ The following window appears:

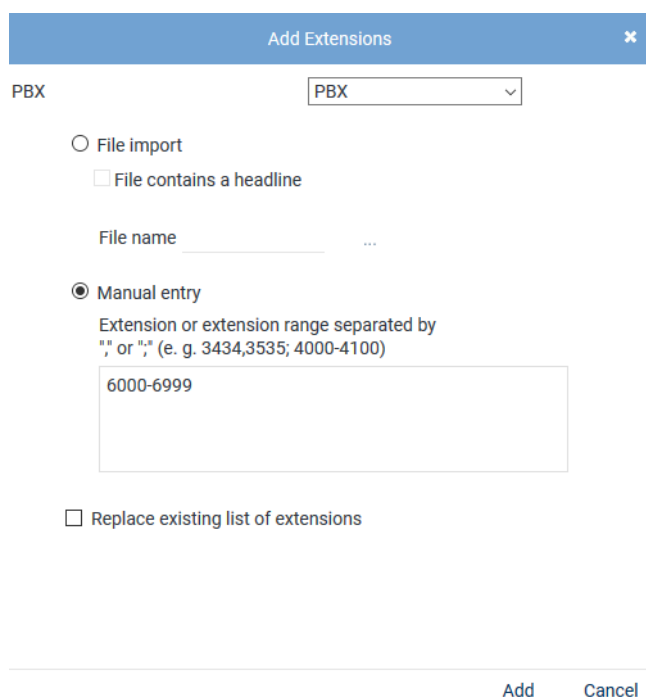


Fig. 381: Assign extensions to tenants

4. From the drop-down list, select the PBX in which the extensions for this tenant have been configured.

#### File import

Select the option to import extensions from an existing file and add them to the table of extensions.

The following file formats are supported:

- ZIP
- TXT

- CSV

**NOTICE! The maximum number of extensions in a file has been limited to 2000 for performance reasons. If more extensions are required, you can import several files.**



#### *File contains a headline*

Activate this option so that this structured is recognized correctly when importing the file.

The file must not contain more than one column. If commas or other column separators are detected in the file, the file is considered invalid and an error message is displayed.

#### *File name*

To import the file, proceed as follows:

- Click on the button  behind the field *File name*.
- Click on the button *Choose File*.
- Select the respective file in the Explorer and click on the button *Open*.
- Click on the button  *Upload File*.

#### *Manual entry*

Select this option to enter extensions or extension ranges manually.

To import number ranges, you must enter the same number of digits for the beginning and the end of the range, e. g. 1-9, 10-99, 01-20, 001-200, 4000-5000. If the end of the range asks for several digits, you have to add zeros for the beginning of the range, e. g. 01-10, 010-100.

Enter country codes as number ranges as follows:

+4984496800--+4984496810

**NOTICE! The number of digits must be equal. Add zeros in front of digits to level up possible incongruences.**

**NOTICE! Wildcards cannot be used!**

#### *Replace existing list of extensions*

Activate the check box to replace the list of extensions.

☒ = Function has been activated; the entry replaces the extensions of the selected PBX.

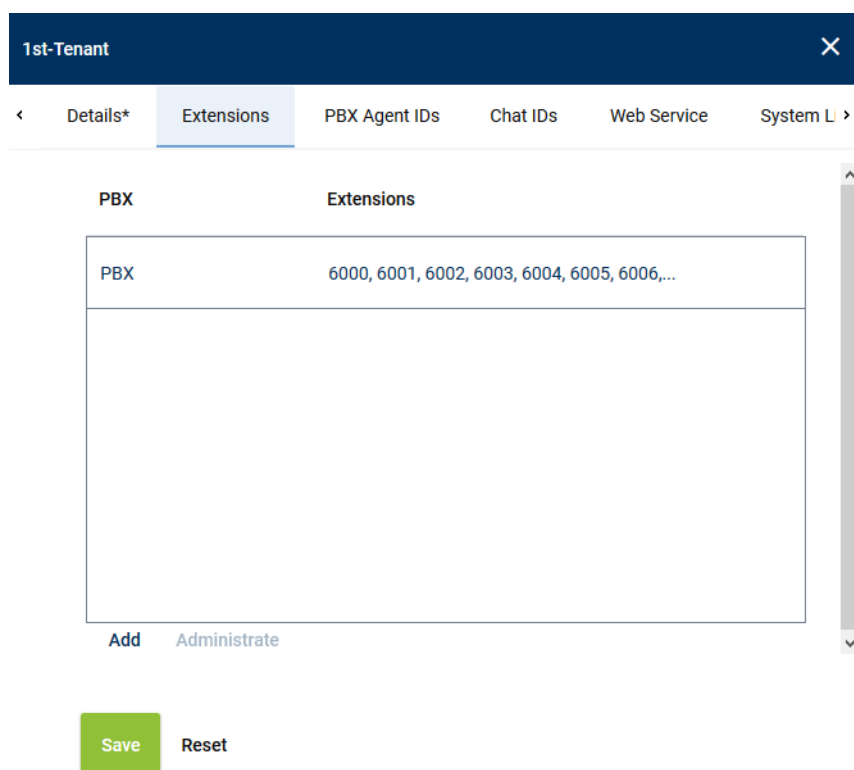
☐ = Function has not been activated; the configured extensions of all PBXs are kept and the new extensions are added to the selected PBX.

- Click on the button *Add*.  
⇒ The extensions are added in the table of extensions.
- If errors have been detected, the window *Result* appears.  
Click on the button *Display Error Report* to open the window *Error Report*.  
To close the window *Error Report*, click on the button *Close*.  
To close the window *Result*, click on the button *Close*.
- The configured extensions now appear in the detail view.
- Click on the button *Save* in the detail view to save the entries.

#### **Remove extensions**

- In the list, select the **PBX** for which you would like to remove the assigned extensions.





1st-Tenant

< Details\* Extensions PBX Agent IDs Chat IDs Web Service System L >

PBX	Extensions
PBX	6000, 6001, 6002, 6003, 6004, 6005, 6006,...

Add Administrate

Save Reset

Fig. 382: Remove extensions

- Click the button *Administrate*.
- Select one or several extensions you would like to remove from the assignment.  
To select several extensions or to revoke the selection, click on the respective line while holding the [Ctrl] key down.



Administrate Extensions

6993
6994
6995
6996
6997
6998
6999

Remove Cancel

Fig. 383: Select extensions

- To remove the selected extensions, click on the button *Remove*.  
To cancel the process and close the window, click on the button *Cancel*.

#### 7.1.2.6.5 Configure additional data

In the Additional Data module, you can configure the additional data which is delivered for a conversation with a protocol.

For selection fields to appear in the drop-down list, they have to be configured in the Additional Data module.

1. Select the menu item *Setup > Additional Data* in the navigation bar.

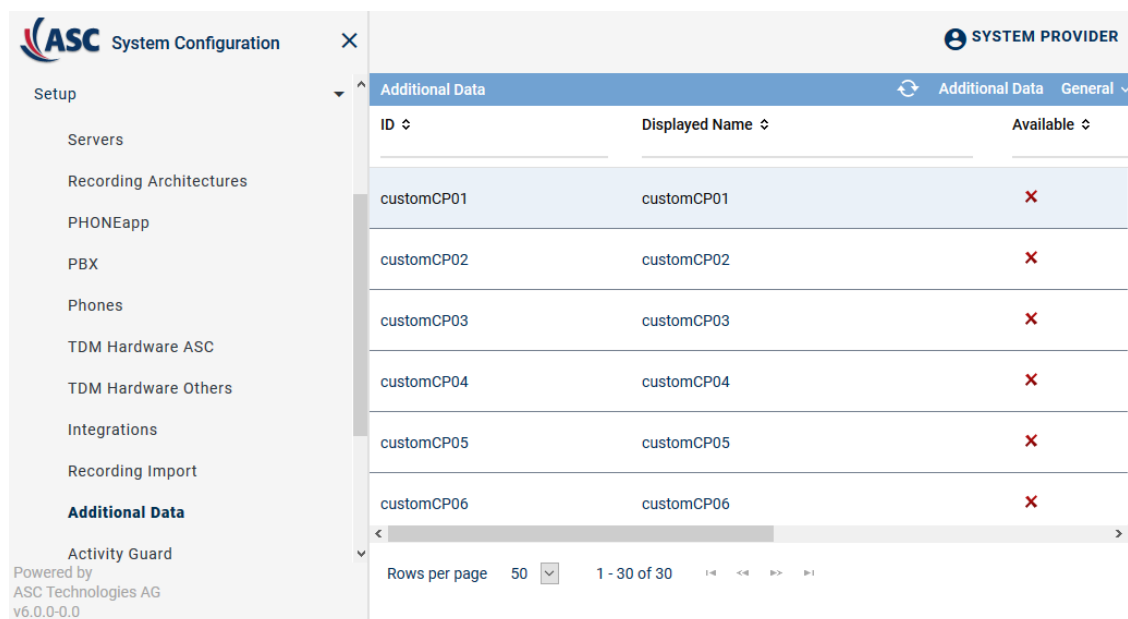


Fig. 384: Additional Data module main view

2. Select a set of data.  
⇒ The detail view displays the information you can configure.

### Change display name







Change Display Name		
Language	Content	
ar_SA	customCP01	
bg_BG	customCP01	
de_DE	Universal Call ID	
en_GB	customCP01	
en_US	Universal Call ID	 

Fig. 385: Configure additional data

1. To change the display name, click on the pen in the line of the language you would like to change.
2. Enter a display name and click on the check mark at the end of the line to confirm the entry.

### Availability

Availability	
Available	<input checked="" type="checkbox"/>
Editable	<input checked="" type="checkbox"/>
External recording control	<input checked="" type="checkbox"/>

Save
Reset

Fig. 386: Additional data - configure availability

1. To make the data field available to the entire system, activate the check box of the option *Available*.
2. To make the data field in the search and replay applications editable later on, activate the check box of the option *Editable*.
3. To be able to use the data field for external recording control, activate the check box of the option *External recording control*. This option is only available if recording control has been activated in the *Servers module* in the tab *Usage*.
4. Click on the button *Save* to save the settings.



For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.



Additional data which is not delivered along with the protocol is not available for further use.

#### 7.1.2.6.6 Create integration for Multi-Server Parallel Recording

In the Integrations module, the PBX-related recording settings are configured.

You first have to create and activate a recording architecture to be able to create a integration and to assign it here.

Depending on the recording solution, you additionally have to configure IP addresses, ports, protocols, sniffer cards, CTI connection data, phones, monitor points, and, where required, add-ons.

1. In the navigation bar, select the menu item *Setup > Integrations*.
  - ⇒ The following window appears:

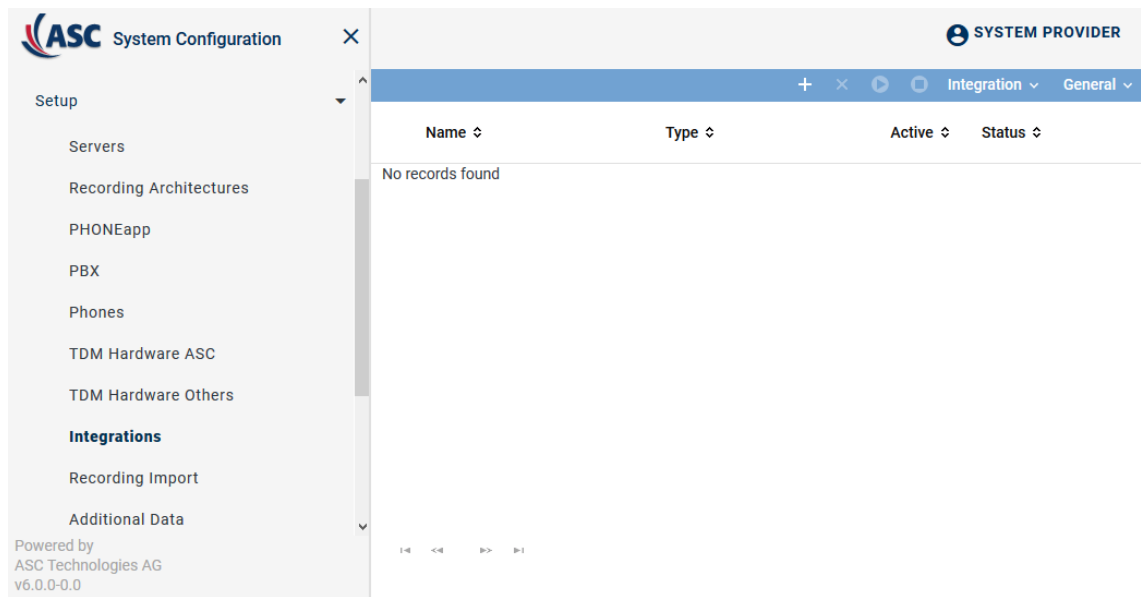




Fig. 387: Integrations - main view

In the table in the main view, the following information is displayed:





<b>Name</b>	Name of the integration
<b>Type</b>	Type of the integration
<b>Active</b>	Shows whether the integration has been activated and is used for the recording. <div> <span>✓</span> = Integration is active, can be deactivated in the toolbar via the icon .         <span>✗</span> = Integration is not active, can be activated in the toolbar via the icon .       </div>
<b>Status</b>	Shows whether the configuration has been carried out completely. <div> <span>✓</span> = Configuration is complete.         <span>✗</span> = Configuration is incomplete.       </div>

### Toolbar of the Integrations module


The toolbar offers the following functions.



Fig. 388: Toolbar Integrations module

	<b>Create</b>	Opens the detail view so that you can create a new integration.
	<b>Delete</b>	Deletes the selected integration. The integration can only be deleted if it has been deactivated.
	<b>Activate</b>	Activates the selected integration. The integration can only be activated if it has been configured completely.
	<b>Deactivate</b>	Deactivates the selected integration. This stops running recordings.
<b>Integration</b>	<b>Import Grammar</b>	By clicking on this menu item, you can import a customized grammar which you can then configure in the configuration step for the CTI connection data.
<b>General</b>	<b>General Help</b>	Opens the online help.
	<b>Module Help</b>	Opens the module-specific online help.

### Assign integration type

- Click on the icon  (*Create*) in the toolbar of the main view to create a new integration.  
⇒ In the detail view, the tab *Integration Type* appears.

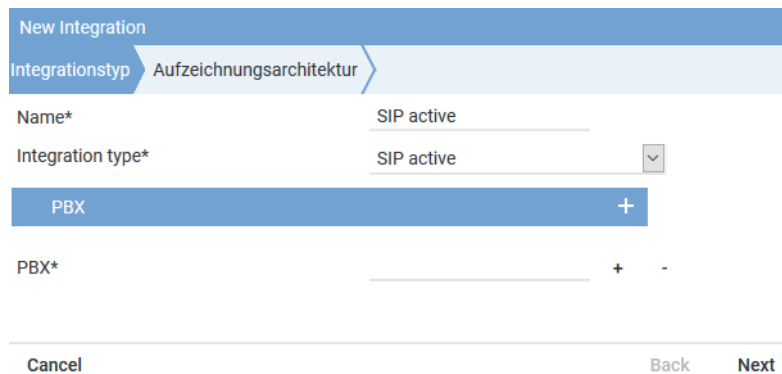



Fig. 389: Create integration type

- Enter the following parameters:

Parameter	Value
<i>Name</i>	In the entry field, enter a descriptive name for the integration. This name is used as the identifier of this integration in the system.
<i>Integration type</i>	Select the entry <i>SIP active</i> from the drop-down list <i>Integration type</i> .

Tab. 103: Create integration type

- To assign the PBX, click on the button  behind the field *PBX*.  
⇒ The window *PBX* appears.

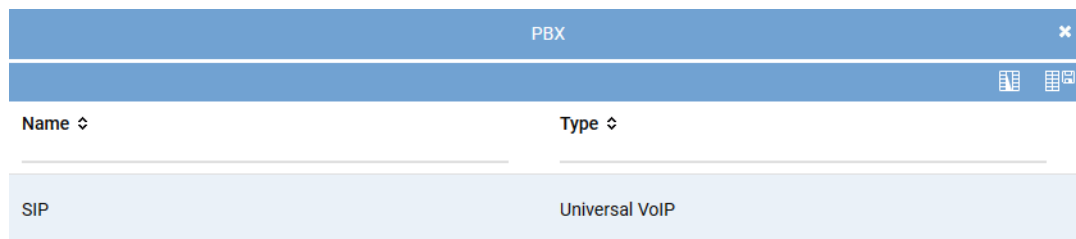



Fig. 390: Select PBX

- Select the respective *PBX* from the list of available PBXs.
- Click on the button *Add*.

### Assign recording architecture for Multi-Server Parallel Recording

- In the detail view on the bottom right, click on the button *Next*.  
⇒ The tab *Recording Architecture* appears.

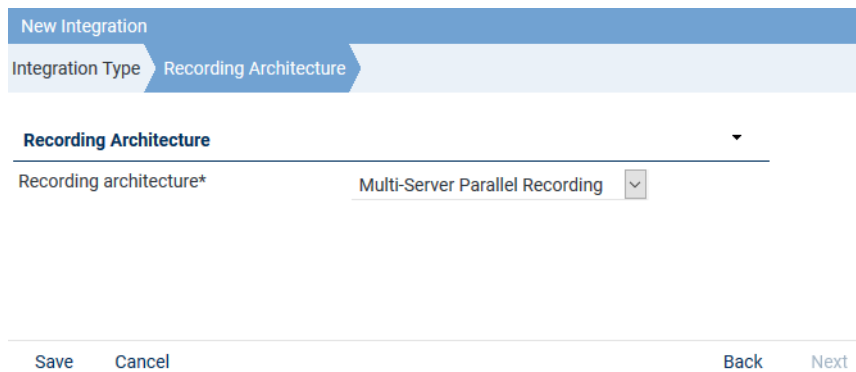


Fig. 391: Assign recording architecture - Multi-Server Parallel

2. Select the respective recording architecture from the drop-down list *Recording architecture*.




Only activated recording architectures in which the appropriate integration type has been configured appear in the drop-down list.

3. Click on the button **Save**.  
⇒ The integration now appears in the main view.



When using a recording architecture with parallel recording, the tab *Parallel Recording* appears in the detail view. In this tab, you can adjust the settings for the duplicate detection of parallel configured servers, see [chapter "Duplicates in parallel recording architectures", p. 359](#).

### Configuration steps

1. To complete the configuration of the integration, click on the icon  in front of the name of the new integration.  
⇒ The following configuration steps appear:







SIP active		SIP active		X		⚙️	
Step				Configuration			
Configure recording architecture				✓			
Global recording settings				X			
Configure recording servers				X			
Configure add-on				✓			
Configure miscellaneous settings				✓			

Fig. 392: Configuration steps of the integration

### Configure recording architecture

The section *Configure recording architecture* has already been configured in previous steps.

1. Click on the button  (*Edit configuration step*) in the line *Configure recording architecture* in the main view to show the configuration.  
⇒ In the detail view, the configuration step appears with the information of the assigned recording architecture.

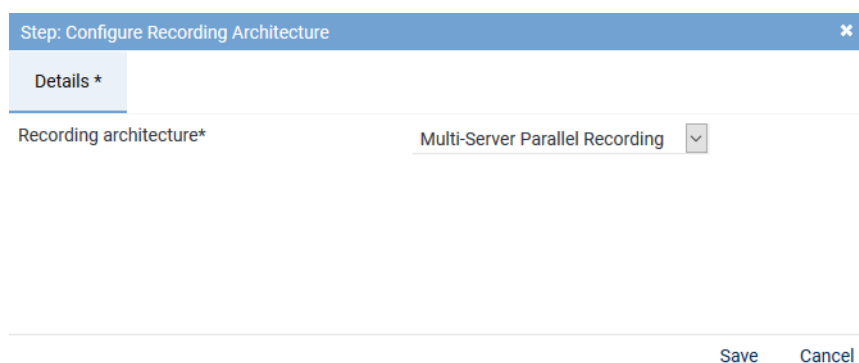



Fig. 393: Configuration step - Configure Recording Architecture

2. Click on the button *Save* to save changes and to finish the configuration step.
3. Click on the button *Cancel* to cancel the configuration step without applying changes.

### Global recording settings for Multi-Server Parallel Recording

1. Click on the button  (*Edit configuration step*) in the line *Global recording settings* in the main view.  
⇒ The window *Step: Global Recording Settings* appears.

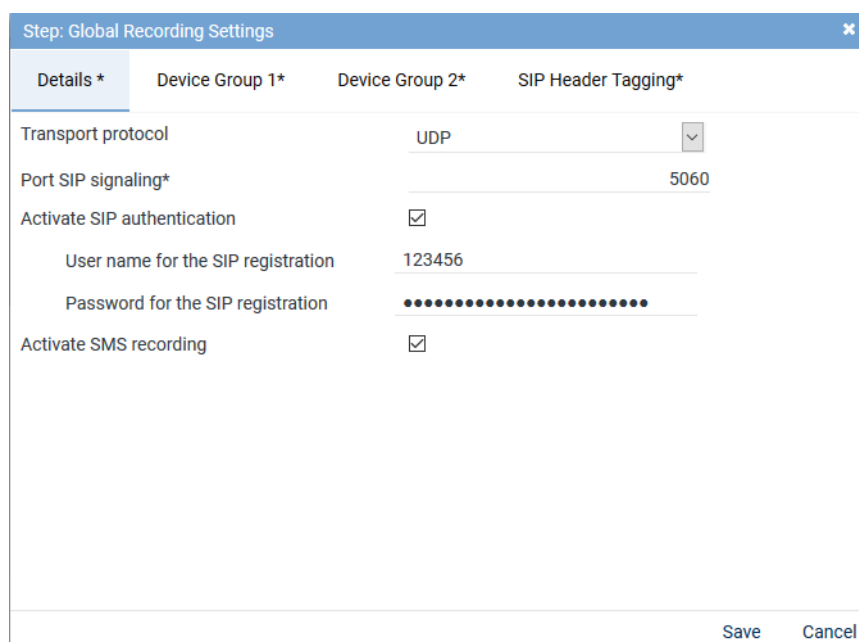


Fig. 394: Configuration step - Global Recording Settings - Multi-Server Parallel Recording

2. Set the following parameters in the tab *Details*:

Parameter	Value/Description
<i>Transport protocol</i>	From the drop-down list, select the used transport protocol for the SIP signaling between the recording server and the PBX. The following protocols are available: <b>TCP</b> = unencrypted <b>UDP</b> = unencrypted <b>TLS</b> = encrypted
<i>Port SIP signaling</i>	Enter the port for the <b>SIP</b> signaling, where the recording server is expecting the signaling. The default value is <b>5060</b> .

Parameter	Value/Description
<i>Activate SIP authentication</i>	Activate this option if you would like to use the SIP digest authentication.
<i>User name of the SIP registration</i>	Enter the user name for the <a href="#">SIP</a> registration, e. g. 123456.
<i>Password of the SIP registration</i>	Enter the password, if an authentication for the <a href="#">SIP</a> registration is used.
<i>Activate SMS recording</i>	Activate the check box if you would like to use SMS recording.

Tab. 104: Global recording settings

- Click on the button Save.

### Tab SIP Header Tagging

- If you would like to configure the SIP header tagging, select the tab *SIP Header Tagging*.

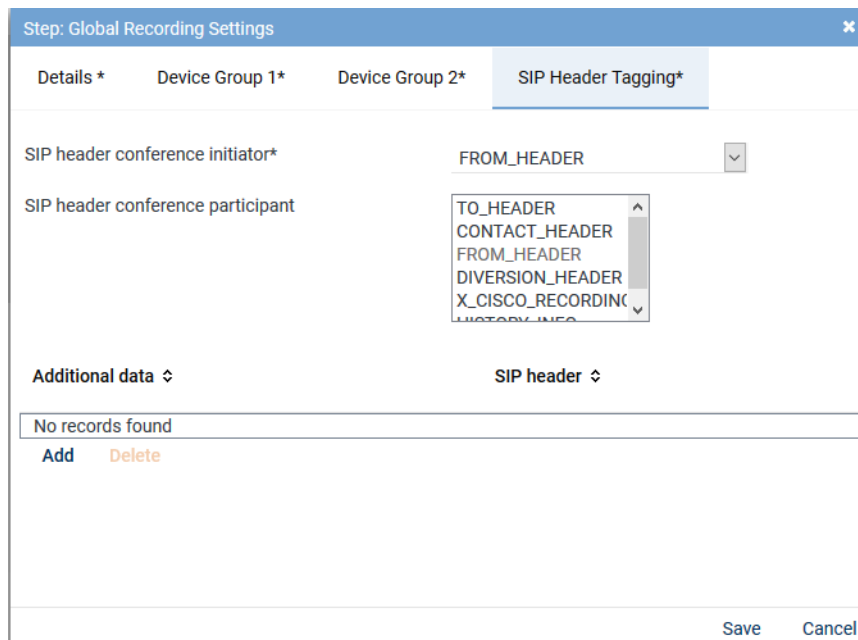


Fig. 395: Tab SIP Header Tagging Configure sources

- Enter the following parameters:

Parameter	Value/Description
<i>SIP header conference initiator</i>	Select the SIP header which contains the extension of the conference initiator.
<i>SIP header conference participant</i>	Select the SIP header which contains the extension of the additional conference participants.

Tab. 105: Configure SIP header tagging



It is possible to select several entries; the information is then displayed one after the other in the respective replay application.

To select several entries, highlight the respective entries while holding the [Ctrl] key down. To deselect an entry, click on it again without releasing the [Ctrl] key.



3. If you would like to configure individual additional data that you have defined previously in the Additional Data module, click on the button *Add* in the section *Additional data*.  
⇒ The window *SIP Additional Data* appears.

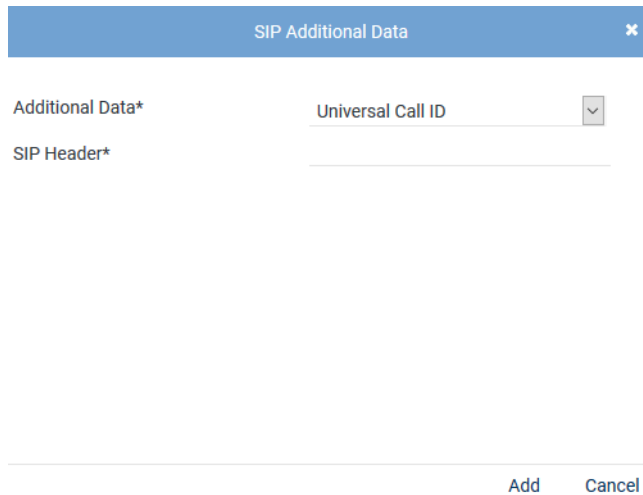


Fig. 396: SIP Additional Data



Only those entries appear in the drop-down list which have been configured in the application System Configuration in the Additional Data module. For further information refer to the administration manual *Additional Data module*.

4. Enter the following parameters:

Parameter	Value/Description
<i>Additional Data</i>	In the drop-down list, select the display name of the field in which the information of the SIP header is supposed to be released.
<i>SIP Header</i>	Enter the source from the SIP header from where the information is to be extracted. Observe the correct spelling.


Tab. 106: Configure SIP conversation parameters

5. Click on the button *Save* to close the window.
6. Click on the button *Save* to finish the configuration in this step.

### Configure recording server for Multi-Server Parallel

In case of several recording servers, you have to define the port range for each recording server. The range may be the same for all recording servers. Make sure, though, that the port range lies within the range of ports activated in the firewall, refer to the installation manual *Installation requirements* in chapter *Communication matrix*.

This configuration takes place in the configuration step *Configure recording servers*.

1. Click on the button  (*Edit configuration step*) in the line *Configure recording servers* in the main view.  
⇒ The window *Step: Configure Recording Servers* appears.

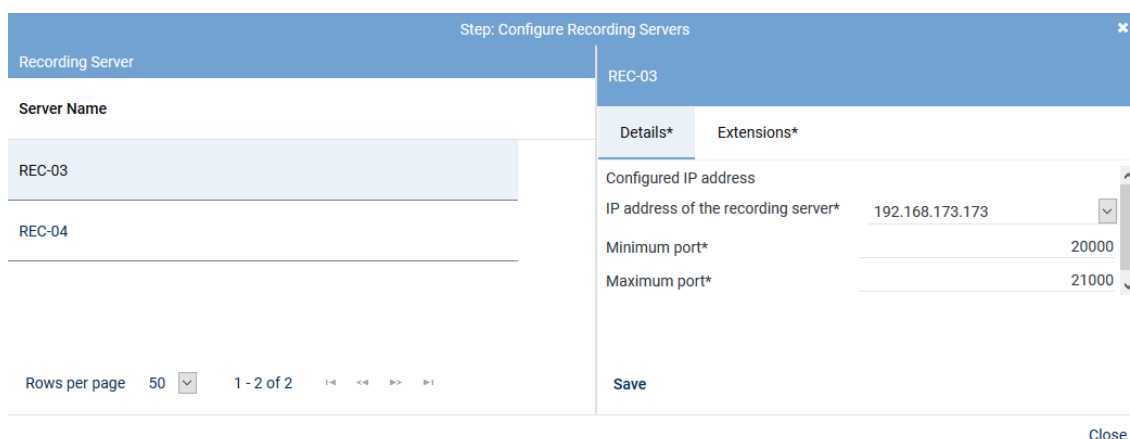


Fig. 397: Configuration step - Configure recording servers

2. Enter the following parameters in the tab *Details*:

Parameter	Value/Description
<i>Configured IP address</i>	Here, the IP address is displayed which has been configured for this recording server and via which the data to be recorded are received.
<i>IP address of the recording server</i>	From the drop-down list, select one of the available IP addresses of the recording server for the recording data.
<i>Minimum port</i>	Enter the lowest port of the port range configured on the PBX that is used to receive the <b>RTP</b> data from the recording server, e. g. <b>20000</b> .
<i>Maximum port</i>	Enter the highest port configured on the PBX that is used to receive the <b>RTP</b> data from the recording server, e. g. <b>21000</b> .

Tab. 107: Configure recording servers



This recording solutions allows recording data streams in stereo. For stereo recording, reckon with 4 ports as only even ports are used to receive **RTP**.

Stereo recording requires more storage space, too.



If you use several active integrations in one recording architecture, you must configure different port ranges for each integration in the configuration step *Configure recording servers*.



If you use several active integrations in one recording architecture, you must configure different port ranges for each integration in the configuration step *Configure recording servers*.

### Tab Extensions

#### Configure extensions for SIP trunk

To register the **SIP** trunk, you can enter a registration phone number in the tab *Extensions*.



Fig. 398: Recording server - Configure extension for SIP trunk



Ask your provider whether registering 2 servers in parallel mode is supported. To do so, it must be possible to assign a [SIP](#) trunk phone number to 2 different IP addresses at the same time.

*Don't configure extensions for recording server* - Activate this option if you do not have configured extensions for the recording server in the PBX and would like to configure a [SIP](#) trunk phone number instead.



If you do not define a phone number for the [SIP](#) trunk of the recording server, all incoming [SIP](#) connections are accepted without being examined.

**Registration phone number** Enter a registration phone number for the [SIP](#) trunk.

For a successful registration, registration must have been activated in the section *Global recording settings*. The user name and password entered there are used to register the [SIP](#) trunk, see [chapter "Global recording settings for All-in-one Parallel Recording", p. 164](#).

1. Click on the button *Save*.
2. Click on the button *Close* to finish this configuration step.

### Configure extensions for the recording server

1. If you have defined extensions for the recording servers in the PBX, you can configure these extensions in the tab *Extensions*.

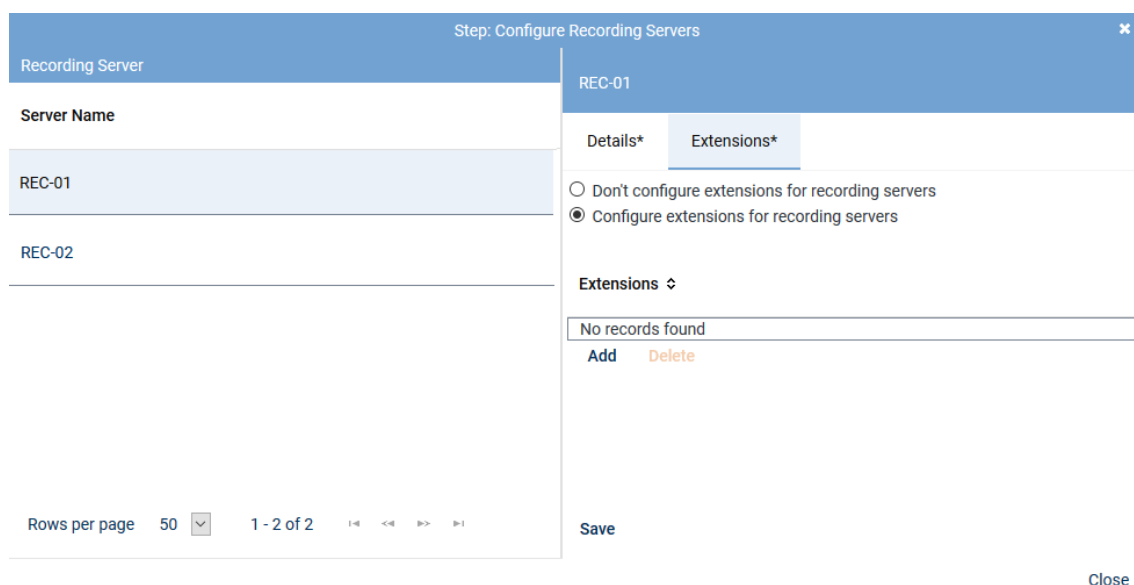


Fig. 399: Tab Extensions

*Configure extensions of the recording server* Activate this option if you have configured extensions for the recording server in the PBX and add the extensions.

- To add extensions, click on the button *Add* in the table *Extensions*.  
⇒ The window *Add Extensions* appears.

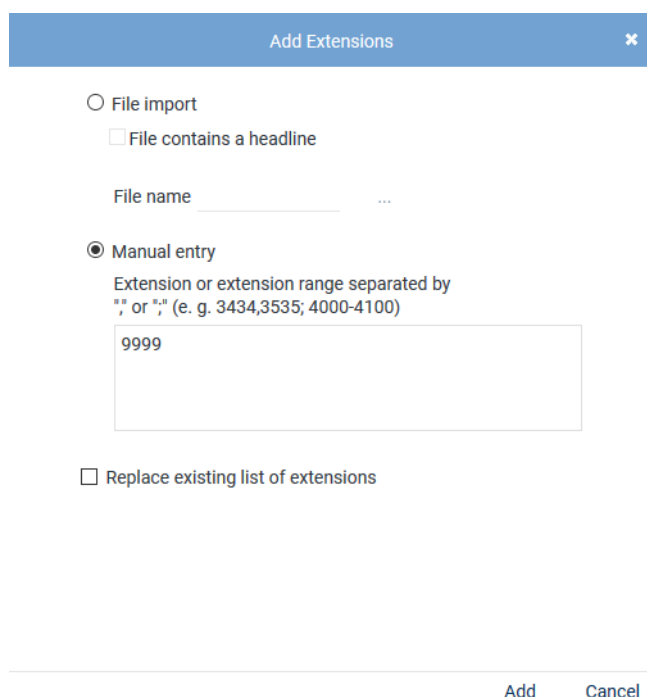


Fig. 400: Add extensions

- In the window *Add Extensions*, enter either a single extension or an extension range that the recording server is to use when registering on the PBX.
- Click on the button *Add*.  
⇒ The extensions are added in the table of extensions.
- If errors have been detected, the window *Result* appears.  
Click on the button *Display Error Report* to open the window *Error Report*.  
To close the window *Error Report*, click on the button *Close*.  
To close the window *Result*, click on the button *Close*.

6. The configured extensions now appear in the detail view.

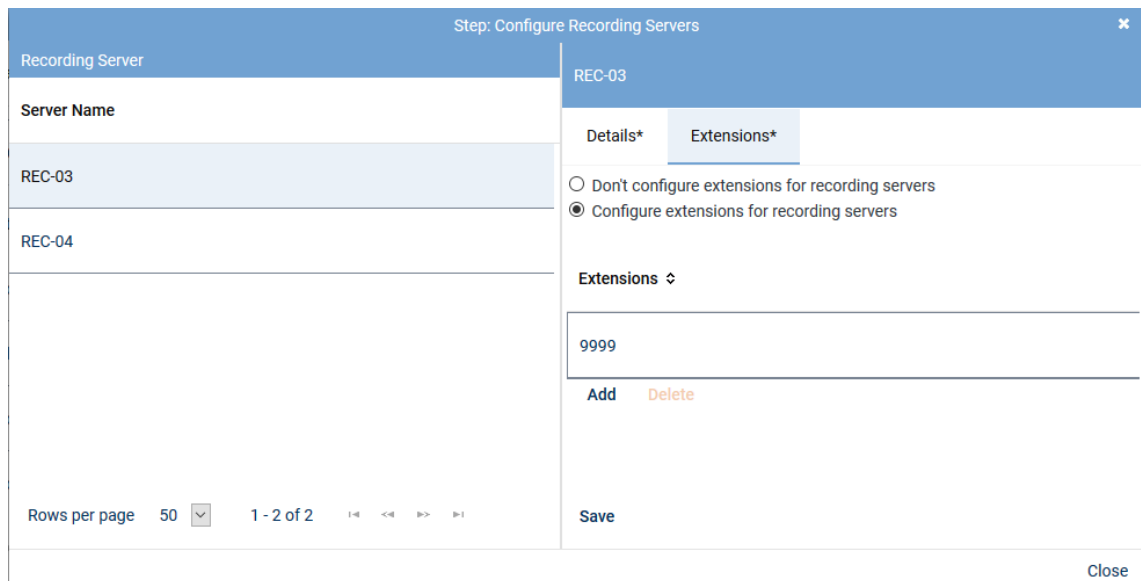


Fig. 401: Added extensions

7. Repeat the steps for additional servers. For each server, configure its own extension or extension range depending on how it can be reached.



In failover architectures, it is recommended to set up a separate extension or extension range for each recording server. If the **SIP** registration timer has expired for the extension for the recording server, problems may occur when switching back to the primary recording server. If the primary recording server displays an error, it is not yet possible to register the **SIP** end-points again.

8. Click on the button *Save*.  
9. Click on the button *Close* to finish this configuration step.

### Configure add-on



The use of the add-on in the integration is optional. The status of this configuration step has been set to *No selection* by default and is considered to be completely configured that way. You can activate and use the integration without an add-on, too.

If you use an application with add-on, you can select the required grammar in the corresponding version in this configuration step. Additionally, you can configure the connection data and the additional data.



The additional data delivered by an add-on supplements the additional data which is delivered by the CTIconnect module of the integration.

### Configure add-on for Sparkassen FI ISP (optional)

The add-on refers to the usage of CTIconnect for Sparkassen FI ISP in the DACH region and only has to be configured if the add-on is used.



The add-on cannot be used in a failover architecture. The application Sparkassen FI ISP cannot connect to more than one IP address.

The integration runs in combination with a PBX and the recording server. The service **CTIconnect** for Sparkassen FI ISP receives the additional data from the PBX and sends them to the recording server. In addition, the recording decision which is initiated by the user on the end device is processed via **CTIconnect** for Sparkassen FI ISP and sent to the recording server.

### Sparkassen FI Interaktive Service Plattform

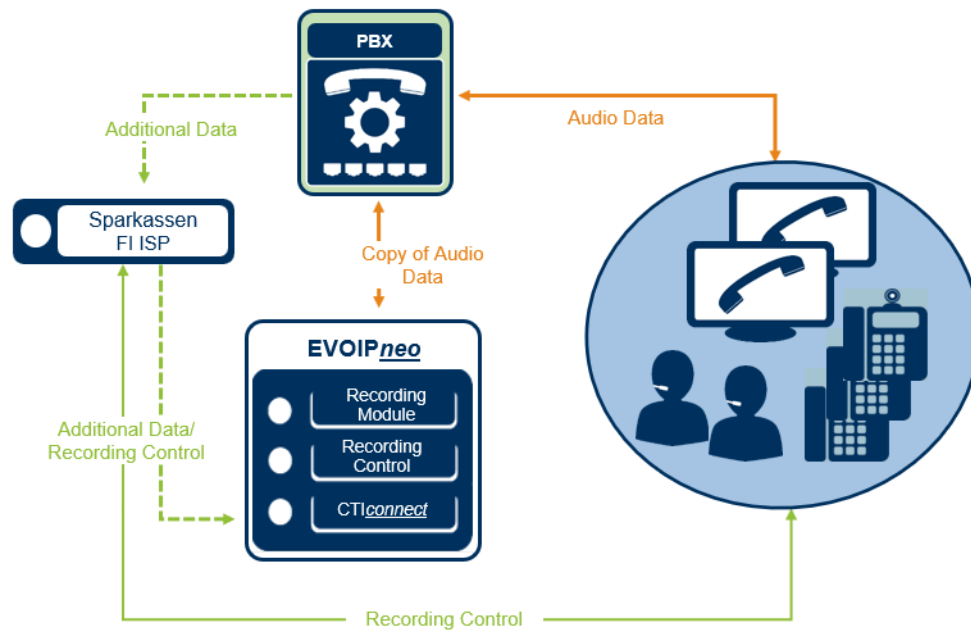



Fig. 402: Overview of Sparkassen FI ISP

#### Configure add-on in the integration

1. To configure the add-on, click on the button  (*Edit configuration step*) in the main view in the line *Configure add-on*.
2. Select the add-on *Sparkassen FI ISP* in the detail view.

Step: Configure Add-on
✕

Details \*

Select add-on

☐ None

☒ Sparkassen FI ISP

**CTIconnect Module**

Type	CTIconnect passive	
Grammar name*	ISP Sparkassen FI	<span>▼</span>
Grammar version*	1.00.05	<span>▼</span>

**Connection Data** ▼

Listener port*	3468
----------------	------

**Additional Data** ▼

ID des Call Centers	Call Center ID	<span>▼</span>
ID des Calls aus Genesys	Universal Call ID	<span>▼</span>
Anmeldename des Kunden	User name	<span>▼</span>
Name des Kunden	Customer name	<span>▼</span>
Personennummer des Kunden	Customer ID	<span>▼</span>

Arbitrary assignment
+

	Please select...	<span>▼</span>	<span>⊖</span>
	Please select...	<span>▼</span>	<span>⊖</span>
	Please select...	<span>▼</span>	<span>⊖</span>

Save Cancel

Fig. 403: Configure add-on for Sparkassen FI ISP

### Group field CTIconnect Module

1. Enter the following parameters for the grammar:

Parameter	Value/Description
Type	Is filled automatically.
Grammar name	A default grammar has been preset. If required, select the name of the grammar from the drop-down list.
Grammar version	Select the current version of the grammar from the drop-down list.

Tab. 108: Configure CTIconnect module



For recording control via the add-on of the Sparkassen FI ISP, grammar version 1.00.05 or higher is required. If the grammar in the respective version is not available yet, you can import it. See [chapter "Import grammar", p. 276](#).

### Group field Connection Data

Set the following parameter in the group field *Connection Data*; the IP address for the PBX does not have to be entered, since the PBX connects to our recording server:

Parameter	Value/Description
<i>Listener port</i>	Enter the port that the add-on connects to, e. g. 3468.

Tab. 109: Configure connection data

### Group field Additional Data



This add-on is used exclusively in the DACH region; for this reason the additional data is only available in German, too. The names of the fields refer to the assignment of the strings which are delivered by the interface.

When using CTIconnect for Sparkassen FI ISP, the following additional data is delivered with the protocol:

- *ID of the call center*
- *ID of the call from Genesys*
- *Login name of the customer*
- *Name of the customer*
- *Employee number of the customer*

### Arbitrary assignment

In the section *Arbitrary assignment*, you can configure the additional data which is additionally delivered by the PBX or by an add-on but which is not listed yet. Upon assigning the delivered additional data, it appears in the search and replay applications.



The names of the column headlines which are supposed to appear in the players must be configured and made available in the Additional Data module first.

For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.



The drop-down list only contains those additional data that you have configured and made available in the Additional Data module. The display name then appears in the column headlines in the players.

For more information about the configuration of additional data refer to the administration manual for system providers *Additional Data module*

1. In the group field headline *Additional Data*, click on the arrow ► to expand the group field and to assign the additional data to the data fields of the search and replay applications.

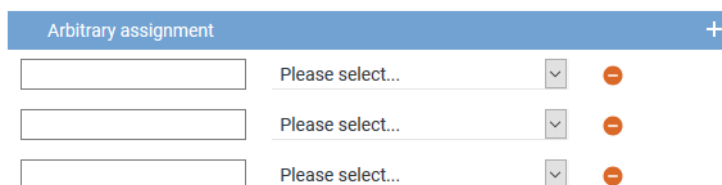



Fig. 404: Arbitrary assignment of the additional data

The following additional data are always available:

- *Start time*
- *End time*
- *Duration*
- *Calling Party Phone Number*
- *Called Party Phone Number*



- *Conversation Direction*
- 2. In the entry field on the left, enter the description of the additional data type from the protocol. Observe the same spelling as it is used in the protocol. The information which is read out of the protocol is displayed in the columns in the players.
- 3. From the drop-down list, select the respective display name that you have configured in the Additional Data module. Only those display names are displayed for which the option *Available* has been activated in the Additional Data module.
- 4. To add a new assignment, click on the icon  (*Create*) in the toolbar of the table.
  - ⇒ An additional row appears to assign another additional data type.
- 5. Click on the button *Save* in the detail view to save the entries and finish this configuration step.

The add-on provides additional data that can be tagged in customer-specific additional data fields (customCP fields). By means of these additional data fields, the respective recording behavior can be reached by means of the recording planner, e. g. recording start beginning with tagging or threat call scenario.



To allow users to control the recording by means of keys, you must configure the recording profile accordingly in the Recording Planner module.



For information about the Recording Planner module refer to the administration manual for tenants *Recording Planner*.


### **Configure add-on for OpenScape Contact Center (optional)**

The add-on refers to the usage of the OpenScape Contact Center and must only be configured if a OpenScape Contact Center is used.

The integration runs in combination with a Unify PBX which is responsible for recording. The CTIconnect service receives the conversation events of the agents via a SDK link in the OpenScape Contact Center and sends the additional data to the EVOIPneo recording service.

For information about the configuration of the OpenScape Contact Center, see [chapter "Configure OpenScape Contact Center \(optional\)", p. 372](#).

### **Configure add-on in the integration**

1. To configure the add-on, click on the button  (*Edit configuration step*) in the main view in the line *Configure add-on*.
2. Select the add-on OpenScape Contact Center in the detail view.

Step: Configure Add-on

Details

Select add-on  
☐ None  
☒ OpenScape Contact Center

**CTIconnect Module**

TypeCTIconnect passive  
Grammar name\*Unify OpenScape Contact Center  
Grammar version\*1.00.04

**Connection Data**

**Connection data**

6000@192.168.170.29

Add Edit Delete

**Additional Data**

Business UnitBusiness Unit  
DepartmentDepartment  
Department KeyDepartment Key  
Call IDUniversal Call ID  
To PartyTo Party  
ACD Group NumberACD Group Number

Arbitrary assignment

Please select...

Please select...

Save Cancel

Fig. 405: Configure add-on for OSCC

**Group field CTIconnect Module**

1. Enter the following parameters for the grammar:

Parameter	Value/Description
Type	Is filled automatically.
Grammar name	A default grammar has been preset. If required, select the name of the grammar from the drop-down list.
Grammar version	Select the current version of the grammar from the drop-down list.

Tab. 110: Configure CTIconnect module

**Group field Connection Data**

In the table Connection Data, you can enter one or several sets of connection data.

If you are configuring several connections, several connections to different business units are established simultaneously in the recording solution with OpenScape Contact Center.

1. In the group field *Connection Data* in the table, click on the button *Add*.

⇒ The following window appears:

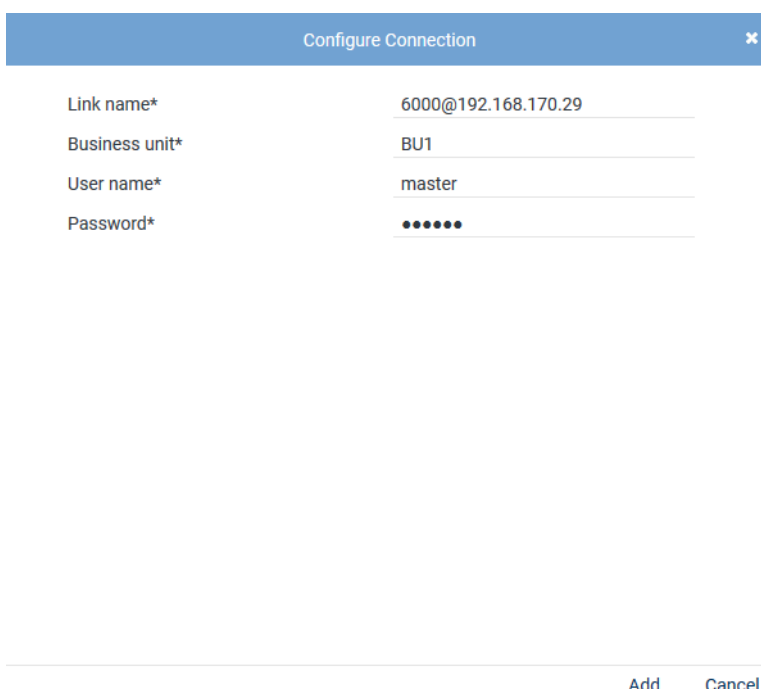


Fig. 406: Configure connection data

2. Enter the following parameters:

Parameter	Value/Description
<i>Link name</i>	Enter the link to the <b>OSCC</b> server in the format <i>osccport@ascserver</i> . The default value for the <b>OSCC</b> port is 6000 and the name of the OSCC server is usually spelled in minor letters. A valid link can look like this: 6000@osccv7r3. Ensure that the server name (e. g. osccv7r3) can be resolved to an IP address. Check whether the address can be reached via the ping command. Alternatively, you can also enter the IP address.
<i>Business unit</i>	The default name of a business unit is <i>default</i> . This is a predefined name for the business unit after a new <b>OSCC</b> server installation. Enter the business unit's actual name you would like to use in the future.
<i>User name</i>	Create a valid user for the business unit that you have created on the <b>OSCC</b> server, so the <b>CTIconnect</b> service can establish the connection to the <b>OSCC</b> server. See <a href="#">chapter "Create user for CTIconnect", p. 372</a> .
<i>Password</i>	Enter the password for the user of the business unit.

Tab. 111: Configure connection data

- Click on the button *Add* to save the entries and to close the window.
- To configure additional connections, repeat the configuration steps accordingly.

### Group field Additional Data

When using **CTIconnect** for Unify OpenScope Contact Center, the following additional data is delivered with the protocol by default:

- *Business unit*
- *Department*
- *Department Key*
- *Call ID*

- *To Party*
- *ACD Group Number*

### Arbitrary assignment

In the section *Arbitrary assignment*, you can configure the additional data which is additionally delivered by the PBX or by an add-on but which is not listed yet. Upon assigning the delivered additional data, it appears in the search and replay applications.



The names of the column headlines which are supposed to appear in the players must have been configured and made available in the Additional Data module previously.

For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.

Here, you can map the database fields for the additional data which is delivered by the [OSCC](#). The contact data of the processed contacts of the OpenScape Contact Center provides a list of key pairs/value pairs. The keyword of this key pair/value pair can be chosen arbitrarily and adjusted customer-specifically. If you would like to use more than one word, avoid spaces. Use underscores instead of spaces, e. g. *ACD\_group*.

1. In the group field headline *Additional Data*, click on the arrow ▶ to expand the group field and to assign the additional data to the data fields of the search and replay applications.

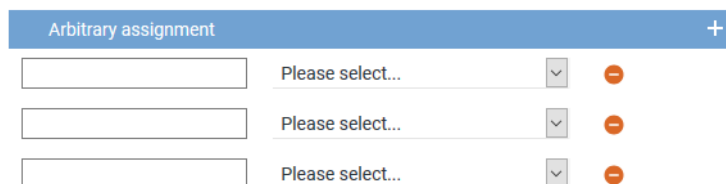




Fig. 407: Arbitrary assignment of the additional data

2. In the entry field on the left, enter the description of the additional data type from the protocol. Observe the same spelling as it is used in the protocol. The information which is read out of the protocol is displayed in the columns in the players.
3. From the drop-down list, select a configured display name of the additional data type which is supposed to appear as column headline in the players. Here, you can only select the display names for the additional data that you have configured and made available in the Additional Data module.
4. To add a new assignment, click on the icon  (*Create*) in the toolbar of the table.  
⇒ An additional row appears to assign another additional data type.
5. To delete an assignment, click on the icon  in the respective row.
6. Click on the button *Save* in the detail view to save the entries and finish this configuration step.

### Configure add-on for Genesys T-Server (optional)

The add-on refers to the usage of Genesys T-Servers and must only be configured if you use Genesys T-Servers.

The integration runs in combination with the PBX and the recording server. The *CTIconnect* service receives the information which Genesys T-Server the monitor points have been assigned to from the Genesys Configuration Server. The monitor points must register on the respective Genesys T-Server. Upon successful registration, the respective Genesys T-Server sends all conversation events and additional data of the agents to the recording server.

## CTIconnect for Genesys T-Server

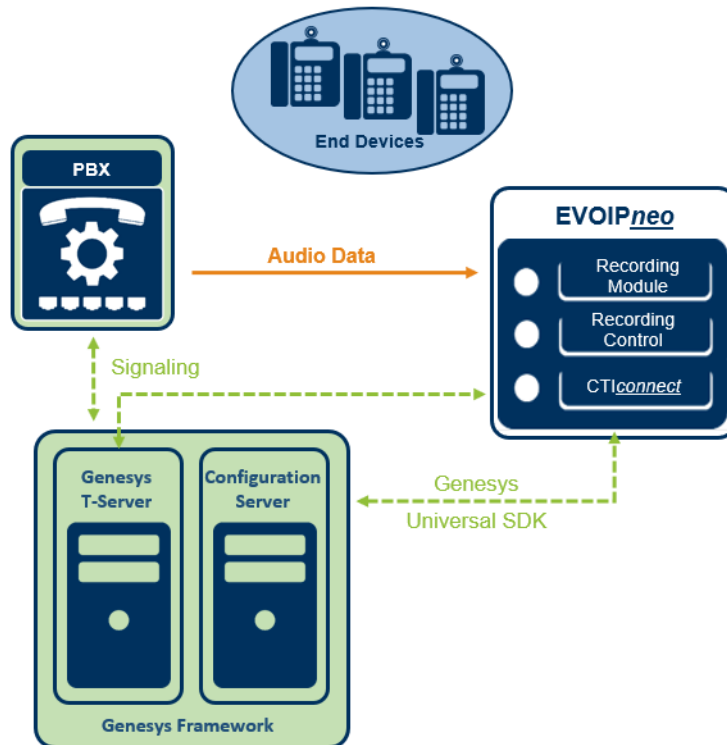


Fig. 408: Overview of the add on of Genesys T-Server



For further information about the configuration of Genesys T-Servers, see [chapter "Configure Genesys T-Server \(optional\)", p. 373](#).

The Genesys add-on uses either a unique call ID or the extension to unambiguously identify the conversations to be recorded.



The additional data delivered by an add-on supplements the additional data which is delivered by the CTIconnect module of the integration.

When using a CTIconnect for Genesys T-Server, a Genesys Framework with T-Servers and Genesys Configuration Servers are required.


By default, the Genesys data field *CallID* has been selected as identifier. If a different data field is supposed to be used for internal control, this can be changed in the configuration file *basic.pif.properties*.

### Adjust configuration file for Genesys add-on

The data field which is supposed to be used by the Genesys add-on is selected by means of the parameter *pifgenesys.call\_identifier*.

1. To adjust the identifier, change to the path  
C:\ASC Product Suite\data\CTIConnectForGenesysT\.
2. Open the file *basic.pif.properties*.
3. Enter the respective data field for the parameter *pifgenesys.call\_identifier*.
4. Save the changes in the file.
5. Restart the recording architecture after completing the change.

### Configure add-on in the integration

1. To configure the add-on, click on the button  (*Edit configuration step*) in the main view in the line *Configure add-on*.
2. In the detail view, select the add-on *Genesys T-Server*.

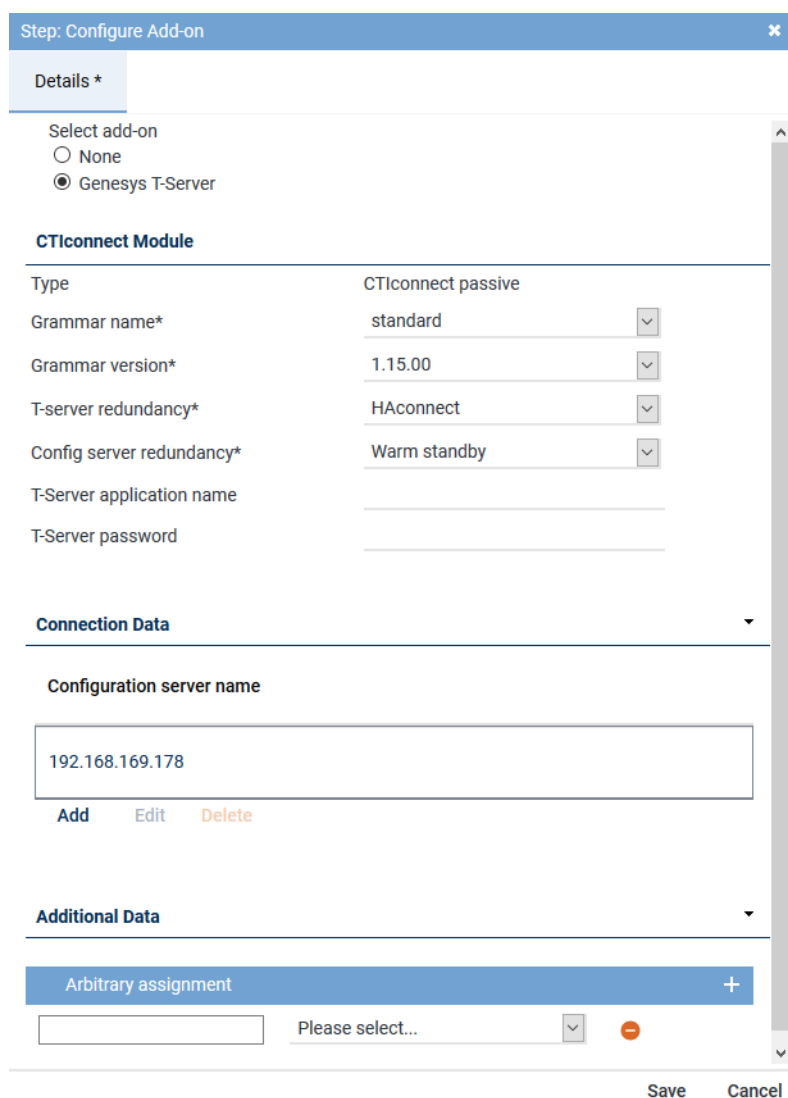


Fig. 409: Configure add-on for Genesys T-Server

### Group field CTIconnect Module

1. Enter the following parameters:

Parameter	Value/Description
<i>Type</i>	Here, the type of the CTI <u>connect</u> module is displayed.
<i>Grammar name</i>	Select the respective grammar.
<i>Grammar version</i>	Select the respective grammar version.
<i>T-server redundancy</i>	Select the redundancy which is used from the drop-down list. <ul style="list-style-type: none"> <li>• <i>No redundancy</i></li> <li>• <i>HAconnect</i> - for High Availability Connection</li> <li>• <i>Warm Standby</i> - for a connectable redundancy</li> </ul>
<i>Config server redundancy</i>	From the drop-down list, select the redundancy which is used for the Configuration Server of Genesys.

Parameter	Value/Description
	<ul style="list-style-type: none"> <li>• <i>No redundancy</i></li> <li>• <i>HAconnect</i> - for High Availability Connection</li> <li>• <i>Warm Standby</i> - for a connectable redundancy</li> </ul>
<i>T-Server application name</i>	<p>This parameter must only be entered, if authentication on the Genesys T-Server is required.</p> <p>Enter the application name that the CTI<u>connect</u> module is supposed to use to log in to the Genesys T-Server.</p> <p>If you use several Genesys T-Servers, the login data must be identical for all servers.</p>
<i>T-Server password</i>	<p>This parameter must only be entered, if authentication on the Genesys T-Server is required.</p> <p>Enter the password that the CTI<u>connect</u> module is supposed to use to log in to the Genesys T-Server.</p> <p>If you use several Genesys T-Servers, the login data must be identical for all servers.</p>

Tab. 112: Configure add-on for Genesys T-Server

### Group field Connection Data

In this group field, you can enter one or several sets of connection data.

1. In the group field *Connection Data* in the table, click on the button *Add*.  
⇒ The following window appears:

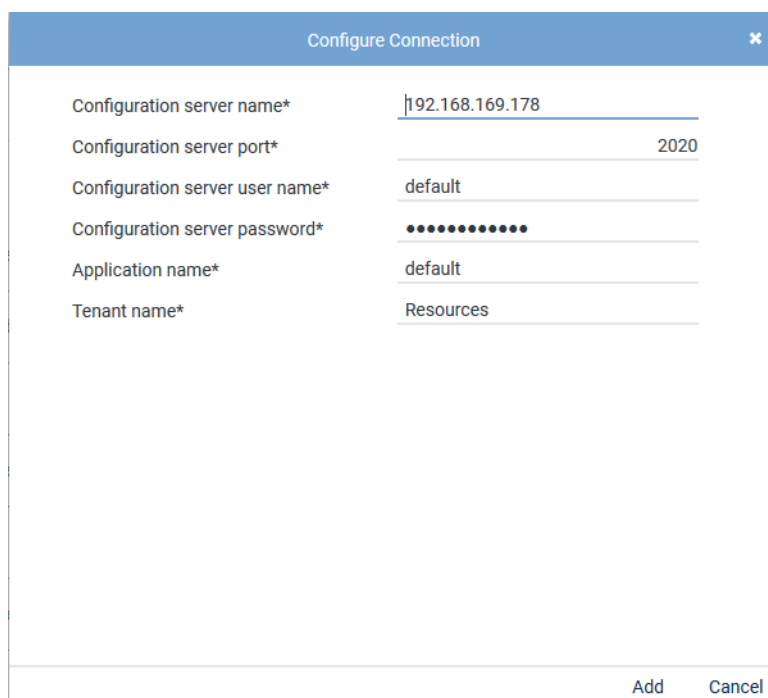


Fig. 410: Configure connection data

2. Enter the following parameters:

Parameter	Value/Description
<i>Configuration Server: Name</i>	Enter the IP address or the name of the computer that the Genesys Configuration Server runs on.
<i>Configuration Server: Port</i>	Enter the port of the Genesys Configuration Server.

Parameter	Value/Description
<i>Configuration Server: User name</i>	Enter the user name to log in to the Genesys Configuration Server.
<i>Configuration Server: Password</i>	Enter the password to log in to the Genesys Configuration Server.
<i>Application name</i>	Enter the application name that the recording servers uses to log in to the Genesys Configuration Server. Default is <i>default</i> .
<i>Tenant name</i>	Enter the name of the Genesys tenant(s) that are supposed to request the configuration data. Default is <i>Resources</i> . Several tenants can be added separated by commas.

Tab. 113: Configure connection data

### Group field Additional Data

The following additional data is delivered by default in the protocol when using Genesys T-Server:

- *CallID*
- *ANI*
- *CallUuid*
- *DNIS*



Further additional data depend on the configuration of the Genesys T-Servers. Check the list *AttributeUserData* in the trace files to find out which further additional data have been delivered by the Genesys T-Servers. Put the addition *UserData* in front of the additional data type when configuring customer-specific additional data, e. g. for *RTargetAgentGroup* you have to configure *UserDataRTargetAgentGroup*.

### Arbitrary assignment

In the section *Arbitrary assignment*, you can configure the additional data which is additionally delivered by the PBX or by an add-on but which is not listed yet. Upon assigning the delivered additional data, it appears in the search and replay applications.



The names of the column headlines which are supposed to appear in the players must be configured and made available in the Additional Data module first.

For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.



The drop-down list only contains those additional data that you have configured and made available in the Additional Data module. The display name then appears in the column headlines in the players.

For more information about the configuration of additional data refer to the administration manual for system providers *Additional Data module*


1. In the group field headline *Additional Data*, click on the arrow ► to expand the group field and to assign the additional data to the data fields of the search and replay applications.



Arbitrary assignment			+
<input type="text"/>	Please select...	▼	⊖
<input type="text"/>	Please select...	▼	⊖
<input type="text"/>	Please select...	▼	⊖

Fig. 411: Arbitrary assignment of the additional data

The following additional data are always available:

- *Start time*
  - *End time*
  - *Duration*
  - *Calling Party Phone Number*
  - *Called Party Phone Number*
  - *Conversation Direction*
2. In the entry field on the left, enter the description of the additional data type from the protocol. Observe the same spelling as it is used in the protocol. The information which is read out of the protocol is displayed in the columns in the players.
  3. From the drop-down list, select the respective display name that you have configured in the Additional Data module. Only those display names are displayed for which the option *Available* has been activated in the Additional Data module.
  4. To add a new assignment, click on the icon  (*Create*) in the toolbar of the table.
    - ⇒ An additional row appears to assign another additional data type.
  5. Click on the button *Save* in the detail view to save the entries and finish this configuration step.

The add-on provides additional data that can be tagged in customer-specific additional data fields (customCP fields). By means of these additional data fields, the respective recording behavior can be reached by means of the recording planner, e. g. recording start beginning with tagging or threat call scenario.




To allow users to control the recording by means of keys, you must configure the recording profile accordingly in the Recording Planner module.



For information about the Recording Planner module refer to the administration manual for tenants *Recording Planner*.

### Configure miscellaneous settings

1. Click on the button  (*Edit configuration step*) in the line *Configure recording servers* in the main view.
  - ⇒ The window *Step: Miscellaneous Settings* appears.

Step: Miscellaneous Settings

×

Details

Dispatcher

Please select...

▼

Save

Cancel

Fig. 412: Configure miscellaneous settings

- Enter the following parameter:


Parameters	Description
<i>Dispatcher</i>	From the drop-down list, select the previously created additional data field that the participant information is supposed to be connected with.





Only those entries appear in the drop-down list which have been configured in the application System Configuration in the Additional Data module. For further information refer to the administration manual *Additional Data module*.

### Activate integration

The integration can only be activated after the configuration is complete.

If not all configuration steps have been carried out completely, the icon  (*Incomplete*) will appear in the main view, in the line of the created integration, in the column *Status*.

If the configuration has been carried out completely, the icon  (*Complete*) will appear in the line of the respective step, in the column *Configuration*.

If all settings are complete, the icon  (*OK*) will appear in the main view, in the line of the created integration, in the column *Status*.

















+ × ⏮ ⏭ Integration ▾ General ▾			
Name ▾	Type ▾	Active ▾	Status ▾
 SIP active	SIP active		
Step		Configuration	
Configure recording architecture			
Global recording settings			
Configure recording servers			
Configure add-on			
Configure miscellaneous settings			

Fig. 413: Activate integration

- Mark the integration in the main view, so that the icon  (*Activate*) becomes active in the toolbar.
- To activate the integration, click on the icon  (*Activate*).  
⇒ In the column *Active*, the icon  (*Active*) appears.




+ × ⏮ ⏭ Integration ▾ General ▾			
Name ▾	Type ▾	Active ▾	Status ▾
 SIP active	SIP active		

Fig. 414: Activated integration



If you use several PBXs, you can create and activate several integrations with the same recording architecture.



If you take advantage of the grace period and there is no valid license file in the system after its expiration, all integrations are deactivated. After uploading a valid license file, you have to activate the integrations again.






Upon activating the standard configuration, a bulk recording will start.

To restrict the recording to particular end devices, the tenant can configure the Recording Planner in the System Configuration accordingly.

### Deactivate/Delete integration

To be able to delete an integration, it has to be deactivated.

- To deactivate the integration, click on the icon  (*Deactivate*) in the toolbar.
  - ⇒ In the column *Active*, the icon  (*Inactive*) appears.
  - ⇒ The icon  (*Delete*) becomes active in the toolbar.







+ ×   Integration ▾ General ▾			
Name ↕	Type ↕	Active ↕	Status ↕
 SIP active	SIP active		

Fig. 415: Deactivate integration

- Click on the icon  (*Delete*) and confirm the security prompt to delete the integration.

### 7.1.2.7 Synchronization options

There are 2 different types of synchronization:

- Synchronization of the Recording Control service for recording control
- Synchronization of the system storage to compare recording data

#### 7.1.2.7.1 Synchronizing recording control

##### Recording Control services

In parallel recording servers which have been installed and configured in the same system architecture, you can configure the synchronization of recording control.



### DANGER!

Before the configuration, contact your ASC support to ensure that this function is suitable for your recording solution and to avoid a possible loss of recordings!

For information about which recording solutions support this function refer to the file [neo](#) Integration Overview.

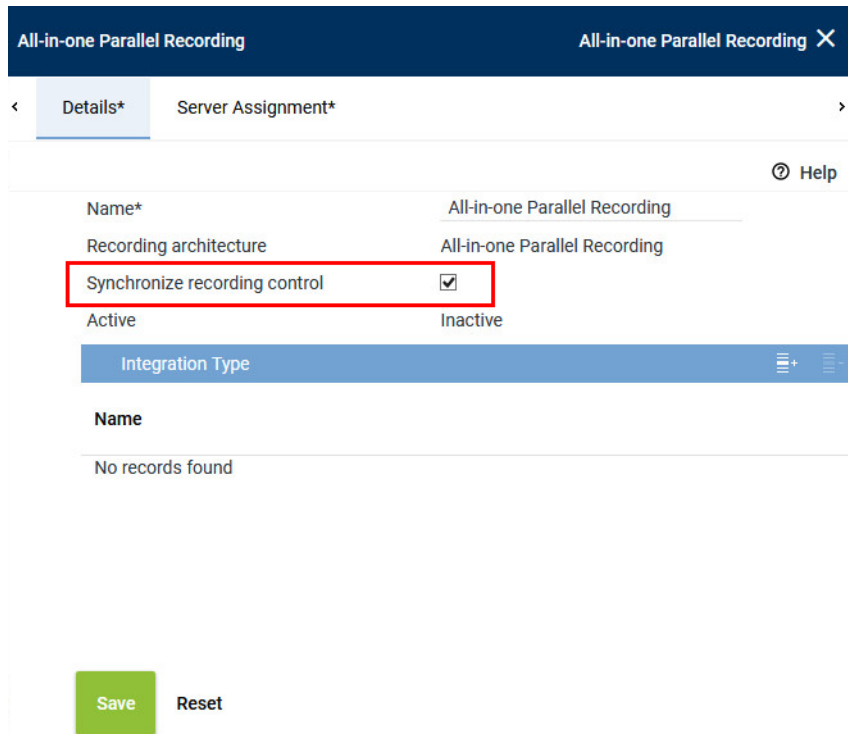
If recording control is supposed to take place by means of external applications such as [CLIENTcommand](#), [PHONEapp](#), or [SCREENrec](#) scan Editor, a synchronization of the Recording Control services of the parallel recording servers must be set up.

Primarily, recording control is carried out by the 1st Recording Control service. The Recording Control service guarantees that the conversations are recorded by both recording servers.

If the 1st Recording Control service fails, the 2nd Recording Control service takes over the task of recording control for both recording servers, both of which will record the conversations then.

Synchronization of recording control is configured in the Recording Architectures module. In parallel recording architectures, the check box *Synchronize recording control* appears in the tab *Details*.

1. Activate the check box *Synchronize recording control* so that the Recording Control services can be synchronized and only one service controls recording for the two recording servers.



The screenshot shows the 'All-in-one Parallel Recording' configuration window. The 'Details\*' tab is active. The 'Synchronize recording control' checkbox is checked, and the 'Active' status is 'Inactive'. The 'Save' button is highlighted in green.

Fig. 416: Synchronize recording control

2. To save the settings, click on the button *Save*.  
To discard the settings, click on the button *Reset*.

**If you subsequently activate or deactivate this synchronization options, you have to carry out the following configuration steps again before the changes take effect:**

1. Set the requested state of the recording control:
  - ☒ = *recording control is synchronized*
  - ☐ = *recording control is not synchronized*
2. Deactivate the integration.
3. Deactivate the recording architecture.
4. Check that the following services have been stopped.
  - *ASC RecordingControl*
  - *ASC RecordingModule*
  - *ASC CTIconnect(integration name)*
5. Activate the recording architecture.

**WARNING! In this status, all services have received the updated configuration, but may be in a conflict status.**

**Therefore, you have to carry out the following steps again:**

6. Deactivate the recording architecture again.
7. Check that the following services have been stopped.

8. Activate the recording architecture again.
  9. Activate the integration.
- ⇒ Now, the changes have been applied.

#### 7.1.2.7.2 Synchronization of system storage

In recording architectures with 2 system storages, you can configure a synchronization for comparing the recordings.

A synchronization configuration is always created for 2 system storages. All recordings which are added to one system storage are copied to the other system storage, too, and vice versa. That way, all recordings of both system storages are available on the 2 system storages simultaneously. If one of the two system storages fails, you can thus access the recordings of the failed system storage via the other system storage.

Synchronization of system storage is configured in the Servers module.

1. To create a synchronization configuration, click on the menu item *Servers > Manage synchronization configuration* in the toolbar of the main view.



Fig. 417: Menu item Manage synchronization configuration

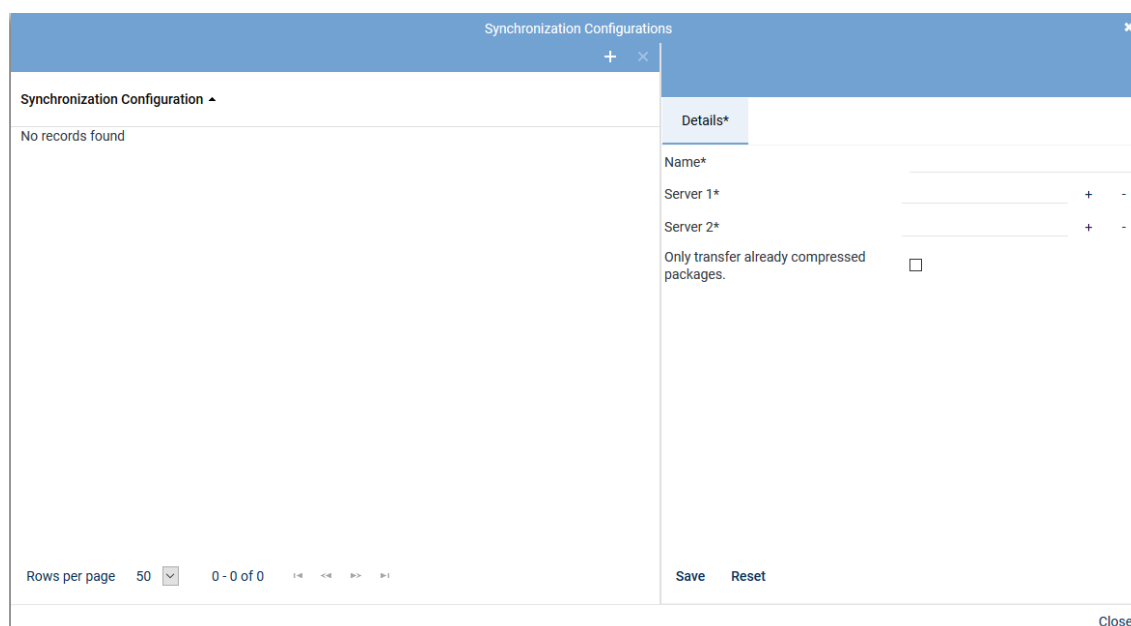




Fig. 418: Configure synchronization configurations

The following options are available:


	<b>Create</b>	Creates a new synchronization configuration (see <a href="#">chapter "Create synchronization configuration", p. 358</a> ).
	<b>Delete</b>	Deletes the selected synchronization configuration (see <a href="#">chapter "Delete synchronization configuration", p. 358</a> ).

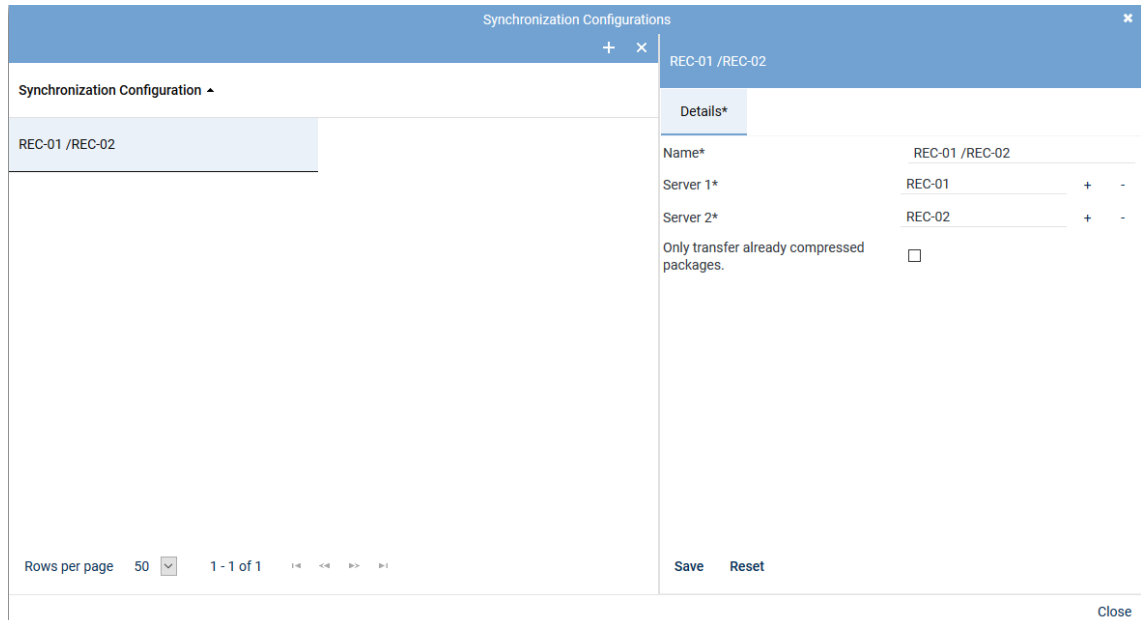
A synchronization configuration becomes active upon saving it and continues running until it is deleted. During this period both system storages are regularly checked for new content and synchronized.



A server which is already used in a synchronization configuration cannot be used in another synchronization configuration.

### Create synchronization configuration



- In the window *Administrate Synchronization Configuration*, click on the icon  (*Create*).  
⇒ The tab *Details* becomes active.



The screenshot shows the 'Synchronization Configurations' window. On the left, a list of configurations includes 'REC-01 / REC-02'. The main area displays the 'Details\*' tab for this configuration. Fields include: 'Name\*' (REC-01 / REC-02), 'Server 1\*' (REC-01 with + and - buttons), 'Server 2\*' (REC-02 with + and - buttons), and 'Only transfer already compressed packages.' (with an unchecked checkbox). At the bottom are 'Save' and 'Reset' buttons. A 'Close' button is at the bottom right of the window.


Fig. 419: Create synchronization configuration

- Complete all fields for the new synchronization configuration:

<b>Name</b>	Enter a name for the synchronization configuration.
<b>Server 1 / Server 2</b>	Click on the button  next to the entry field to select the respective server for the synchronization of the system storage from the list of available servers.  If you would like to delete an entry in one of the entry fields, click on the button  next to the respective entry field.
<b>Only transfer already compressed packages</b>	Select whether data which has not yet been compressed is supposed to be transferred, too. <input checked="" type="checkbox"/> = Uncompressed data is transferred, too. <input type="checkbox"/> = Only compressed data is transferred.  <b>NOTICE!</b> This option is not available until you have entered and saved the two servers.

- Click on the button *Save* to apply the configuration.
- Click on the button *Close* to finish this configuration step and close the window.

### Delete synchronization configuration

- In the window *Administrate synchronization configurations*, select the synchronization configuration you would like to delete.
- Click on the icon  (*Delete*) in the toolbar of the window.  
⇒ The synchronization of the two entered system storages is finished.  
⇒ The selected synchronization configuration is deleted.

### 7.1.2.8 Duplicates in parallel recording architectures



In parallel recording architectures in which recording control is synchronized, no duplicates are created which could be deleted. Both recordings are merged in one package and thus cannot be deleted separately. Keep in mind that more storage space must thus be available for the recordings.

A parallel recording without synchronization results in redundant recording data in the system. To avoid that conversations are displayed twice in the replay applications (e. g. *POWERplay Web*) because the database contains them twice, you can delete duplicates so that only one of the double recordings remains.

Conversations with the following characteristics are considered identical:

- Identical start and end times

You can define an allowed difference for the start and end times so that the conversations are still considered duplicates despite a differing start or end time, see [chapter "Configure duplicate detection", p. 359](#).

The start and end times of complete conversations as well as the start and end times of the individual recordings belonging to a conversation are checked.

- Identical call participants
- Identical additional data

Duplicate detection is configured in the Integrations module. There, you can configure for each integration individually under which circumstances conversations are supposed to be considered identical. Upon selecting an architecture for an integration which is based on parallel recording, the tab *Parallel Recording* is displayed which allows adjusting the required settings, see [chapter "Configure duplicate detection", p. 359](#).

The shorter one of the two identical recordings is deleted. To calculate the total recording length, the recording lengths of all sections of a conversation are added. The additional data as well as the audio data of the duplicate are deleted. On which of the two recording servers a duplicate is deleted thus depends on the location where the shorter recording has been saved. If the recording length is the same, the recording which has been checked second is considered a duplicate and deleted.

Duplicate detection is executed regularly for all new recordings from the moment on it has been activated but not for past recordings. This means Recordings which already exist when duplicate detection is activated are not checked for duplicates.



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



If you would like to delete duplicates but nevertheless want that all conversations exist on both recording servers, you can create a synchronization configuration in the Servers module which synchronizes the system storages of the two recording servers.

#### 7.1.2.8.1 Configure duplicate detection

In the Integrations module, you can configure for each integration separately under which circumstances 2 conversations are supposed to be considered identical. Upon selecting an architecture for an integration which is based on parallel recording, the tab *Parallel Recording* is displayed which allows adjusting the required settings.

1. In the main view of the Integrations module, select the integration for which you would like to configure duplicate detection.
2. Select the tab *Parallel Recording* in the detail view and adjust the following settings:

Details\*
Parallel Recording

☒ Delete duplicates if the participants of the conversations are identical and the following criteria are met:  
The start times differ in a maximum of  Milliseconds  
\*  
The end times differ in a maximum of  Milliseconds  
\*  
Additional settings  
Time after which conversations are to be checked at the earliest \*  minutes  
Interval in which the check is to take place \*  minutes

Additional Data

ID ↕

Displayed Name

customCP02

Comment

Criteria to Be Ignored

Available attributes	Ignored attributes
CHATIDENTIFIER	PBXID
DISPLAYNAME	
EMAILADDRESS	
EMPLOYEEID	
EXTENSION	
IPADDRESS	
MACADDRESS	
PBXAGENTID	
PBXPHONEID	



Save

Reset

Fig. 420: Tab Parallel Recording (integration)

<i>Delete duplicates,....</i>	<p>When activating this option, you can define by means of the displayed criteria when 2 recordings are supposed to be identified as identical.</p> <p><input checked="" type="checkbox"/> = Duplicate detection has been activated. Duplicates are deleted according to the defined criteria.</p> <p><input type="checkbox"/> = Duplicate detection has been deactivated.</p>
<i>The start times differ in a maximum of</i>	<p>Enter the maximum difference with regards to the start time. The start times of complete conversations as well as the start times of the individual recordings belonging to a conversation are checked.</p> <p>Example: <i>1000 milliseconds</i></p> <p>If one conversation started at 2:20:15 PM and a second conversation started at 2:20:16 PM, and if the start times of the individual recordings of those two conversations differ less than 1000 milliseconds, then these conversations are considered possible duplicates with regards to their start time.</p>
<i>The end times differ in a maximum of</i>	<p>Enter the maximum difference with regards to the end time. The end times of complete conversations as well as the end times of the individual recording sections belonging to a conversation are checked.</p> <p>Example: <i>1000 milliseconds</i></p> <p>If one conversation ended at 2:20:15 PM and a second conversation ended at 2:20:16 PM, and if the end times of the individual recordings</p>



	of those two conversations differ less than 1000 milliseconds, then these conversations are considered possible duplicates with regards to their end time.
<i>Time after which conversations are to be checked at the earliest</i>	<p>Enter the time interval which is supposed to pass before a recording is checked for duplicates.</p> <p>Example: <i>3 minutes</i></p> <p>If one conversation ended at 2:20 PM, i. e. the recording has been saved at 2:20 PM, then the recording is not check for duplicates before 2:23 PM.</p>
<i>Interval in which the check is to take place</i>	<p>Select the intervals in which the job for duplicate detection is supposed to be executed.</p> <p>Example: <i>2 minutes</i></p> <p>The job for duplicate detection is started over again every 2 minutes to search for new recordings and possible duplicates and to delete duplicates.</p>
<i>List Additional Data</i>	<p>Add all additional data to the list which are supposed to be used as criteria. When searching for duplicates, only those recordings are considered which contain an additional data type from the list. If an additional data type is empty in both conversations, this is considered identical, too, and one of the conversations is deleted.</p> <p> = Add additional data to the list, see <a href="#">chapter "Map additional data", p. 361</a>.</p> <p> = Remove additional data from the list, see <a href="#">chapter "Delete additional data assignment", p. 362</a>.</p>

3. To save the settings, click on the button **Save**.

⇒ Upon activating the option *Delete duplicates...* the recordings are checked for duplicates and the detected duplicates are deleted.

#### 7.1.2.8.2 Additional data

##### Map additional data

In addition to the start time and the end time, you can configure more additional data which is supposed to be used for checking for duplicates.

1. In the list *Additional data*, click on the icon  (*Add*) to configure more additional data.


Additional Data 	
ID ↕	Displayed Name ↕

Fig. 421: Map additional data

2. Select the respective additional data from the list which are supposed to be used additionally to check for duplicates.  
To select several entries or revoke a selection, click on the respective line while holding the [Ctrl] key down.

Additional Data			
Displayed Name ↕	Available ↕	Editable ↕	External Recording Control ↕
Kommentar	✓	✓	✗
Universal Call ID	✓	✓	✗

Rows per page 20 1 - 2 of 2

Add Cancel

Fig. 422: Select additional data


**NOTICE!** The list contains only additional data which have been configured in the Additional Data module previously.



For information about the configuration of additional data refer to the administration manual for system providers *Additional Data module*

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

#### Delete additional data assignment

- Select the tab *Parallel Recording*.
- Select the additional data that you would like to remove in the list *Additional Data*.
- Click on the icon  (*Delete*).

Additional Data	
ID ↕	Displayed Name ↕
customCP01	Kommentar
customCP02	Universal Call ID

Fig. 423: Delete additional data assignment

#### 7.1.2.8.3 Criteria to be ignored

In this group field, you can exclude certain criteria for duplicate detection which may prevent conversations to be detected as duplicates.

If conversations differ in just one attribute, they are not considered as duplicates. This holds true for conversations with different PBX IDs, for example.

To exclude this criterion during duplicate detection, add the respective attribute to the list of attributes which are supposed to be ignored.

In the list of available attributes, you can select which attributes are supposed to be excluded during duplicate detection. Click on the respective attributes and drag and drop them in the list of attributes to be ignored.

### 7.1.2.9 Standby management for failover architectures

For architectures with failover concepts, you can go to the standby management to manually select which server with which components is supposed to be active.

For architectures of the type *Parallel Recording*, you can also use the standby management if you have provided for the respective resources.

Using the standby management makes sense in the following cases:

- You would like to switch back to the primary server, e. g. when the standby server has automatically taken over and the primary server is now available again.
- You would like to switch to the standby server manually, e. g. during maintenance of the primary server.



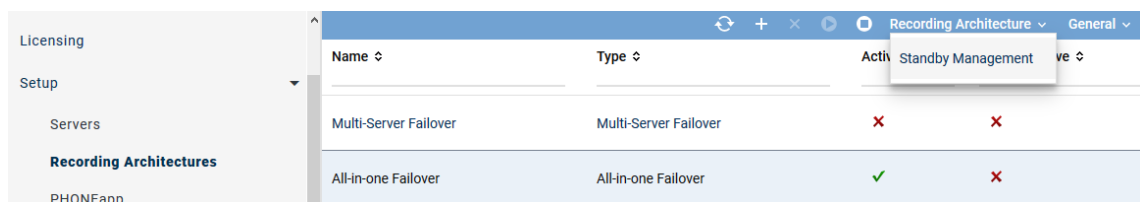
You can only edit the standby management if the corresponding architecture has been activated.

#### 7.1.2.9.1 Standby management for All-in-one Failover

For failover recording architectures, the menu *Recording Architectures* appears in the toolbar of the main view. If you have installed the required redundancy options on different servers, you can switch from primary to standby server and vice versa by clicking on the menu item *Standby Management*.

The menu item *Standby Management* is only active if the selected recording architecture has been activated.

1. In the main view, select the recording architecture the standby management of which you would like to call up.
2. Click on the menu *Recording Architectures* in the toolbar of the main view.
  - ⇒ If the selected recording architecture has been activated, the menu item *Standby Management* is active.



Licensing		Recording Architecture		General
Setup		Name	Type	Active
Servers		Multi-Server Failover	Multi-Server Failover	✗
Recording Architectures		All-in-one Failover	All-in-one Failover	✓
PHONEapp				

Fig. 424: Configure standby management


3. Click on the menu item *Standby Management*.
  - ⇒ The window *Standby Management* appears.

Standby Management				
Server Name	Status	Oldest Running Activity	Running Activities	Version
RC - REC-01 / REC-02				
REC-01	Active		Activities: 0	60.01.00
REC-02	In Standby		Activities: 0	
RIA - REC-01 / REC-02				
REC-01	Active		Activities: 0	60.01.00
REC-02	In Standby		Activities: 0	
RM - REC-01 / REC-02				
REC-01	Active		Activities: 0	60.00.00
REC-02	In Standby		Activities: 0	

Fig. 425: Switch server

Here, you see the assignment of the deployed components.

In the column *Status*, you can see which component is currently active.


- To activate a standby server, select the respective server in the list.
  - Click on the icon  (*Activate*) in the toolbar.
- ⇒ The status of the standby server changes from *In Standby* to *Active*.


### Activate shutdown mode for maintenance purposes

If you would like to shut down a server for maintenance purposes, you can activate shutdown mode for this server



This function is not useful for architectures for All-in-one Failover as no additional server can be activated in shutdown mode in this architecture.

- To activate shutdown mode for a server, select the respective server in the list.
- Click on the icon  (*Activate shutdown mode*) in the toolbar.
 

⇒ The status of the server changes from *Active* to *Shutdown Mode*.
- To deactivate shutdown mode again, click on the icon  in the toolbar again.
 

⇒ The status of the server changes from *Shutdown Mode* to *Active*.




In shutdown mode, the standby components are not activated automatically. Only those conversations which are already running are continued to be recorded. Once you make manual configurations in the standby management, you must make sure that one of the respective components relevant for recording has been activated. New recordings will not be accepted before another server has been activated manually.

### Activate failover components

For another standby server to take over the recording of new conversations, you must activate it manually.

- To activate a standby server, select the respective server in the list.

2. Click on the icon  (*Activate*) in the toolbar.
- ⇒ The status of the standby server changes from *In Standby* to *Active*.  
Only now can this server record new conversations.

### 7.1.2.9.2 Standby management for Multi-Server Failover

For failover recording architectures, the menu *Recording Architectures* appears in the toolbar of the main view. If you have installed the required redundancy options on different servers, you can switch from primary to standby server and vice versa by clicking on the menu item *Standby Management*.

The menu item *Standby Management* is only active if the selected recording architecture has been activated.

1. In the main view, select the recording architecture the standby management of which you would like to call up.
2. Click on the menu *Recording Architectures* in the toolbar of the main view.
  - ⇒ If the selected recording architecture has been activated, the menu item *Standby Management* is active.

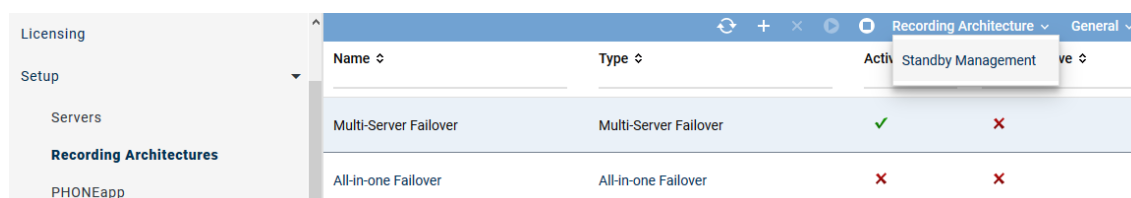


Fig. 426: Menu of the standby management

3. Click on the menu item *Standby Management*.
  - ⇒ The window *Standby Management* appears.

Standby Management				
Server Name	Status	Oldest Running Activity	Running Activities	Version
RC - RC-01 / RC-02				
RC-01	Active		Activities: 0	60.01.00
RC-02	In Standby		Activities: 0	60.00.00
RM - REC-01 / REC-02				
REC-01	Active		Activities: 0	60.00.00
REC-02	In Standby		Activities: 0	
RIA - CTI-01 / CTI-02				
CTI-01	Active		Activities: 0	60.01.00
CTI-02	In Standby		Activities: 0	60.00.00

Fig. 427: Switch server

If you have installed the required redundancy options on different servers, you can use standby management for the following components:

- **RC** (*Recording Control Standby Management*) to secure recording control

- **RM** (*Recorder Standby Management*) to secure recording
- **RIA** (*CTIconnect Standby Management*) to secure the additional data of the recordings

Here, you see the assignment of the deployed components.

In the column *Status*, you can see which component is currently active.

4. To activate a standby server, select the respective server in the list.

5. Click on the icon  (*Activate*) in the toolbar.

⇒ The status of the standby server changes from *In Standby* to *Active*.

### Activate shutdown mode for maintenance purposes

If you would like to shut down a server for maintenance purposes, you can activate shutdown mode for this server




This function is not useful for architectures for All-in-one Failover as no additional server can be activated in shutdown mode in this architecture.

1. To activate shutdown mode for a server, select the respective server in the list.

2. Click on the icon  (*Activate shutdown mode*) in the toolbar.

⇒ The status of the server changes from *Active* to *Shutdown Mode*.

3. To deactivate shutdown mode again, click on the icon  in the toolbar again.

⇒ The status of the server changes from *Shutdown Mode* to *Active*.



In shutdown mode, the standby components are not activated automatically. Only those conversations which are already running are continued to be recorded. Once you make manual configurations in the standby management, you must make sure that one of the respective components relevant for recording has been activated. New recordings will not be accepted before another server has been activated manually.

### Activate failover components

For another standby server to take over the recording of new conversations, you must activate it manually.

1. To activate a standby server, select the respective server in the list.

2. Click on the icon  (*Activate*) in the toolbar.

⇒ The status of the standby server changes from *In Standby* to *Active*.

Only now can this server record new conversations.

## 7.1.3 Adjust neo configuration file

Some parameters cannot be configured via the graphic interface but have to be adjusted in the configuration files.

### 7.1.3.1 Adjust Recording Module for RTCP

The configuration files for the recording module can be found in the following directory:

*C:\Program Files (x86)\ASC\ASC Product Suite\data\RecordingModule*

A separate configuration file is created for each configured integration. Customer-specific adjustments of the parameters have to be carried out in the respective integration configuration file. Upon starting, the basic file *basic.recorder.properties* is read out. After that, the integration configuration file is read out. The values in the integration configuration file have a higher priority and will be the ones being used in the end.

If you have configured several integrations of the same integration type, you have to make the adjustments for each integration separately. To determine which file belongs to which integration, you can open the configuration file and for instance compare the area of assigned extensions. Under no circumstances change the original name of the file since you will not be able to start the integration again.

Configured integrations which have not been activated have the addition *inactive* in front of the file name. The file is not deleted even if the integration in the application System Configuration is deleted. If a deactivated integration is activated again, the addition *inactive* is removed and the file is used again.

1. Change to the installation directory *C:\Program Files (x86)\ASC\ASC Product Suite\data\RecordingModule*.

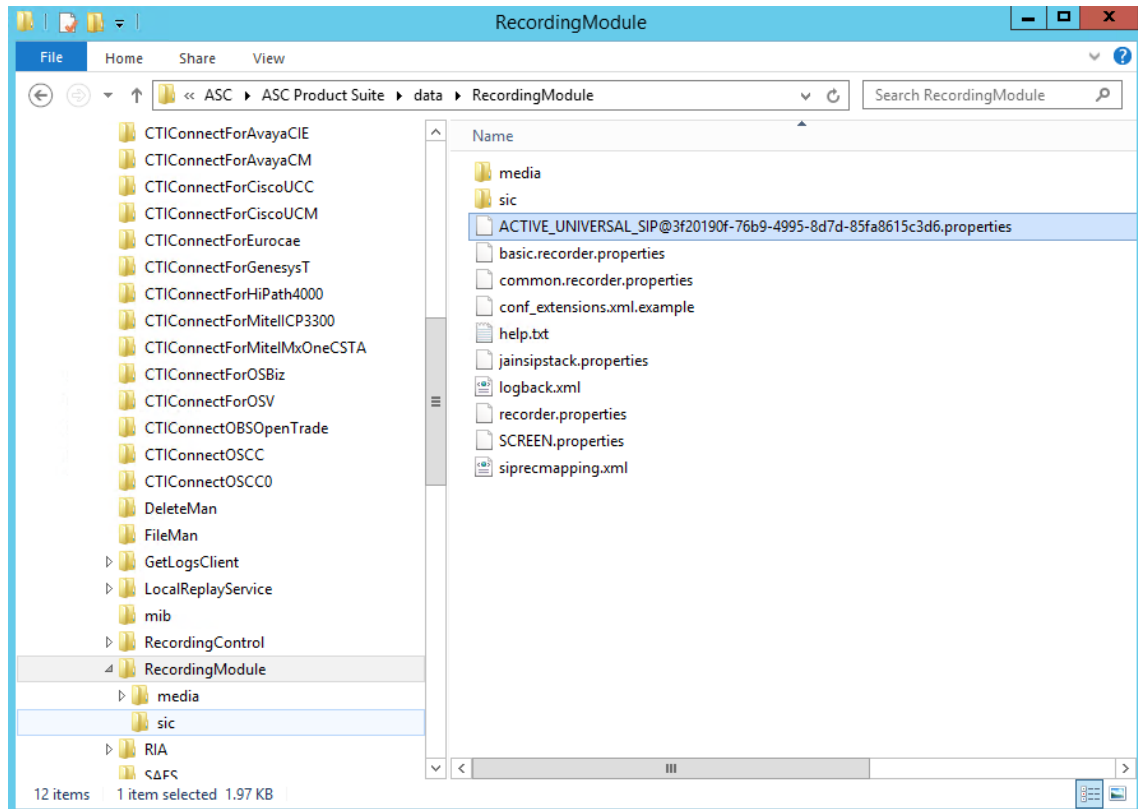


Fig. 428: Path to the configuration file

2. Open the file *ACTIVE\_UNIVERSAL\_SIP@<UUID>.properties* in the Editor.
3. Search for the entry *universalSip.rtpreceiver.portMode=*.
4. To enable the PBX to process **RTCP** data, you must supplement the parameter with the value *RTP\_RTCP\_PORTS*.
  - *universalSip.rtpreceiver.portMode=RTP\_RTCP\_PORTS*
5. Save the changes in the configuration file.
6. Restart the service *ASC RecordingModule* to apply the changes.

### 7.1.3.2 Configure recording announcement

If you would like to issue recording announcements, you have to adjust the configuration files of the Recording module.

1. Open the Windows Explorer.
2. Change to the installation directory *C:\Program Files (x86)\ASC\ASC Product Suite\data\RecordingModule*.



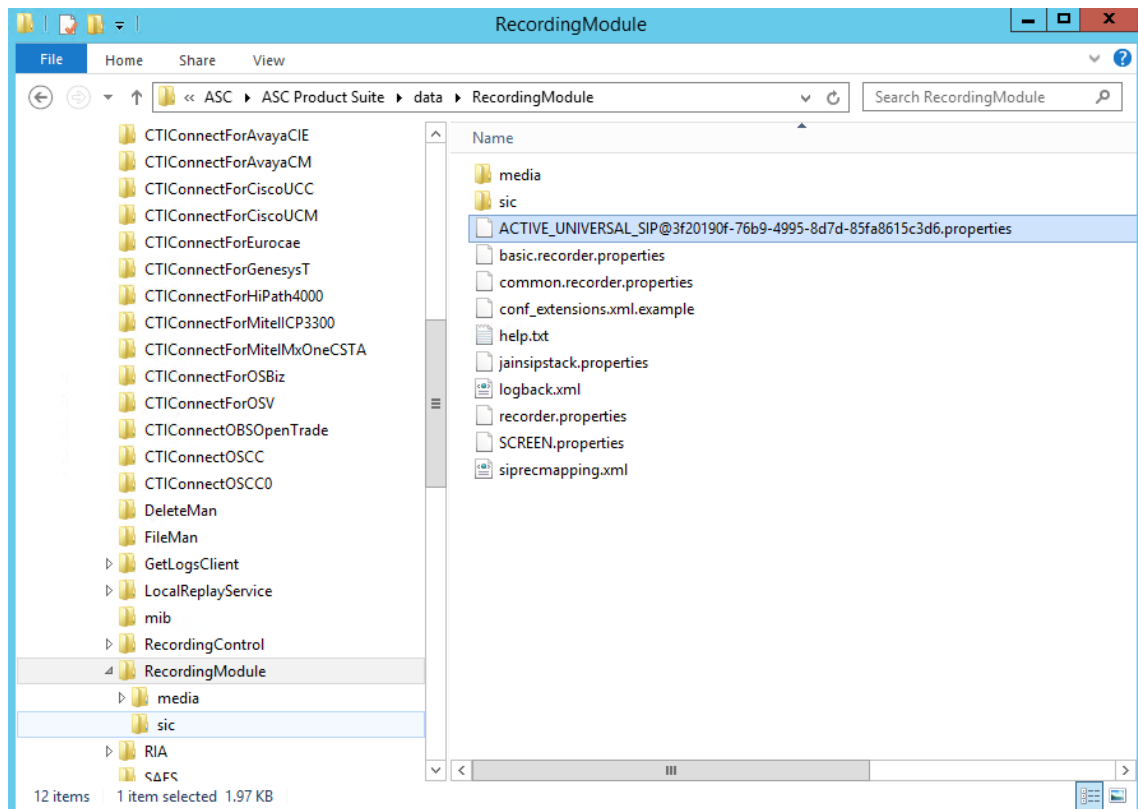


Fig. 429: Path to the configuration file

3. Open the file `ACTIVE_UNIVERSAL_SIP@<UUID>.properties` in the Editor.
4. Search for the section `# recording announcement`.

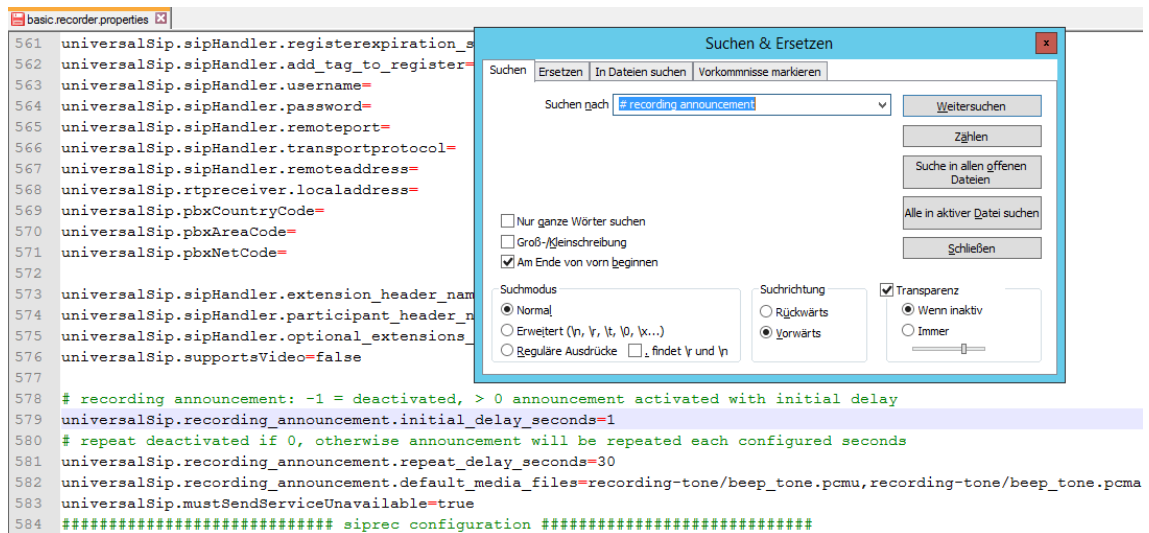


Fig. 430: Configure recording announcements

5. Configure the following parameters:

<code>universalSip.recording_announcement.initial_delay_seconds=</code>	-1 Deactivated; no announcements are issued.  > 0 Activated; the announcement is issued with the configured delay.
<code>universalSip.recording_announcement.repeat_delay_seconds=</code>	0 Deactivated; the announcements are not repeated.



	> 0 Activated; the announcement is repeated with the configured delay in seconds.
<code>universalSip.recording_announcement.default_media_files=</code>	<p>A list of default files which are issued in an announcement. The file extension indicated the codec that the file has been encoded with.</p> <p>The beep tone files in the directory <code>/recording-tone</code> have been pre-configured by default.</p> <ul style="list-style-type: none"> <li>• beep_tone.g722</li> <li>• beep_tone.g729</li> <li>• beep_tone.pcma</li> <li>• beep_tone.pcmu</li> </ul>

6. Save the changes in the configuration file and restart the service *ASC RecordingModule* so that the changes are applied.

### Adjust announcement texts

Instead of the beep tones configured by default you can use announcement texts in different languages, too.

1. The default files of the announcement texts in different languages and the beep tones can be found in the following path:  
`C:\Program Files (x86)\ASC\ASC Product Suite\data\RecordingModule\media\default\.`

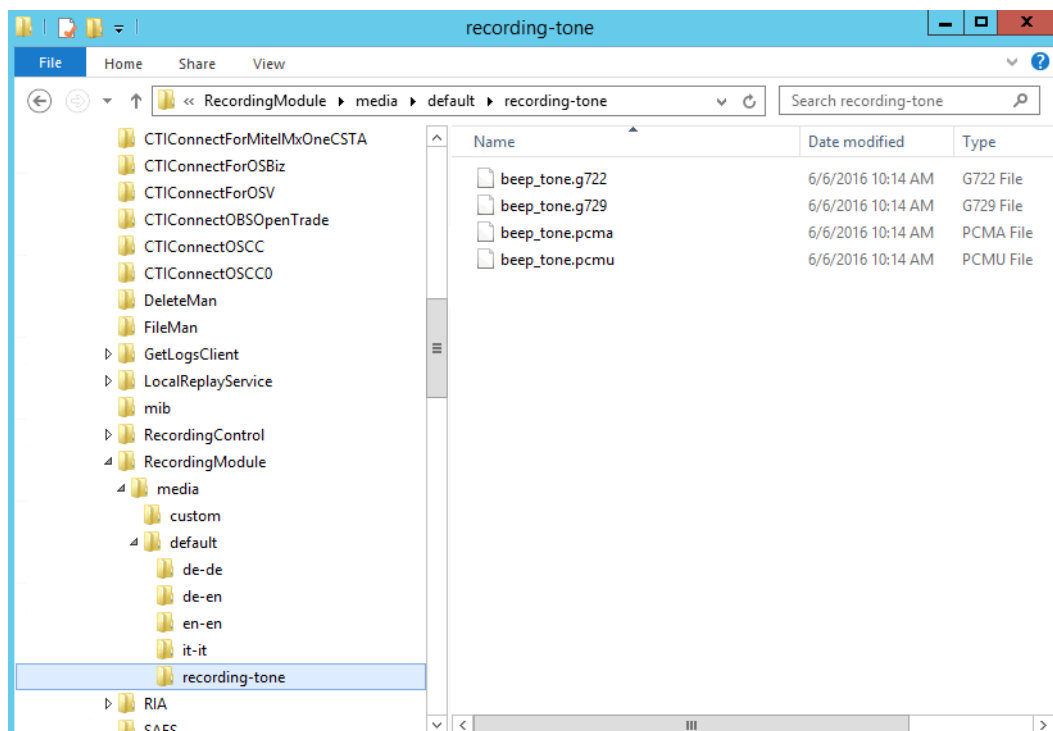


Fig. 431: Path of the default files

2. If you would like to use default texts in other languages, copy the files from the language-specific directory (e. g. `/default/en-us`) directly into the directory `/custom`. Do not use sub-directories. The files in the directory `/custom` are preferred to the files in directory `/default` and will not be overwritten in case of an update.
3. If you are using individual media files, deposit them in the directory `/custom` as well. Observe that the file extension has to indicate the codec that the file has been encoded with.



For further information about how to adjust the configuration files contact your local ASC support or call ASC support at +49 700 27278776.

#### 7.1.4 Configure recording announcement

If you would like to issue recording announcements, you have to adjust the configuration files of the Recording module.

1. Open the Windows Explorer.
2. Change to the installation directory *C:\Program Files (x86)\ASC\ASC Product Suite\data\RecordingModule*.

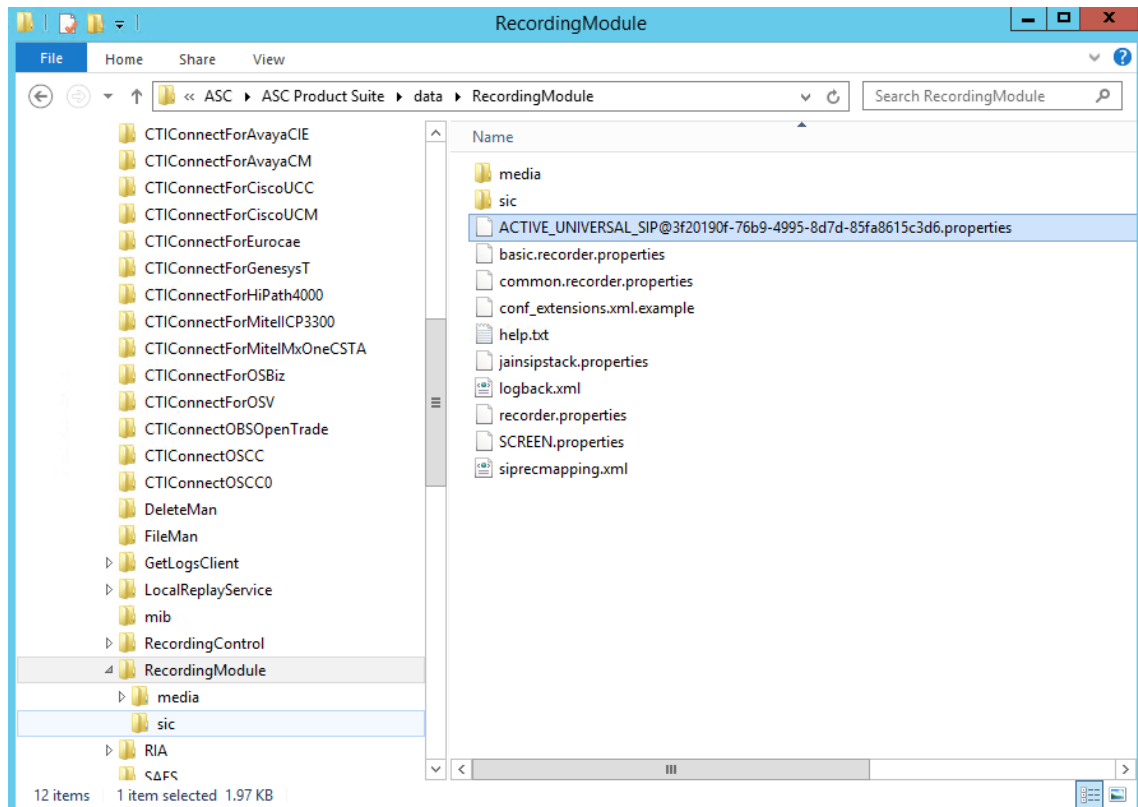


Fig. 432: Path to the configuration file

3. Open the file *ACTIVE\_UNIVERSAL\_SIP@<UUID>.properties* in the Editor.
4. Search for the section *# recording announcement*.

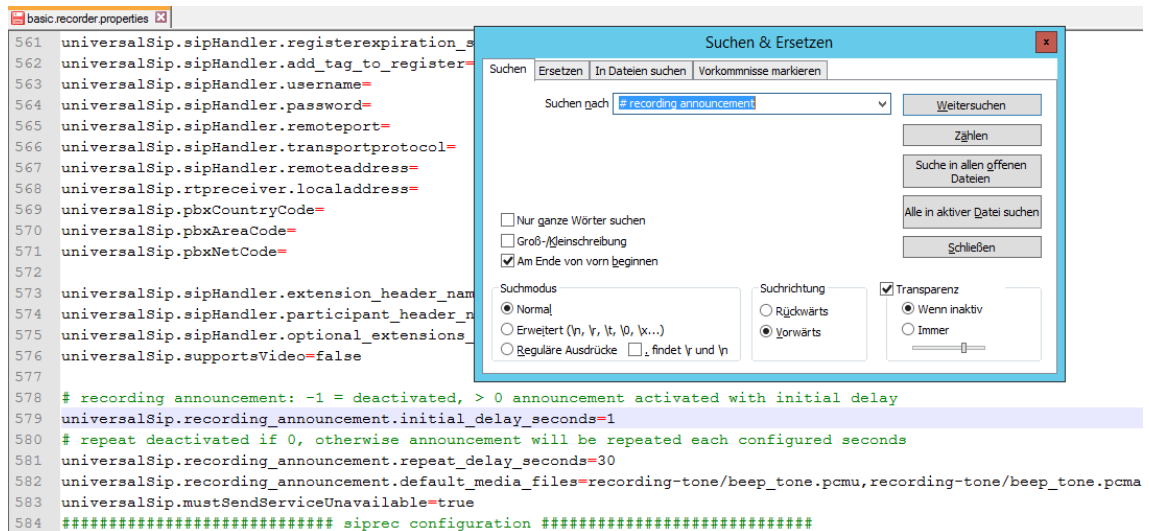


Fig. 433: Configure recording announcements

5. Configure the following parameters:

<code>universalSip.recording_announcement.initial_delay_seconds=</code>	-1 Deactivated; no announcements are issued. 0 Activated; the announcement is issued with the configured delay.
<code>universalSip.recording_announcement.repeat_delay_seconds=</code>	0 Deactivated; the announcements are not repeated. 0 Activated; the announcement is repeated with the configured delay in seconds.
<code>universalSip.recording_announcement.default_media_files=</code>	A list of default files which are issued in an announcement. The file extension indicated the codec that the file has been encoded with. The beep tone files in the directory <code>/recording-tone</code> have been pre-configured by default. <ul style="list-style-type: none"> <li>• beep_tone.g722</li> <li>• beep_tone.g729</li> <li>• beep_tone.pcma</li> <li>• beep_tone.pcmu</li> </ul>

6. Save the changes in the configuration file and restart the service *ASC RecordingModule* so that the changes are applied.

### Adjust announcement texts

Instead of the beep tones configured by default you can use announcement texts in different languages, too.

- The default files of the announcement texts in different languages and the beep tones can be found in the following path:  
`C:\Program Files (x86)\ASC\ASC Product Suite\data\RecordingModule\media\default\.`

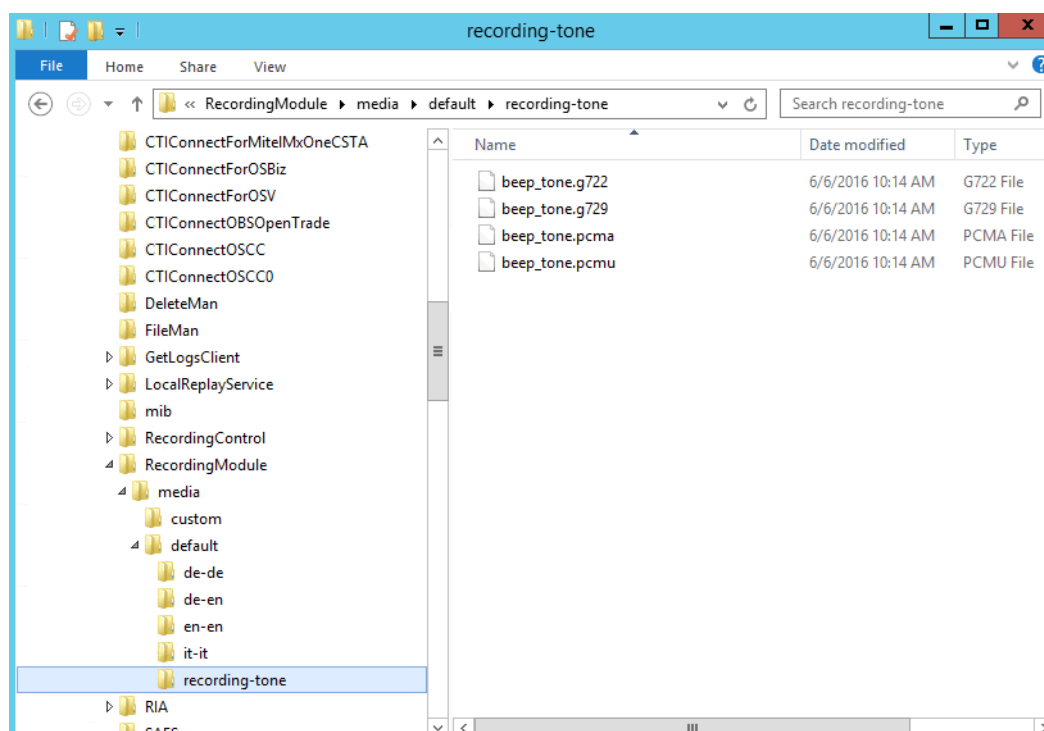


Fig. 434: Path of the default files

- If you would like to use default texts in other languages, copy the files from the language-specific directory (e. g. */default/en-us*) directly into the directory */custom*. Do not use sub-directories. The files in the directory */custom* are preferred to the files in directory */default* and will not be overwritten in case of an update.
- If you are using individual media files, deposit them in the directory */custom* as well. Observe that the file extension has to indicate the codec that the file has been encoded with.



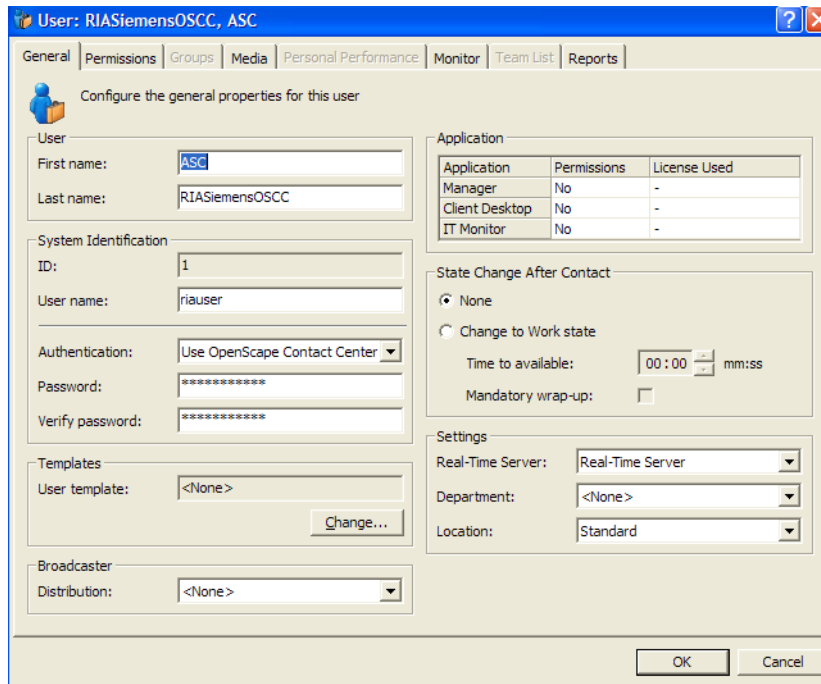
For further information about how to adjust the configuration files contact your local ASC support or call ASC support at +49 700 27278776.

## 7.2 Configure CTIconnect add-on

### 7.2.1 Configure OpenScape Contact Center (optional)

#### 7.2.1.1 Create user for CTIconnect

Create a user in [OSCC](#) server administration.



Application	Permissions	License Used
Manager	No	-
Client Desktop	No	-
IT Monitor	No	-

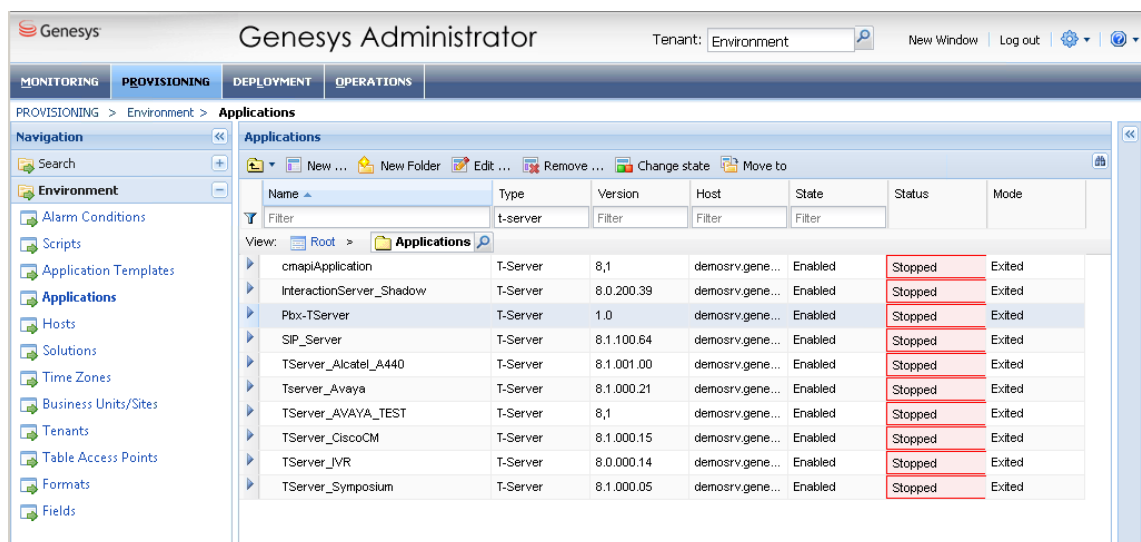
Fig. 435: Create a user for CTIconnect service

This user does not need other special authorizations. All other settings can remain on default values.

## 7.2.2 Configure Genesys T-Server (optional)

### 7.2.2.1 Configure IP address and port of the Genesys T-Server

1. Log in to the Genesys Administrator.
2. Click on the menu item *Environment > Applications* in the navigation bar.



Name	Type	Version	Host	State	Status	Mode
cmapiApplication	T-Server	8,1	demosrv.gene...	Enabled	Stopped	Exited
InteractionServer_Shadow	T-Server	8.0.200.39	demosrv.gene...	Enabled	Stopped	Exited
Pbx-TServer	T-Server	1.0	demosrv.gene...	Enabled	Stopped	Exited
SIP_Server	T-Server	8.1.100.64	demosrv.gene...	Enabled	Stopped	Exited
TServer_Alcatel_A440	T-Server	8.1.001.00	demosrv.gene...	Enabled	Stopped	Exited
Tserver_Avaya	T-Server	8.1.000.21	demosrv.gene...	Enabled	Stopped	Exited
TServer_AVAYA_TEST	T-Server	8,1	demosrv.gene...	Enabled	Stopped	Exited
TServer_CiscoCM	T-Server	8.1.000.15	demosrv.gene...	Enabled	Stopped	Exited
TServer_IVR	T-Server	8.0.000.14	demosrv.gene...	Enabled	Stopped	Exited
TServer_Symposium	T-Server	8.1.000.05	demosrv.gene...	Enabled	Stopped	Exited

Fig. 436: Genesys Administrator - select T-Server

3. Double-click on the entry T-Server which has been connected to the switch instance to be monitored.  
⇒ The window *Configuration* appears.
4. Expand the area *Server Info*.

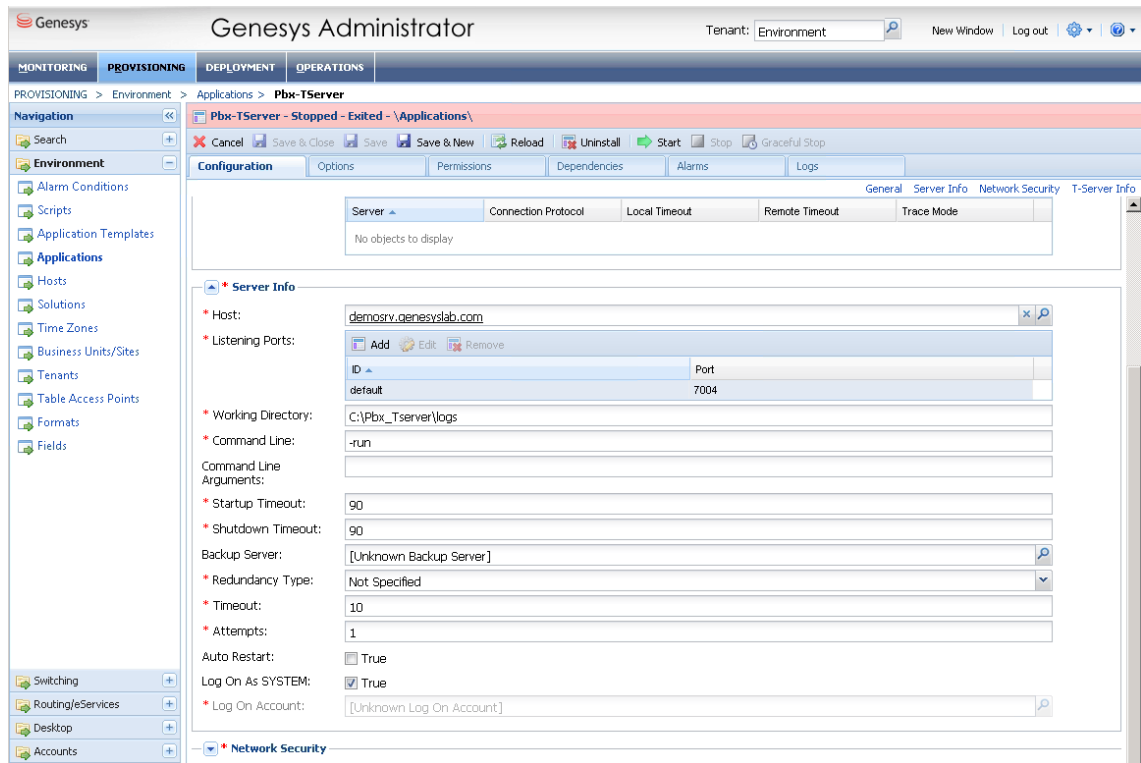


Fig. 437: Genesys Administrator - configure T-Server

5. In the field *Host*, enter the IP address or the computer name of the T-Server, e. g. *demosrv8.genesyslab.com*.
6. In the field *Listening Port*, enter the port of the T-Server, e. g.

### 7.2.2.2

#### Configure IP address and port of the Genesys Configuration Server

1. Click on the menu item *Environment > Applications* in the navigation bar.

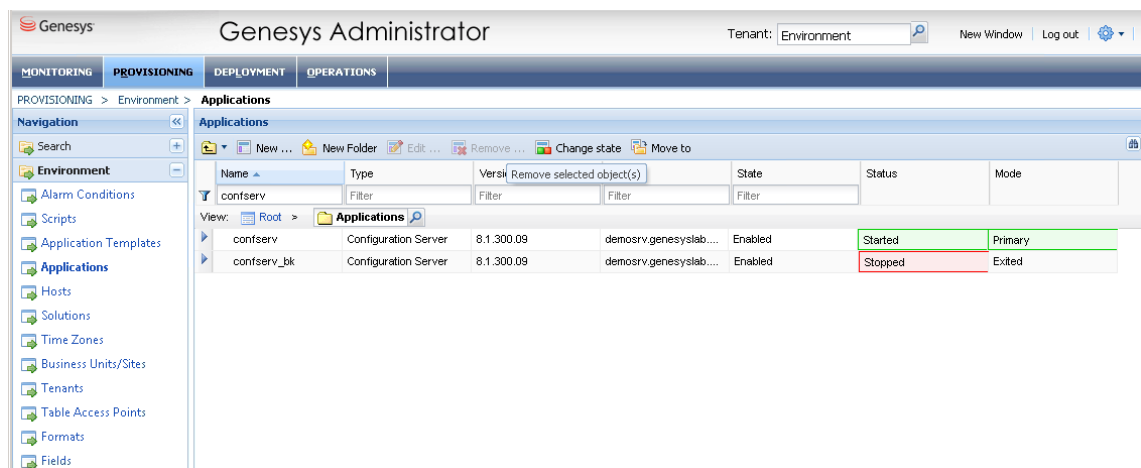


Fig. 438: Genesys Administrator - select configuration server

2. Double-click on the entry Configuration Server, e. g. *confserv*.  
⇒ The window *Configuration* appears.
3. Expand the area *Server Info*.

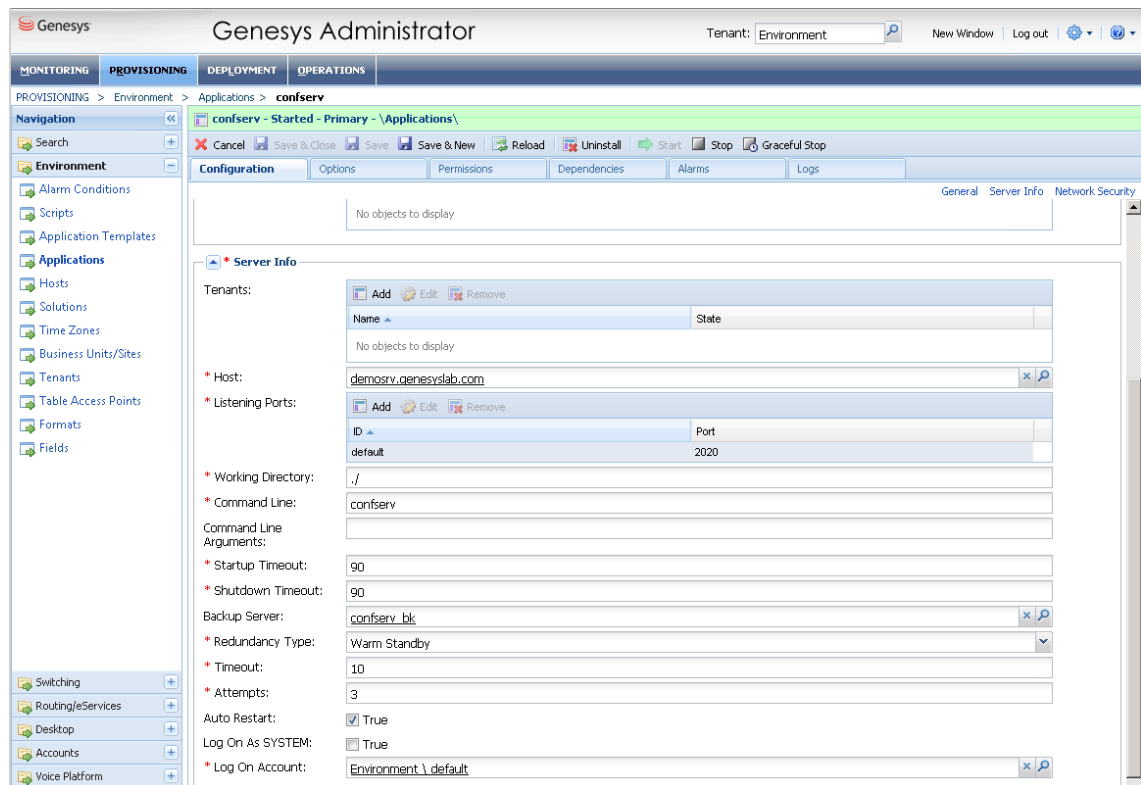


Fig. 439: Genesys Administrator - configure configuration server

4. In the field *Host*, enter the IP address or the computer name of the configuration server, e. g. *demosrv8.genesyslab.com*.
5. In the field *Listening Port*, enter the port of the configuration server, e. g. *2020*.

### 7.2.2.3 Configure switch instance in the Genesys Configuration Server

1. Click on the menu item *Switching > Switches* in the navigation bar.

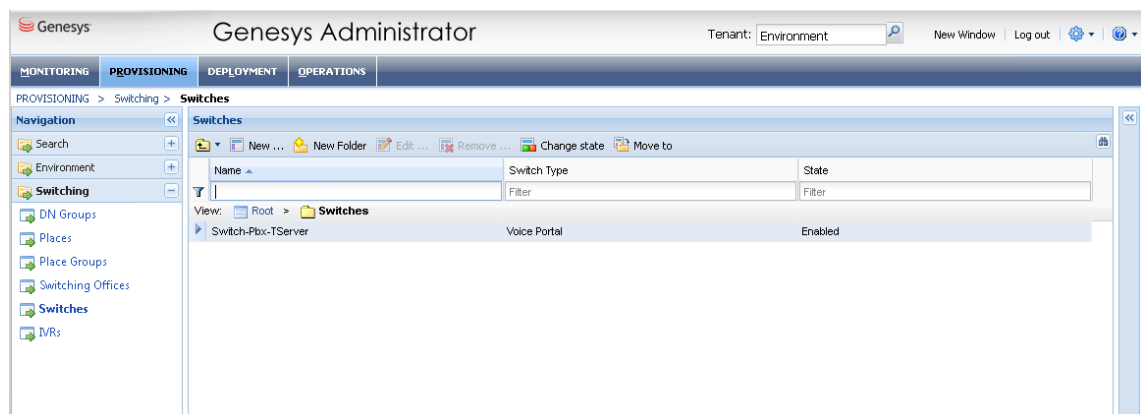
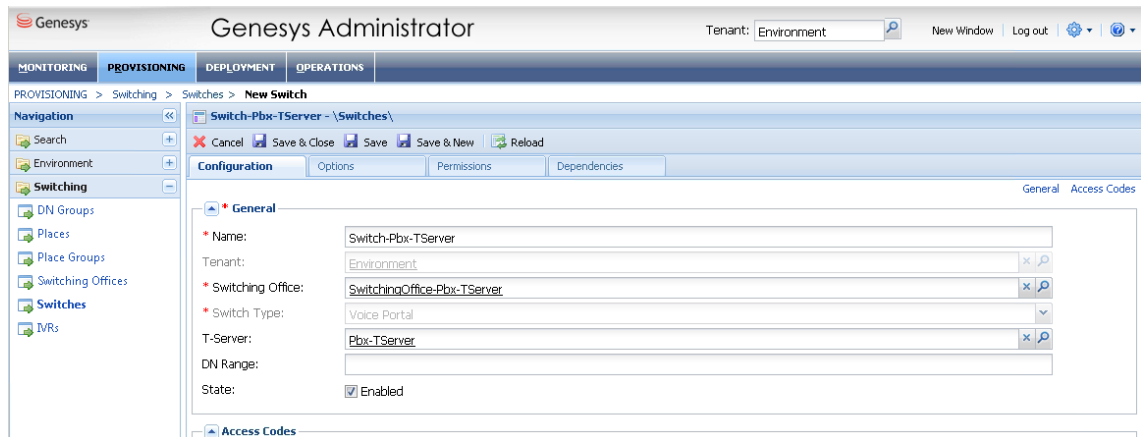


Fig. 440: Genesys Administrator - switch instances

2. Double-click on the entry of the switch instance.  
⇒ The window *Configuration > General* appears.



The screenshot shows the Genesys Administrator web interface. The top navigation bar includes tabs for MONITORING, PROVISIONING, DEPLOYMENT, and OPERATIONS. The left sidebar shows a tree view with categories like Environment, Switching, and IVRs. The main content area is titled 'New Switch' and shows the configuration for a switch instance named 'Switch-Pbx-TServer'. The 'General' tab is active, displaying fields for Name, Tenant, Switching Office, Switch Type, T-Server, DN Range, and State. The 'Access Codes' tab is also visible.

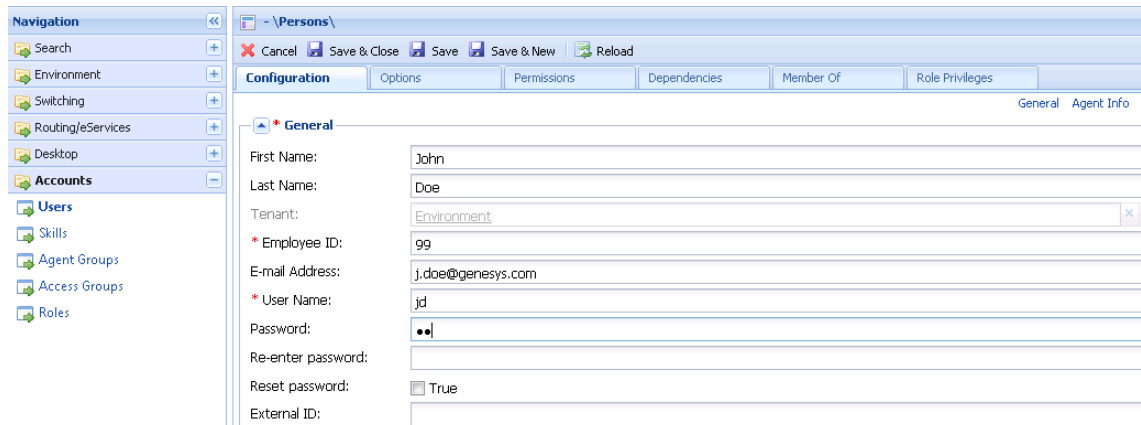
Fig. 441: Genesys Administrator - configure switch instance

3. Enter the same name in the configuration as in the Genesys T-Server.
4. Check whether the T-Server is identical to the T-Server configured in the Genesys T-Server.
5. Click on the button **Save** to save the entries.

#### 7.2.2.4 Create users for the Genesys Configuration Server

To access the Genesys Configuration Server, you have to create a user.

1. Click on the menu item *Account > Users* in the navigation bar.
2. Click on the button **New**.  
⇒ The window *Configuration > General* appears.



The screenshot shows the Genesys Administrator web interface for creating a new user. The left sidebar shows the 'Accounts' category expanded, with 'Users' selected. The main content area is titled 'New User' and shows the configuration for a user named 'John Doe'. The 'General' tab is active, displaying fields for First Name, Last Name, Tenant, Employee ID, E-mail Address, User Name, Password, Re-enter password, Reset password, and External ID. The 'Agent Info' tab is also visible.

Fig. 442: Genesys administrator - create user

3. Complete the mandatory fields *Employee ID*, *User Name*, and *Password*.
4. Assign the user the rights to the created switch instance.
5. Click on the button **Save** to save the entries.



## 8 Troubleshooting



Before initiating any troubleshooting measures, verify that the recording solution has been configured according to the description in the manual and check whether an up-to-date hotfix version with bug fixes is available.

**If no calls or additional data can be recorded, check:**

- whether the transport protocol and the port have been configured correctly.
- that the PBX connection and the [SIP](#) authentication have been configured correctly and are active when the recording server has to register on the PBX.

**When opening a ticket, include the following information:**

- Log files with test calls  
**NOTICE!** Before creating any log files, adjust the settings of the log levels in the Log Level module in the System Monitoring as described below, see user manual *System Monitoring*.
- detailed description of the issue and of the scenarios of the test calls which have been made
- extension and IP address of the affected device
- manufacturer, type, and software version of the PBX
- Wireshark traces of the recording network interface

**Log level settings**

Module	Log level
RECORDING_CONTROL	DEBUG
RECORDING_MODULE_MANAGER	DEBUG
API_SERVER	DEBUG
FILE_MANAGER	DEBUG

## List of figures

Fig. 1	Overview of the recording solution.....	6
Fig. 2	Selection of the certificate.....	12
Fig. 3	Import certificate.....	12
Fig. 4	Confirm alias.....	13
Fig. 5	Message - Successful import.....	13
Fig. 6	Selection of the certificate.....	13
Fig. 7	Export PBX certificate from recording server.....	14
Fig. 8	System Configuration - web interface.....	16
Fig. 9	System Configuration - main view:.....	17
Fig. 10	Recording architectures - main view.....	18
Fig. 11	Toolbar Recording Architectures module.....	18
Fig. 12	Create recording architecture - All-in-one Basic Recording.....	20
Fig. 13	Recording architecture - tab Details.....	20
Fig. 14	Select integration type.....	21
Fig. 15	Recording architecture - tab Server Assignment.....	21
Fig. 16	Recording architecture - assign server.....	22
Fig. 17	Recording architecture - activate recording variant.....	22
Fig. 18	Recording architecture - activate recording architecture.....	23
Fig. 19	Servers - main view.....	23
Fig. 20	Toolbar Servers module.....	24
Fig. 21	Add server locations.....	25
Fig. 22	Delete server location.....	26
Fig. 23	Servers - tab Details.....	26
Fig. 24	Servers - tab usage.....	27
Fig. 25	Group field API Server.....	27
Fig. 26	Select storage expansion.....	29
Fig. 27	Group field Audio analysis.....	29
Fig. 28	Group field Recording Control/Key Management.....	30
Fig. 29	Group field Data Processing.....	31
Fig. 30	Select server.....	33
Fig. 31	Group field Replay.....	33
Fig. 32	Select server.....	35
Fig. 33	Group field Virtualization.....	35
Fig. 34	Servers module - tab Media Streamer.....	36
Fig. 35	Servers Module - tab Replay Server Address Mapping.....	38
Fig. 36	Servers module - tab Key Management.....	39
Fig. 37	Servers module - tab Keystore/Virtualization.....	40
Fig. 38	Create new PBX.....	41
Fig. 39	Toolbar PBX module.....	41
Fig. 40	Create new PBX - tab Details.....	42
Fig. 41	Tenants - main view - tab Extensions.....	44

Fig. 42	Assign extensions to tenants .....	44
Fig. 43	Remove extensions.....	46
Fig. 44	Select extensions .....	46
Fig. 45	Additional Data module main view .....	47
Fig. 46	Configure additional data .....	47
Fig. 47	Additional data - configure availability .....	48
Fig. 48	Integrations - main view .....	49
Fig. 49	Toolbar Integrations module .....	49
Fig. 50	Create integration type.....	50
Fig. 51	Select PBX .....	50
Fig. 52	Assign recording architecture - All-in-one Basic .....	51
Fig. 53	Configuration steps of the integration .....	51
Fig. 54	Configuration step - Configure Recording Architecture.....	52
Fig. 55	Configuration step - Global Recording Settings .....	52
Fig. 56	Tab SIP Header Tagging Configure sources .....	53
Fig. 57	SIP Additional Data .....	54
Fig. 58	Configuration step - Configure recording servers .....	55
Fig. 59	Recording server - Configure extension for SIP trunk.....	56
Fig. 60	Tab Extensions .....	56
Fig. 61	Add extensions.....	57
Fig. 62	Added extensions.....	58
Fig. 63	Overview of Sparkassen FI ISP .....	59
Fig. 64	Configure add-on for Sparkassen FI ISP .....	60
Fig. 65	Arbitrary assignment of the additional data.....	61
Fig. 66	Configure add-on for OSCC.....	63
Fig. 67	Configure connection data .....	64
Fig. 68	Arbitrary assignment of the additional data.....	65
Fig. 69	Overview of the add on of Genesys T-Server .....	66
Fig. 70	Configure add-on for Genesys T-Server .....	67
Fig. 71	Configure connection data .....	68
Fig. 72	Arbitrary assignment of the additional data.....	70
Fig. 73	Configure miscellaneous settings .....	70
Fig. 74	Activate integration.....	71
Fig. 75	Activated integration.....	71
Fig. 76	Deactivate integration .....	72
Fig. 77	Recording architectures - main view .....	73
Fig. 78	Toolbar Recording Architectures module.....	73
Fig. 79	Create recording architecture - All-in-one Failover .....	74
Fig. 80	Recording architecture - tab Details - All-in-one Failover.....	75
Fig. 81	Select integration type.....	76
Fig. 82	Recording Architecture - tab Server Assignment.....	77
Fig. 83	Recording Architecture - assign server - example .....	77

Fig. 84	Recording Architecture - activate recording type .....	78
Fig. 85	Recording architecture - activate recording architecture.....	78
Fig. 86	Servers - main view.....	79
Fig. 87	Toolbar Servers module.....	79
Fig. 88	Add server locations.....	81
Fig. 89	Delete server location .....	82
Fig. 90	Servers - tab Details.....	82
Fig. 91	Servers - tab usage.....	83
Fig. 92	Group field API Server .....	83
Fig. 93	Select storage expansion.....	85
Fig. 94	Group field Audio analysis .....	85
Fig. 95	Group field Recording Control/Key Management .....	86
Fig. 96	Group field Data Processing .....	87
Fig. 97	Select server .....	89
Fig. 98	Group field Replay .....	89
Fig. 99	Select server .....	91
Fig. 100	Group field Virtualization .....	91
Fig. 101	Servers module - tab Media Streamer .....	92
Fig. 102	Servers Module - tab Replay Server Address Mapping.....	94
Fig. 103	Servers module - tab Key Management.....	95
Fig. 104	Servers module - tab Keystore/Virtualization .....	96
Fig. 105	Create new PBX.....	97
Fig. 106	Toolbar PBX module .....	97
Fig. 107	Create new PBX - tab Details .....	98
Fig. 108	Tenants - main view - tab Extensions .....	100
Fig. 109	Assign extensions to tenants .....	100
Fig. 110	Remove extensions.....	102
Fig. 111	Select extensions .....	102
Fig. 112	Additional Data module main view .....	103
Fig. 113	Configure additional data .....	103
Fig. 114	Additional data - configure availability.....	104
Fig. 115	Integrations - main view .....	105
Fig. 116	Toolbar Integrations module .....	105
Fig. 117	Create integration type.....	106
Fig. 118	Select PBX.....	106
Fig. 119	Assign recording architecture - All-in-one Failover .....	107
Fig. 120	Configuration steps of the integration .....	107
Fig. 121	Configuration step - Configure Recording Architecture.....	108
Fig. 122	Configuration step - Global Recording Settings.....	108
Fig. 123	Tab SIP Header Tagging Configure sources .....	109
Fig. 124	SIP Additional Data .....	110
Fig. 125	Configuration step - Configure recording servers .....	111

Fig. 126	Recording server - Configure extension for SIP trunk.....	112
Fig. 127	Tab Extensions .....	112
Fig. 128	Add extensions.....	113
Fig. 129	Added extensions.....	114
Fig. 130	Overview of Sparkassen FI ISP .....	115
Fig. 131	Configure add-on for Sparkassen FI ISP .....	116
Fig. 132	Arbitrary assignment of the additional data .....	117
Fig. 133	Configure add-on for OSCC .....	119
Fig. 134	Configure connection data .....	120
Fig. 135	Arbitrary assignment of the additional data.....	121
Fig. 136	Overview of the add on of Genesys T-Server .....	122
Fig. 137	Configure add-on for Genesys T-Server .....	123
Fig. 138	Configure connection data .....	124
Fig. 139	Arbitrary assignment of the additional data.....	126
Fig. 140	Configure miscellaneous settings .....	126
Fig. 141	Activate integration.....	127
Fig. 142	Activated integration.....	127
Fig. 143	Deactivate integration .....	128
Fig. 144	Recording architectures - main view .....	129
Fig. 145	Toolbar Recording Architectures module.....	129
Fig. 146	Create recording architecture - All-in-one Parallel Recording.....	130
Fig. 147	Recording architecture - tab Details - All-in-one Parallel Recording .....	131
Fig. 148	Select integration type.....	132
Fig. 149	Recording Architecture - tab Server Assignment .....	133
Fig. 150	Recording Architecture - assign server - example .....	133
Fig. 151	Recording Architecture - activate recording type .....	134
Fig. 152	Activate recording architecture.....	134
Fig. 153	Servers - main view.....	135
Fig. 154	Toolbar Servers module.....	135
Fig. 155	Add server locations.....	137
Fig. 156	Delete server location .....	138
Fig. 157	Servers - tab Details.....	138
Fig. 158	Servers - tab usage.....	139
Fig. 159	Group field API Server .....	139
Fig. 160	Select storage expansion.....	141
Fig. 161	Group field Audio analysis .....	141
Fig. 162	Group field Recording Control/Key Management .....	142
Fig. 163	Group field Data Processing .....	143
Fig. 164	Select server .....	145
Fig. 165	Group field Replay .....	145
Fig. 166	Select server .....	147
Fig. 167	Group field Virtualization .....	147

Fig. 168 Servers module - tab Media Streamer .....	148
Fig. 169 Servers Module - tab Replay Server Address Mapping .....	150
Fig. 170 Servers module - tab Key Management.....	151
Fig. 171 Servers module - tab Keystore/Virtualization .....	152
Fig. 172 Create new PBX.....	153
Fig. 173 Toolbar PBX module .....	153
Fig. 174 Create new PBX - tab Details .....	154
Fig. 175 Tenants - main view - tab Extensions .....	156
Fig. 176 Assign extensions to tenants .....	156
Fig. 177 Remove extensions.....	158
Fig. 178 Select extensions .....	158
Fig. 179 Additional Data module main view .....	159
Fig. 180 Configure additional data .....	159
Fig. 181 Additional data - configure availability.....	160
Fig. 182 Integrations - main view .....	161
Fig. 183 Toolbar Integrations module .....	161
Fig. 184 Create integration type.....	162
Fig. 185 Select PBX.....	162
Fig. 186 Assign recording architecture - All-in-one Parallel .....	163
Fig. 187 Configuration steps of the integration .....	163
Fig. 188 Configuration step - Configure Recording Architecture.....	164
Fig. 189 Configuration step - Global Recording Settings .....	164
Fig. 190 Configure device group 1 .....	165
Fig. 191 Configure device group 2 .....	166
Fig. 192 Tab SIP Header Tagging Configure sources .....	166
Fig. 193 SIP Additional Data .....	167
Fig. 194 Configuration step - Configure recording servers .....	168
Fig. 195 Recording server - Configure extension for SIP trunk.....	169
Fig. 196 Tab Extensions .....	170
Fig. 197 Add extensions.....	170
Fig. 198 Added extensions.....	171
Fig. 199 Overview of Sparkassen FI ISP .....	172
Fig. 200 Configure add-on for Sparkassen FI ISP .....	173
Fig. 201 Arbitrary assignment of the additional data.....	174
Fig. 202 Configure add-on for OSCC.....	176
Fig. 203 Configure connection data .....	177
Fig. 204 Arbitrary assignment of the additional data.....	178
Fig. 205 Overview of the add on of Genesys T-Server .....	179
Fig. 206 Configure add-on for Genesys T-Server .....	180
Fig. 207 Configure connection data .....	181
Fig. 208 Arbitrary assignment of the additional data.....	183
Fig. 209 Configure miscellaneous settings .....	183

Fig. 210	Activate integration.....	184
Fig. 211	Activated integration.....	184
Fig. 212	Deactivate integration .....	185
Fig. 213	Recording architectures - main view .....	186
Fig. 214	Toolbar Recording Architectures module.....	186
Fig. 215	Create recording architecture - Multi-Server Recording.....	187
Fig. 216	Recording architecture - tab Details - Multi-Server Recording.....	188
Fig. 217	Select integration type.....	189
Fig. 218	Recording Architecture - tab Server Assignment.....	190
Fig. 219	Recording Architecture - assign server - example .....	190
Fig. 220	Add Recording Server.....	191
Fig. 221	Recording architecture - activate recording architecture.....	192
Fig. 222	Servers - main view.....	193
Fig. 223	Toolbar Servers module.....	193
Fig. 224	Add server locations.....	194
Fig. 225	Delete server location .....	195
Fig. 226	Servers - tab Details.....	196
Fig. 227	Servers - tab usage.....	196
Fig. 228	Group field API Server .....	197
Fig. 229	Select storage expansion.....	198
Fig. 230	Group field Audio analysis .....	199
Fig. 231	Group field Recording Control/Key Management .....	199
Fig. 232	Group field Data Processing .....	200
Fig. 233	Select server .....	202
Fig. 234	Group field Replay .....	202
Fig. 235	Select server .....	204
Fig. 236	Group field Virtualization .....	204
Fig. 237	Servers module - tab Media Streamer .....	205
Fig. 238	Servers Module - tab Replay Server Address Mapping.....	207
Fig. 239	Servers module - tab Key Management.....	208
Fig. 240	Servers module - tab Keystore/Virtualization .....	209
Fig. 241	Create new PBX.....	210
Fig. 242	Toolbar PBX module .....	210
Fig. 243	Create new PBX - tab Details .....	211
Fig. 244	Tenants - main view - tab Extensions .....	213
Fig. 245	Assign extensions to tenants .....	213
Fig. 246	Remove extensions.....	215
Fig. 247	Select extensions .....	215
Fig. 248	Additional Data module main view .....	216
Fig. 249	Configure additional data .....	216
Fig. 250	Additional data - configure availability.....	217
Fig. 251	Integrations - main view .....	218



Fig. 252	Toolbar Integrations module .....	218
Fig. 253	Create integration type .....	219
Fig. 254	Select PBX .....	219
Fig. 255	Assign recording architecture - Multi-Server Recording.....	220
Fig. 256	Configuration steps of the integration .....	220
Fig. 257	Configuration step - Configure Recording Architecture.....	221
Fig. 258	Configuration step - Global Recording Settings .....	221
Fig. 259	Tab SIP Header Tagging Configure sources .....	222
Fig. 260	SIP Additional Data .....	223
Fig. 261	Configuration step - Configure recording servers .....	224
Fig. 262	Recording server - Configure extension for SIP trunk.....	225
Fig. 263	Tab Extensions .....	226
Fig. 264	Add extensions.....	226
Fig. 265	Added extensions.....	227
Fig. 266	Overview of Sparkassen FI ISP .....	228
Fig. 267	Configure add-on for Sparkassen FI ISP .....	229
Fig. 268	Arbitrary assignment of the additional data .....	230
Fig. 269	Configure add-on for OSCC.....	232
Fig. 270	Configure connection data .....	233
Fig. 271	Arbitrary assignment of the additional data .....	234
Fig. 272	Overview of the add on of Genesys T-Server .....	235
Fig. 273	Configure add-on for Genesys T-Server .....	236
Fig. 274	Configure connection data .....	237
Fig. 275	Arbitrary assignment of the additional data .....	239
Fig. 276	Configure miscellaneous settings .....	239
Fig. 277	Activate integration.....	240
Fig. 278	Activated integration.....	240
Fig. 279	Deactivate integration .....	241
Fig. 280	Recording architectures - main view .....	242
Fig. 281	Toolbar Recording Architectures module.....	242
Fig. 282	Create recording architecture - Multi-Server Failover .....	243
Fig. 283	Recording architecture - tab Details - Multi-Server Failover .....	244
Fig. 284	Select integration type.....	245
Fig. 285	Recording Architecture - tab Server Assignment .....	246
Fig. 286	Recording Architecture - assign server - example .....	247
Fig. 287	Add Recording Server.....	248
Fig. 288	Recording architecture - activate recording architecture.....	249
Fig. 289	Servers - main view.....	249
Fig. 290	Toolbar Servers module.....	250
Fig. 291	Add server locations.....	251
Fig. 292	Delete server location .....	252
Fig. 293	Servers - tab Details.....	252



Fig. 294 Servers - tab usage .....	253
Fig. 295 Group field API Server .....	253
Fig. 296 Select storage expansion .....	255
Fig. 297 Group field Audio analysis .....	255
Fig. 298 Group field Recording Control/Key Management .....	256
Fig. 299 Group field Data Processing .....	257
Fig. 300 Select server .....	259
Fig. 301 Group field Replay .....	259
Fig. 302 Select server .....	261
Fig. 303 Group field Virtualization .....	261
Fig. 304 Servers module - tab Media Streamer .....	262
Fig. 305 Servers Module - tab Replay Server Address Mapping .....	264
Fig. 306 Servers module - tab Key Management.....	265
Fig. 307 Servers module - tab Keystore/Virtualization .....	266
Fig. 308 Create new PBX.....	267
Fig. 309 Toolbar PBX module .....	267
Fig. 310 Create new PBX - tab Details .....	268
Fig. 311 Tenants - main view - tab Extensions .....	270
Fig. 312 Assign extensions to tenants .....	270
Fig. 313 Remove extensions.....	272
Fig. 314 Select extensions .....	272
Fig. 315 Additional Data module main view .....	273
Fig. 316 Configure additional data .....	273
Fig. 317 Additional data - configure availability .....	274
Fig. 318 Integrations - main view .....	275
Fig. 319 Toolbar Integrations module .....	275
Fig. 320 Choose file .....	276
Fig. 321 Upload grammar .....	276
Fig. 322 Create integration type.....	277
Fig. 323 Select PBX.....	277
Fig. 324 Assign recording architecture - Multi-Server Failover .....	278
Fig. 325 Configuration steps of the integration .....	278
Fig. 326 Configuration step - Configure Recording Architecture.....	279
Fig. 327 Configuration step - Global Recording Settings .....	279
Fig. 328 Tab SIP Header Tagging Configure sources .....	280
Fig. 329 SIP Additional Data .....	281
Fig. 330 Configuration step - Configure recording servers .....	282
Fig. 331 Recording server - Configure extension for SIP trunk.....	283
Fig. 332 Tab Extensions .....	283
Fig. 333 Add extensions.....	284
Fig. 334 Added extensions.....	285
Fig. 335 Overview of Sparkassen FI ISP .....	286

Fig. 336	Configure add-on for Sparkassen FI ISP .....	287
Fig. 337	Arbitrary assignment of the additional data .....	288
Fig. 338	Configure add-on for OSCC .....	290
Fig. 339	Configure connection data .....	291
Fig. 340	Arbitrary assignment of the additional data .....	292
Fig. 341	Overview of the add on of Genesys T-Server .....	293
Fig. 342	Configure add-on for Genesys T-Server .....	294
Fig. 343	Configure connection data .....	295
Fig. 344	Arbitrary assignment of the additional data .....	297
Fig. 345	Configure miscellaneous settings .....	297
Fig. 346	Activate integration.....	298
Fig. 347	Activated integration.....	298
Fig. 348	Deactivate integration .....	299
Fig. 349	Recording architectures - main view .....	300
Fig. 350	Toolbar Recording Architectures module .....	300
Fig. 351	Create recording architecture - Multi-Server Parallel Recording.....	301
Fig. 352	Recording architecture - tab Details - Multi-Server Parallel Recording .....	302
Fig. 353	Select integration type.....	303
Fig. 354	Recording architecture - server assignment device group 1 .....	304
Fig. 355	Recording Architecture - assign server - example .....	304
Fig. 356	Add Recording Server .....	305
Fig. 357	Recording architecture - activate recording architecture - example .....	306
Fig. 358	Servers - main view.....	307
Fig. 359	Toolbar Servers module .....	307
Fig. 360	Add server locations.....	308
Fig. 361	Delete server location .....	309
Fig. 362	Servers - tab Details.....	310
Fig. 363	Servers - tab usage .....	310
Fig. 364	Group field API Server .....	311
Fig. 365	Select storage expansion.....	312
Fig. 366	Group field Audio analysis .....	313
Fig. 367	Group field Recording Control/Key Management .....	313
Fig. 368	Group field Data Processing .....	314
Fig. 369	Select server .....	316
Fig. 370	Group field Replay .....	316
Fig. 371	Select server .....	318
Fig. 372	Group field Virtualization .....	318
Fig. 373	Servers module - tab Media Streamer .....	319
Fig. 374	Servers Module - tab Replay Server Address Mapping .....	321
Fig. 375	Servers module - tab Key Management.....	322
Fig. 376	Servers module - tab Keystore/Virtualization .....	323
Fig. 377	Create new PBX.....	324

Fig. 378	Toolbar PBX module .....	324
Fig. 379	Create new PBX - tab Details .....	325
Fig. 380	Tenants - main view - tab Extensions .....	327
Fig. 381	Assign extensions to tenants .....	327
Fig. 382	Remove extensions.....	329
Fig. 383	Select extensions .....	329
Fig. 384	Additional Data module main view .....	330
Fig. 385	Configure additional data .....	330
Fig. 386	Additional data - configure availability .....	331
Fig. 387	Integrations - main view .....	332
Fig. 388	Toolbar Integrations module .....	332
Fig. 389	Create integration type.....	333
Fig. 390	Select PBX.....	333
Fig. 391	Assign recording architecture - Multi-Server Parallel .....	334
Fig. 392	Configuration steps of the integration .....	334
Fig. 393	Configuration step - Configure Recording Architecture.....	335
Fig. 394	Configuration step - Global Recording Settings - Multi-Server Parallel Recording .	335
Fig. 395	Tab SIP Header Tagging Configure sources .....	336
Fig. 396	SIP Additional Data .....	337
Fig. 397	Configuration step - Configure recording servers .....	338
Fig. 398	Recording server - Configure extension for SIP trunk.....	339
Fig. 399	Tab Extensions .....	340
Fig. 400	Add extensions.....	340
Fig. 401	Added extensions.....	341
Fig. 402	Overview of Sparkassen FI ISP .....	342
Fig. 403	Configure add-on for Sparkassen FI ISP .....	343
Fig. 404	Arbitrary assignment of the additional data.....	344
Fig. 405	Configure add-on for OSCC.....	346
Fig. 406	Configure connection data .....	347
Fig. 407	Arbitrary assignment of the additional data.....	348
Fig. 408	Overview of the add on of Genesys T-Server .....	349
Fig. 409	Configure add-on for Genesys T-Server .....	350
Fig. 410	Configure connection data .....	351
Fig. 411	Arbitrary assignment of the additional data.....	353
Fig. 412	Configure miscellaneous settings .....	353
Fig. 413	Activate integration.....	354
Fig. 414	Activated integration.....	354
Fig. 415	Deactivate integration .....	355
Fig. 416	Synchronize recording control.....	356
Fig. 417	Menu item Manage synchronization configuration .....	357
Fig. 418	Configure synchronization configurations .....	357
Fig. 419	Create synchronization configuration.....	358

Fig. 420	Tab Parallel Recording (integration) .....	360
Fig. 421	Map additional data .....	361
Fig. 422	Select additional data .....	362
Fig. 423	Delete additional data assignment .....	362
Fig. 424	Configure standby management .....	363
Fig. 425	Switch server .....	364
Fig. 426	Menu of the standby management .....	365
Fig. 427	Switch server .....	365
Fig. 428	Path to the configuration file .....	367
Fig. 429	Path to the configuration file .....	368
Fig. 430	Configure recording announcements .....	368
Fig. 431	Path of the default files .....	369
Fig. 432	Path to the configuration file .....	370
Fig. 433	Configure recording announcements .....	371
Fig. 434	Path of the default files .....	372
Fig. 435	Create a user for CTIconnect service .....	373
Fig. 436	Genesys Administrator - select T-Server .....	373
Fig. 437	Genesys Administrator - configure T-Server .....	374
Fig. 438	Genesys Administrator - select configuration server .....	374
Fig. 439	Genesys Administrator - configure configuration server .....	375
Fig. 440	Genesys Administrator - switch instances .....	375
Fig. 441	Genesys Administrator - configure switch instance .....	376
Fig. 442	Genesys administrator - create user .....	376

## List of tables

Tab. 1	Licenses of ASC.....	9
Tab. 2	Licenses for OpenScape Contact Center optional .....	9
Tab. 3	Licenses for Sparkassen FI ISP optional .....	9
Tab. 4	Licenses for Genesys.....	9
Tab. 5	Login data - system provider .....	16
Tab. 6	Configure audio analysis.....	29
Tab. 7	Configure recording control/key management .....	30
Tab. 8	Configure data storage.....	31
Tab. 9	Configure replay.....	33
Tab. 10	Configure virtualization.....	35
Tab. 11	Create PBX .....	42
Tab. 12	PBX parameters with complete phone number.....	43
Tab. 13	Create integration type .....	50
Tab. 14	Global recording settings .....	52
Tab. 15	Configure SIP header tagging.....	53
Tab. 16	Configure SIP conversation parameters .....	54
Tab. 17	Configure recording servers.....	55
Tab. 18	Configure CTIconnect module .....	60
Tab. 19	Configure connection data .....	61
Tab. 20	Configure CTIconnect module .....	63
Tab. 21	Configure connection data .....	64
Tab. 22	Configure add-on for Genesys T-Server .....	67
Tab. 23	Configure connection data .....	68
Tab. 24	Configure audio analysis.....	85
Tab. 25	Configure recording control/key management .....	86
Tab. 26	Configure data storage.....	87
Tab. 27	Configure replay.....	89
Tab. 28	Configure virtualization.....	91
Tab. 29	Create PBX .....	98
Tab. 30	PBX parameters with complete phone number.....	99
Tab. 31	Create integration type .....	106
Tab. 32	Global recording settings .....	108
Tab. 33	Configure SIP header tagging.....	109
Tab. 34	Configure SIP conversation parameters .....	110
Tab. 35	Configure recording servers.....	111
Tab. 36	Configure CTIconnect module .....	116
Tab. 37	Configure connection data .....	117
Tab. 38	Configure CTIconnect module .....	119
Tab. 39	Configure connection data .....	120
Tab. 40	Configure add-on for Genesys T-Server .....	123
Tab. 41	Configure connection data .....	124

Tab. 42	Configure audio analysis.....	141
Tab. 43	Configure recording control/key management .....	142
Tab. 44	Configure data storage.....	143
Tab. 45	Configure replay.....	145
Tab. 46	Configure virtualization.....	147
Tab. 47	Create PBX .....	154
Tab. 48	PBX parameters with complete phone number.....	155
Tab. 49	Create integration type .....	162
Tab. 50	Global recording settings .....	164
Tab. 51	Configure SIP header tagging.....	167
Tab. 52	Configure SIP conversation parameters .....	167
Tab. 53	Configure recording servers.....	168
Tab. 54	Configure CTIconnect module .....	173
Tab. 55	Configure connection data .....	174
Tab. 56	Configure CTIconnect module .....	176
Tab. 57	Configure connection data .....	177
Tab. 58	Configure add-on for Genesys T-Server .....	180
Tab. 59	Configure connection data .....	181
Tab. 60	Configure audio analysis.....	199
Tab. 61	Configure recording control/key management .....	199
Tab. 62	Configure data storage.....	200
Tab. 63	Configure replay.....	202
Tab. 64	Configure virtualization.....	204
Tab. 65	Create PBX .....	211
Tab. 66	PBX parameters with complete phone number.....	212
Tab. 67	Create integration type .....	219
Tab. 68	Global recording settings .....	221
Tab. 69	Configure SIP header tagging.....	222
Tab. 70	Configure SIP conversation parameters .....	223
Tab. 71	Configure recording servers.....	224
Tab. 72	Configure CTIconnect module .....	229
Tab. 73	Configure connection data .....	230
Tab. 74	Configure CTIconnect module .....	232
Tab. 75	Configure connection data .....	233
Tab. 76	Configure add-on for Genesys T-Server .....	236
Tab. 77	Configure connection data .....	237
Tab. 78	Configure audio analysis.....	255
Tab. 79	Configure recording control/key management .....	256
Tab. 80	Configure data storage.....	257
Tab. 81	Configure replay.....	259
Tab. 82	Configure virtualization.....	261
Tab. 83	Create PBX .....	268

Tab. 84	PBX parameters with complete phone number.....	269
Tab. 85	Create integration type.....	277
Tab. 86	Global recording settings .....	279
Tab. 87	Configure SIP header tagging.....	280
Tab. 88	Configure SIP conversation parameters .....	281
Tab. 89	Configure recording servers.....	282
Tab. 90	Configure CTIconnect module .....	287
Tab. 91	Configure connection data .....	288
Tab. 92	Configure CTIconnect module .....	290
Tab. 93	Configure connection data .....	291
Tab. 94	Configure add-on for Genesys T-Server .....	294
Tab. 95	Configure connection data .....	295
Tab. 96	Configure audio analysis.....	313
Tab. 97	Configure recording control/key management .....	313
Tab. 98	Configure data storage.....	314
Tab. 99	Configure replay.....	316
Tab. 100	Configure virtualization.....	318
Tab. 101	Create PBX .....	325
Tab. 102	PBX parameters with complete phone number.....	326
Tab. 103	Create integration type.....	333
Tab. 104	Global recording settings .....	335
Tab. 105	Configure SIP header tagging.....	336
Tab. 106	Configure SIP conversation parameters .....	337
Tab. 107	Configure recording servers.....	338
Tab. 108	Configure CTIconnect module .....	343
Tab. 109	Configure connection data .....	344
Tab. 110	Configure CTIconnect module .....	346
Tab. 111	Configure connection data .....	347
Tab. 112	Configure add-on for Genesys T-Server .....	350
Tab. 113	Configure connection data .....	351

## Glossary

### API

Application Programming Interface

### API server

Server on which the API service runs. (API=Application Programming Interface)

### Digest Authentication

In Digest Access Authentication (also RFC 2617) the server sends a random string of characters (nonce) created specifically for this purpose along with the WWW-Authenticate-Header. The browser calculates the hashcode (usually MD5) of a combination of user name, password, contained string of characters, HTTP method, and requested URI. It sends it back to the server in the authentication header along with the user name and the random string of characters. The server then calculates the hash total for comparison purposes. This method resembles Message Authentication Code. Provided that the used hash function is safe in terms of the cryptographic construction, attackers do not profit from sniffing the communication since the hash function prevents a reconstruction of the access data and because the access data are different for the next request due to using a nonce. (Especially the widespread hash function MD5 is not considered safe anymore.) The remaining data transmission is not protected, though. To achieve this Hypertext Transfer Protocol Secure (HTTPS) can be used. Translation of the German-language source: Wikipedia (20/02/2017)

### DTMF

Dialed Dual Tone Multi Frequency keys represent dialing signals on the analog connecting cable of the telephone. This is a method to transmit the phone number to the telephone network or to a PBX.

### IP

Internet Protocol, basic protocol for Internet communication

### LCR

Last Conversation Repeat

### OSCC

OpenScape Contact Center

### PBX

Private Branch Exchange

### RTCP

The Real Time Control Protocol provides feedback on the quality of service (QoS) in media distribution by periodically exchanging control messages between sender and recipient. The Real Time Control Protocol is used together with the Real Time Streaming Protocol (RTSP) which is responsible for controlling the transfer and with the Real Time Transport Protocol (RTP) which is responsible for the transfer itself.

### RTP

Real-time Transport Protocol is a protocol to continuously transmit audio and video files via the IP protocol within the network.



---

**SDES**

Session Description Protocol Security Descriptions

---

**SDK**

Software Development Kit

---

**SDP**

The Session Description Protocol describes properties of multimedia data streams. It serves to manage communication sessions and is used together with SIP and H.323 for instance within the IP telephony to deal codecs, transport protocols and addresses as well as for the transmission of meta data. (Source: Wikipedia 4th May 2017)

---

**SIP**

Session Initiation Protocol

---

**SMS**

Short Message Service, text message (GSM, landline)

---

**SRTP**

Secure real-time protocol

---

**TCP**

Transmission Control Protocol, controlled connection establishment, secure data transmission, controlled connection termination

---

**TDM**

Time Division Multiplexing is an umbrella term for time-slot-oriented interfaces, ITU G.703 defined. The term is used ASC-wide representative for conventional telephony.

---

**TLS**

Transport Layer Security; previously known as Secure Sockets Layer (SSL), is a hybrid encryption protocol for safe data transmission in the Internet. Since version 3.0, the SSL protocol is developed under the new name TLS.

---

**UDP**

User Datagram Protocol UDP is a minimal, connectionless network protocol which belongs to the core members of the Internet protocol suite. Its purpose is to make sure that data transmitted via the Internet reach the designated application. There is no destination check.

---

**URL**

Uniform resource locator. Identifies and locates a resource (e. g. a website) about the used access method (e. g. the used network protocol as HTTP or FTP) and the location of the resource in the computer network. (Source: Wikipedia 20th November 2013)

---

**VM**

Virtual machine

---

**VoIP**

Voice over IP

---