

EVOIPneo passive for SIP with Mitel InAttend



Administration manual for system providers

6/3/2022

Product line Neo, version 7.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 <https://www.asctechnologies.com>.

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1 General information

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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 with Mitel InAttend provides the functionality which is necessary for the recording of unencrypted conversations in a SIP environment with a Mitel PBX.

This recording solution is supposed in combination with the following PBXs:

-
-
-

Recording of InAttend clients

In this recording solution, an InAttend server with the SIP-based component Attendant Connectivity Server (ACS) is required.

Between the communication platform and the ACS, a connection is established via a SIP trunk.

The ACS manages calls in a queue and prompts that they are displayed in the InAttend consoles.

No CTI information is delivered via the CSTA interface.

Via a special SIP header (X-Mitel-ACS-operator-id) the InAttend console transmits the additional data Operator-id and Attendant Extension. This information is displayed for the recorded calls in POWERplay Web as *1st-connected PBX Agent ID* and *1st-connected Phone Number*.

All incoming calls are routed via the SIP trunk connection and presented in the InAttend console.

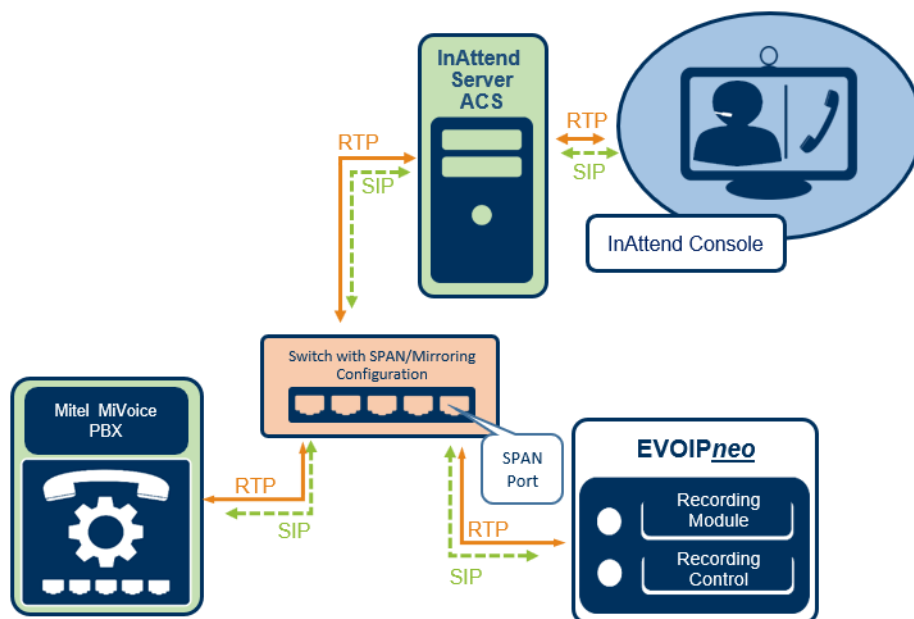


Fig. 1: Overview of the recording solution of InAttend consoles via ACS



This recording solutions allows recording data streams in stereo.

In stereo recording, the conversation directions are saved in separate files which can then be replayed separately. Stereo recording requires approximately twice as much storage capacity.

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 separate network card 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 conversations are extracted from the [SIP](#) signaling and processed.

The following additional data is available:

- *Date and time*
- *Call duration*
- *Phone numbers*
- *Call direction*

Internal calls are not recorded.

The following options are available for recording control:

- [DTMF](#)
- [CLIENT](#)command
Only if the internal phone number is called via the trunk (no collective phone numbers) and if the internal number is signaled on the trunk for outgoing calls, too, mapping of the agents and control by means of [CLIENT](#)command is possible.

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.



For more information about the switch configuration refer to the administration manual *Configuration switch for passive VoIP recording* and in the installation manual *Configuration virtualization*.

Import InAttend conversations to NEO

As an alternative to recording, you can also import InAttend files, see [chapter "Import InAttend conversations to Neo", p. 58](#).

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 Supported end devices

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

The following RFC standards are supported:

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

- RFC 6068 ([DTMF](#) via SIP INFO) optional

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.

3.4 Additional restrictions



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

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.

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 of how to install and configure the product

The following steps have to be taken:

1. Install Neo software
2. Configure PBX
 - As the configuration is manufacturer-specific it cannot be described here. A telecommunication engineer usually takes care of the configuration.
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

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 Microsoft Windows Server 2016*, *Configuration Microsoft Windows Server 2019* or *Configuration Microsoft Windows Server 2022*.



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

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, shortcuts for the Neo applications are created on the computer 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 of the browser:

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

If you have configured customer-specific ports, you must add the port in the URL:

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

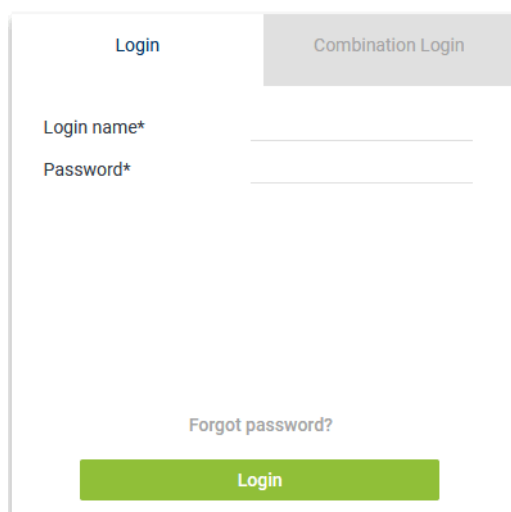


Fig. 2: System Configuration - Web interface

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

Tab. 2: Login data - system provider

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

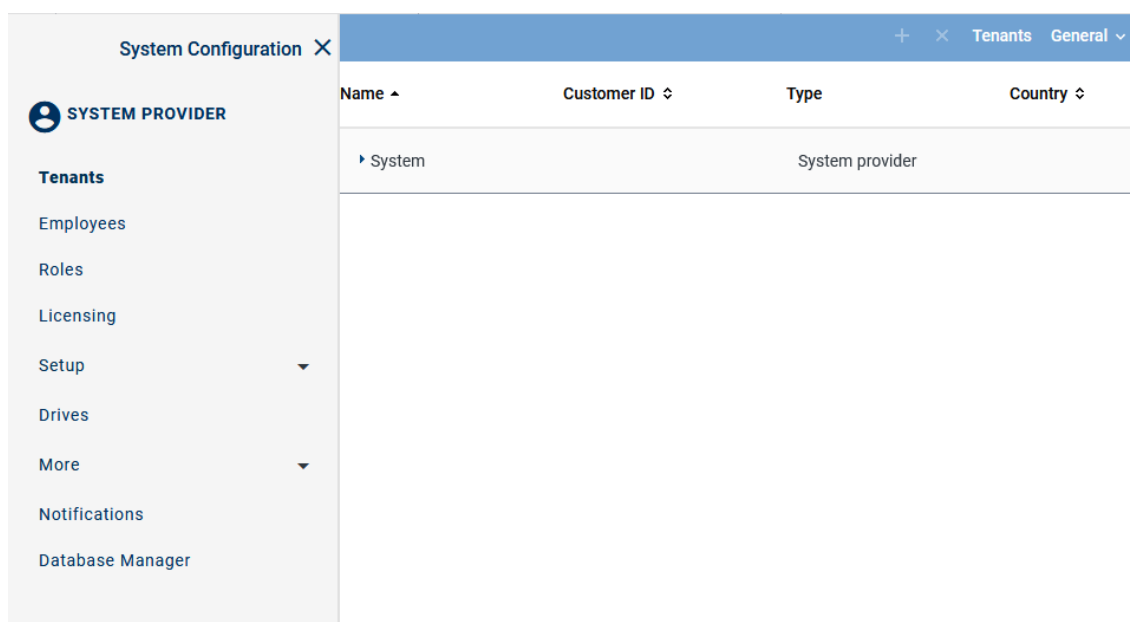


Fig. 3: System Configuration - main view

7.1.2 Configure recording solution

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:

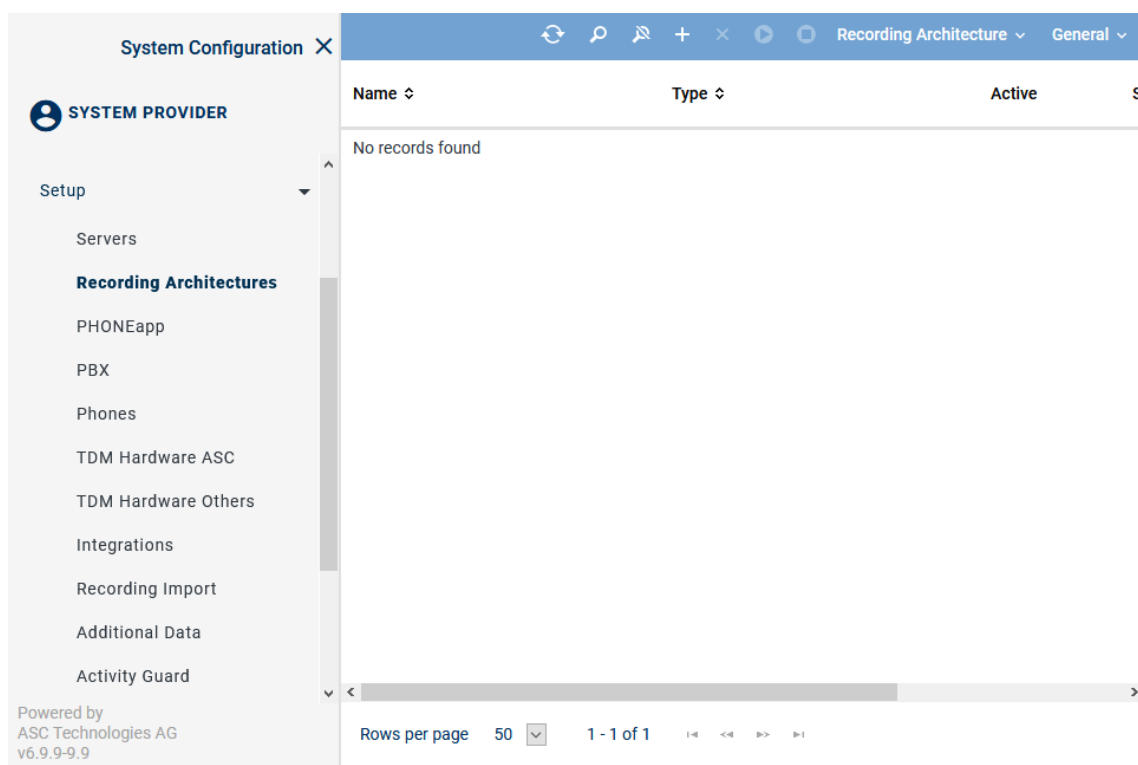




Fig. 4: Recording architectures - main view

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. <div> ✓ = Recording architecture is active and ready to be used for recording. It can be deactivated by clicking on the icon  (<i>Deactivate</i>) in the toolbar. ✗ = Recording architecture is not active. It can be activated by clicking on the icon  (<i>Activate</i>) in the toolbar. </div>
Standby Active	Shows whether the standby server is active for one or several recording components in the recording architecture. <div> ✓ = At least 1 standby server is active. ✗ = No standby server is active or no standby server has been defined. </div>
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. 5: Toolbar Recording Architectures module

	Refresh	Refreshes the main view.
	Search	Opens the window of the search function. The search function allows searching systematically for sets of data which meet certain criteria.


		The icon  is displayed whenever the search has been adjusted by means of a filter.
	<i>Reset search</i>	Resets all search filters so that all sets of data are displayed in the main view again.
	<i>Create</i>	Creates a new recording architecture.
	<i>Delete</i>	Deletes the selected recording architecture. The recording architecture is removed from the list of the main view. 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>General Help</i>	Opens the online help.
	<i>Module Help</i>	Opens the module-specific online help.



For detailed descriptions of the default functions such as *Search*, *Print*, *Adjust table* or *Help* refer to the user manual for system providers *General information - System Configuration*.

Create recording architecture All-in-one Basic

Create a recording architecture of the type *All-in-one Basic Recording*.

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

⇒ The window *New Recording Architecture* appears.

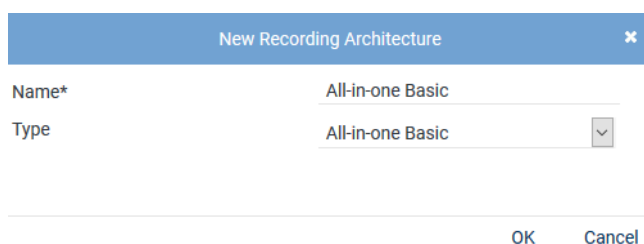
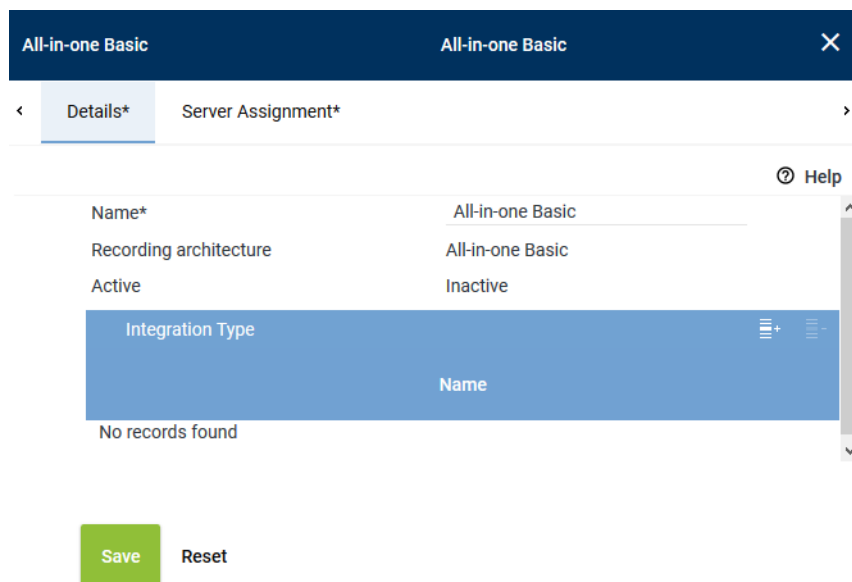


Fig. 6: Create recording architecture - All-in-one Basic Recording

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.



All-in-one Basic All-in-one Basic ✕

< **Details*** Server Assignment* >

🔗 Help

Name* All-in-one Basic

Recording architecture All-in-one Basic

Active Inactive


Integration Type

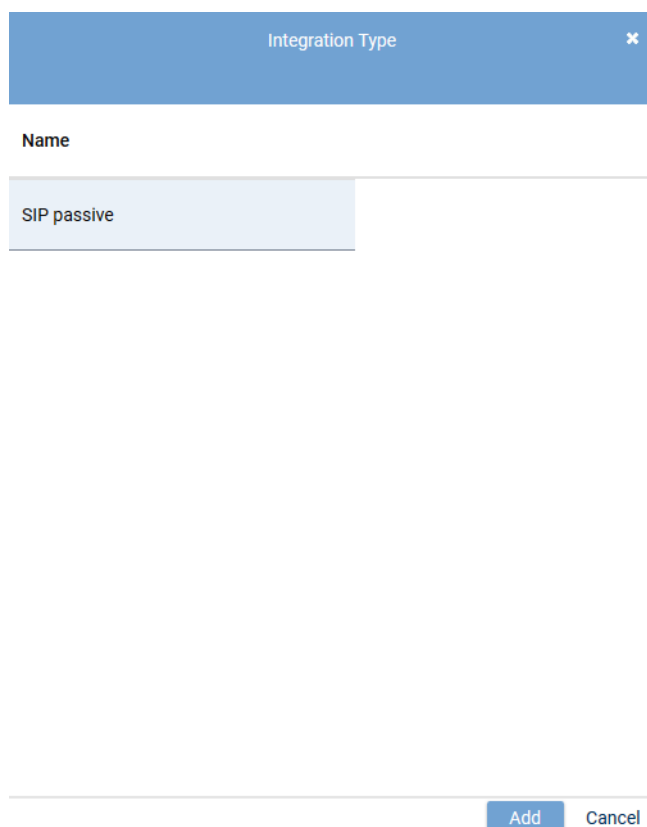
Name
No records found

Save Reset

Fig. 7: 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. 8: Select integration type



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



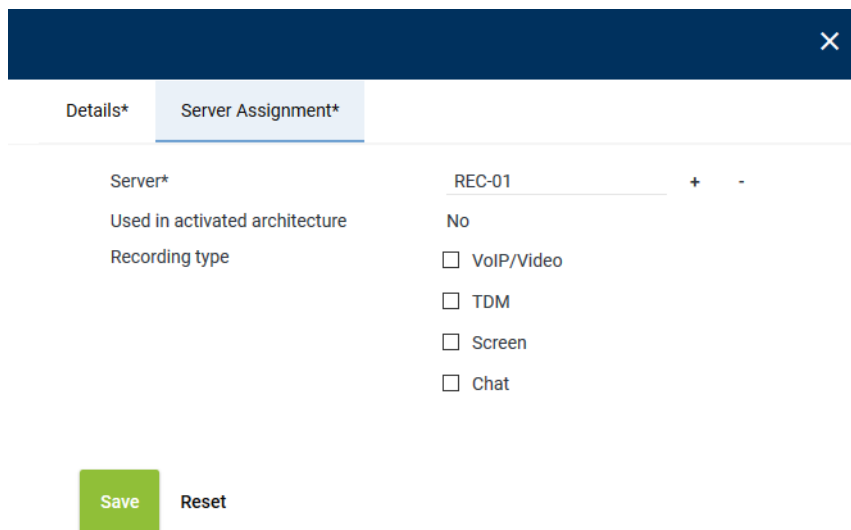
Any number of integration types can be assigned to a recording architecture.

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..



Details* Server Assignment*

Server* REC-01 + -

Used in activated architecture No

Recording type

☐ VoIP/Video

☐ TDM

☐ Screen

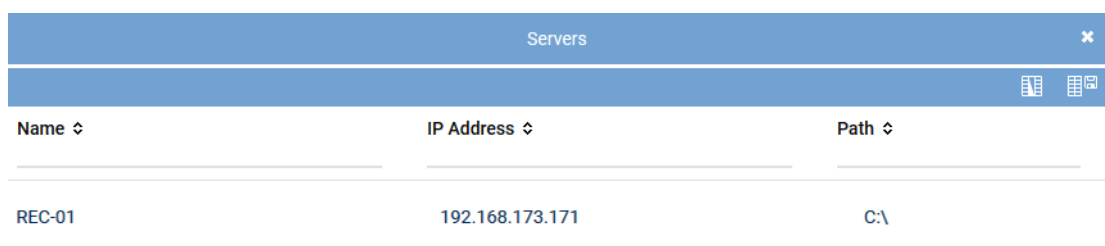
☐ Chat

Save Reset

Fig. 9: Recording architecture - tab Server Assignment

2. Click on the button *+* next to the entry field *Server*.

⇒ The window *Servers* appears.



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

Rows per page 20 1 - 8 of 8

Add Cancel

Fig. 10: Recording architecture - assign server

3. Select the respective server.



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

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

Recording type

☒ VoIP/Video

☐ TDM

☐ Screen




☐ Chat

Fig. 11: Recording architecture - activate recording variant



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

Activate recording architecture

1. Click on the button *Save*.
2. Select the recording architecture in the main view so that the icon  (*Activate*) in the tool-bar becomes active.
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. 12: 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.



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

7.1.2.1.2 Configure server

Each server in your network on which the Neo software has been installed is recognized automatically as a server of the recording system and displayed in the Servers module. In the Servers module, you can configure the purpose of the servers of your recording system.

1. In the navigation bar, select the menu item *Setup > Servers*.

⇒ The following window appears:

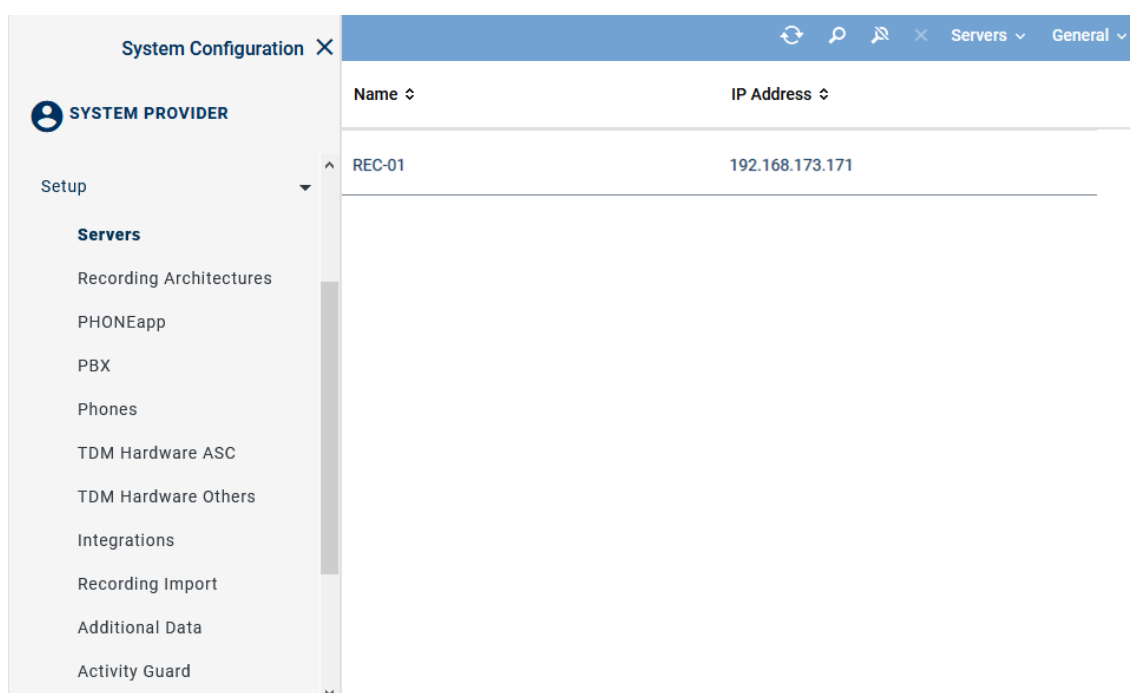


Fig. 13: Servers - main view

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.

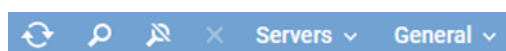







Fig. 14: Toolbar Servers module

	<i>Refresh</i>	Refreshes the main view.
	<i>Search</i>	Opens the window of the search function. The search function allows searching systematically for sets of data which meet certain criteria. The icon  is displayed whenever the search has been adjusted by means of a filter.
	<i>Reset search</i>	Resets all search filters so that the main view displays all data sets again.
	<i>Delete</i>	Deletes the selected server configuration. This functions serves the purpose of deleting the server configuration when the hardware of a server has been removed and there is no connection to the Neo system.

<i>Server</i>	<i>Administrate Server Locations</i>	Opens a window where you can set up and administrate the location of the servers, see chapter "Administrate server locations", p. 20.
	<i>Administrate NTP Server</i>	Opens a window in which you can administrate the servers for time synchronization.
	<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 where 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>General Help</i>	Opens the online help.
	<i>Module Help</i>	Opens the module-specific online help.



For detailed descriptions of the default functions such as *Search*, *Print*, *Adjust table* or *Help* refer to the user manual for system providers *General information - System Configuration*.

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.

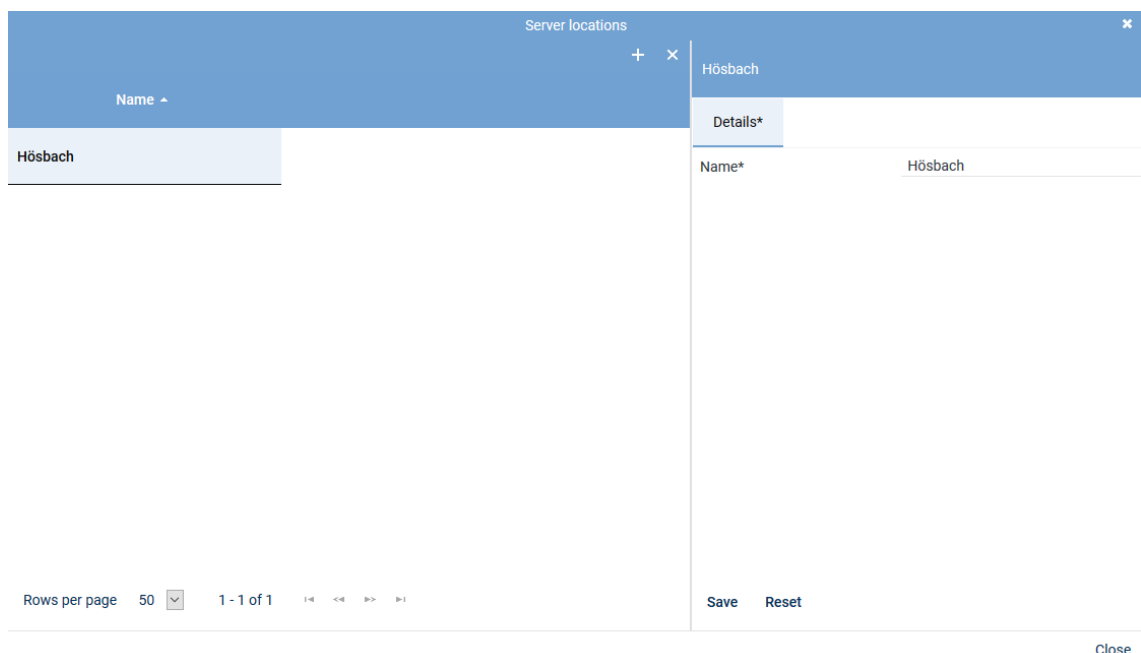



Fig. 15: Add server locations

- 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*.

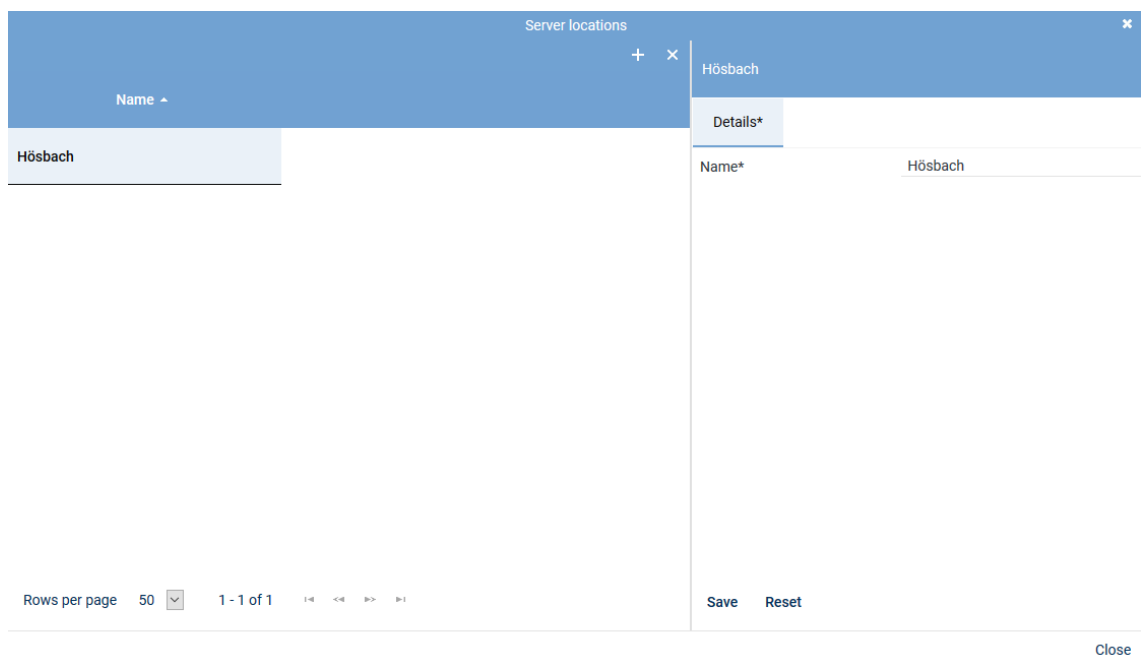
4. To save the entry, click on the button *Save*.
To discard the entry, click on the button *Reset*.
5. To add further locations, repeat the last 3 steps.
6. To close the window, click on the button *Close*.

Delete server location




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

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



The screenshot shows a window titled "Server locations" with a close button (x) in the top right corner. Below the title bar is a table with a header "Name" and a dropdown arrow. The table contains one row with the value "Hösbach". To the right of the table is a details panel with a tab labeled "Details*". Inside the details panel, there is a field labeled "Name*" with the value "Hösbach". At the bottom of the window, there are buttons for "Save" and "Reset", and a "Close" button in the bottom right corner. The bottom of the window also displays "Rows per page 50" and "1 - 1 of 1".

Fig. 16: 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. 17: Servers - tab Details

- From the drop-down list, select the IP address which is supposed to be used as default address of the server in the system.
- Select the *Server location* in the drop-down list. The drop-down list displays all locations which have been created in the location management.
- Click on the button **Save** if the entries are correct.

Tab Usage

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



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

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

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

Fig. 18: Servers - tab usage

Group field API Server

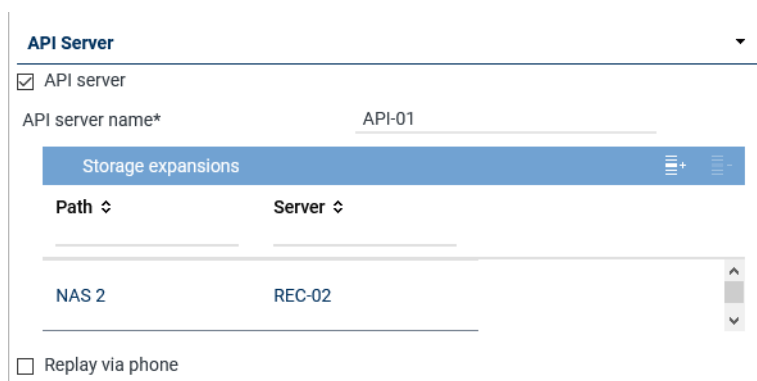




Fig. 19: Group field API Server

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


The ASC API Server offers the interface for the client applications to communicate with the Neo system.

Furthermore, the ASC API Server is required for replay by means of the web applications. 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>Activate the check box to start the ASC 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>To be able to reach the ASC 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. 33.</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  (<i>Add</i>), you can add storage expansions, see chapter "Add storage expansion for replay", p. 24. By clicking on the icon  (<i>Remove</i>), you can remove storage expansions from the list.

Parameter	Value/Description
	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.
<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 Neo 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. 31. To be able to do so, at least 1 PBX must have been configured in the system.</p>

Add storage expansion for replay

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

Storage Expansion for Replay				
Device Type ↕	Name ↕	Path ↕	Free Disk Space ↕	Server ↕
NAS	NAS 2	NAS 2	<div></div>	REC-02

Rows per page: 20  1 - 1 of 1

Add Cancel

Fig. 20: 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

☒ Emotion detection

Stream audio data from* REC-01 + -

Fig. 21: Group field Audio Analysis

Parameter	Value/Description
<i>Emotion detection</i>	<p>Activate this check box to activate emotion detection for audio analysis.</p> <p><input checked="" type="checkbox"/> = Function has been activated. Tenants can use the emotion detection function.</p> <p><input type="checkbox"/> = Function has not been activated.</p>
<i>Stream audio data from</i>	<p>If the function emotion detection has been activated, the parameter to select the respective server becomes active.</p> <ul style="list-style-type: none"> Click on the button + to select the server from which the audio data is supposed to be streamed for emotion detection from the list of available servers.

Tab. 3: Configure audio analysis

Emotion Detection ✕

📋

Name ↕

REC-01

Rows per page 20 ▼ 1 - 8 of 8 ⏪ << >> ⏩

Add Cancel

Fig. 22: Select server for emotion detection

- Click on the button *Add* to apply the selected server.

Group field Recording Control/Key Management

Recording Control/Key Management ▼

☐ Recording control/Live Streaming

Recording architecture Please choose... ▼

☐ Neo key management

Fig. 23: Group field Recording Control/Key Management

Parameter	Value/Description
<i>Recording control/ Live Streaming</i>	This recording solution does not support external recording control.
<i>Neo key management</i>	<p>This function serves for customer-specific recording encryption. To be able to configure the conditions for key management, activate the check box <i>Neo key management</i>.</p> <p>The function can only be activated if the license <i>ASC_KEY_MANAGEMENT</i> is available.</p> <p>For more information about the configuration of key management refer to the administration manual <i>Configuration server and recording architectures</i> and to the installation manual <i>Installation Dongle Manager</i>.</p>

Tab. 4: 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 ☒

Start

End

Receives data from

Name	Only Replay
No records found	

☐ Archiving

☒ Export







Replay server

☒ Import

Recording architecture

Fig. 24: Group field Data Processing

Parameter	Value/Description
<i>Data storage</i>	Activate the check box to make additional functions of data processing available for editing.
<i>Transfer data for replay</i>	<p>Activate the check box if you would like to transfer the data to another server for replay purposes only.</p> <p>If the function has been activated, you can add a server to the list</p>

Parameter	Value/Description
	<p><i>Target Server</i> to which the recorded data is supposed to be transferred for replay purposes. The data is not saved on the target server but only buffered in a cache for replay purposes.</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. 28. By clicking on the icon  (<i>Remove</i>), you can remove target servers from the list. <p>NOTICE! Only those servers are displayed for which an API server and a replay server have been configured.</p>
<i>Transfer data for data storage</i>	<p>Activate the check box if you would like to transfer the data to be saved on another server.</p> <p>If the function has been activated, you can select a server in the list <i>Target Server</i> to which the recorded data is supposed to be transferred to be saved. The drop-down list displays all servers on which the function <i>data storage</i> has been activated. The data is copied to the target server and saved there.</p> <ul style="list-style-type: none"> By clicking on the icon  (<i>Add</i>), you can add the target servers, see chapter "Add target server to a list", p. 28. By clicking on the icon  (<i>Remove</i>), you can remove target servers from the list. <p>NOTICE! Only those servers are displayed for 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"> <i>Activate period of time</i> <input checked="" type="checkbox"/> = Function activated. The fields to enter a time become active. Select the time for from – to by means of the rotating field. <i>Activate period of time</i> <input type="checkbox"/> = Function not activated. <p>NOTICE! Once the function has been configured, the data can be replayed on the target server. If replay is requested, the data is buffered in the working memory of the target server even if the transfer for data storage has not been completed.</p> <p>NOTICE! For distributed systems with a slower network connection, the storage interval for data transfer may be adjusted. The storage interval for data transfer must be configured by an ASC service technician or by an authorized partner.</p>
<i>Receive data from</i>	<p>This table displays servers which transfer data to this server.</p> <p>The column <i>Name</i> displays the server name from which data is transferred.</p> <p>The column <i>Only Replay</i> displays the purpose of the transfer:</p> <p> = Data is transferred for replay only.</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>

Group field Replay

Replay ▼

☒ Replay


Replay server*


WebSocket port*
(max. 5 characters)

API server*

Name ↕ **Connection Status**

Fig. 26: Group field Replay

Parameter	Value/Description
<i>Replay</i>	<p>A replay server can replay recordings via the integrated <i>Replay Feature</i>. Only data which has either been recorded directly on this server or which has been transferred to this server for data storage or only for replay purposes can be replayed. The client computers of the system can connect to a replay server for replay purposes.</p> <p>Activate the check box <i>Replay</i> to be able to use the replay function of the players and the phones.</p> <p><input checked="" type="checkbox"/> = Function has been activated. You have to complete the entry field <i>Replay server</i>.</p> <p><input type="checkbox"/> = Function has not been activated.</p>
<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  (Add), you can add the API server, see chapter "Add API server to a list", p. 30.

Parameter	Value/Description
	<ul style="list-style-type: none"> By clicking on the icon  (Remove), you can remove selected API servers from the list.

Tab. 6: Configure replay


Search and replay functions



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

Add API server to a list

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

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

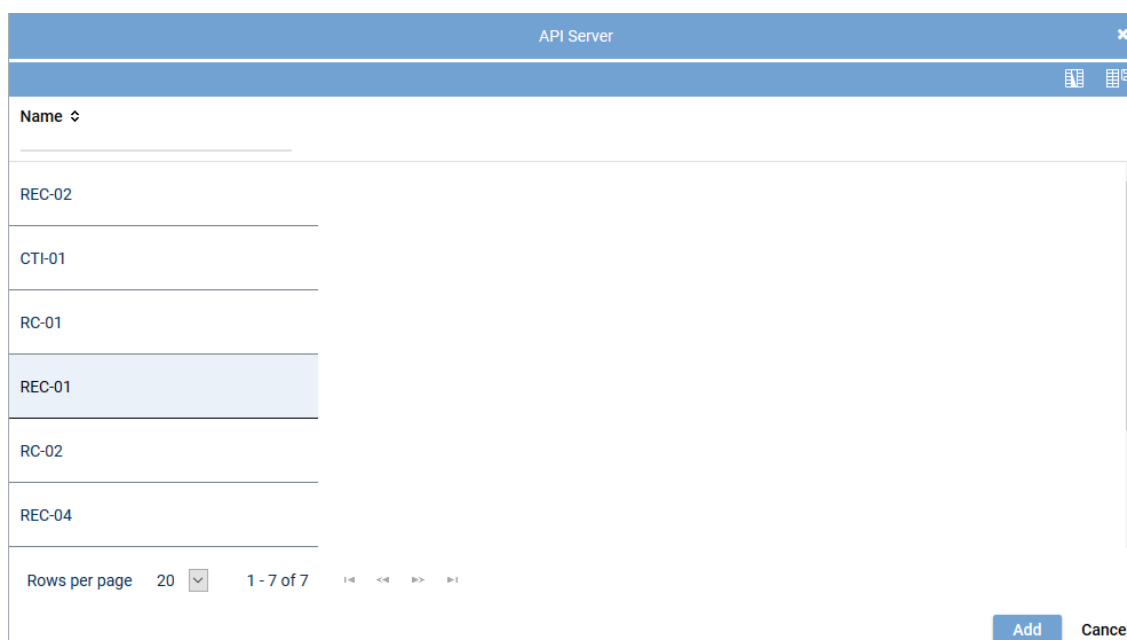


Fig. 27: Select server



Only those servers are available on which the [API](#) service has been installed and activated. See [chapter "Group field API Server", p. 23](#).

- 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 without Trusted License

Fig. 28: Group field Virtualization

Parameter	Value/Description
<i>VM without Trusted License</i>	<p>This functionality can only be activated if the system runs in a virtual environment and if no <i>TRUSTED_VIRTUALIZATION</i> license has been installed.</p> <p>When you tick the check box <i>VM without Trusted License</i>, the tab <i>Keystore/Virtualization</i> becomes active and must be completed.</p> <p>There, you can configure the following options:</p> <ul style="list-style-type: none"> • <i>licensing.asc.de</i> If you enter this domain, there is no key management. • <i>IP address of the DongleMan</i> If you enter the IP address of the Dongle Manager, you can activate key management.

Tab. 7: Configure virtualization



For detailed information about how to configure virtualization and key management refer to the administration manual *Encryption of recordings*.



For *virtualization* without an Internet connection, a Trusted License is required.

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

Save

Reset

Fig. 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.</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>
Media streamer IP address	<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. The drop-down list displays all IP addresses of the server.</p>
Minimum port	<p>Enter the minimum port which is supposed to be used for the audio data exchange.</p> <p>Enter an even number.</p>
Maximum port	<p>Enter the maximum port which is supposed to be used for the audio data exchange.</p> <p>Enter an uneven number.</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> <p>NOTICE! The port range must not have less than 64 ports.</p>

<i>Transport protocol</i>	<p>From the drop-down list, select the transport protocol type you would like to use for the SIP communication.</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>	Enter the IP address of the SIP registrar of the PBX .
<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. This address mapping is required for servers which have been activated for replay to be able to reach them from a public network and with configured port forwarding.



The tab *Replay Server Address Mapping* is not active unless you have activated the function *Replay* in the tab *Usage*.

<
Details*
Usage*
Media Streamer
Replay Server Address Mapping
>

Replay Server Addresses

Remove Replay Server Addresses

Internal Address of the Replay Server (IP/Port or DNS) :

Internal download URL

External Address of the Replay Server (IP/Port or DNS) :

External download URL


Save
Reset

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

Group field Replay Server Addresses

1. Enter the following parameters:

<i>Internal address of the replay server (IP/Port or DNS)</i>	Enter either the IP address and the port or the DNS name under which the replay server can be reached.
<i>Internal download URL</i>	Enter the URL under which the replay server can be reached internally, e. g.: https://example.company.com/
<i>External address of the replay server (IP/Port or DNS)</i>	Enter either the IP address and the port or the DNS name under which the replay server can be reached via the browser from outside the local network. When entering the external address take into consideration whether the SSL certificate has been issued for an IP address or a DNS address. In the latter case, entering the DNS name is mandatory; otherwise the certificate check in the replay application will fail.
<i>External download URL</i>	Enter the URL under which the replay server can be reached via the browser from outside the local network, e. g.: https://example.company.com/ When entering the external address take into consideration whether the SSL certificate has been issued for an IP address or a DNS address. In the latter case, entering the DNS name is mandatory; otherwise the certificate check in the replay application will fail.

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



If address mapping has been configured, the replay server receives the configured address and the configured port.

If address mapping has not been configured, the replay server 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> <p>Select the intervals in which a new key is supposed to be generated automatically.</p> <p>Possible time interval: 1 to 365 days</p> <p>Default value: 365 days</p> • <i>Create key manually</i> <p>Select that a key is supposed to be generated manually.</p> <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</p> <p>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 to the service *DongleMan* for key management and authentication of the *VMware*.

The tab *Keystore/Virtualization* is not active unless you have activated the function *VM without Trusted License* in the tab *Usage*. I. e. that you have not installed the licenses locally but would like to manage the licenses via an Internet connection by means of ASC license management.

For key management there are the following options:

- *Dongle*
You can continue to use your existing dongle. The Dongle Manager reads out the encryption password from the dongle.
In this case, no separate configuration is required.
In a virtualized environment, the USB port that the dongle has been plugged in to must have been assigned to the server that the Dongle Manager runs on.
- *Dongle Manager*
In the current version, the Dongle Manager reads out the encryption password directly from the database. To enable this, you must enter the connection data to the server that the Dongle Manager runs on.
- *ASC License Management System*
NOTICE! License Management does not support encryption.

For licensing, there are the following options:

Without Internet access:

- *Dongle*
Without Internet access you can continue to use your dongle for authentication purposes. In a virtualized environment, the USB port that the dongle has been plugged in to must have been assigned to the server that the VMware has been installed on.
In this case, no separate configuration is required.

- *Trusted Virtualization License*

Alternatively, you can install a *Trusted Virtualization License* to authenticate licensing; you do not require Internet access for this.

In this case, no separate configuration is required.

With Internet access:

- *ASC License Management System*

You can establish a connection to ASC's license management via the Internet. To do so, you must enter the connection data *licensing.asc.de* in this tab.

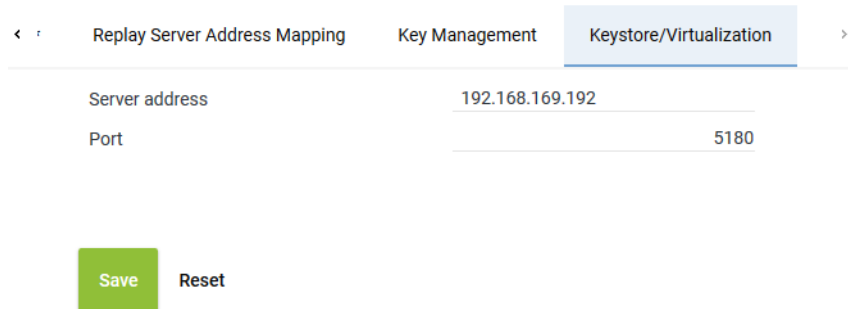


Fig. 32: Servers module - tab Keystore/Virtualization

Server address	<p>Enter the address of the server for the connection.</p> <ul style="list-style-type: none"> • If you use the hardware with Neo key management: IP address of the server where the service <i>DongleMan</i> has been installed. • If you use the VM with dongle without Neo key management: IP address of the server where the service <i>DongleMan</i> has been installed. • If you use the VM without Neo key management, you can authenticate the VM via ASC License Management System, too. In this case, enter the following address: <i>licensing.asc.de</i> • If you use the VM with <i>TRUSTED_VIRTUALIZATION</i> license and Neo key management: IP address of the server where the service <i>DongleMan</i> has been installed.
Port	<p>Enter the port for the connection.</p> <p>5180 = Dongle Manager</p> <p>8181 = ASC License Management System</p>



For detailed information about how to configure virtualization and key management refer to the administration manual *Encryption of recordings*.

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

7.1.2.1.3 Create PBX

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

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

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

⇒ The following window appears:

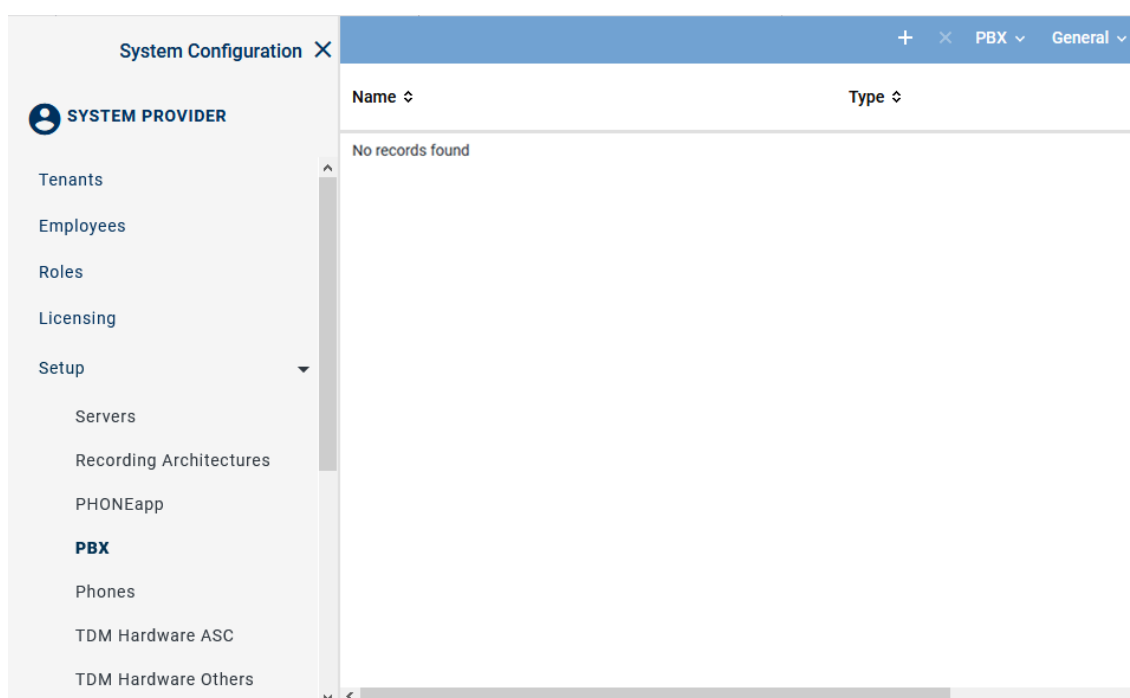




Fig. 33: PBX module - main view

Toolbar of the PBX module

The toolbar offers the following functions.




Fig. 34: Toolbar PBX module

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



For detailed descriptions of the default functions such as *Search*, *Print*, *Adjust table* or *Help* refer to the user manual for system providers *General information - System Configuration*.

Create new PBX

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

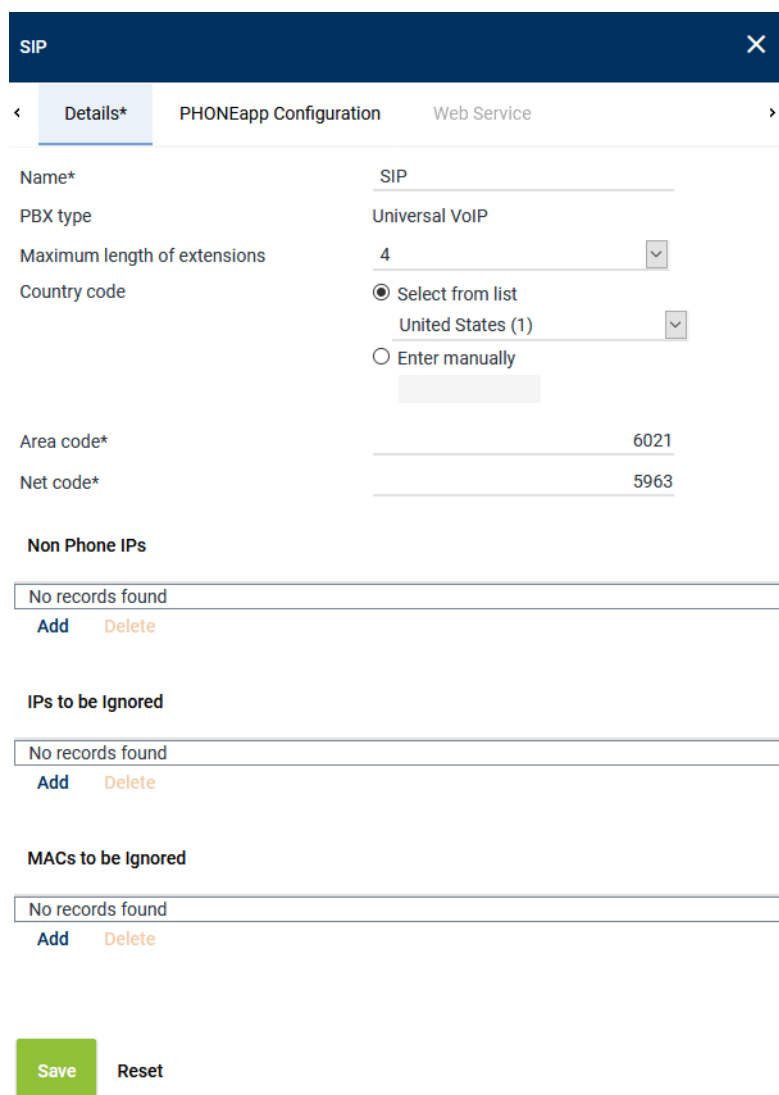


Fig. 35: Create new PBX - tab Details

- Set the following parameters in the detail view:

Parameter	Value/Description
<i>Name</i>	This <i>name</i> serves as the identifier of this PBX.
<i>PBX type</i>	Select the type of the 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 094.
<i>Area code</i>	Enter the area code without the preceding 0, e. g. 6021.

Parameter	Value/Description
<i>Net code</i>	Enter the net code, e. g. 5963. Do not enter an extension here.

Tab. 8: Create PBX

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

The following parameters are additionally available for passive recording and must be configured with the corresponding IP or MAC addresses of the customer's network for proper recording:

<i>Non Phone IPs</i>	<p>The <i>Non Phone IPs</i> entered here are treated as end device or participant which is not supposed to be recorded. Activities with this IPs are processed but the IPs are not considered independent phones. If you do not enter the Media Gateway here, for example, it is taken to be a phone and all parallel conversations are considered to be a conference when sniffed. In general, the Gateway is a <i>NonPhone</i> and the PBX a <i>Ignore IP</i>.</p> <p>Enter the gateway here, for example.</p>
<i>IPs to be ignored</i>	<p>The IP addresses entered here are ignored entirely. Enter the PBX here, for example, to ignore the music-on-hold data as otherwise a hold is interpreted as a connect with an unknown participant.</p> <p>Enter the IP addresses of all devices which are not supposed to be sniffed,</p> <p>e. g. PBXs, music-on-hold servers, phones that are not supposed to be sniffed.</p> <p>NOTICE! Do not enter an IP address as <i>Non Phone IP</i> and <i>IP to be ignored</i> at the same time as the communication with this IP address is then ignored entirely and not treated as <i>Non Phone IP</i> either anymore.</p>
<i>MACs to be ignored</i>	<p>The MAC addresses entered here are ignored entirely.</p> <p>If you work with a MAC address, enter the MAC addresses of all devices which are not supposed to be sniffed,</p> <p>e. g. PBXs, music-on-hold servers, phones that are not supposed to be sniffed.</p>

Passive recording will only work properly when all components of the customer's network that are not supposed to be recorded have been listed.



All components that are no phones but involved in the transmission of audio data such as gateways must be configured as *Non Phone IPs*.

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

- 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

Resources for tenants

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. For information about the configuration of chat systems refer to the respective manual.

Resources for employees

In systems deploying several PBXs, you can assign employees the recording resources of different PBXs.

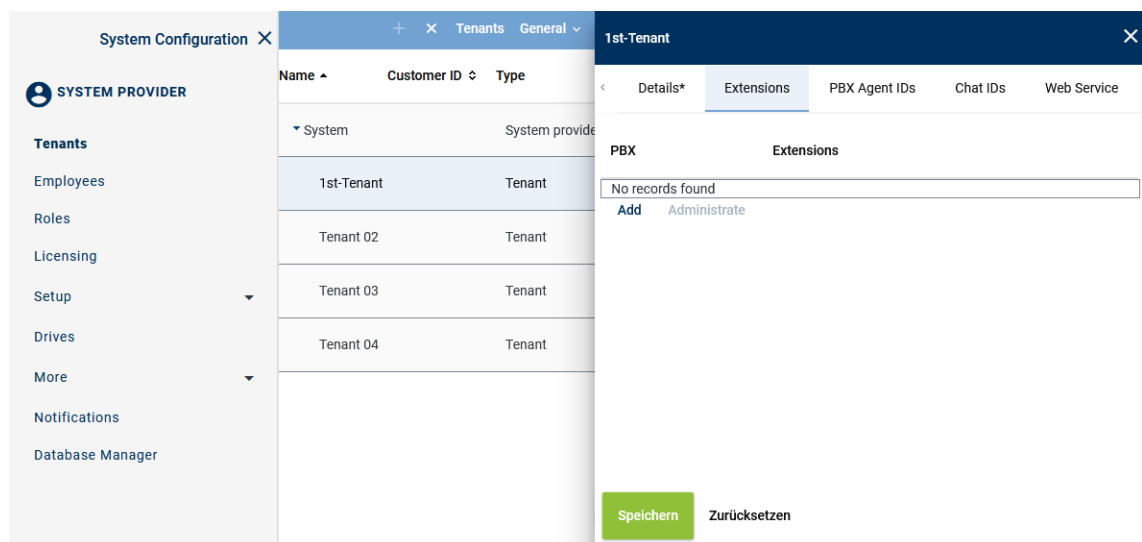


For information about the configuration refer to the administration manual for tenants *User management tenant*.

Assign extensions to tenants

If you would like to assign resources based on extensions, you can assign the tenant the extensions intended for recording in the Tenants module.

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



Name	Customer ID	Type
System		System provide
1st-Tenant		Tenant
Tenant 02		Tenant
Tenant 03		Tenant
Tenant 04		Tenant

1st-Tenant

Details* Extensions PBX Agent IDs Chat IDs Web Service

PBX Extensions

No records found

Add Administrate

Speichern Zurücksetzen

Fig. 36: 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. 37: 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 the option to import extensions from an existing file and add them to the table of extensions.</p> <p>The following file formats are supported:</p> <ul style="list-style-type: none"> ZIP TXT CSV <p>NOTICE! The maximum number of extensions in a file has been limited to 2000 for performance reasons. If more extensions are required, you can import several files.</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 file must not contain more than one column. If commas or other column separators are detected in the file, the file is considered invalid and an error message is displayed.</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 file in 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>

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

Enter country codes as number ranges as follows:
+4984496800-+4984496810

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

NOTICE! Wildcards cannot be used!

Replace existing list of extensions

Activate the check box to replace the list of extensions.

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

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

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.

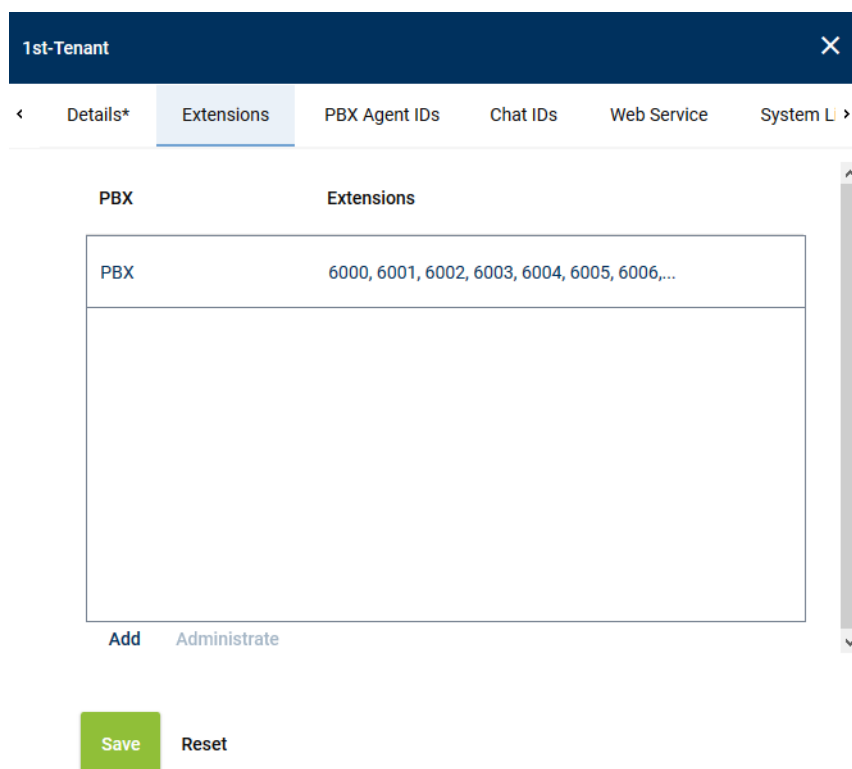


Fig. 38: Remove extensions

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. 39: Select extensions

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

7.1.2.1.5 Configure additional data

Additional data

Metadata for a conversation delivered by a communication platform are added to the respective conversation as additional data in the recording system.

The recording system differentiates between 2 types of additional data:

- *Default additional data fields*
This additional data cannot be changed such as the start time, the end time, and the phone number of the participants or the agent data.
- *CustomCP fields*
These fields can be adjusted by the user and can be configured as editable fields. Among those are e. g. comment fields or customer IDs. The configuration takes place in the Additional Data module of the application System Configuration.



Start time, end time, phone number or call direction are available as default additional data and cannot be edited. The data is tagged in default additional data fields and do not have to be assigned separately.

In the Additional Data module, you can assign metadata to CustomCP fields in Neo so that the data is tagged and saved there.

The information tagged in CustomCP fields can also be used in the Recording Planner for instance to control recording behavior and displayed in the search and replay applications.

In order to have the fields displayed in the drop-down list to be selected, they must be configured in the Additional Data module.

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

System Configuration X		Additional Data		Additional Data	General v
SYSTEM PROVIDER		ID ↕	Displayed Name ↕	Available ↕	
Setup Servers Recording Architectures PHONEapp PBX Phones TDM Hardware ASC TDM Hardware Others Integrations Recording Import Additional Data Activity Guard		customCP01	customCP01	✗	
		customCP02	customCP02	✗	
		customCP03	customCP03	✗	
		customCP04	customCP04	✗	
		customCP05	customCP05	✗	
		customCP06	customCP06	✗	
		customCP07	customCP07	✗	
		customCP08	customCP08	✗	

Fig. 40: Additional Data module main view

2. Select a data set

⇒ In the detail view, the information that can be configured appears.

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. 41: Configure additional data

- To change the display name, click on the pen icon in the line of the language that you would like to change.
- 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. 42: Additional data - configure availability

1. To make the data field available for the entire system, activate the check box of the option *Available*.
2. To make the data field editable for the search and replay applications subsequently, tick the check box of the option *Editable*.
3. To use the data field for external recording control, tick 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*.

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:

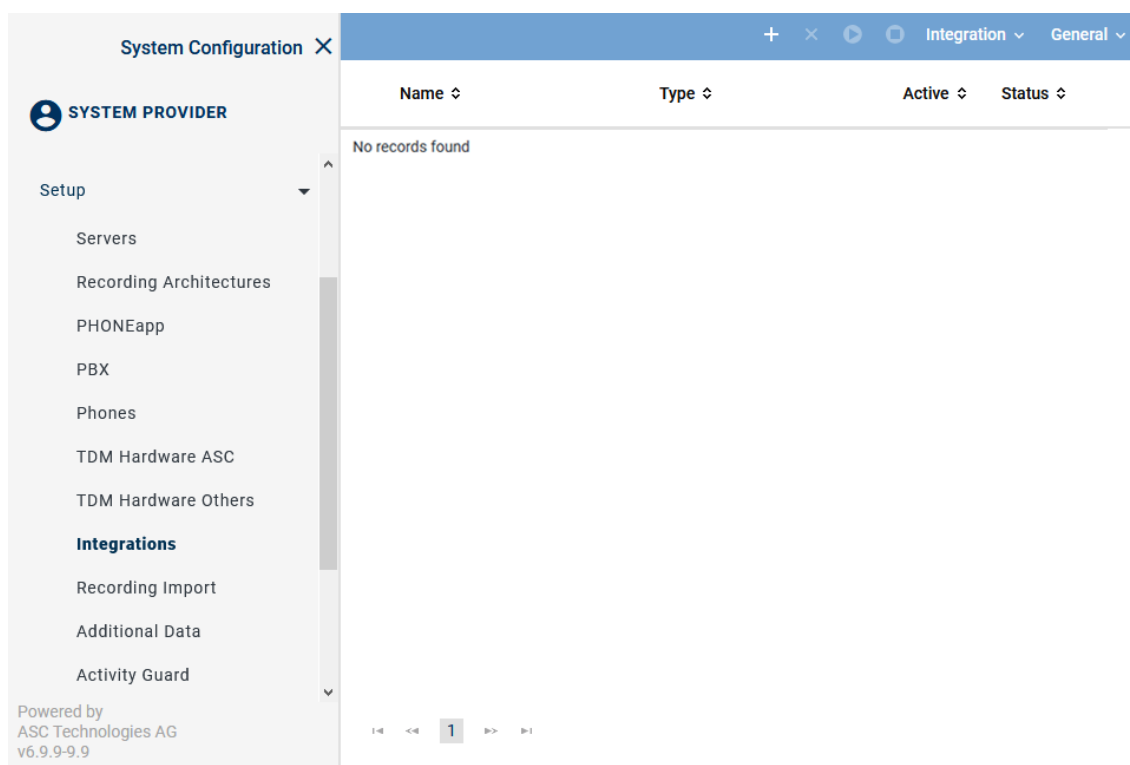




Fig. 43: Integrations - main view

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. 44: 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.

Assign integration type

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

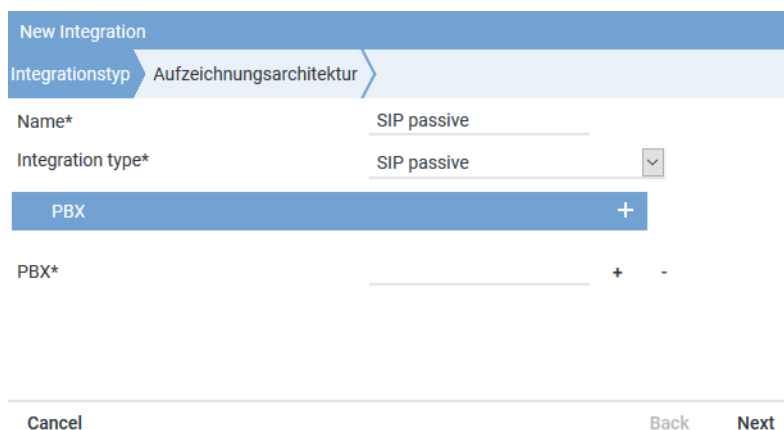



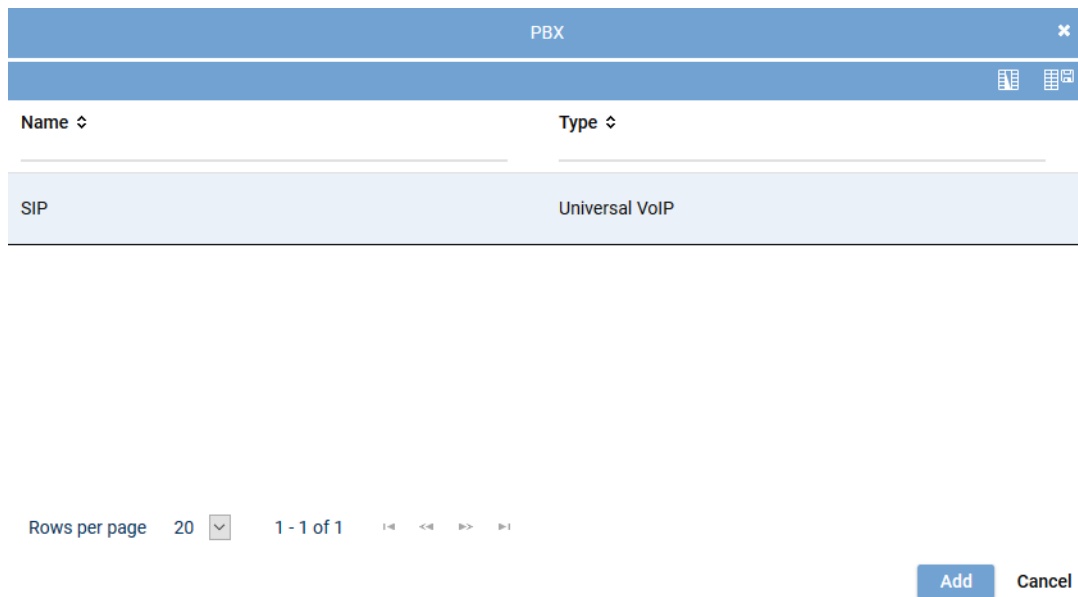
Fig. 45: Create integration type

- Enter the following parameters:

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

Tab. 9: Create integration type

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



Name	Type
SIP	Universal VoIP

Rows per page 20 1 - 1 of 1

Add Cancel

Fig. 46: 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. 47: 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	X	
Step		Configuration		
Configure recording architecture		✓		
Configure recording servers		X		
Configure add-on		✓		
Configure miscellaneous settings		✓		

Fig. 48: Configuration steps of the integration

Configure recording architecture

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

- 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.

Step: Configure Recording Architecture

Details *


Recording architecture*
All-in-one Basic

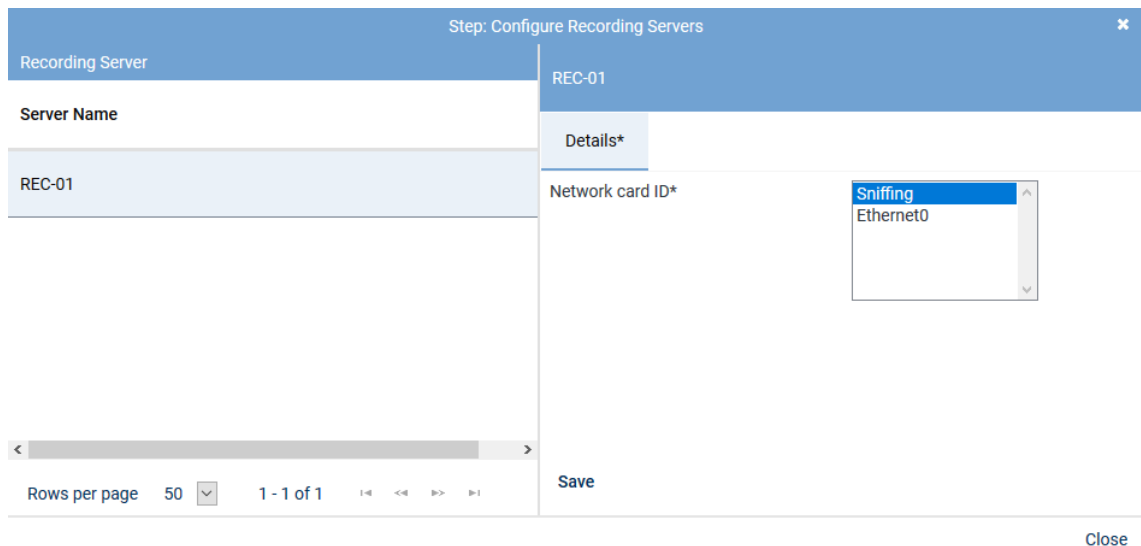
Save Cancel

Fig. 49: 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.



Step: Configure Recording Servers

Recording Server	REC-01
Server Name	REC-01
Details*	Network card ID* Sniffing Ethernet0

Rows per page 50 1 - 1 of 1 Save Close

Fig. 50: Configuration step - Configure recording servers

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

Parameter	Value/Description
Network card ID	From the list field, select the network card which is supposed to be used for sniffing the SIP and the RTP audio data.

Tab. 10: Configure recording servers



To ensure that only relevant data packages are considered in the recording, you must connect the respective network card with the correspondingly configured SPAN/mirror port of the network switch.

- 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 CTI~~connect~~ module of the integration.



Only those add-ons are displayed for which a license has been installed in the system.


Configure miscellaneous settings





Configuring these settings is not required for this recording solution. Even without this configuration step, the integration has been configured comprehensively and can be activated.

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. 51: Activate integration

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






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

Fig. 52: 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.






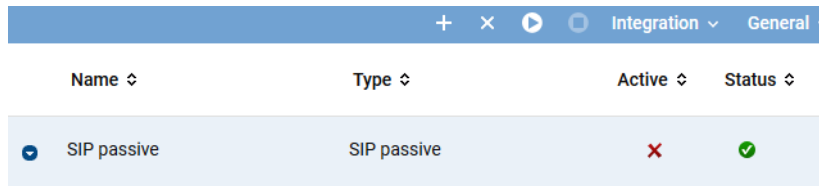
Upon activating the standard configuration, a bulk recording will start.

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.






Name	Type	Active	Status
SIP passive	SIP passive		

Fig. 53: Deactivate integration

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

7.1.3 Adjust Neo configuration file

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

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

7.1.3.1 Adjust Recording module

The configuration files for the Recording module are located in the following path:

C:\Program Files (x86)\ASC\ASC Product Suite\data\RecordingModule

For each configured integration, a separate configuration file is created upon the first start. Customer-specific adjustments of the parameters must be made in the corresponding integration configuration file. Upon the start, the basic file *basic.recorder.properties* is read out first. Then, the integration configuration file is read out. The values in the integration configuration file are prioritized and will eventually be used.

If you have configured several integrations of the same integration type, you must make your adjustments for each integration separately. To determine which file belongs to which integration, you can open the configuration file and check the range of assigned extensions, for instance. Do not change the original file name! Otherwise, it will not be possible to start the integration again.

Integrations which have been configured but not activated are marked with *inactive* in front of the file name. The file will not be deleted even if the integration is deleted in the application System Configuration. If a deactivated integration is activated again, the information *inactive* is removed and the file is used again.

- Change to the installation directory *C:\Program Files (x86)\ASC\ASC Product Suite\data\RecordingModule*.

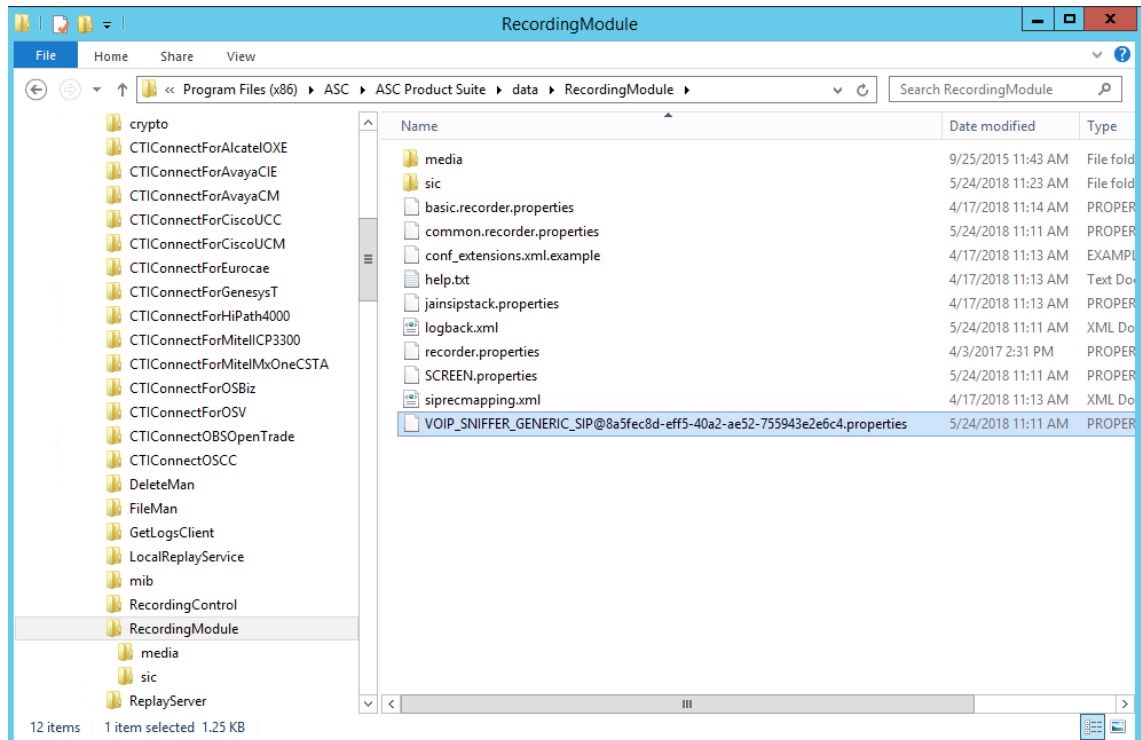


Fig. 54: Path to the configuration file

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

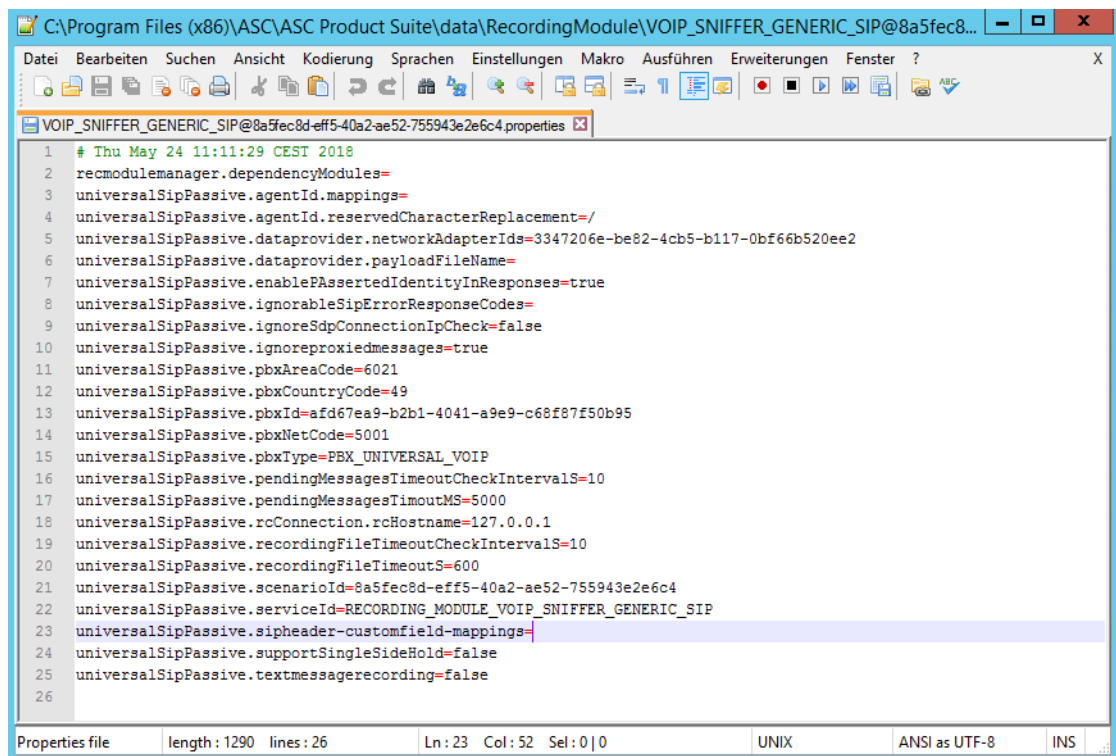


Fig. 55: Configure parameters

3. Search for the entry `universalSipPassive.sipheader-customfileld-mappings=`.
4. Enter a regular expression here.
5. To have the information from the SIP header displayed in the additional data fields of the replay applications, you must map the fields from the SIP header to the customCP fields in the Additional Data module, see [chapter "Configure additional data", p. 44](#).

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 display the Lync Conference ID in the field *customCP02*, enter the following regular expression:

- universalSipPassive.sipheader-customfileld-mappings=customCP02|To|audio-video:id:(.*)

2. Example 2:

To display the SIP Call-ID in the field *customCP01*, enter the following regular expression:

- universalSipPassive.sipheader-customfileld-mappings=customCP01|Call-ID|(.*)

3. Example 3:

To display the Connection IP and the media port from the content of INVITE, 200 OK, and ACK messages 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]*)

To read out the InAttend header, you additionally must make the following adjustments:

- universalSipPassive.agentId.mappings=CALLED_EXT|X-Mitel-ACS-operator-id: UPDATE 200|: (.*)@,CALLING_EXT|X-Mitel-ACS-operator-id: INVITE|: (.*)@
- universalSipPassive.sipheader-metadata-mappings=CALLED_EXT|X-Mitel-ACS-operator-id: UPDATE 200|@(.*),CALLING_EXT|X-Mitel-ACS-operator-id: INVITE|@(.*),ORIGINALCALLED_EXT|To|: (.*)@

1. Once you have finished the configuration, save the changes in the configuration file.
2. Restart the service *ASC RecordingModule* to apply the changes.

7.1.4 Configure Recording Content Validation

Recording Content Validation is an easy and quick possibility to check the functionality of the recording system whenever required. The information is displayed in the Notifications module. Reports can be used to visualize the results.

Preconditions for validation:

- *The license Recording Content Validation must have been installed.*
- *Emotion detection must have been activated in the Servers module.*
- *The server for emotion detection must have been selected.*

Configuration in the Servers module

1. Go to the *Servers module*.
2. In the main view, select the server that you would like to configure.
3. Select the tab *Usage*.
4. Open the group field *Audio Analysis*.

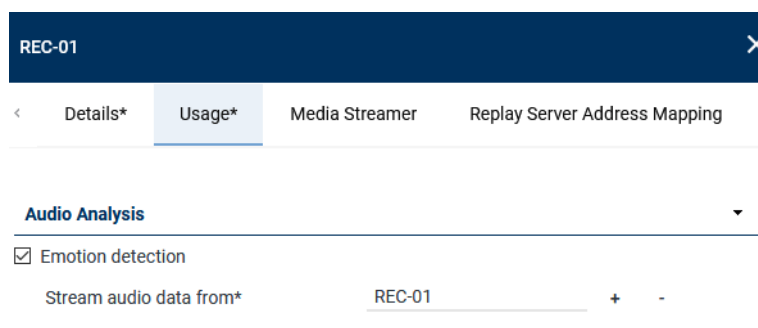


Fig. 56: Servers module - Activate emotion detection

5. Activate the function *Emotion detection*.
6. By clicking on the icon **+**, select the server that emotion detection runs on.
 - ⇒ This server will then appear in the list in the Integrations module in the tab *Recording Content Validation* to configure silence detection.

Configuration in the Integrations module

1. In the main view, select the integration for which you would like to check the validity of recording.
2. Select the tab *Recording Content Validation*.

The following criteria are available to check the correct functionality of the recording system and the validity of recording content:

- *Packet loss detection*
- *Silence detection*

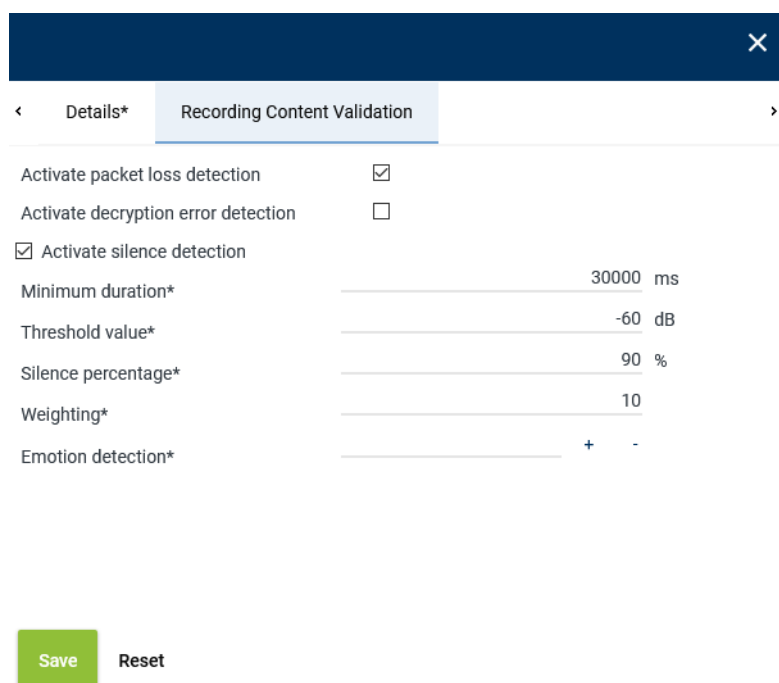



Fig. 57: Create integration - tab Recording Content Validation

Activate packet loss detection	<input checked="" type="checkbox"/> Activate the check box to check whether packets of a recording have been lost. NOTICE! Packet loss compromises audio quality. If a high percentage of packets is lost, this may result in the total loss of the recording.
Activate decryption error detection	NOTICE! This check is not required in this recording solution.
Activate silence detection	<input checked="" type="checkbox"/> Activate the check box to check whether the recording contain sections of silence and under which conditions sections are recognized as silence. NOTICE! A high percentage of silence sections can indicate a technical problem such as a connection interruption.
<i>Minimum duration</i>	Enter the minimum duration of silence after which a notification is supposed to be issued. Default value is 30000 ms (30 seconds).
<i>Threshold value</i>	Enter a threshold value of the audio level in dB under which the section is supposed to be considered a silence section. Default value is -60 dB.
<i>Silence percentage</i>	Enter the percentage of silence in a recording which is supposed to trigger a notification. Default value is 90 %.
<i>Weighting</i>	Enter the extent to which the audio curve (samples) is supposed to be smoothed out. The higher the value, the more signal peaks are smoothed out. Default value is 10. Values of 1-10000 can be recommended.
<i>Emotion detection server</i>	By clicking on the icon  , select the server that emotion detection runs on. The speech analysis software recognizes whether there are silence sections in the recording.

NOTICE! The list only displays servers which have been configured for audio analysis and have been assigned in the Servers module.

3. Select the respective server from the list of available servers.

Emotion Detection

Name

REC-01

Rows per page 20

1 - 8 of 8

1-8

<<

>>

1-8

Add

Cancel

Fig. 58: Select server for emotion detection

4. Click on the button *Add* to apply the selected server.
5. To save the settings, click on the button *Save*.
To discard the settings, click on the button *Reset*.

Configuration in the Notifications module

To issue notifications in case of an error, the corresponding notifications must be configured in the Notifications module.



For basic information about the Notifications module refer to the administration manual for tenants *Notifications module*.

Configuration in the application INSIGHT_{neo}

To issue a report visualizing the errors occurred, a report must be created in the application INSIGHT_{neo}.



For information about using the Report Templates module and the Report Instances module refer to the respective INSIGHT_{neo} user manuals.

7.1.5 Import InAttend conversations to Neo

Supported import formats

This import format allows you to import recordings which have been created by a third-party system. Audio data must be available either in [WAVE](#) format or in [MP3](#) format.

If the required additional data is contained in the file name, then no separate [CSV](#) file is needed.

A corresponding [CSV](#) file is required, if the data can only be extracted from the content. The file names of associated files have to be identical except for the file extension so that the additional data can be mapped correctly.

This import format allows you to import recordings which have been created by a third-party system. Audio data must be available either in [WAVE](#) format or in [MP3](#) format.

If the required additional data is contained in the file name, then no separate [XML](#) file is needed.

A corresponding [XML](#) file is required, if the data can only be extracted from the file content. The file names of associated files have to be identical except for the file extension so that the additional data can be mapped correctly.

To import conversations from an InAttend Console of Mitel to the Neo system, the following pre-conditions must be met:

- Audio data must be available in [WAVE](#) format.
- In the Servers module in the tab *Usage*, the functions *Data storage and import* must have been activated.
- In the PBX module, a [PBX](#) must have been configured.
- In the Additional Data module, respective fields for the additional data must have been configured.
e. g. *customCP01*.
- In the Recording Import module, you must configure an import job.

7.1.5.1 Configure import job

To import recordings, you must configure an import job.



The following configuration has to be carried out as system administrator.

1. Open the application *System Configuration*.

2. Log in as system provider.
3. Select the menu item *Setup > Recording Import*.

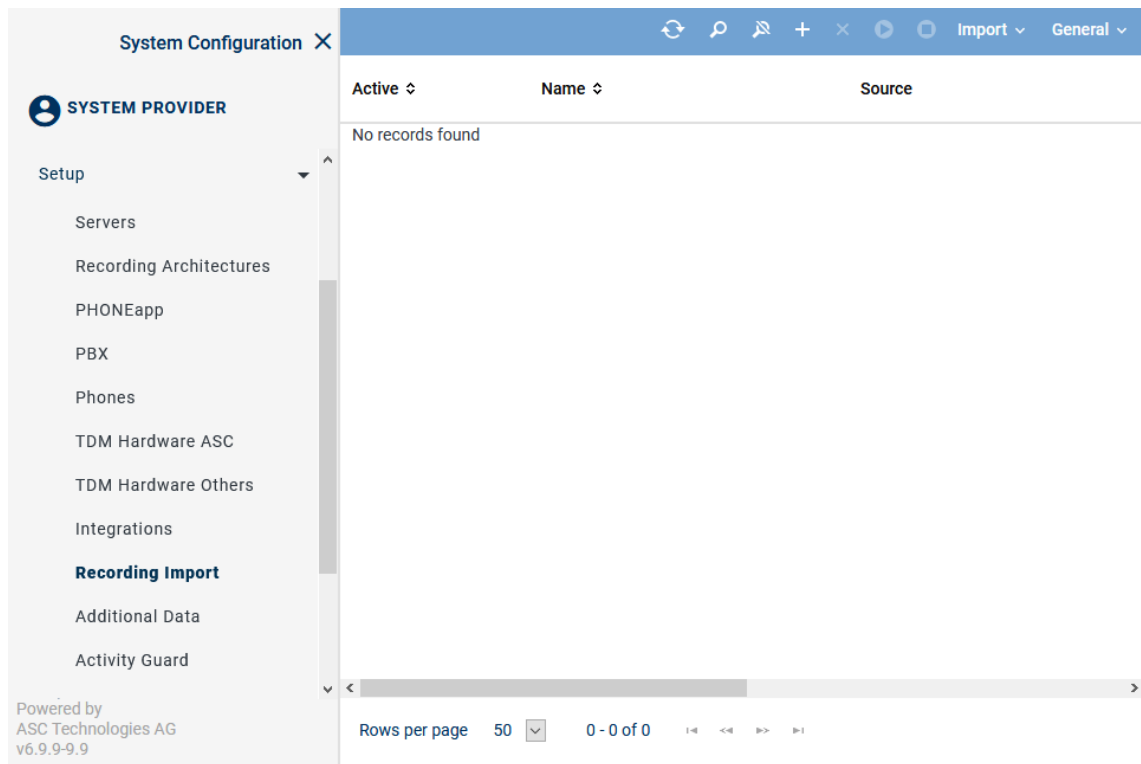



Fig. 59: Main view

4. Click on the icon  (*Create*) in the toolbar of the main view.
 - ⇒ The new import configuration is displayed in the detail view. The configuration options depend on the selected import format.

7.1.5.1.1 Tab Details

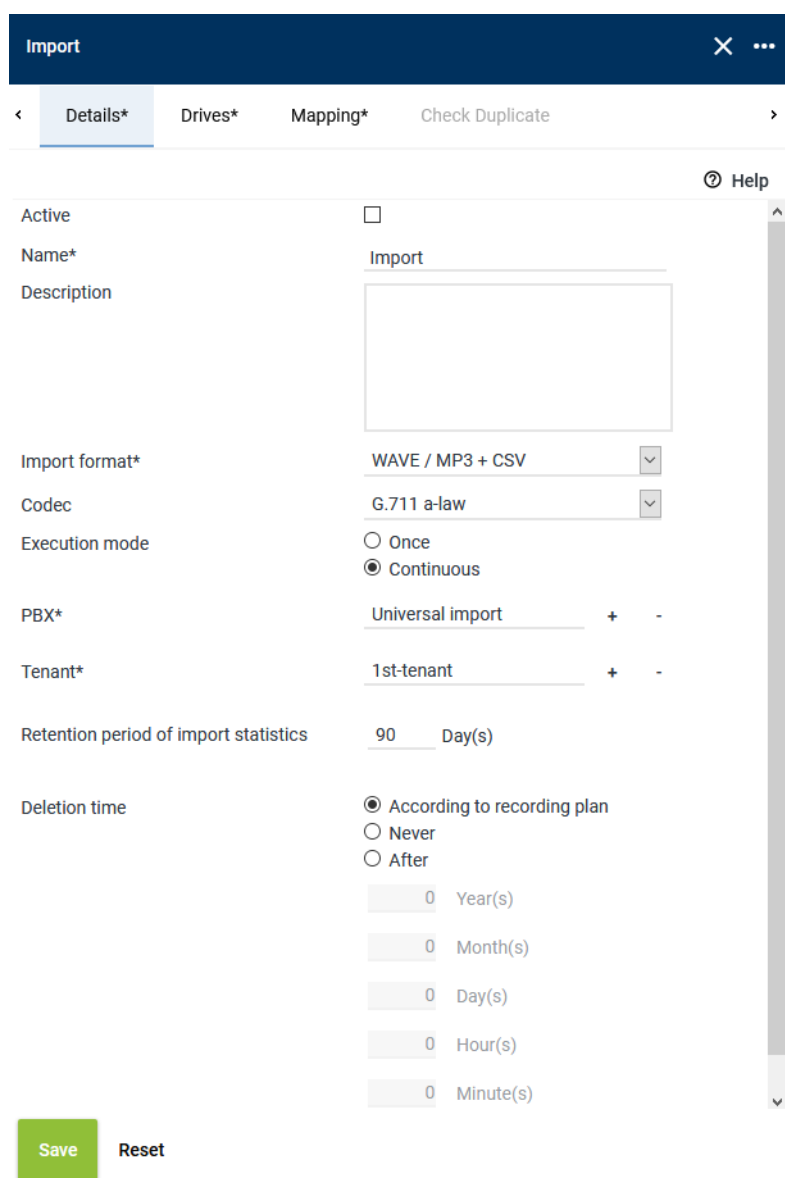




Fig. 60: Tab Details (example)

Active	<p>Once the configuration has been completed, you can activate the import job by means of the check box.</p> <p><input checked="" type="checkbox"/> = Job is active.</p> <p><input type="checkbox"/> = Job is not active.</p> <p>As long as an import job is active, the recording system checks whether new files are available in the source directory. If new data is available, it is imported.</p>
Name	Enter the name for the import job.
Description	Here, you can enter a description of the import job.
Import format	<p>Select the import format from the drop-down list. The following formats have been tested by ASC and are supported:</p> <ul style="list-style-type: none"> • •
Codec	Select the codec from the drop-down list in which the recordings are supposed to be saved.

	<p>The following codecs are supported:</p> <ul style="list-style-type: none"> • G.711 A-law • G.711 μ-law • G.729a • Linear PCM 8 bit
<i>Execution mode</i>	<p>Select whether the import is supposed to be executed once or continuously.</p> <ul style="list-style-type: none"> • <i>Once</i> The import is started upon activating the import configuration. The source directory is checked for data only once. • <i>Continuous</i> The import is started permanently upon activating the import configuration and does not end before the import configuration is deactivated manually. The source directory is constantly checked for new data as long as the import configuration is active. <p>NOTICE! For some import formats only continuous execution is available. In this case, the present setting is automatic.</p>
<i>PBX</i>	<p>By clicking on the button , select for which PBX the data is supposed to be imported, see chapter "Assign PBX", p. 61.</p> <p>It is necessary to map the imported data to a PBX so that the extensions can be mapped. For a mere import, you can either select a configured Mitel PBX or a PBX of the type <i>Universal Import</i>. The PBX must have been configured in the PBX module previously.</p>
<i>Tenant</i>	<p>By clicking on the button , select which tenant the imported data is supposed to be mapped to, see chapter "Assign tenant", p. 62.</p> <p>NOTICE! In a 1-tenant system, the tenant is entered here automatically. The setting cannot be changed.</p>
<i>Retention period of import statistics</i>	<p>Enter the retention period for the import statistics. With this information, you can generate a report about the imports of recordings. The entries apply from the time of the import.</p>
<i>Deletion time</i>	<p>Select the conditions for deletion by activating the corresponding radio buttons.</p> <p>The following options are available:</p> <ul style="list-style-type: none"> • <i>Check recording plan</i> The imported data is deleted based on the configuration in the Recording Planner. • <i>Never</i> The imported data is never deleted. • <i>After</i> The imported data is deleted after the time configured here. Enter the corresponding time.

Assign PBX


1. Click on the button  on the right of the entry field.
2. Select a [PBX](#) from the list.



Figure 61 shows a window titled "PBX" with a close button (X) in the top right corner. Below the title bar is a toolbar with two icons: a list view and a grid view. The main area contains a table with two columns: "Name" and "Type". The table lists several PBX options, with "Universal import" selected. At the bottom of the table, there is a pagination bar showing "Rows per page 20" and "1 - 20 of 21". Below the table, there are two buttons: "Add" and "Cancel".

Name	Type
SIP	Universal VoIP
Cisco ...	Cisco UCM
Avaya_1	Avaya CM
Cisco Jabber	Cisco Jabber
Universal import	Universal import
Universal analog CM	Universal analog CM
OpenScape Xpert	OpenScape Xpert

Fig. 61: Add PBX

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

Assign tenant

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

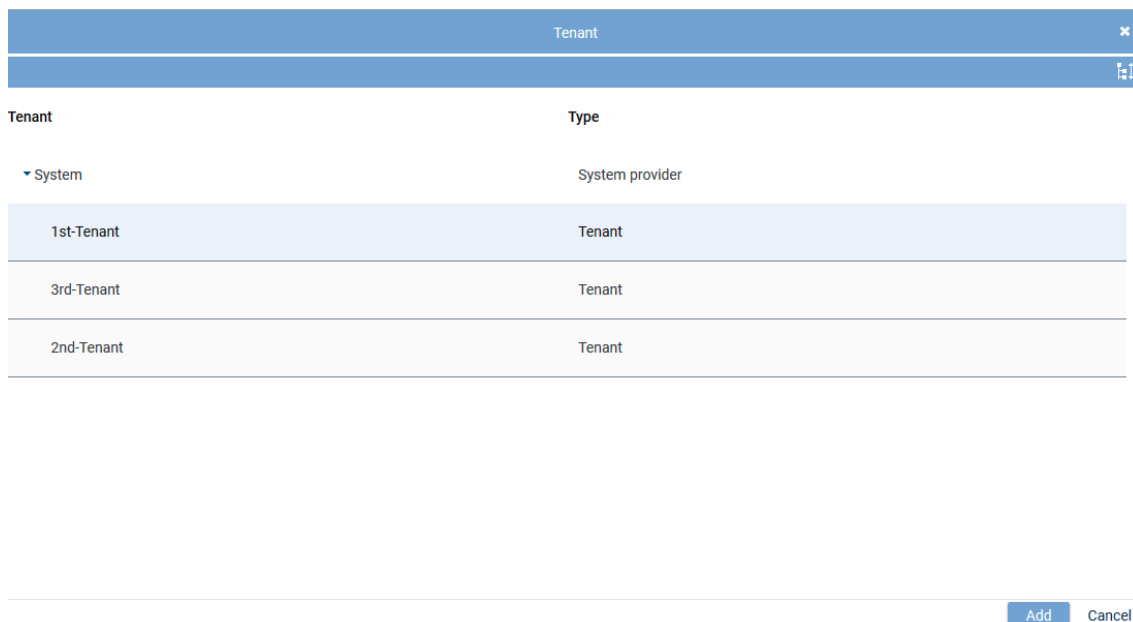


Figure 62 shows a window titled "Tenant" with a close button (X) in the top right corner. Below the title bar is a toolbar with two icons: a list view and a grid view. The main area contains a table with two columns: "Tenant" and "Type". The table lists several tenant options, with "1st-Tenant" selected. At the bottom of the table, there is a pagination bar showing "Rows per page 20" and "1 - 20 of 21". Below the table, there are two buttons: "Add" and "Cancel".

Tenant	Type
System	System provider
1st-Tenant	Tenant
3rd-Tenant	Tenant
2nd-Tenant	Tenant

Fig. 62: Add tenant

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

7.1.5.1.2 Tab Drives

1. Select the tab *Drives* to configure the source.



A drive can be used in several job configurations as long as the drive is not used actively by a configuration.

If a drive is currently used actively by a job, no additional job which uses the same drive can be released or activated. This behavior includes all modules, i. e. regardless of the module that the configuration belongs to.

Settings depend on the selected import format.

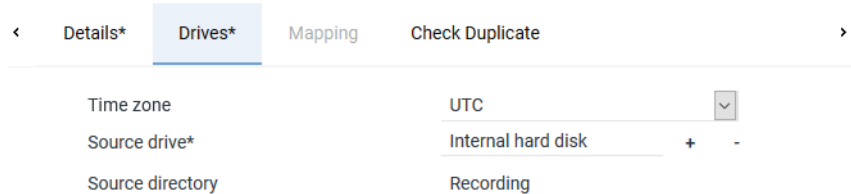


Fig. 63: Tab Drives - [WAVE](#) / [MP3](#) formats

Time zone	Select the time zone from the drop-down list that the time indicated in the data to be imported refers to.
Source drive	Select the drive from which the data is supposed to be imported, see chapter "Assign drive", p. 63 .
Source directory	Enter the directory from which the data is supposed to be imported.

Assign drive

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

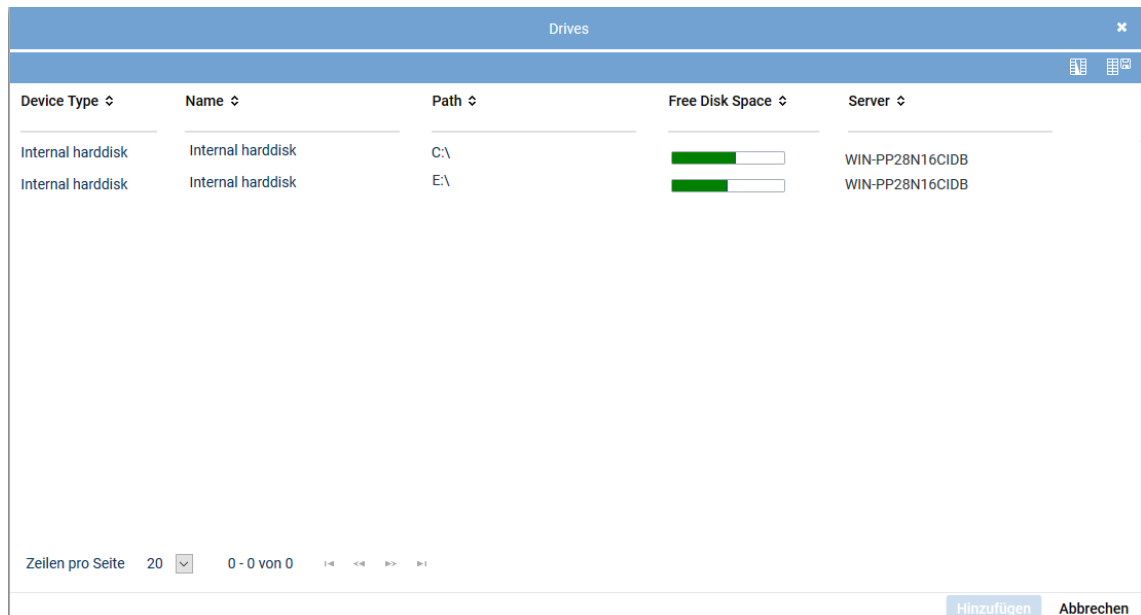


Fig. 64: Add drive

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

7.1.5.1.3 Tab Mapping with CSV file

1. Select the tab *Mapping*.

Here, you can configure the rules that have to be observed when mapping the additional data from the sets of data which are supposed to be imported to the data structure in the Neo recording system.

The following group fields are available to be configured:

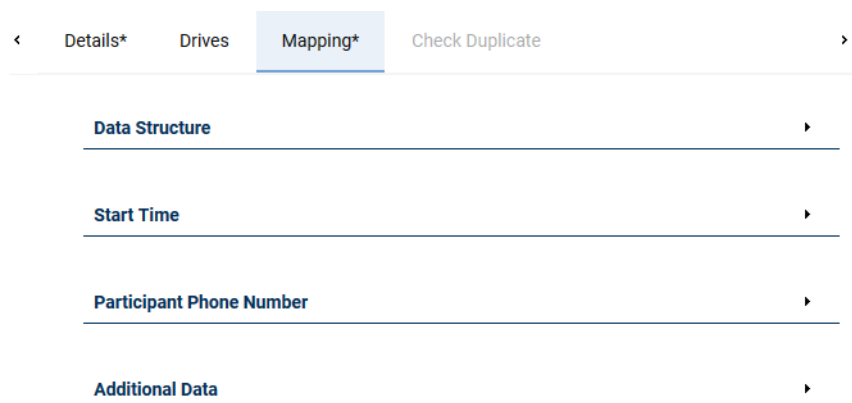


Fig. 65: Tab Mapping for [WAVE](#) / [MP3](#) import formats

The additional data can either be extracted from the file name of the [WAVE](#) or [MP3](#) file or from the file content of the delivered [CSV](#) or [XML](#) file.

The file names of associated files ([WAVE](#) / [MP3](#) and [XML](#) file or [WAVE](#) / [MP3](#) and [CSV](#) file) must be identical except for the file extension so that the additional data can be mapped correctly.

If no separate file with additional data is available, the additional data is extracted from the file name of the [WAVE](#) or [MP3](#) file.

Group field Data Structure

Enter the format of the file name so that information can be read out.

The file name consists of information sections which are separated by a certain delimiter.

A new section begins at the beginning of the file name and after a delimiter. Every section ends with a delimiter as well as with the period in front of the file extension.

Example:

The file name "2019-11-06_10-44-46_Shruthiv_9002_61.wav" consists of 5 sections separated from each other by an underscore.

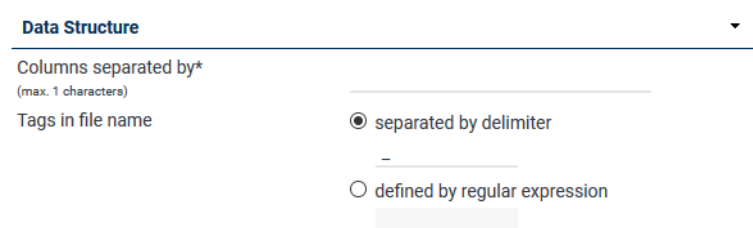


Fig. 66: Group field Data Structure

In this case, select the option *separated by delimiter* and enter an underscore in the entry field as delimiter.

NOTICE! Digits and letters are not recognized as delimiters.

Group field Start Time

Here, you can define how the start time of the recordings is supposed to be read out of the file name or the file content.

Import format WAVE / MP3 + CSV

Start Time	Start Time
Source File name	Source File content
<input type="radio"/> Date and time in same section Section no.* <input type="text"/> Format* <input type="text"/>	<input checked="" type="radio"/> Date and time in the same column Column* Starttime Format* yy-MM-dd-hh-mm-ss
<input checked="" type="radio"/> Date and time in separate sections Section no. for date* <input type="text"/> Format* yyyy-MM-dd Section no. for time* <input type="text"/> Format* hh-mm-ss	<input type="radio"/> Date and time in separate columns Column for date* <input type="text"/> Format* <input type="text"/> Column for time* <input type="text"/> Format* <input type="text"/>

Fig. 67: Group field Start time - Import format

1. Select the source from which the information is supposed to be read out.
2. Select whether one and the same information section contains date and time.
3. Enter at which location of the structure the relevant information can be found.
 - For *Source = File name*:
Enter the number of the section which contains the information.
You have to enter the delimiter which separates the sections in the file name in the group field *Data Structure*, see Group field Data Structure.
 - For *Source = File content*:
Enter the name of the column which contains the information.
4. Enter the format which contains date and time in the different information sections, see Format definitions.

Import format WAVE / MP3 + XML

Start Time	Start Time
Source File content	Source File name
<input checked="" type="radio"/> Date and time in the same XML tag XML tag* Recording/Starttime Format* yy-MM-dd-hh-mm-ss	<input type="radio"/> Date and time in same section Section no.* <input type="text"/> Format* <input type="text"/>
<input type="radio"/> Date and time in separate XML tags XML tag for date* <input type="text"/> Format* <input type="text"/> XML tag for time* <input type="text"/> Format* <input type="text"/>	<input checked="" type="radio"/> Date and time in separate sections Section no. for date* <input type="text"/> Format* yyyy-MM-dd Section no. for time* <input type="text"/> Format* hh-mm-ss

Fig. 68: Group field Start time - Import format

1. Select the source from which the information is supposed to be read out.
2. Select whether one and the same information section contains date and time.
3. Enter at which location of the structure the relevant information can be found.

- For *Source = File name*:
Enter the number of the section which contains the information.
You have to enter the delimiter which separates the sections in the file name in the group field *Data Structure*, see Group field Data Structure.
 - For *Source = File content*:
Enter the hierarchical order of the XML tags from the root element to the XML tag which contains the information. The XML tag sequence has to be entered without blanks and the individual XML tags separated by a slash (e. g. Recording/Starttime). If the relevant information is contained in an attribute, then the attribute name has to be entered in square brackets preceded by an @ sign (e. g. Recording/Starttime[@date]).
4. Enter the format which contains date and time in the different information sections, see Format definitions.

Group field Participant Phone Number

Here, you can define from which sections the information of the conversation participants is supposed to be read out from the file name.

Participant Phone Number ▼

Handling of stereo recordings ☐ Mix stereo to mono

Several phone numbers in a column separated by _____
(max. 1 character)

Source	Section No./Column	Track
File name	4	left
File name	5	left

[New](#) [Edit](#) [Delete](#)

Fig. 69: Group field Participant phone number (example)

<i>Handling stereo recordings</i>	This option is not relevant for InAttend conversation, as WAVE files are available in mono only.
<i>Several phone numbers in a column separated by</i>	This option is not relevant, as the information is read out from the WAVE files name.

List

The list shows all import configuration rules that have been saved to be able to map the participant phone numbers.

<i>Source</i>	Shows whether the information is read out of the file name or out of the file content.
<i>Section No./XML Tag or Section no./Column</i>	Shows from which information section the information is read out. NOTICE! The column title depends on the import format.
<i>Track</i>	Selecting a track is not relevant for InAttend conversations, as the import files are available in mono.

Tab. 11: Mapping rules for participant phone numbers

<i>New</i>	The button opens a window in which you can create a new entry. See chapter "Configure source for participant phone numbers", p. 67 .
<i>Edit</i>	The button opens a window in which you can edit a selected entry. See chapter "Configure source for participant phone numbers", p. 67 .
<i>Delete</i>	The button deletes the selected entry from the list.

Tab. 12: Buttons

Configure source for participant phone numbers

1. Click on the button *New* to configure a new source.

In the window *Source for Participant Phone Numbers*, you can define how additional data is supposed to be read out from the file name or the file content.

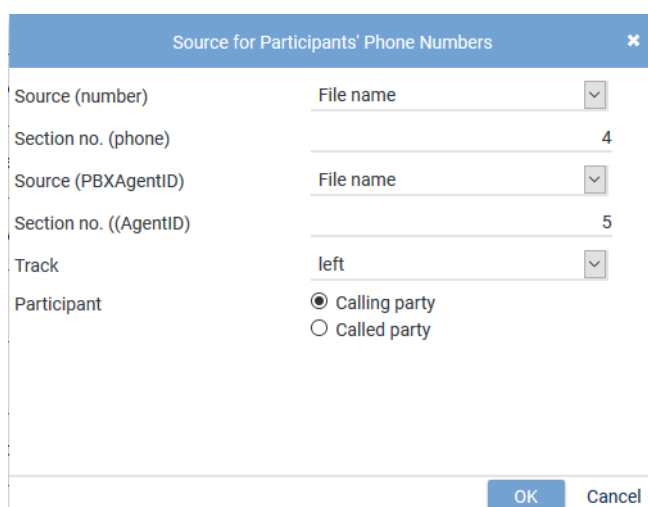


Fig. 70: Edit source for participant phone number (example)

<i>Source</i>	From the drop-down list, select the file name as the source for the additional data.
<i>XML Tag</i> or <i>Column Name</i> or <i>Section No.</i>	Enter the number of the file name section that contains the information. NOTICE! The name of the entry field depends on the source and the import format.
<i>Track</i>	Selecting a track is not relevant for InAttend conversations, as the import files are available in mono.
<i>Participant</i>	Select whether the phone numbers come from calling parties or from called parties.

2. Click on the button *OK* to apply the configuration and close the window.

Configure source for additional data

1. Click on the button *New* to configure a new source.

In the window *Source for Additional Data*, you can define how additional data is supposed to be read out from the file name and which additional data type they are supposed to be mapped to.

2. In the group field *Additional Data*, click on the button *New* or *Edit*.

⇒ The following window appears:

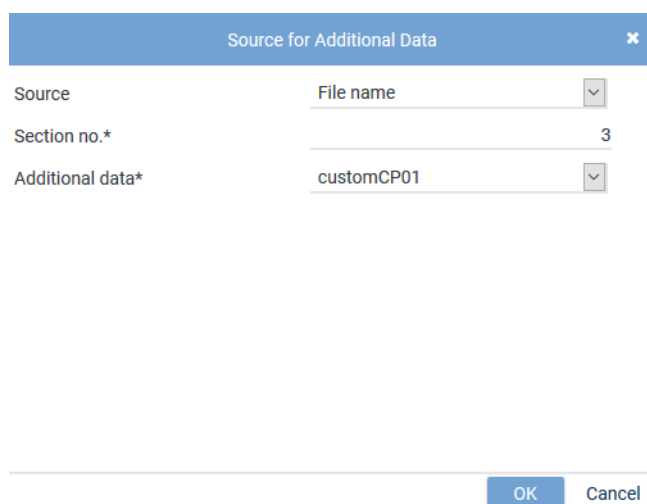


Fig. 71: Edit source for additional data (example for WAVE import format)

Source	From the drop-down list, select the <i>file name</i> as the source for the additional data.
XML Tag or Column Name or Section No.	Enter the number of the file name section that contains the information. NOTICE! The name of the entry field depends on the source and the import format.
Additional data	From the drop-down list, select the additional data type that the information is supposed to be mapped to. For further information about the configuration of the additional data refer to the administration manual System Configuration <i>Additional Data module</i> .

- Click on the button *OK* to apply the configuration and close the window.

7.1.5.2 Replaying conversations in POWERplay Web

- Log in to the application *POWERplay Web* as administrator of the tenant to replay conversations.
- Select the menu item *Recording View* in the navigation bar.

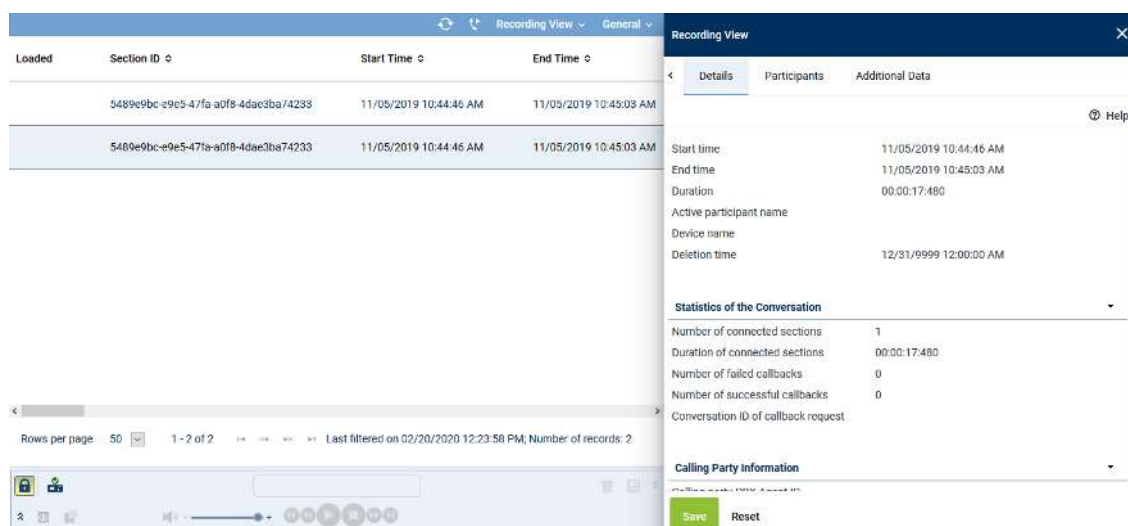


Fig. 72: POWERplay Web - Recording View

3. Use the search function to search for the start time of the conversation to select the conversation you have imported.
4. Select a conversation to check the additional data.
5. Change to the tab *Additional Data*.

Recording View			
Loaded	Section ID	Start Time	End Time
	5489e9bc-e9e5-47fa-a0f8-4dae3ba74233	11/05/2019 10:44:46 AM	11/05/2019 10:45:03 AM
	5489e9bc-e9e5-47fa-a0f8-4dae3ba74233	11/05/2019 10:44:46 AM	11/05/2019 10:45:03 AM

Recording View	
Details	Participants
Additional Data	
Additional data	
customCP01	Shruthiv

Fig. 73: Recording View - tab Additional Data

⇒ In the field *customCP01*, the name of the participant appears.

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 have been recorded check:

- whether the correct network device has been selected in System Configuration, see [chapter "Configure server", p. 18](#)
- 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 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 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

μ-law

PCM digitization method for analog audio signals according to ITU G.711. In the process, analog voice signals are converted into digital signals by means of a logarithmic quantization characteristic. The μ-law algorithm is used in the US while the A-law algorithm is the standard in Europe.

ACS

The Attendant Connectivity Server of InAttend is a SIP-based component which has been installed on the Mitel communication platform.

A-law

PCM digitization method for analog audio signals according to ITU G.711. In the process, analog voice signals are converted into digital signals by means of a logarithmic quantization characteristic. The A-law algorithm is used in Europe while the μ-law algorithm is the standard in the US.

API

Application Programming Interface

API server

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

Codec

Code/Decode implementation of a method for transforming from coded/decoded data to decoded or coded data

CSTA

Computer Supported Telecommunications Applications (CSTA) Standard which defines how data is transferred between PBX and all external computer programs connected to the device.

CSV

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

DNS

Domain Name System is a worldwide directory service which administrates the name domain of the Internet. Its main task is to answer the queries regarding name resolutions. (Source: Wikipedia 5th April 2017)

DTMF

Dialed Dual Tone Multi Frequency keys represent dialing signals on the analog connecting cable of the telephone. This is a method to transmit the phone number to the telephone network or to a PBX.

IP

Internet Protocol, basic protocol for Internet communication

LCR

Last Conversation Repeat

Monitor/Mirror/SPAN Port

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

MP3

With regard to audio compression, MP3 uses lossy data-compression to encode data using inexact approximations and the partial discarding of data. MP3 compression works by reducing (or approximating) the accuracy of certain components of sound that are considered (by psychoacoustic analysis) to be beyond the hearing capabilities of most humans. The remaining audio information is then recorded in a space-efficient manner.

PBX

Private Branch Exchange

PCM

Pulse Code Modulation is an uncompressed pulse modulation method which transforms a time- and value-continuous analog signal into a time- and value-discrete digital signal. It is used in audio technology, for example in the context of the G.711 standard and in video technology for digital video signals in compliance with the ITU-R BT 601 standard. (Source: Wikipedia 12th June 2018)

RTP

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

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

SSL

Secure Socket Layer

TCP

Transmission Control Protocol, controlled connection establishment, protected data transmission

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, former name Secure Socket Layer (SSL), is a hybrid encryption protocol for secure data transmission on the Internet.

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

WAVE

WAVE file format is a container format to digitally save audio data and is based on the Resource Interchange File Format (RIFF) defined by Microsoft for Windows. (Source: Wikipedia 23rd February 2021)

XML

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