

EVOIPneo passive for SIP



Administration manual for system providers

5/13/2020

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>.

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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_{neo} passive for SIP provides the functionality which is necessary for the recording of unencrypted conversations in a SIP environment.

In this passive recording solution, the recording server is no active communication participant.

The data packages are duplicated at the network switch and sent to a dedicated network port of the recording device via the monitor/mirror/**SPAN** port.

The conversation data is extracted from the **RTP** packages. Additional data such as phone number, call direction, and duration of the conversation are extracted from the signaling protocols **SCCP** or **SIP** and processed.

Based on the criteria configured in the Recording Planner, the Recording Control service makes a recording decision. The EVOIP_{neo} recording service records the corresponding conversation data and saves them on the recording server.

EVOIP_{neo} passive for SIP

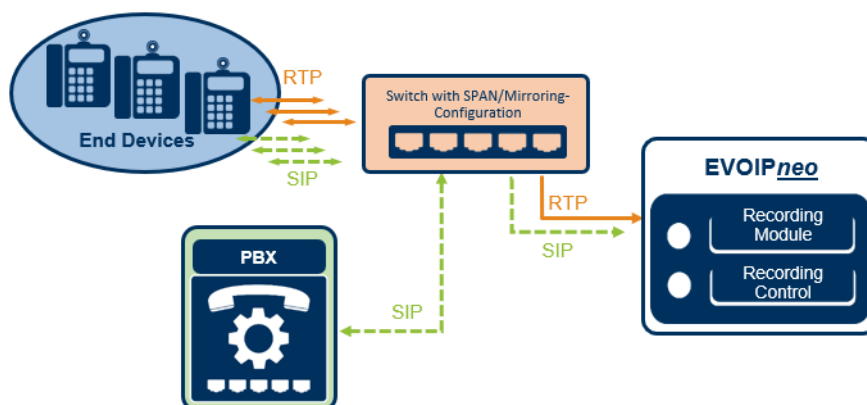


Fig. 1: Overview of the recording solution

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_{neo} 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_{neo} eco
- EVOLUTION_{neo}
- EVOLUTION_{neo} XXL



With hybrid systems (VoIP and TDM) the required software for the recording solution has already been installed on the EVOLUTION_{neo} recorder. If more performance is needed, an additional EVOLUTION_{neo} recorder or EVOIP_{neo} server can be added.

3.1.2 Additional requirements

A network switch is required which provides one or several SPAN ports.



For further information about the switch configuration refer to the administration manual *Switch configuration for passive VoIP recording*.

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 end devices

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

The following RFC standards are supported:

- RFC 2833/4733 (DTMF optional)

- RFC 3261 ([SIP](#))
- RFC 3550 ([RTP](#))
- RFC 3665 ([SIP](#) Basic Call Flow Examples)
- RFC 4566 ([SDP](#) Session Description Protocol)

For the recording to work, the phone numbers must be transferred in the [SIP](#) communication. The information must be contained in the To and From headers in the [SIP](#) invite.

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

3.3.2 Additional restrictions



The recording of encrypted calls is not supported in this solution. Encryption must be deactivated for the end devices to be recorded.

3.4 Genesys system components (optional)

3.4.1 Genesys Framework

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

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 ^{neo} Base license - passive	1 license per recording server
EVOIP ^{neo} passive for SIP	1 license per concurrent recording

Tab. 1: Licenses of ASC



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

Genesys T-Server (optional)

License name	Number
CTI ^{connect} for Genesys T-Server	1 per recording system
Genesys Recording Connector	1 per monitored recording resource
Genesys Universal SDK	1 per recording server

Tab. 2: Licenses for Genesys

Sparkassen FI ISP (optional)

License name	Number
CTI ^{connect} for Sparkassen FI ISP	1 per recording system

Tab. 3: Licenses for Sparkassen FI ISP optional

4.2 Information

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

- Name of the network connection in Windows which is supposed to be used for recording. The name is selected from the drop-down list during the configuration.
- IP address of the recording server
- IP addresses or MAC addresses of known network components which are no phones, e. g. PBX, media server, gateways, etc.

5

Overview install and configure product

The following steps have to be carried out:

1. Install *neo* software
2. Configure PBX
 - 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.
 - Configure integration
 - Configure recording architecture
Link the integration to the previously created recording architecture.
 - Configure recording servers
Configuration of the parameters of the recording server, e. g. sniffer card
 - Configure add-on
The add-on is disabled by default.
Optionally, you can configure the following add-ons for this recording solution:
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 Campaign Director (optional)

If you would like to use the software CTIconnect for Unify OpenScape Contact Center Campaign Director, you have to proceed as follows.

1. Copy the file CTIConnect UCD-41.3.0.zip from the recording server from the directory:
\\Program Files (x86)\\ASC\\ASC Product Suite\\modules

to the server of the Unify Campaign Director into the directory:

\\Program Files\\Siemens\\OpenScape Contact Center Campaign Director\\RDS\\Implementations

6.1.1

Add database entry

1. Add the following entry to the database table *SriImplementation*:

Name	Description	Configuration			
ASC Recording	ASC neo recording solution	<pre><?xml version="1.0" encoding="utf-8"?> <configuration> <option name="local_ip" datatype="string" display="local ip to bind the PIF connection" type="required" value="192.168.170.41"/><option name="port" datatype="numeric" display="port for the PIF connection" type="required" value="9020" minvalue="9020" maxvalue="10000"/> </configuration></pre>			
ImplAssembly	ImplClassMain	ImplClassAgent	ImplClassCall	GuiS- napIn- Class	UserBuiltIn
CTIconnectUCD.dll	CTIconnectUCD.CTI- connectUCD	CTIconnectUCD.ASCAgentSession	CTIconnectUCD.DefaultRecordingSession	NULL	0

NOTICE! The IP address 192.168.170.41 is exemplary; please insert the IP address of your Campaign Director! Port 9020 is the default port which may be adapted to your requirements.

6.1.2 Define recording profile as default

1. Open the Configuration Manager of the Campaign Director and define the Recording Interface Profile as default.

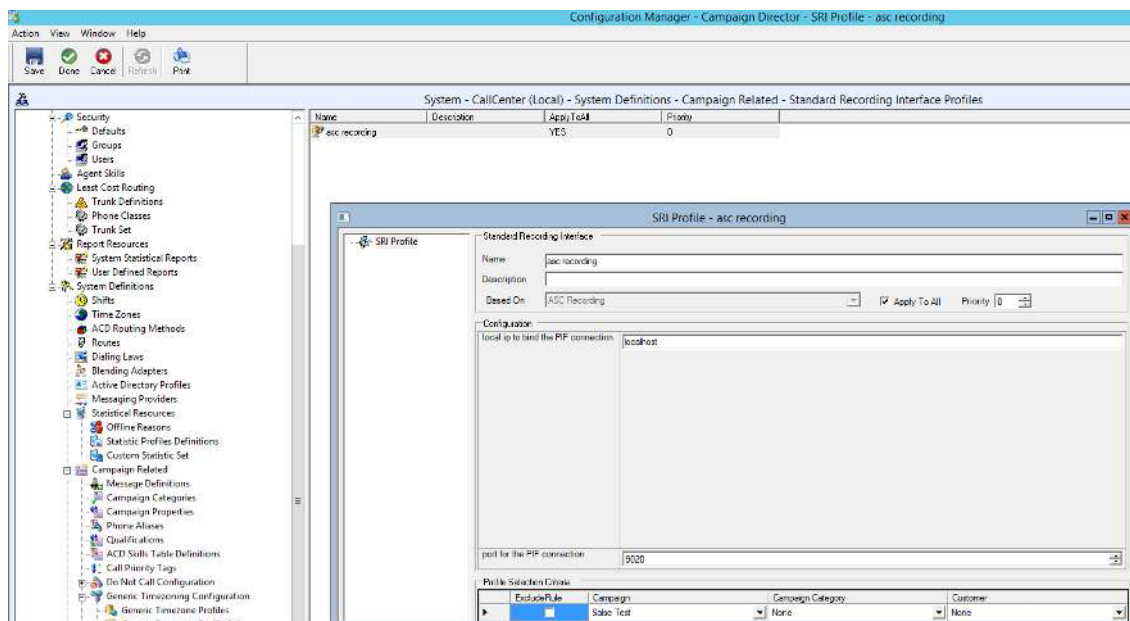


Fig. 2: Configuration Manager - Select recording profile as default

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.

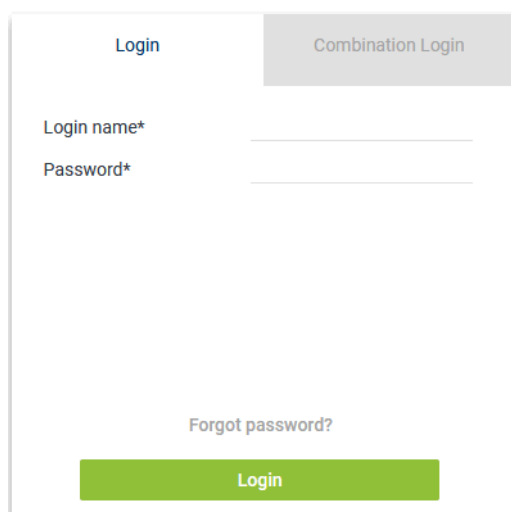


Fig. 3: System Configuration - web interface

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 ≥ 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 ≥ 6.3 , the changed password remains.
<i>neo</i> version ≥ 6.3	
Default password:	<i>A\$c123</i>

Tab. 4: Login data - system provider

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

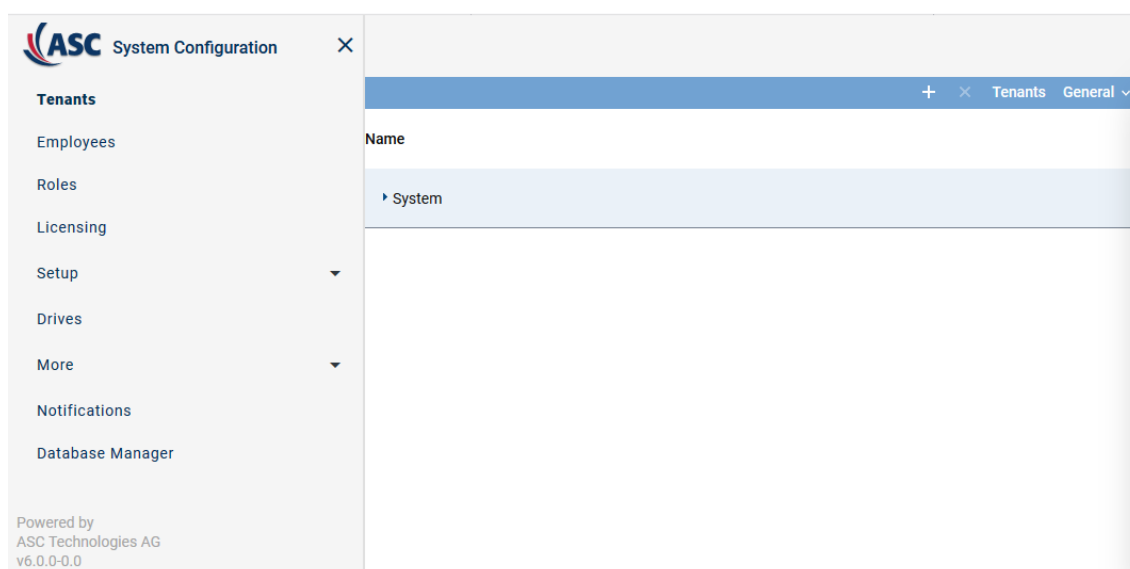


Fig. 4: System Configuration - main view:

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

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:

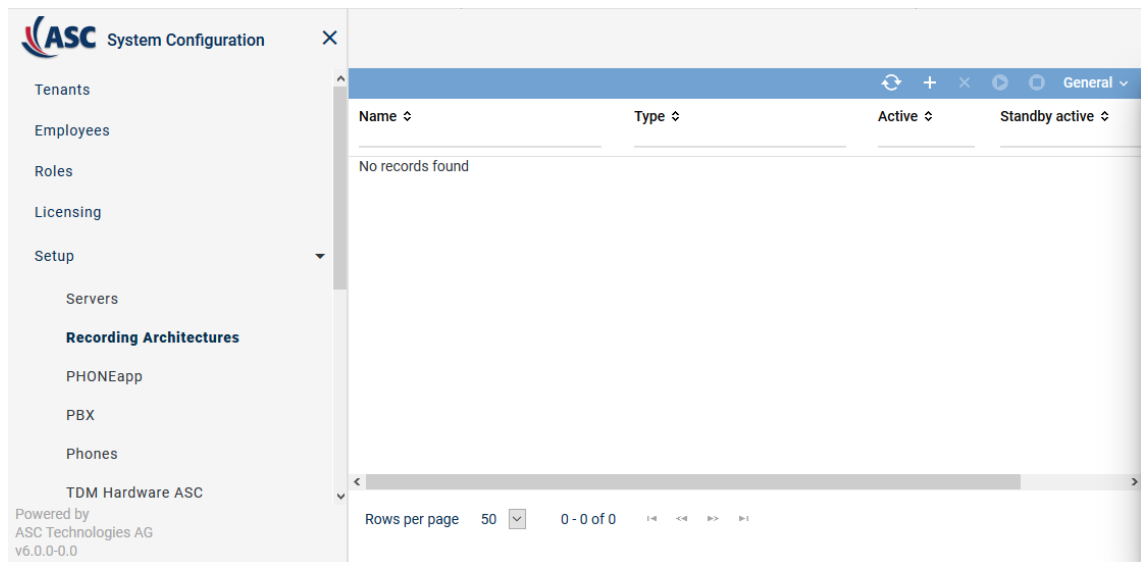




Fig. 5: Recording architectures - main view

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

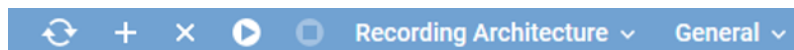







Fig. 6: Toolbar Recording Architectures module

	Refresh	Refreshes the main view.
	Create	Creates a new recording architecture.
	Delete	Deletes the selected recording architecture. The recording architecture is removed from the list of the main view. NOTICE! 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. NOTICE! You can only deactivate recording architectures which have neither been assigned to an active integration nor to an active import.
<i>Recording Architecture</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"> • <i>Displayed information</i> • <i>Order of the displayed columns</i> • <i>Number of rows per page</i>
	<i>Save Table Configuration</i>	Saves the current table configuration of the main view as default view of the user.
	<i>Search</i>	Opens the window of the search function. The search function allows searching systematically for sets of data which meet certain criteria.
	<i>Reset Search</i>	Resets all manually entered search criteria.
	<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*.

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

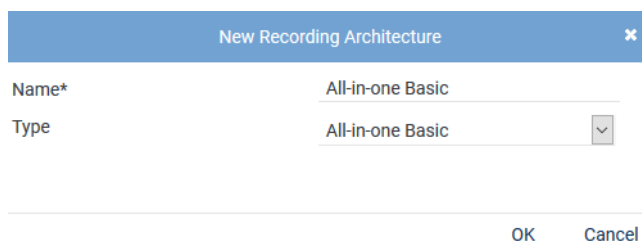
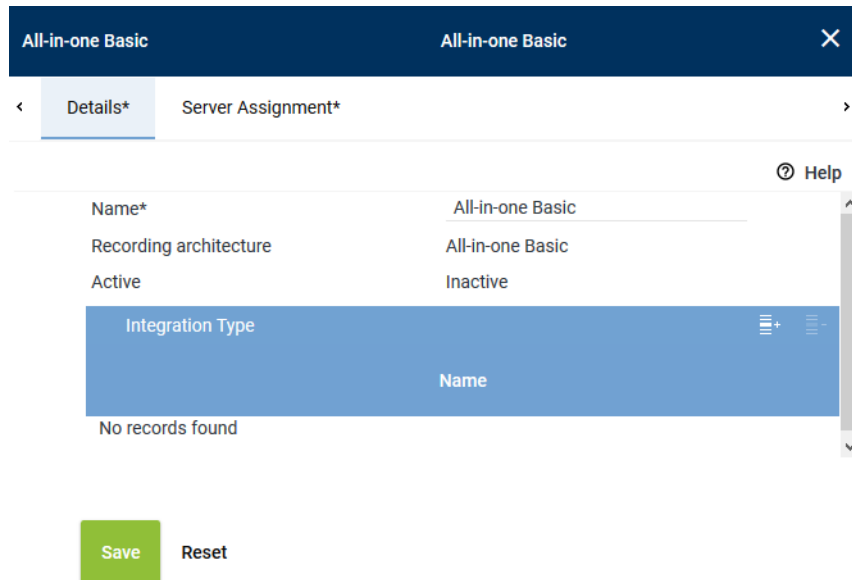


Fig. 7: Create recording architecture - All-in-one Basic Recording


2. 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 Basic 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 Basic'. It has two tabs: 'Details*' (selected) and 'Server Assignment*'. In the 'Details*' tab, there are three input fields: 'Name*' (containing 'All-in-one Basic'), 'Recording architecture' (containing 'All-in-one Basic'), and 'Active' (containing 'Inactive'). Below these fields is a table titled 'Integration Type'. The table has one column, 'Name', and is currently empty, with a message 'No records found' at the bottom. To the right of the table is a vertical scrollbar. At the bottom of the window are two buttons: 'Save' (green) and 'Reset' (grey).

Fig. 8: Recording architecture - tab Details

Add integration type

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

Integration Type

×

Name

SIP passive

Add

Cancel

Fig. 9: 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 passive* 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 view.

Assign server for All-in-one Basic

1. 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. 10: Recording Architecture - tab Server Assignment

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

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

Rows per page 20 ▾

1 - 8 of 8






Add

Cancel

Fig. 11: Recording Architecture - assign server

- Select the entry of the corresponding 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.
- Activate the check box in front of the recording types for which you would like to use this server.

Recording type

☒ VoIP/Video

☐ TDM

☐ Screen




☐ Chat

Fig. 12: 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.

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.
3. To activate the recording architecture, click on the icon  (*Activate*).
 - ⇒ In the column *Active*, the icon  (*Active*) appears.





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

Fig. 13: 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 extension for the integration subsequently, you must deactivate the recording architecture and activate it again after having installed the license.

7.1.2.1.2 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:

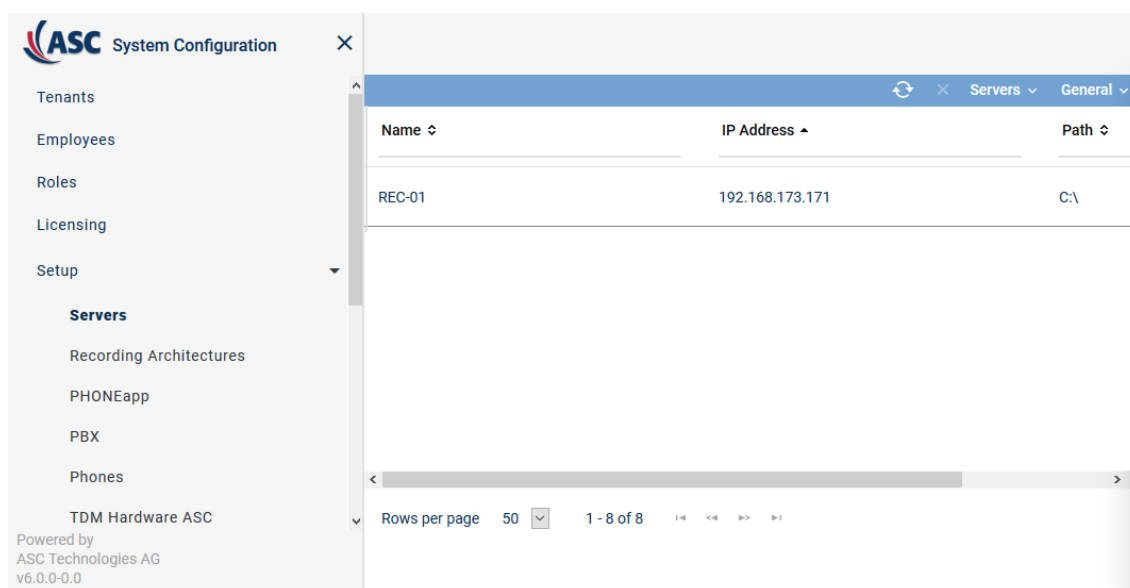


Fig. 14: Servers - main view

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. 15: Toolbar Servers module

	<i>Refresh</i>	Refreshes the main view.
	<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 chapter "Administrate server locations" , p. 22.
	<i>Administrate NTP Server</i>	Opens a window in which you can administrate the servers for the time synchronization, see chapter "Administrate NTP server" , p. 38.
	<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"> • <i>Displayed information</i> • <i>Order of the displayed columns</i> • <i>Number of rows per page</i>
<i>Save Table Configuration</i>	Saves the current table configuration of the main view as default view of the user.
<i>Search</i>	Opens the window of the search function. The search function allows searching systematically for sets of data which meet certain criteria.
<i>Reset Search</i>	Resets all search filters so that all sets of data are displayed in the main view again.
<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.

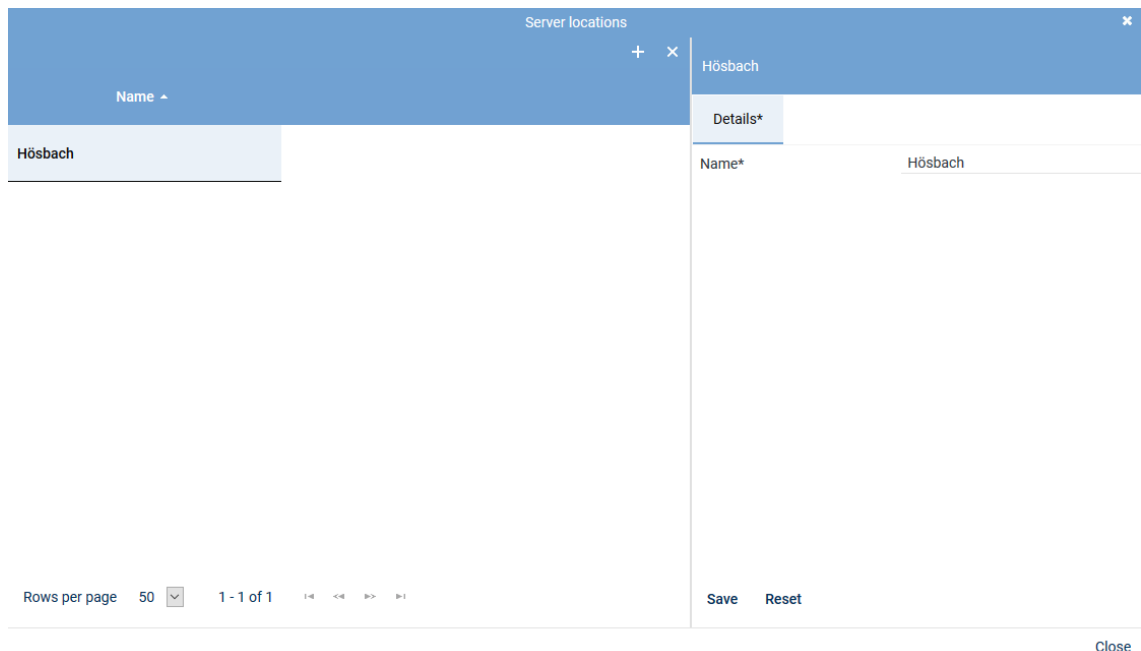



Fig. 16: Add server locations

- 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.

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.

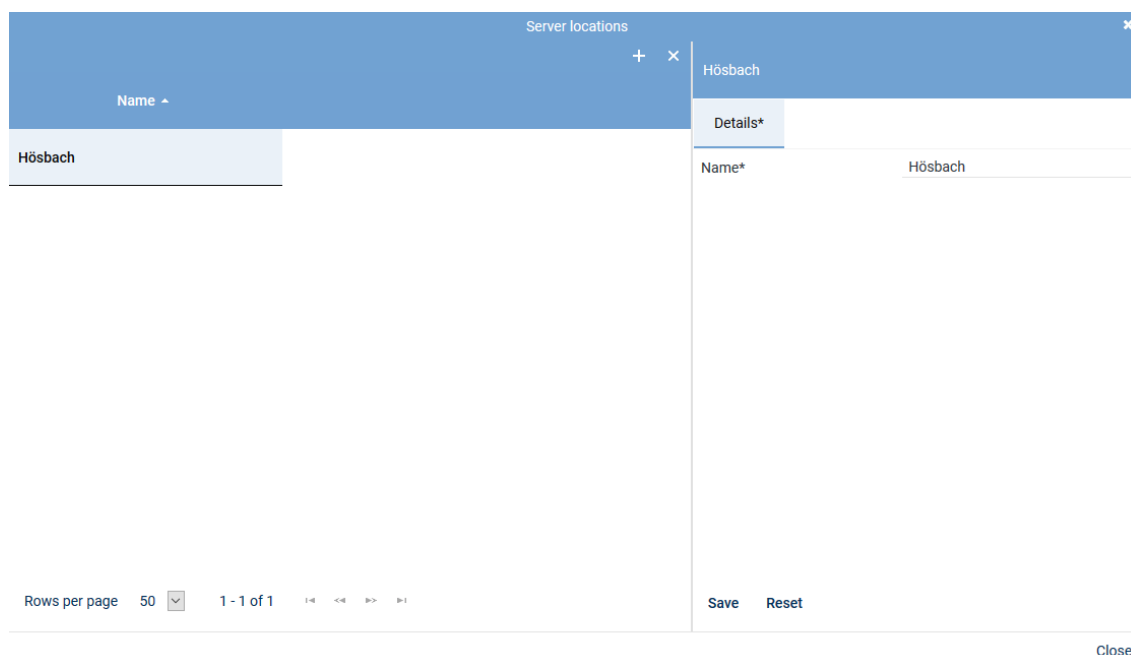



Fig. 17: Delete server location

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. 18: 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 purpose of usage.



Since a server can be used for several recording solutions, all purposes of use are listed. Note that some purposes of use do not apply for some recording solutions. As an example: You cannot use audio analysis or replay via phone in a chat recording.

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

API Server	▶
Audio Analysis	▶
Recording Control/Key Management	▶
Data Processing	▶
Replay	▶
Virtualization	▶

Fig. 19: Servers - tab Usage

Group field API Server

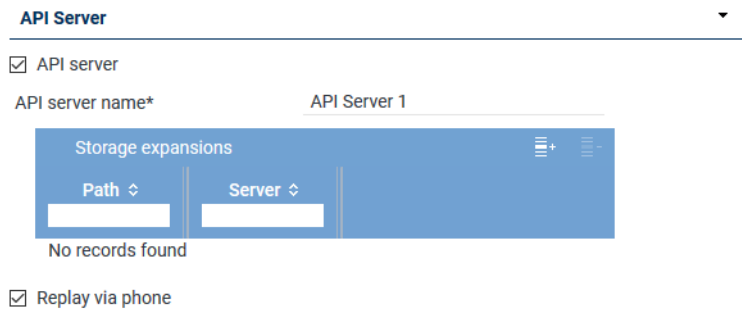


Fig. 20: Group field API Server


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 chapter "Tab Replay Server Address Mapping", p. 34.</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"> By clicking on the icon  (Add), you can add the storage expansions, see chapter "Add storage expansion for replay", p. 26.

Parameter	Value/Description
	<ul style="list-style-type: none"> By clicking on the icon  (<i>Remove</i>), you can remove the storage expansions from the list. <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>NOTICE! The function <i>Replay via phone</i> has been implemented in the following <i>neo</i> components:</p> <ul style="list-style-type: none"> Application POWERplay Pro Application POWERplay Instant Replay module <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>NOTICE! In the tab <i>Media Streamer</i>, you have to assign this function to a PBX, see chapter "Tab Media Streamer", p. 33. 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. 21: Select storage expansion

- 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 ▼

☒ Audio analysis (SAES mode)

Stream audio data from* + -

☐ Emotion detection

Stream audio data from* + -

Fig. 22: Group field Audio Analysis

Parameters	Value/Description
<i>Audio analysis</i>	<p>Activate this check box to use the server for audio analysis. The audio data is then streamed for audio analysis from the configured server to this server.</p> <ul style="list-style-type: none"> Stream audio data from From the list of available servers, select the server from which the audio data is supposed to be streamed for audio analysis via the button +.
<i>Emotion detection</i>	<p>Activate this check box to activate emotion detection for the audio analysis.</p> <p><input checked="" type="checkbox"/> = Function has been activated. Tenants can use the emotion detection function.</p> <p><input type="checkbox"/> = Function has not been activated.</p>

Tab. 5: Configure audio analysis

Group field Recording Control/Key Management

Recording Control/Key Management ▼

☒ Recording control/Monitoring

Recording architecture ▼

☒ neo key management

Fig. 23: Group field Recording Control/Key Management

Parameters	Value/Description
<i>Recording control/Monitoring</i>	<p>Activate the check box if you would like to use CLIENT<u>command</u> or an API recording control or if you would like to use <i>Monitoring</i>. This feature is only available if a recording architecture has been configured and activated.</p> <ul style="list-style-type: none"> Recording architecture From the drop-down list, select the respective recording architecture you would like to use for the control.
- <i>neo key management</i>	<p>The function allows customer-specific encryption of the recordings. To be able to configure the key management, you have to activate the check box <i>Key management</i>.</p> <p>This function can only be activated if the license <i>ASC_KEY_MANAGEMENT</i> is available.</p>

Parameters	Value/Description
	For further information about the configuration of the key management refer to the administration manual <i>Configuration of servers and recording architectures</i> and to the installation manual <i>Installation Dongle Manager</i> .

Tab. 6: 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. 24: 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"> By clicking on the icon  (Add), you can add the target server, see chapter "Add target server to a list", p. 30. By clicking on the icon  (Remove), you can remove the target server from the list. <p>NOTICE! Only those servers are displayed on which an API server and a replay server have been configured.</p>

Parameter	Value/Description
<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> <ul style="list-style-type: none"> By clicking on the icon  (<i>Add</i>), you can add the target server, see chapter "Add target server to a list", p. 30. By clicking on the icon  (<i>Remove</i>), you can remove the target server from the list. <p>NOTICE! 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"> 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. Active period of time <input type="checkbox"/> = Function has not been activated. <p>NOTICE! 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>	<p>Activate the check box <i>Archiving</i> if you would like to use the server for archiving purposes.</p>
<i>Export</i>	<p>Activate the check box <i>Export</i> to allow the export from this server.</p>
<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"> 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. <p>NOTICE! 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. 7: Configure data storage

Add target server to a list

1. In the toolbar of the list *Target Server*, click on the icon  (*Add*).
2. 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

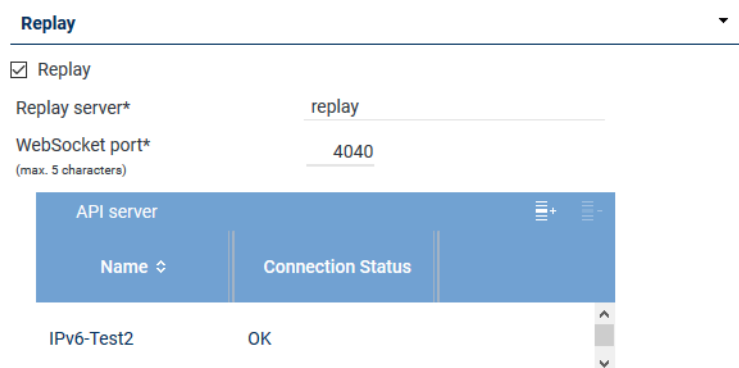
Fig. 25: Select server



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

3. 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. 26: Group field Replay

Parameter	Value/Description
Replay	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.

Parameter	Value/Description
	<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>
<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 API 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</i> (maximum of 5 characters)	Enter the port via which the data to be replayed in POWERplay Web are supposed to be transmitted.
<i>List</i> <i>API server</i>	<p>Here, you can add API servers 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 API servers 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"> • By clicking on the icon  (<i>Add</i>), you can add the API server, see chapter "Add API server to a list", p. 31. • By clicking on the icon  (<i>Remove</i>), you can remove selected API servers from the list.

Tab. 8: 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. 27: Select server



Only those servers are available on which the **API** service has been installed and activated. See [chapter "Group field API Server", p. 25](#).

3. 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

Virtualization ▼

☐ VM support

Fig. 28: 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. 9: 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.

1. 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.

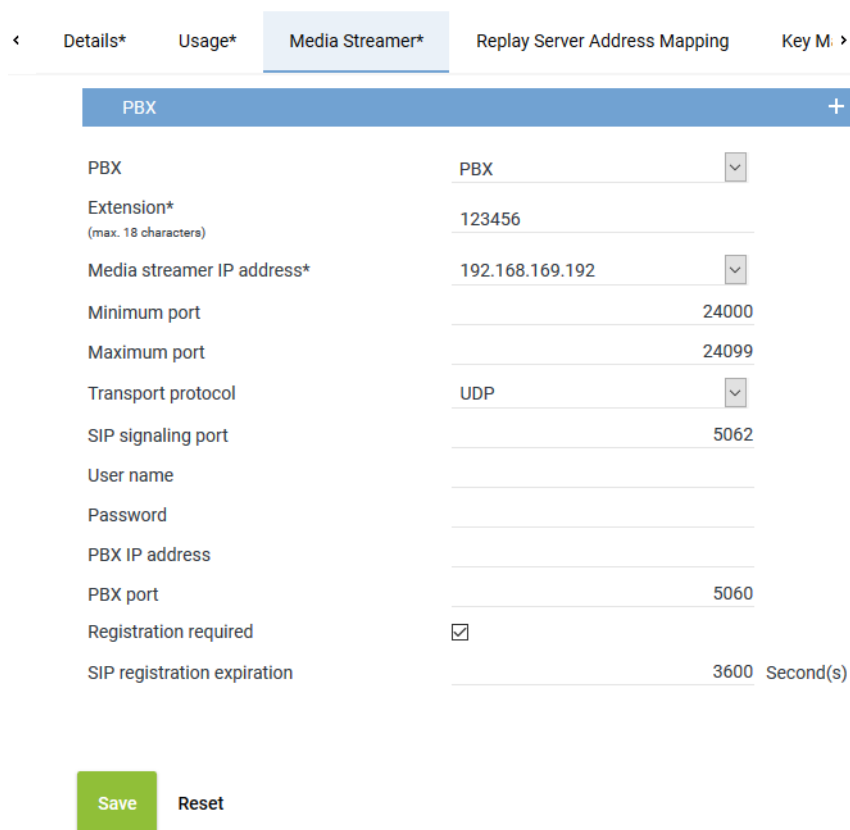
Tab Media Streamer

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*	123456	
(max. 18 characters)		
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. 29: Servers module - tab Media Streamer

2. Enter the following parameters:

PBX	<p>PBX that the Media Streamer is supposed to be mapped to.</p> <p>Select a PBX from the drop-down list. The drop-down list displays all PBXs which have been created in the system.</p> <p>If no PBX has been created in the system yet, you can create a PBX via the blue bar PBX, see chapter "Create PBX", p. 39.</p>
Extension	<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 8000.</p>

<i>Media streamer IP address</i>	<p>IP address which is supposed to be used for the exchange of the audio data and for the SIP 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 169.254.254.100 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>	<p>Enter the maximum port which is supposed to be used for the audio data exchange.</p> <p>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.</p>
<i>Transport protocol</i>	<p>Select the transport protocol type you would like to use for the SIP communication from the drop-down list.</p> <p>TCP = unencrypted UDP = unencrypted TLS = encrypted</p> <p>If an external analog gateway has been integrated, select UDP in the drop-down list.</p>
<i>SIP signaling port</i>	<p>Enter the port for the SIP communication.</p> <p>Port for data exchange: 5062</p>
<i>User name</i>	Enter the user name for the authentication on the SIP server.
<i>Password</i>	Enter the password for the authentication on the SIP server.
<i>PBX IP address</i>	<p>Enter the IP address of the SIP registrar of the PBX.</p> <p>If an external analog gateway has been integrated, enter the IP address 169.254.254.101.</p>
<i>PBX port</i>	<p>Enter the port of the SIP registrar of the PBX.</p> <p>If an external analog gateway has been integrated, enter the value 5060.</p>
<i>Registration required</i>	<p>Select whether the SIP extension has to be registered with the SIP registrar of the PBX.</p> <p><input checked="" type="checkbox"/> = SIP extension has to be registered. <input type="checkbox"/> = SIP extension does not have to be registered.</p> <p>If an external analog gateway has been integrated, deactivate the check box Registration required.</p>
<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*.

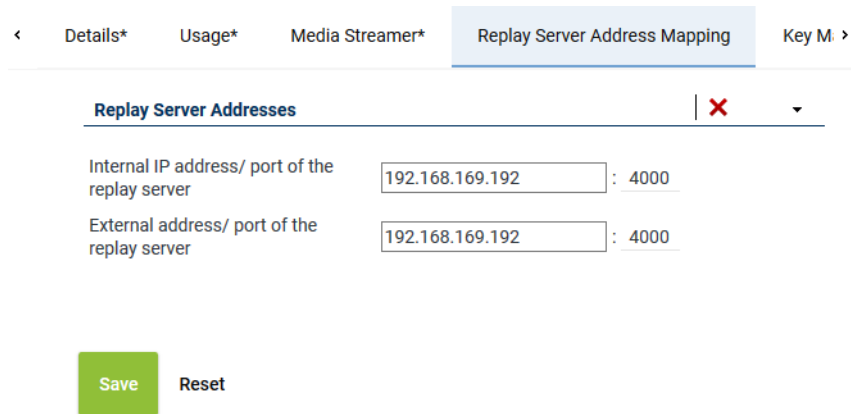


Fig. 30: Servers Module - tab Replay Server Address Mapping

Group field Replay Server Addresses

1. Enter the following parameters:

<i>Internal IP address/ port of the replay server</i>	Enter the destination IP 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 URL or the IP 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. 31: 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"> • <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 • <i>Create key manually</i> Select that a key is supposed to be generated manually. <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.

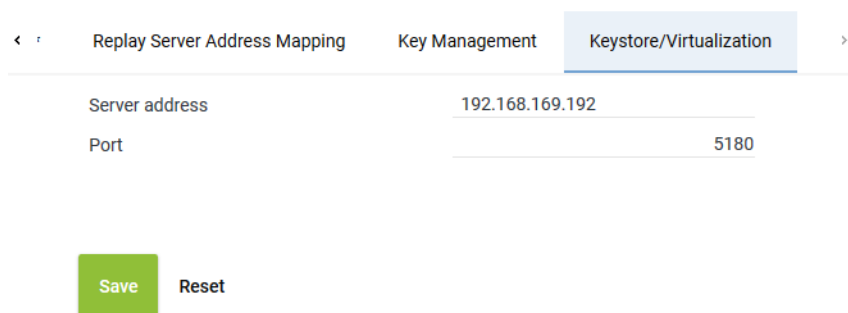
In this tab, you can configure the connection data for the service *DongleMan* for the neo key management and for the authentication of the VM.



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*.



The screenshot shows a configuration interface with three tabs: 'Replay Server Address Mapping', 'Key Management', and 'Keystore/Virtualization'. The 'Keystore/Virtualization' tab is active. It contains two input fields: 'Server address' with the value '192.168.169.192' and 'Port' with the value '5180'. Below these fields are two buttons: a green 'Save' button and a grey 'Reset' button.

Fig. 32: 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

	<ul style="list-style-type: none"> 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*.

Administrate NTP server

The recording system works with an **NTP**-based time synchronization. The function *Administrate NTP server* allows defining several **NTP** servers. Every server in the system identifies all **NTP** servers configured within the system and can use any **NTP** server for time synchronization. That way, every server can connect immediately to another **NTP** server if its current **NTP** server connection breaks down.

Add NTP server

- Select the menu item *Servers > Administrate NTP Server* in the toolbar of the main view.
⇒ The window *NTP Server* appears.

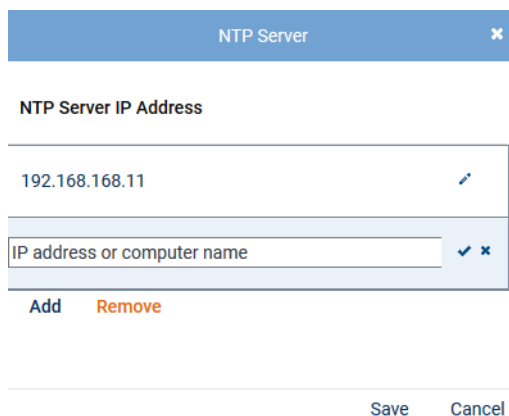





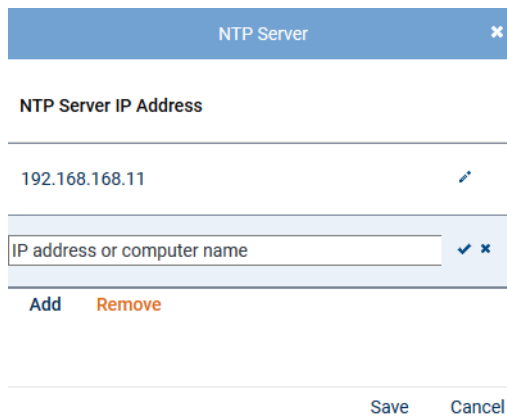
Fig. 33: Add NTP server

The list displays all NTP servers that have been configured during the installation.

- To add a server, click on the button *Add*.
- In the newly added row, click on the icon  (*Edit*).
- Enter the **IP** address or the name of the **NTP** server in the entry field.
- To save the entry in the row, click on the icon  (*Save*).
To discard the entry in the row, click on the icon  (*Discard*).
- To save all changes in the list, click on the button *Save*.
To discard the changes and close the window, click on the button *Cancel*.




Edit IP address

- Select the menu item *Servers > Administrate NTP Server* in the toolbar of the main view.
⇒ The window *NTP Server* appears.



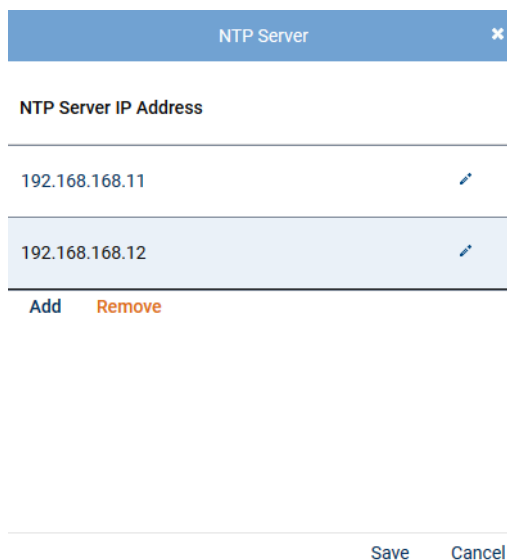
The screenshot shows a window titled "NTP Server" with a close button (X). Below the title bar, the text "NTP Server IP Address" is displayed. A table contains one row with the IP address "192.168.168.11" and an edit icon (pencil). Below the table is a search bar labeled "IP address or computer name" with a checkmark and an X icon. At the bottom of the window are two buttons: "Add" and "Remove".

Fig. 34: Edit IP address

2. Click on the icon  (*Edit*) in the row with the IP address that you would like to edit.
3. Change the entry in the entry field.
4. To save the change, click on the icon  (*Save*).
To discard the change, click on the icon  (*Discard*).
5. To save the changes, click on the button *Save*.
To discard the changes and close the window, click on the button *Cancel*.

Remove NTP server

1. Select the menu item *Servers > Administrate NTP Server* in the toolbar of the main view.
⇒ The window *NTP Server* appears.



The screenshot shows a window titled "NTP Server" with a close button (X). Below the title bar, the text "NTP Server IP Address" is displayed. A table contains two rows, each with an IP address and an edit icon (pencil). The first row has "192.168.168.11" and the second row has "192.168.168.12". Below the table are two buttons: "Add" and "Remove".

Fig. 35: Remove NTP server

2. In the list, select the NTP server that you would like to remove.
3. Click on the button *Remove*.
⇒ The NTP server is removed from the list.
4. To save the change, click on the button *Save*.
To discard the change and close the window, click on the button *Cancel*.

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:

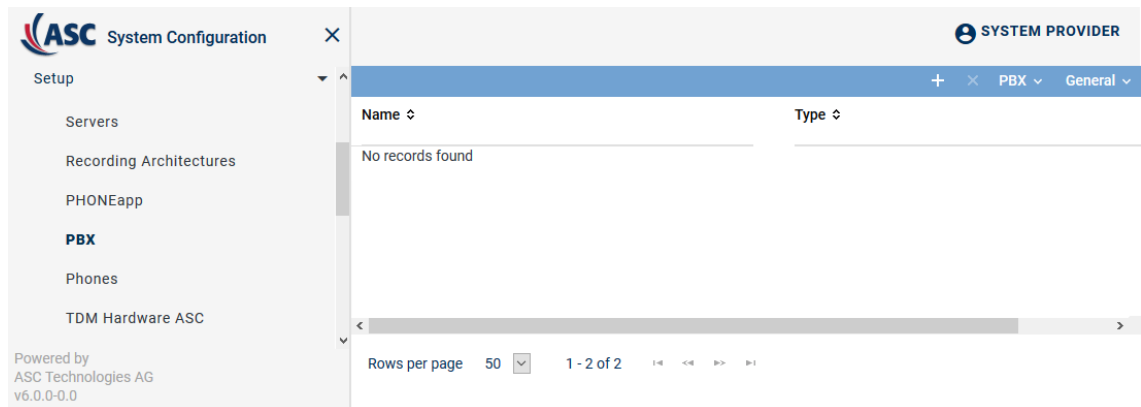




Fig. 36: Create new PBX

Toolbar of the PBX module

The toolbar offers the following functions.



Fig. 37: 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"> • <i>Displayed information</i> • <i>Order of the displayed columns</i> • <i>Number of rows per page</i>
	<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

1. 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. 38: Create new PBX - tab Details

2. 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 PBX 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: <ul style="list-style-type: none"> <i>Select from list</i> Select the country code from the drop-down list. <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>.
<i>Area code</i>	Enter the area code without the preceding 0, e. g. 6021.
<i>Net code</i>	Enter the net code, e. g. 5963. Do not enter an extension here.

Tab. 10: Create PBX

In the PBX module, there are advanced functions which cannot be configured in the Integrations module.

The following parameters are available additionally for the passive recordings and have to be configured with the corresponding IP or MAC addresses of the customer's network for a correct recording:

<i>Non Phone IPs</i>	<p>The <i>Non Phone IPs</i> entered here are not treated as end device or participant to be recorded. Activities with these IPs are processed but not considered as independent phones. If, for instance, the Media Gateway is not entered here, it will be interpreted as if it was a phone and all parallel conversations will be recognized as a conference while sniffing. In general the Gateway is a <i>NonPhone</i> and the PBX an <i>Ignore IP</i>.</p> <p>Enter the media gateway, for instance.</p>
<i>IPs to be Ignored</i>	<p>The IP addresses entered here are ignored completely. Enter the PBX, for instance, to ignore the music-on-hold data since a hold could otherwise be considered as a connect of an unknown participant.</p> <p>Enter the IP addresses of all devices which are not supposed to be sniffed,</p> <p>e. g. PBX, music-on-hold servers, phones.</p> <p>NOTICE! If you have configured the same IP address for several components, you must not enter it as <i>IPs to be Ignored</i>, otherwise they are ignored completely and not treated as <i>Non Phone IPs</i> anymore.</p>
<i>MACs to be Ignored</i>	<p>The MAC addresses entered here are ignored completely.</p> <p>If you work with MAC addresses, enter the MAC addresses of all devices which are not supposed to be sniffed,</p> <p>e. g. PBX, music-on-hold servers, phones.</p>

A passive recording can only work properly if all components of the customer's network have been entered which are not supposed to be recorded.



All components which are no phones but nevertheless participate in the transmission of audio data, e. g. gateways, must be configured as *Non Phone IPs*.

All components of the customer's network which are not supposed to be recorded must be entered as *IPs to be Ignored* with their respective IP addresses or MAC addresses. These IP addresses are ignored completely and not processed any further.

3. 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.

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

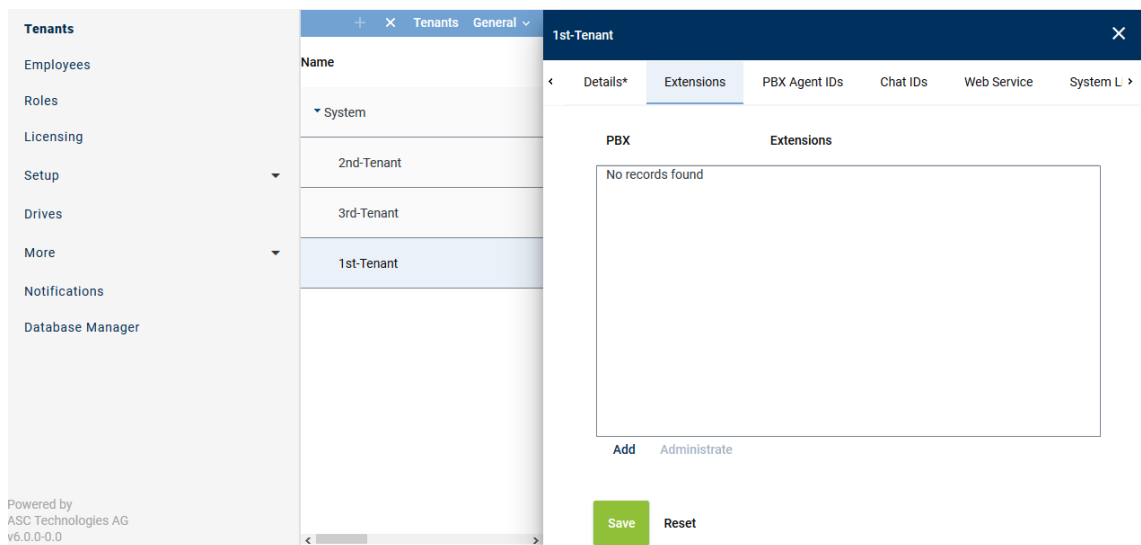


Fig. 39: Tenants - main view - tab Extensions

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:

Add Extensions
✕

PBX

PBX

☐ File import

☐ File contains a headline

File name ...

☒ Manual entry

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

6000-6999

☐ Replace existing list of extensions

Add
Cancel

Fig. 40: Assign extensions to tenants

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

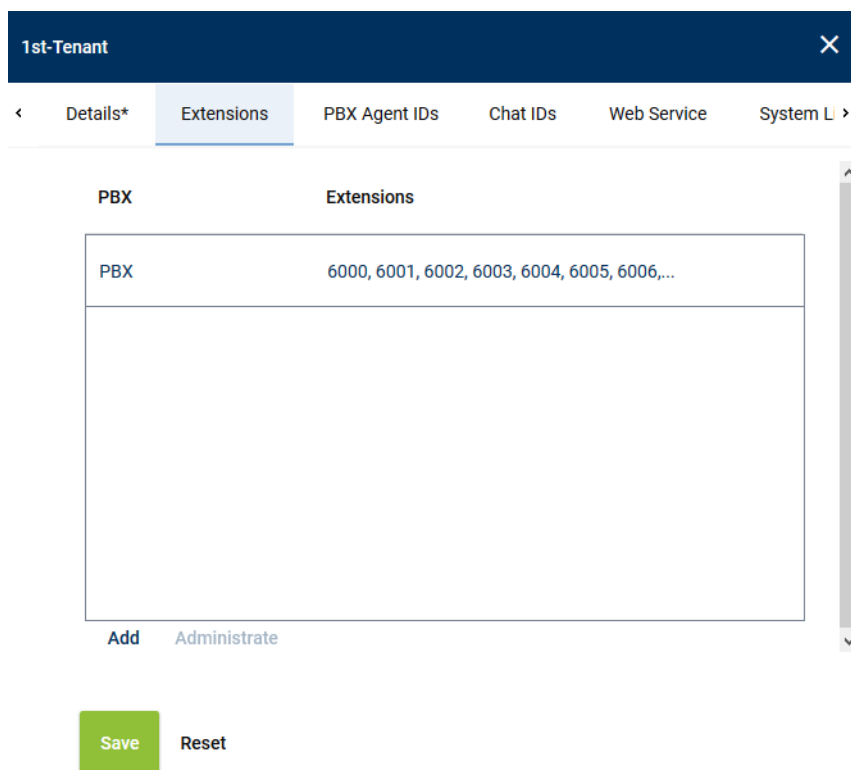
<i>File import</i>	<p>Select this option to import extensions from an existing CSV file and add them to the table of extensions.</p> <p><i>File contains a headline</i></p> <p>Activate this option so that this structured is recognized correctly when importing the file.</p> <p>The CSV file may not contain more than 1 column. If commas or other column delimiters are found in the CSV file, then the file is not valid and an error message appears.</p> <p>Only ZIP files are supported as file format. To be able to import a CVS file, you have to pack it in a ZIP file.</p> <p><i>File name</i></p> <p>To import the file, proceed as follows:</p> <ul style="list-style-type: none"> Click on the button ... behind the field <i>File name</i>. Click on the button <i>Choose File</i>. Select the respective ZIP file via the Explorer and click on the button <i>Open</i>. Click on the button ↗ <i>Upload File</i>.
<i>Manual entry</i>	<p>Select this option to enter extensions or extension ranges manually.</p> <p>Enter the extension range that is reserved for this tenant using a hyphen, e. g. from 6000 to 6999. Alphanumerical entries with a hyphen are not detected as a range, they must be entered individually.</p> <p>You can separate the different extensions and extension ranges by the delimiters indicated in the screenshot.</p> <p>NOTICE! Wildcards cannot be used!</p>
<i>Replace existing list of extensions</i>	<p>Activate the check box to replace the list of extensions.</p> <p><input checked="" type="checkbox"/> = Function has been activated; the entry replaces the extensions of the selected PBX.</p>

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

5. Click on the button *Add*.
⇒ The extensions are added in the table of extensions.
6. 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*.
7. The configured extensions now appear in the detail view.
8. Click on the button *Save* in the detail view to save the entries.

Remove extensions

1. 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. 41: 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.

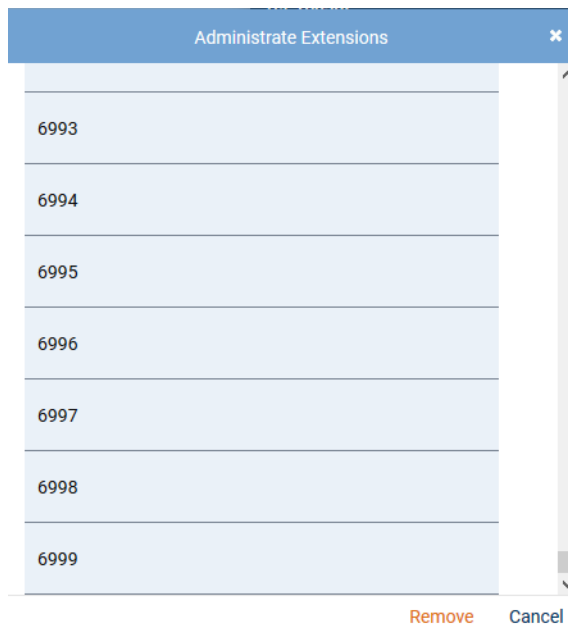


Fig. 42: Select extensions

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

Assign PBX Agent IDs to tenants

If the information about PBX Agent IDs is delivered by the PBX, you can make an assignment by means of the PBX Agent IDs. In this case, you can assign the respective tenant the PBX Agent IDs designated for recording in the Tenants module.



In 1-tenant systems, the PBX Agent IDs are automatically assigned to the tenant who has been created by the system (1st tenant). PBX Agent IDs 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 PBX Agent IDs 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 PBX Agent IDs is not possible until a PBX has been created since the assignment is PBX-related.

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

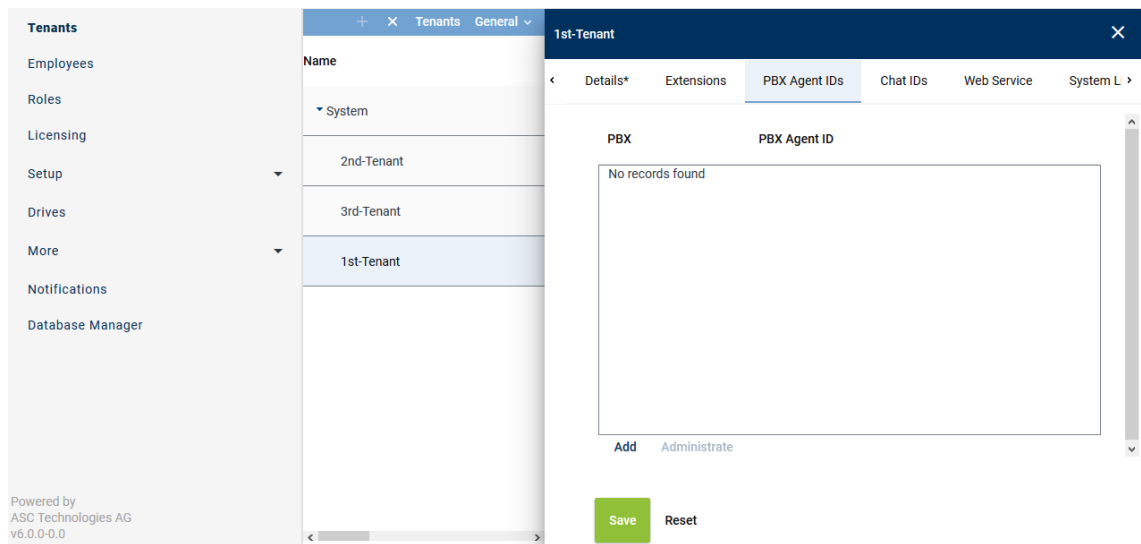


Fig. 43: Tenants - main view - tab PBX Agent ID

Add PBX Agent ID

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

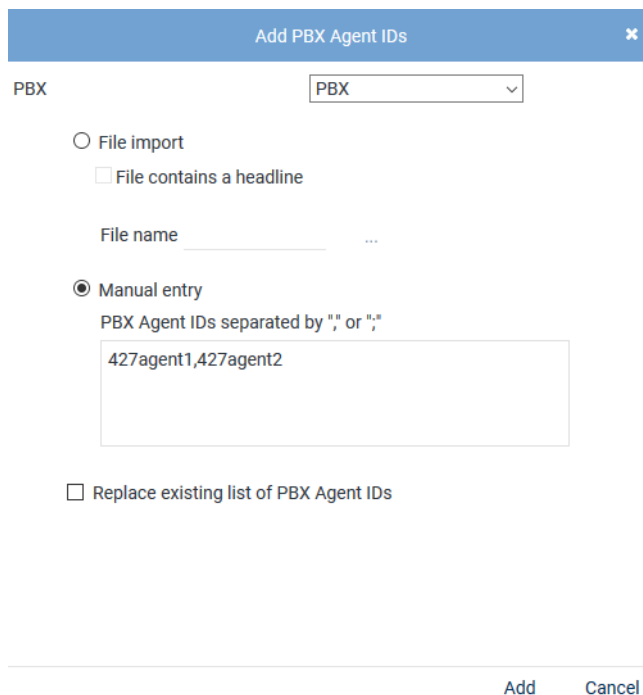


Fig. 44: Assign PBX Agent IDs to tenants

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

<i>File import</i>	Select this option to import the PBX Agent IDs from an existing CSV file and add them to the table of PBX Agent IDs.
<i>File contains a headline</i>	

	<p>Activate this option so that this structured is recognized correctly when importing the file.</p> <p>The CSV file may not contain more than 1 column. If commas or other column delimiters are found in the CSV file, then the file is not valid and an error message appears.</p> <p>Only ZIP files are supported as file format. To be able to import a CSV file, you have to pack it in a ZIP file.</p>
	<p><i>File name</i></p> <p>To import the file, proceed as follows:</p> <ul style="list-style-type: none"> • Click on the button ... behind the field <i>File name</i>. • Click on the button <i>Choose File</i>. • Select the respective ZIP file via the Explorer and click on the button <i>Open</i>. • Click on the button Upload File.
<i>Manual entry</i>	<p>Select this option to enter PBX Agent IDs manually.</p> <p>You can separate the individual PBX Agent IDs by the delimiters indicated in the screenshot.</p> <p>NOTICE! Wildcards cannot be used!</p>
<i>Replace existing list of PBX Agent IDs</i>	<p>Activate the check box to replace the list of PBX Agent IDs.</p> <p><input checked="" type="checkbox"/> = Function has been activated; the entry replaces the PBX Agent IDs of the selected PBX.</p> <p><input type="checkbox"/> = Function has not been activated; the configured PBX Agent IDs of all PBXs are kept and the new PBX Agent IDs are added to the selected PBX.</p>

- Click on the button *Add*.
⇒ The PBX Agent IDs are added to the table of PBX Agent IDs.
- 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 PBX Agent IDs now appear in the detail view.
- Click on the button *Save* in the detail view to save the entries.

Remove PBX Agent ID

- In the list, select the **PBX** for which you would like to remove the assigned PBX Agent IDs.
- Click the button *Administrate*.
- Select one or several PBX Agent IDs you would like to remove from the assignment.
To select several PBX Agent IDs or to revoke the selection, click on the respective line while holding the [Ctrl] key down.

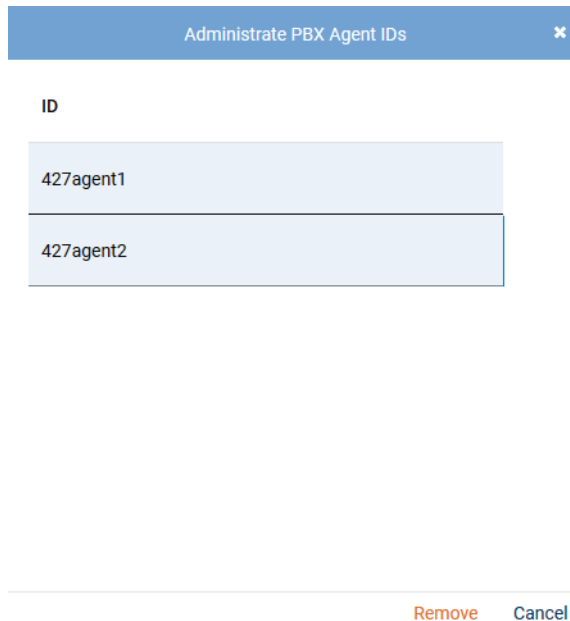


Fig. 45: Select PBX Agent IDs

- To remove the selected PBX Agent IDs, 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.

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

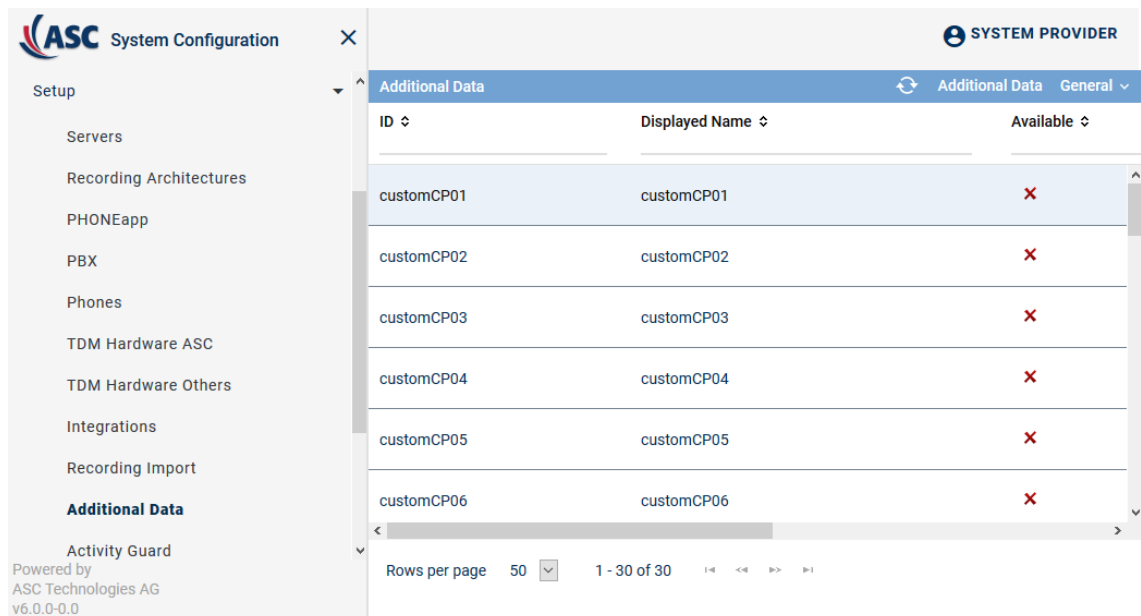


Fig. 46: Additional Data module main view

- 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. 47: 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. 48: 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:

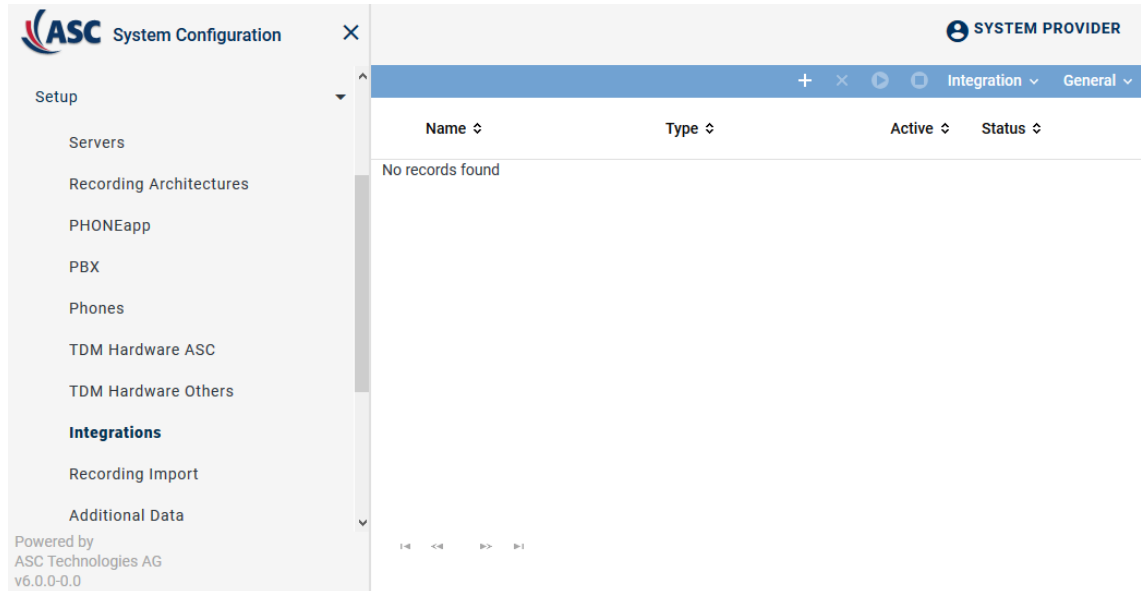




Fig. 49: Integrations - main view

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





Name	Name of the integration
Type	Type of the integration
Active	Shows whether the integration has been activated and is used for the recording. <div> ✓ = 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 . </div>
Status	Shows whether the configuration has been carried out completely. <div> ✓ = Configuration is complete. ✗ = Configuration is incomplete. </div>

Toolbar of the Integrations module

The toolbar offers the following functions.



Fig. 50: Toolbar Integrations module

	Create	Opens the detail view so that you can create a new integration.
	Delete	Deletes the selected integration. The integration can only be deleted if it has been deactivated.
	Activate	Activates the selected integration. The integration can only be activated if it has been configured completely.
	Deactivate	Deactivates the selected integration. This stops running recordings.

<i>Integration</i>	<i>Import Grammar</i>	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.
<i>General</i>	<i>General Help</i>	Opens the online help.
	<i>Module Help</i>	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.

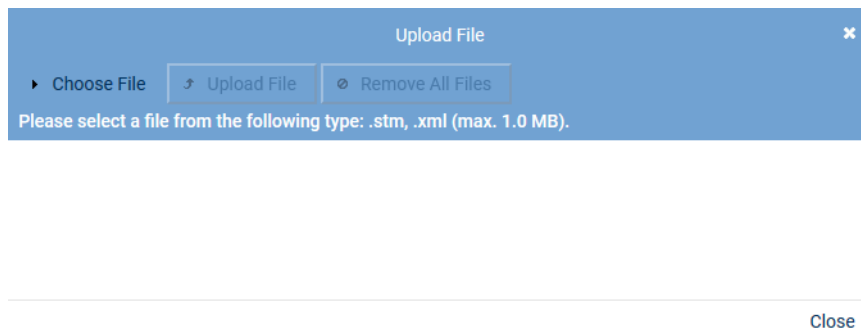


Fig. 51: Choose file

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*.

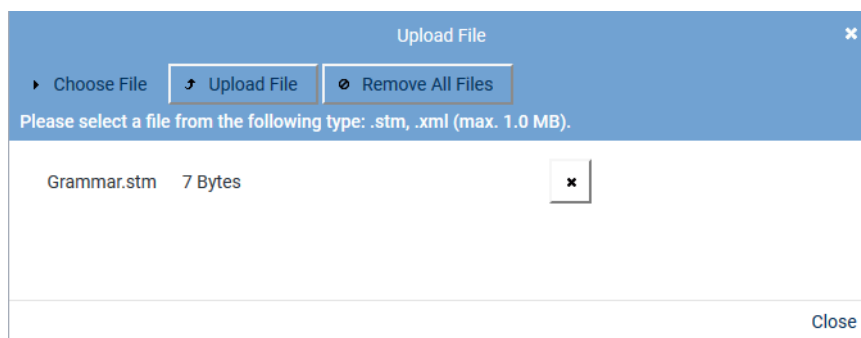




Fig. 52: Upload grammar

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.

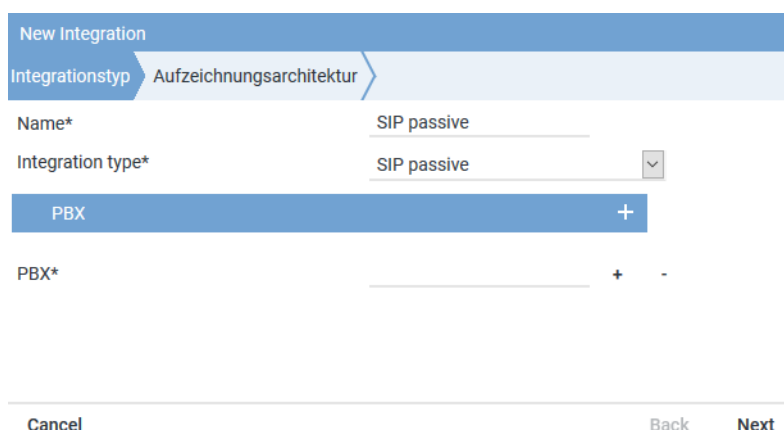


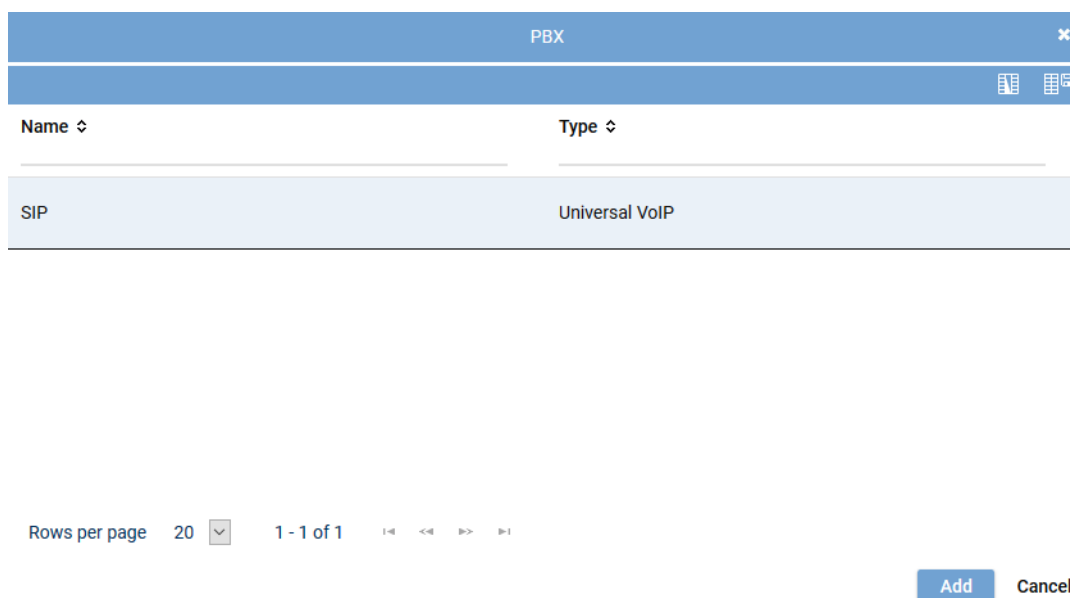
Fig. 53: Create integration type

2. Enter the following parameters:

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

Tab. 11: Create integration type

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



Name	Type
SIP	Universal VoIP

Fig. 54: Integrations - select PBX

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

Assign recording architecture for All-in-one Basic

1. 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. 55: 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 passive	SIP passive		
Step		Configuration		
	Configure recording architecture			
	Configure recording servers			
	Configure add-on			
	Configure miscellaneous settings			

Fig. 56: 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.

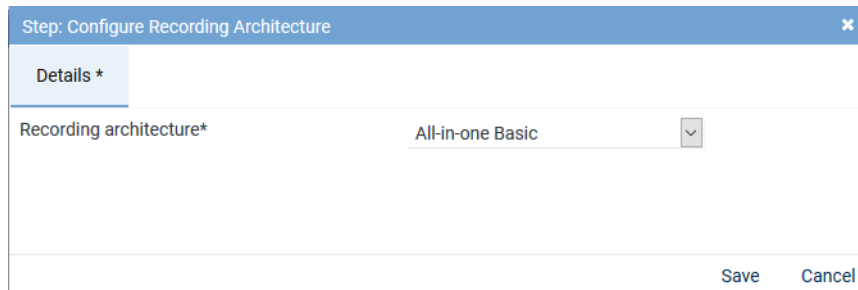



Fig. 57: Configuration step - Configure Recording Architecture

- 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.

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.

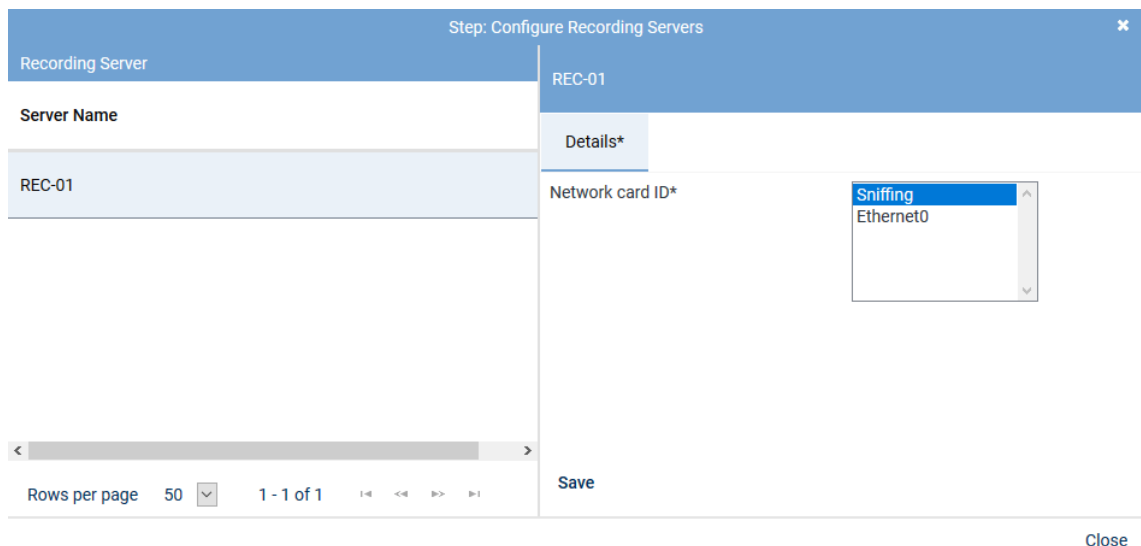


Fig. 58: Configuration step - Configure recording servers

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

Parameter	Value/Description
<i>Network card ID</i>	From the list field, select the network card you would like to sniff the SIP and the RTP audio data with.

Tab. 12: Configure recording servers

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



If you use several passive integrations in one recording architecture, you must assign a different network card to each recording server in the configuration step *Configure recording servers*.



If a network card for passive VoIP recording is added in a system in a virtualized environment and does not appear in the selection of available network card IDs, then you have to reboot the server.

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 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

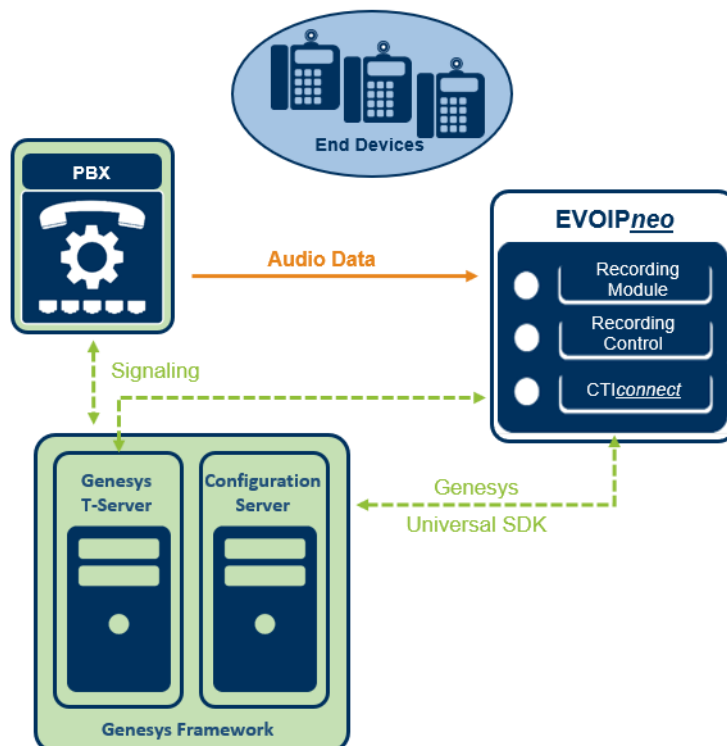


Fig. 59: Overview of the add on of Genesys T-Server



For further information about the configuration of Genesys T-Servers, see [chapter "Configure Genesys T-Server \(optional\)"](#), p. 73.

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. 60: Configure add-on for Genesys T-Server

Group field CTIconnect Module

1. Enter the following parameters:

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

Parameter	Value/Description
<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. 13: 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.

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

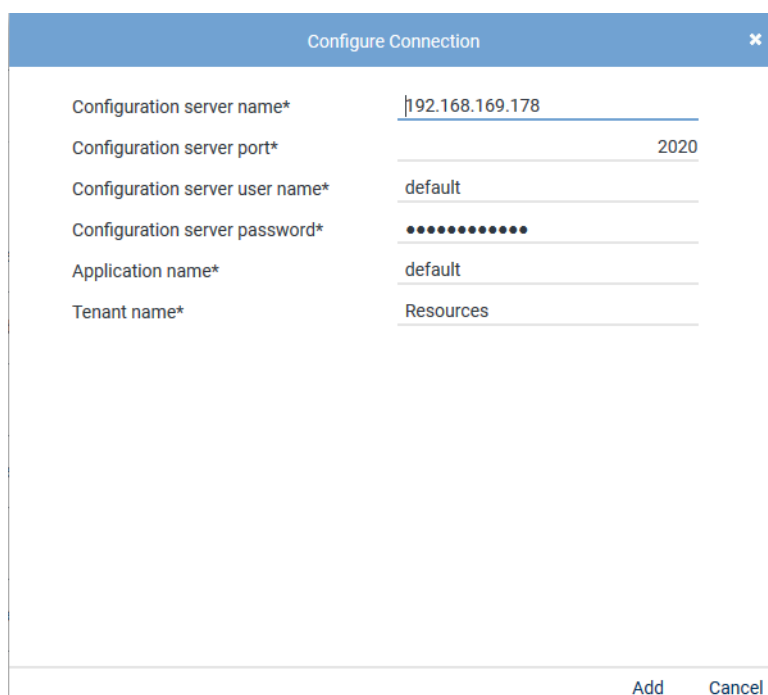


Fig. 61: Configure connection data

- 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.
<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.

Parameter	Value/Description
<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. 14: 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.

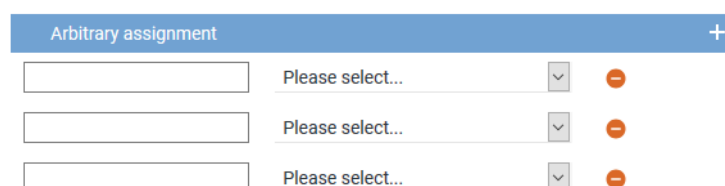
For further information about the configuration of the additional data refer to the administration manual *Additional Data module*.



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. 62: 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 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

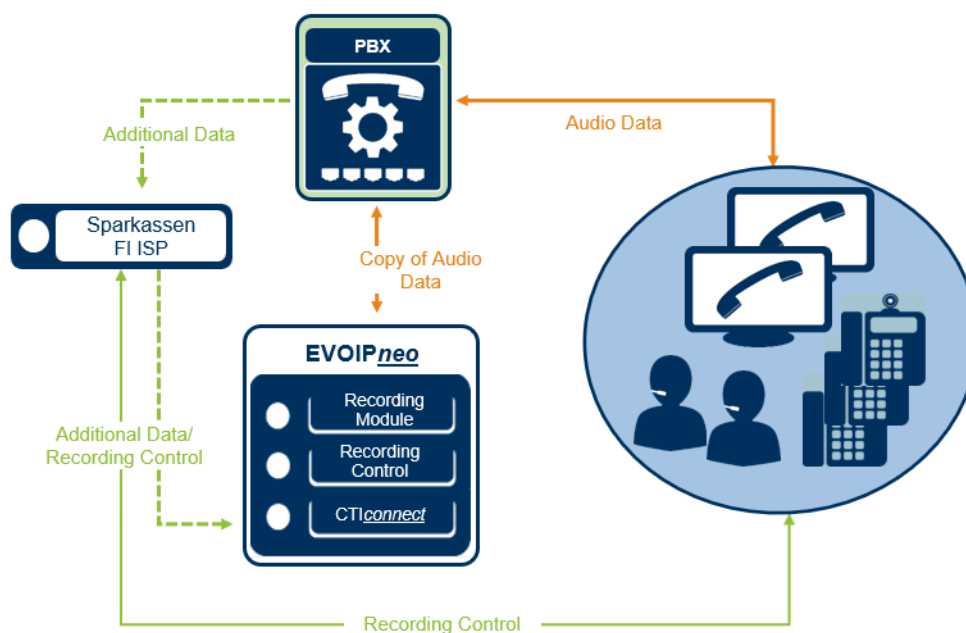



Fig. 63: Overview of Sparkassen FI ISP

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

TypeCTIconnect passive
Grammar name*ISP Sparkassen FI
Grammar version*1.00.05

Connection Data

Listener port*3468

Additional Data

ID des Call CentersCall Center ID
ID des Calls aus GenesysUniversal Call ID
Anmeldename des KundenUser name
Name des KundenCustomer name
Personennummer des KundenCustomer ID

Arbitrary assignment

Please select...
Please select...
Please select...

SaveCancel

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	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. 15: 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. 52](#).

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. 16: 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.

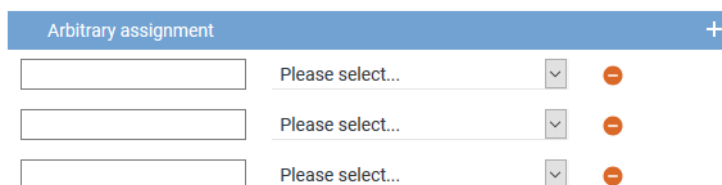



Fig. 65: Arbitrary assignment of the additional data

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 OSCC Campaign Director (optional)

The add-on refers to the usage of the OpenScape Contact Center Campaign Director and thus must only be configured if the add-on 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 recording plug-in in the OpenScape Contact Center Campaign Director and sends the additional data to the EVOIPneo recording service.

For information about the configuration of the OpenScape Contact Center Campaign Director, see [chapter "Install OpenScape Contact Center Campaign Director \(optional\)", p. 10](#).

1. Select the add-on OpenScape Contact Center Campaign Director in the detail view.

Step: Configure Add-on
✕

Details *

Select add-on

☐ None

☒ OpenScape Contact Center Campaign Director

CTIconnect Module

Type	CTIconnect passive
Grammar name*	standard ▼
Grammar version*	1.00.08 ▼

Connection Data ▼

Connection data

192.168.173.25

Add
Edit
Delete

Additional Data ▼

Arbitrary assignment
+

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

Save Cancel

Fig. 66: Configure add-on for OSCC Campaign Director

Group field CTIconnect Module

- Enter the following parameters for the grammar:

Parameter	Value/Description
Type	Is filled automatically.
Grammar name	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. 17: Configure CTIconnect module

Group field Connection Data

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

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

Configure Connection
✕

Connection data*

192.168.173.25

PBX port*

1040

Add
Cancel

Fig. 67: Configure connection data

2. Enter the following parameters:

Parameter	Value/Description
<i>Connection data</i>	Enter the IP address or the server name of the PBX which is used for the CTI connection, e. g. <i>192.168.173.25</i> .
<i>PBX port</i>	Enter the port of the CTI connection, e. g. <i>1040</i> .

Tab. 18: Configure connection data

3. Click on the button *Add* to apply the entries and to close the window.
4. If you use additional modules, another device group or multiple connections, repeat the configuration steps accordingly.

Group field Additional Data

The following additional data is delivered in the protocol when using OpenScope Contact Center Campaign Director:

- *CustomerId*
- *CustomerName*
- *CustomerPhone*
- *CampaignName*
- *QueueName*
- *DialerCode*
- *EndInfo*

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.

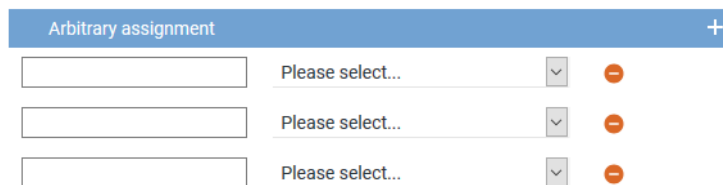



Fig. 68: Arbitrary assignment of the additional data

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

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

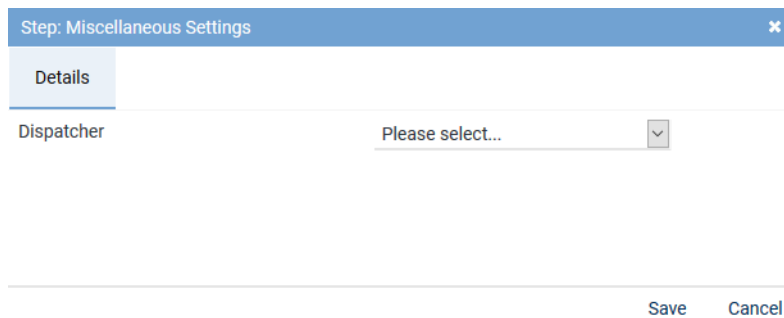


Fig. 69: Configure miscellaneous settings

- 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*.






	SIP passive	SIP passive		
Step	Configuration			
Configure recording architecture				
Configure recording servers				
Configure add-on				
Configure miscellaneous settings				

Fig. 70: 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 passive	SIP passive	✓	✓

Fig. 71: 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 passive	SIP passive	✗	✓

Fig. 72: Deactivate integration

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

7.1.2.2 Adjust ASC configuration file

Some parameters cannot be configured via the graphic interface but have to be adjusted in the configuration files.

To have additional data issued from the protocol, you have to adjust the configuration file of the Recording module.

7.1.2.2.1 Adjust Recording module

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`.

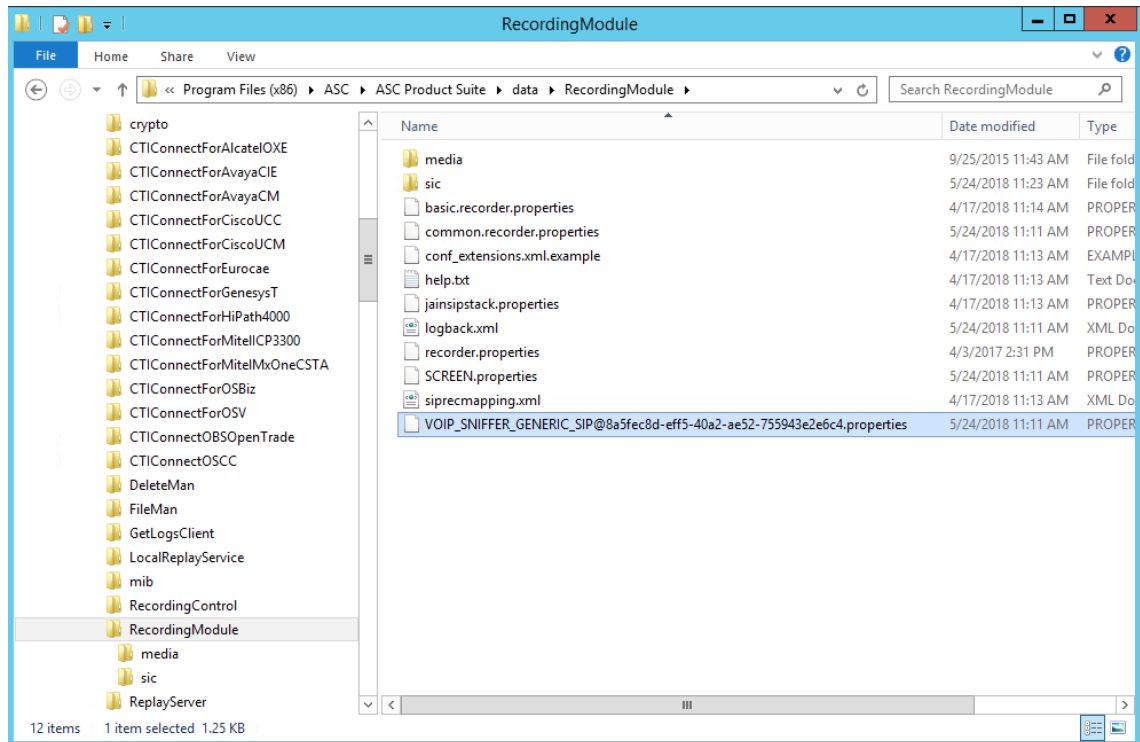
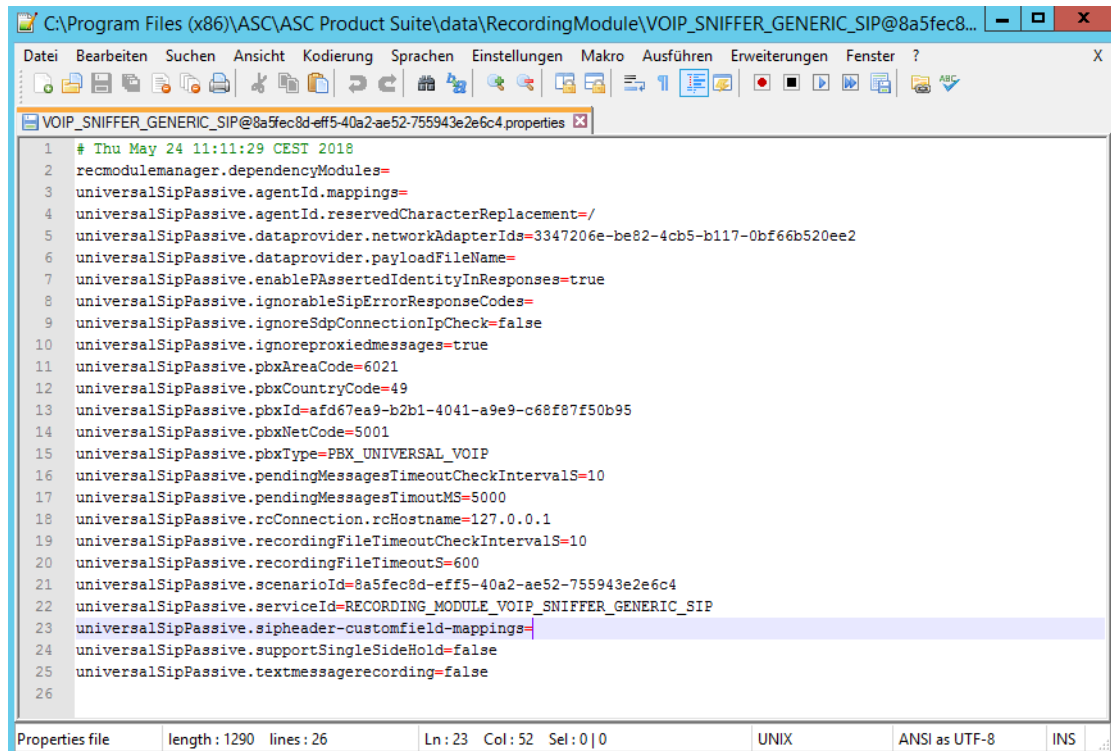


Fig. 73: Path to the configuration file

2. Open the file `VOIP_SNIFFER_GENERIC_SIP@<UUID>.properties` in the Editor.



```

1 # Thu May 24 11:11:29 CEST 2018
2 recmodulemanager.dependencyModules=
3 universalSipPassive.agentId.mappings=
4 universalSipPassive.agentId.reservedCharacterReplacement=/
5 universalSipPassive.dataprovider.networkAdapterIds=3347206e-be82-4cb5-b117-0bf66b520ee2
6 universalSipPassive.dataprovider.payloadFileName=
7 universalSipPassive.enablePAssertedIdentityInResponses=true
8 universalSipPassive.ignorableSipErrorResponseCodes=
9 universalSipPassive.ignoreSdpConnectionIpCheck=false
10 universalSipPassive.ignoreproxiedmessages=true
11 universalSipPassive.pbxAreaCode=6021
12 universalSipPassive.pbxCountryCode=49
13 universalSipPassive.pbxId=afd67ea9-b2b1-4041-a9e9-c68f87f50b95
14 universalSipPassive.pbxNetCode=5001
15 universalSipPassive.pbxType=PBX_UNIVERSAL_VOIP
16 universalSipPassive.pendingMessagesTimeoutCheckIntervals=10
17 universalSipPassive.pendingMessagesTimeoutMS=5000
18 universalSipPassive.rcConnection.rcHostname=127.0.0.1
19 universalSipPassive.recordingFileTimeoutCheckIntervals=10
20 universalSipPassive.recordingFileTimeoutS=600
21 universalSipPassive.scenarioId=8a5fec8d-ef5-40a2-ae52-755943e2e6c4
22 universalSipPassive.serviceId=RECORDING_MODULE_VOIP_SNIFFER_GENERIC_SIP
23 universalSipPassive.sipheader-customfield-mappings=
24 universalSipPassive.supportSingleSideHold=false
25 universalSipPassive.textmessagerecording=false
26

```

Fig. 74: Configure parameters

3. Search for the entry `universalSipPassive.sipheader-customfield-mappings=`.
4. Enter a regular expression here.
5. For the information from the SIP header to be issued in the additional data fields in the replay applications, you have to go to the Additional Data module to map the fields from the SIP header to the customCP fields, see [chapter "Configure additional data", p. 49](#).

Example:

```

# sipheader-customfield-mappings= <custom field definition>['<custom field definition>']*
# <custom field definition> ::= <tag definition>|'<source definition>|'<reg ex pattern>
# <tag definition> ::= <RC tag name definition> | <pattern group names use indicator>
# <RC tag name definition> ::= 'customCP'[0-9]*
# <pattern group names use indicator> ::= 'group-names'
# <source definition> ::= (<SIP header name> | 'content')[':'<source SIP message type list>]
# <SIP header name> ::= any valid SIP header name
# <source SIP message type list> ::= <SIP message type>['<SIP message type>']*
# <SIP message type> ::= <SIP request method> | <SIP response code>
# <SIP request method> ::= any valid SIP request method like INVITE, ACK, INFO...
# <SIP response code> ::= any numeric SIP response code like 100, 180, 183, 200 ...
# <reg ex pattern> ::= Java regular expression, may contain group names as tag names when
'group-names' is set as <tag definition>

```

1. Example 1:
To have the Lync Conference ID issued in the field *customCP02*, enter the following regular expression:
 - `universalSipPassive.sipheader-customfield-mappings=customCP02|To|audio-video:id:(.*)`
2. Example 2:
To have the SIP Call ID issued in the field *customCP01*, enter the following regular expression:

- `universalSipPassive.sipheader-customfileld-mappings=customCP01|Call-ID|(.*)`
3. Example 3:
To have the connection IP and the media port from the content of INVITE, 200 OK, and ACK Messages issued in different fields, enter the following regular expression:
- `universalSipPassive.sipheader-customfileld-mappings=group-names|content:INVITE 200 ACK|c=IN IP4 (?<customCP1>[^\r]*).*m=audio (?<customCP2>[^\h]*)`
4. Once you have finished the configuration , save the changes in the configuration file.
5. Restart the service *ASC RecordingModule* so that the changes are applied.

7.1.3 Configure CTIconnect add-on

7.1.3.1 Configure Genesys T-Server (optional)

7.1.3.1.1 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.

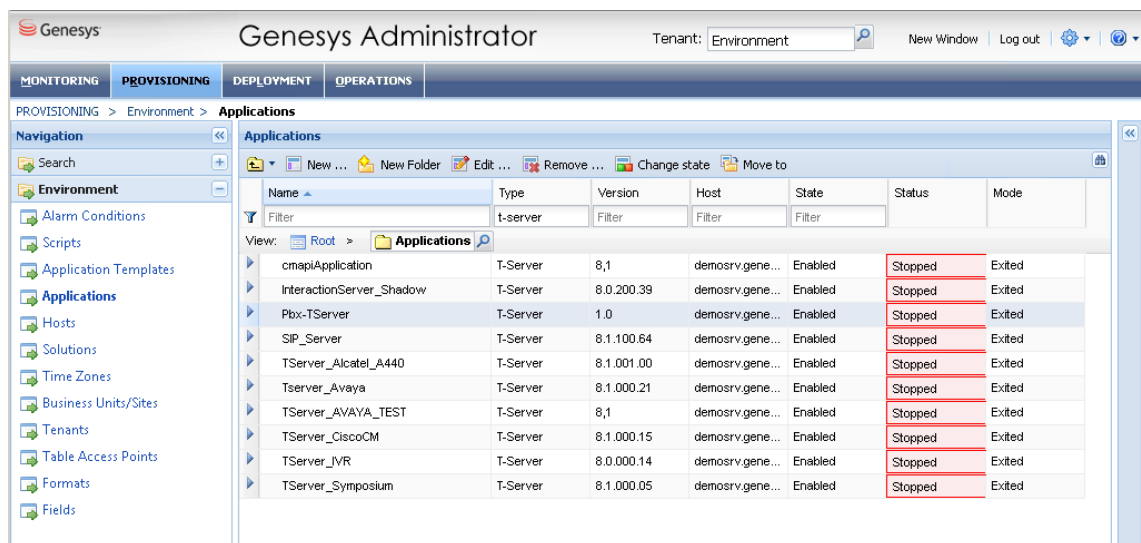


Fig. 75: Genesys Administrator - select T-Server

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*.

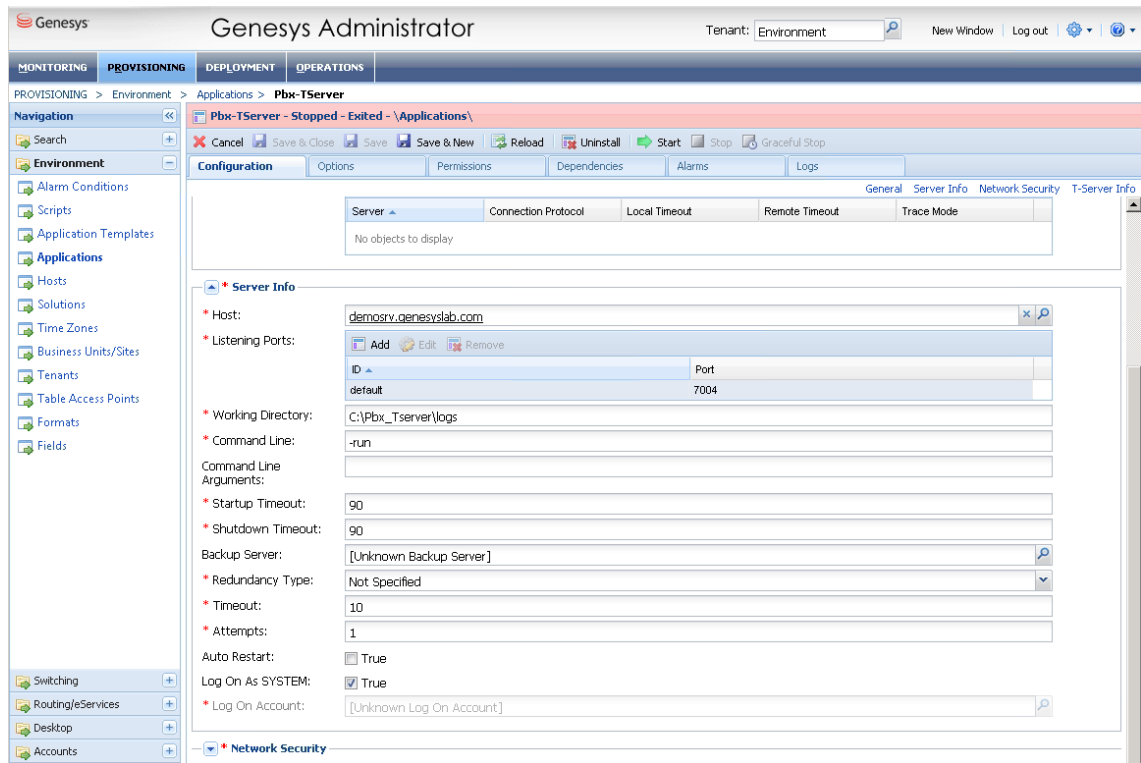


Fig. 76: Genesys Administrator - configure T-Server

5. In the field *Host*, enter the IP address or the computer name of the T-Server, e. g. *demomsv8.genesyslab.com*.
6. In the field *Listening Port*, enter the port of the T-Server, e. g.

7.1.3.1.2 Configure IP address and port of the Genesys Configuration Server

1. Click on the menu item *Environment > Applications* in the navigation bar.

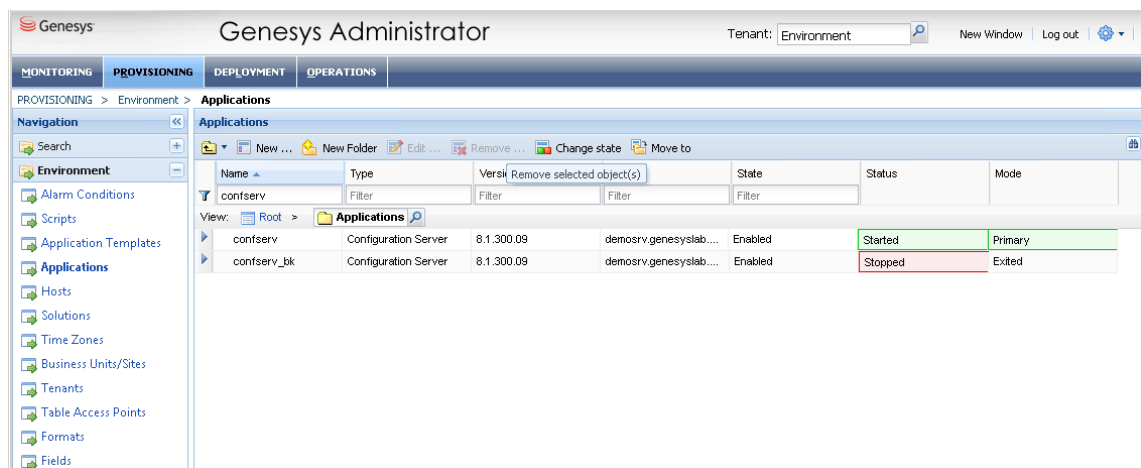


Fig. 77: Genesys Administrator - select configuration server

2. Double-click on the entry Configuration Server, e. g. *confserv*.
⇒ The window *Configuration* appears.
3. Expand the area *Server Info*.

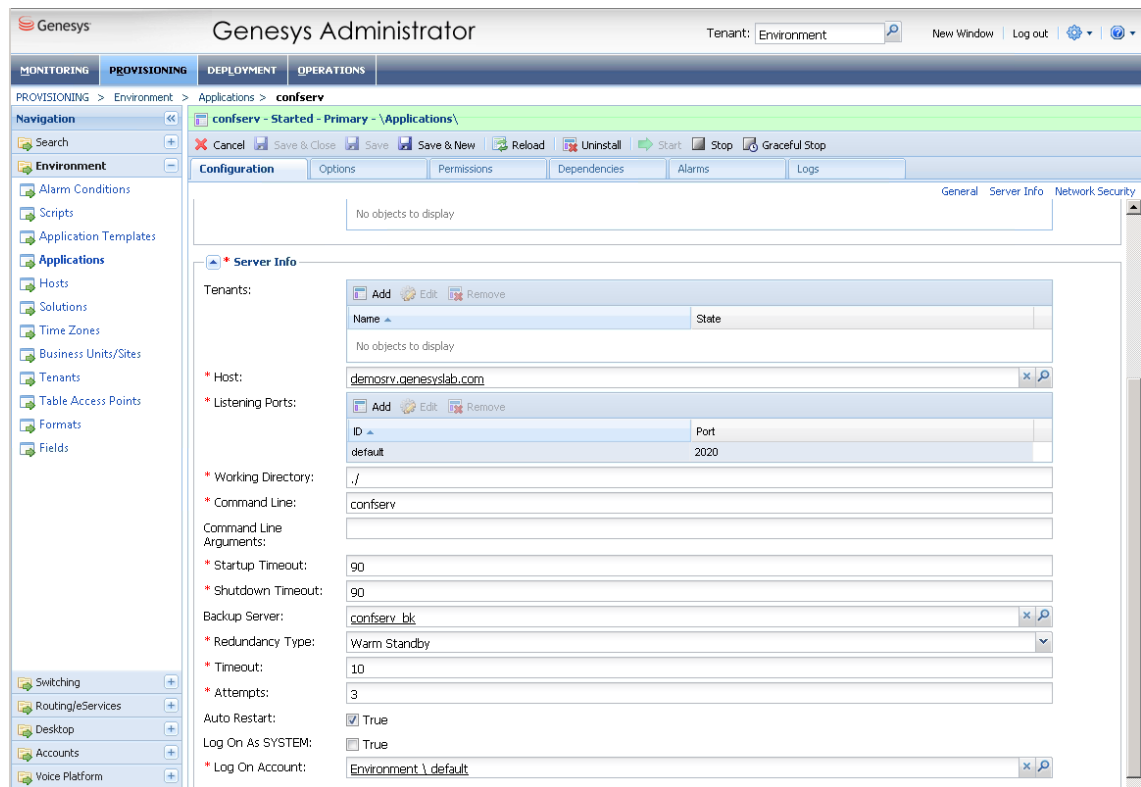


Fig. 78: Genesys Administrator - configure configuration server

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*.

7.1.3.1.3 Configure switch instance in the Genesys Configuration Server

1. Click on the menu item *Switching > Switches* in the navigation bar.

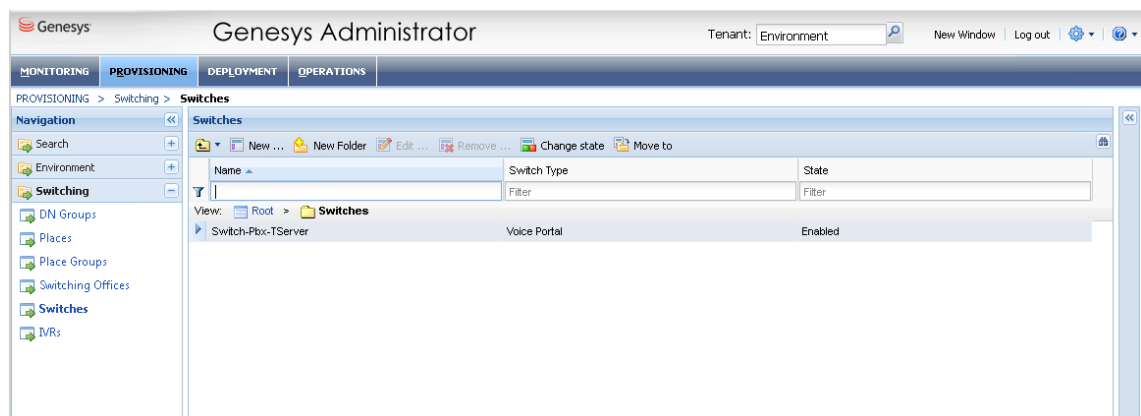
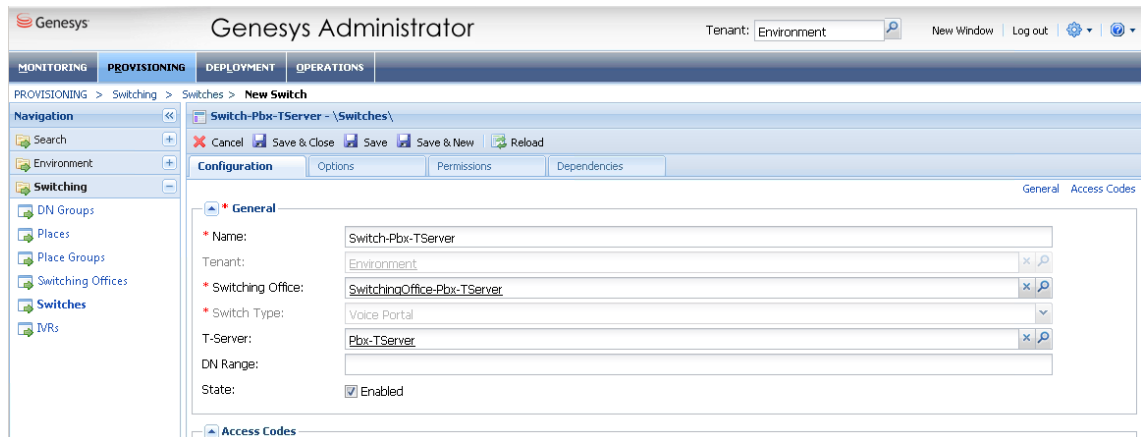


Fig. 79: Genesys Administrator - switch instances

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 'Switch-Pbx-TServer - \Switches\' and contains a 'Configuration' tab. The 'General' sub-tab is active, displaying fields for Name (Switch-Pbx-TServer), Tenant (Environment), Switching Office (SwitchingOffice-Pbx-TServer), Switch Type (Voice Portal), T-Server (Pbx-TServer), DN Range, and State (Enabled). Buttons for Cancel, Save & Close, Save, Save & New, and Reload are visible at the top of the configuration area.

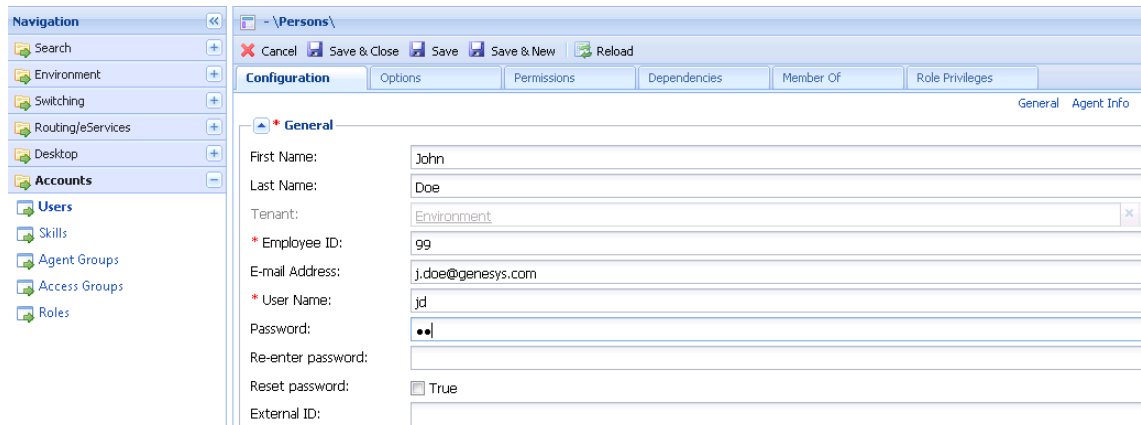
Fig. 80: Genesys Administrator - configure switch instance

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.

7.1.3.1.4 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 with the 'Accounts' section selected in the left sidebar. The main content area is titled '- \Persons\' and contains a 'Configuration' tab. The 'General' sub-tab is active, displaying fields for First Name (John), Last Name (Doe), Tenant (Environment), Employee ID (99), E-mail Address (j.doe@genesys.com), User Name (jd), Password (masked with dots), Re-enter password, Reset password (checkbox), and External ID. Buttons for Cancel, Save & Close, Save, Save & New, and Reload are visible at the top of the configuration area.

Fig. 81: 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 correct network device has been selected in the System Configuration, see [chapter "Configure servers", p. 20](#)
- the correct configuration of the SPAN port

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, MAC 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

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Glossary

API

Application Programming Interface

API server

Server on which the API service runs. (API=Application Programming Interface)

CSV

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

CTI

Computer Telephony Integration

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

Monitor/Mirror/SPAN Port

Port mirroring is used to copy a network package, which passes a switch port, to another switch port.

NTP

Network Time Protocol NTP is a standard for the synchronization of clocks in computer systems via packet-based communication networks. NTP uses the connectionless transport protocol UDP. It has been developed with the objective to guarantee reliable time verification across networks with variable packet runtime. (Source: Wikipedia 12th June 2018)

PBX

Private Branch Exchange

RTP

Real-time Transport Protocol is a protocol to continuously transmit audio and video files via the IP protocol within the network.

SCCP

Skinny Call Control Protocol is the proprietary Cisco standard for calls and conferences based on the Internet protocol in real time.

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

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