

# System Configuration

## Configuration drives



## Administration manual

### for system providers

5/6/2020

### Product line neo, version 6.x

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

EVOIPneo

EVOLUTIONneo / XXL / eco

INSPIRATIONneo

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

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## General information

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## 2 Introduction

This manual describes how to configure drives in the ASC recording system.

The drives are configured in the Drives module of the application System Configuration.

Upon starting the application System Configuration, all drives which have been connected directly to a server or a recorder are automatically recognized and displayed in the main view of the Drives module. Network drives have to be configured in the system by the administrator by means of the function *Create*. To configure a drive, select the drive in the main view and adjust the necessary settings in the detail view (see [chapter "Configure drives", p. 45](#)).

Open the Drives module by clicking on the menu item *Drives* in the navigation bar of 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*.



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Only the system provider can install new drives.

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Always eject media by using the function in the Drives module in the application System Configuration.



Once an *neo* software has been installed on the system, ejecting the medium via the Windows Explorer is not recognized properly. When ejecting the medium via the Windows Explorer, an update will not be completed and new media cannot be read in as a consequence.

This restriction applies to external drives as well.

---

## 3 Supported drives



Partitions of hard disks are considered as a logical drive and can be used like one.

**Supported drives**

- **RDX (RDX QuikStor, Fa. Tandberg Data GmbH)**  
Supported media capacities: 160 GB, 320 GB, 500 GB
- **DVD-RAM IV (Fa. Teac)**  
(drive with ASC-specific firmware, 2.0G USB)  
Supported media capacities: 4.7 GB
- **DVD-RAM V (Fa. Samsung)**  
Supported media capacities: 4.7 GB
- **DVD-RAM VI (Fa. ASUS)**  
Supported media capacities: 4.7 GB
- **USB devices**
  - USB hard disks
  - USB flash disks



For the above-mentioned drives, all external models are supported, too.

**Supported network storage solutions**

- **NAS**  
Supported protocol [SMB/CIFS](#)  
The user which is supposed to connect to the network drive is required full access to the network drive. Among them are the rights to read, write, delete, and change the files and folders within the release.
- **SAN (Storage Area Network)**
  - Connection via [iSCSI](#) or fiber glass
- **Cloud storage Amazon S3**
- **EMC Centera Server** (only for updates of and migrations from V10)  
Supported versions: CentraStar 3, CentraStar 4  
Used interfaces: Centera SDK 3.2.661  
**NOTICE!** The user which is supposed to connect to the Centera server is required the rights to read (r), write (w), and delete (d) as well as to check whether files exist (e) on the Centera server.  
**NOTICE!** All data written on the Centera server obtains a *retention period* of 0. For this reason, no *minimum retention* must have been set on the Centera server.
- **iCAS storage**  
**NOTICE!** The [iCAS](#) storage may only be configured as Windows share.
- **Cloud storage Microsoft Azure**
- **Google Cloud Storage**

### 3.1 Supported file systems

For the different drive types, different file systems can be used. Exceptions are storage expansions and [NAS](#) drives. The following table shows possible combinations:

Drive	File system			
	ASCFS	NTFS	FAT32	exFAT
Internal hard disks	-	X	X	-
External hard disks	-	X	X	X
RDX	-	X	-	X
DVD-RAM	X	-	-	-



[ASCFS](#) is a proprietary file system of ASC for DVD-RAM media. In Microsoft Windows Explorer, media in [ASCFS](#) format are displayed as empty. You can check the contained data and the available storage capacity on the medium via the application System Configuration.



If you use FAT32, the medium must not exceed a size of 32 GB. Otherwise, it cannot be formatted.

For larger media use NTFS or exFAT.



### 4 Supported technologies

Network connections:

- Network-attached storage ([NAS](#))

Supported drives:

- Hard disks
- Centera
- Amazon S3

In addition, the following drives are recognized automatically and integrated ([DAS](#)) when connected directly to one of the system components:

- Hard disks
- [USB](#) devices
- DVD-RAM drives

## 5 Drive categories

During the configuration, the drives have to be mapped to a category. The category defines the functions available for the drive.

There are 5 different categories:

### 1. System storage

Drives which serve as system storage are mounted and configured during the installation. The system storage is exclusively used for the recording of conversations. The system storage can neither be used for archiving nor for import, export or as storage expansion.

There is exactly 1 system storage per server. All other drives can only be configured as storage expansion or as data drives.

You have the possibility to compress the recordings before saving them in the system storage.

### 2. Storage expansion

The storage expansion adds storage to the system storage. The capacity of a storage expansion has to exceed the capacity of the system storage by at least 10 %.

Any number of storage expansions can be set up per system storage. To activate a storage expansion for usage, you have to map the storage expansion to at least 1 tenant, though. This implies that you can use as many active (activated) storage expansions per system storage at maximum as there are tenants in the system.

All recordings of tenants who have been mapped to a storage expansion are copied to this storage expansion. Thus, the local availability of the recordings of those tenants is increased in case recordings are deleted from the system storage due to capacity reasons. The recordings of tenants who have not been mapped to a storage expansion are saved exclusively on the system storage.

You can map any number of tenants to the storage expansion.

The storage expansion can neither be used for archiving nor for import or export.

### 3. Data drive

A data drive is not used for the recording of conversations. Data drives can only be used for archiving, import, and export.

You can configure any number of data drives.

### 4. Database drive

Exclusively the database is installed on the database drive. You cannot install any other software components on this drive. The database drive is created during the installation of the ASC software if you do not use an external database. A maximum of 1 database drive can be created per recording system.













### 5. Application drive

The ASC software is installed on the application drive. You can install other software components on this drive besides the ASC software, though. The application drive is created during the installation of the ASC software. The drive with the Windows installation is considered an application drive, too. Application drives can be used as the source drive for the import of conversations.



In virtual environments, you can only use network drives for archiving, import and export of data. Internal drives or [USB](#) drives are not supported as this may result in access and performance issues if the drive is unavailable.










In the main view, all connected drives are displayed.



Usage	Device Type	Active	Connected	Name	Path	Free Disk Space	Serial
	NAS	✓	✓	NAS1	NAS 1		R
	NAS	—	✓	NAS 2	NAS 2		R
	DVD-ROM	✓	✗	DVD-ROM drive	G:\		R
	Internal hard disk	—	✓	Internal hard disk	E:\		C
	DVD-ROM	✓	✓	DVD-ROM drive	D:\		C
	Internal hard disk	—	✓	Internal hard disk	C:\		C
	DVD-ROM	✓	✓	DVD-ROM drive	D:\		C
	Internal hard disk	—	✓	Internal hard disk	C:\		C
	Internal hard disk	—	✓	Internal hard disk	E:\		C
	Internal hard disk	—	✓	Internal hard disk	E:\		R
	DVD-ROM	✓	✓	DVD-ROM drive	D:\		R
	Internal hard disk	—	✓	Internal hard disk	C:\		R

Rows per page 50 1 - 31 of 31

Fig. 1: Drives - main view

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

<b>Usage</b>	Shows the category of the drive and for which functions it is thus available. <ol style="list-style-type: none"> <li> = data drive</li> <li> = storage expansion</li> <li> = system storage</li> <li> = database drive</li> <li> = application drive</li> </ol> For information about the drive categories, see <a href="#">chapter "Drive categories", p. 10</a> .
<b>Device Type</b>	Shows the drive type.
<b>Active</b>	Shows for data drives whether the drive has been released to be used. Possible statuses for data drives (  ):  = Drive is active; configuration of the drive has been released.  = Drive is inactive; configuration of the drive has not been released. <b>NOTICE!</b> Data drives can only be used if they have the status <i>Active</i> as well as the status <i>Connected</i> .  All other drive do not have an activity status since these drives are always active and cannot be deactivated.  = no activity status

<i>Connected</i>	Shows the technical status of the drive. Only drives with the status <i>Active</i> and the status <i>Connected</i> can be used.   = Drive has been connected.  = Drive has not been connected. The status <i>Not connected</i> can signify 2 things: <ul style="list-style-type: none"> <li>• Hardware-wise, the drive is no longer connected to the recording system.</li> <li>• In case of <a href="#">NAS</a> drives: The drive has not been connected to the recording system.</li> </ul>
<i>Name</i>	Name of the drive. During the configuration, the name of the drive can be chosen freely.
<i>Path</i>	Path of the drive.
<i>Free Disk Space</i>	Shows how much free disk space remains on the drive.
<i>Server</i>	Name of the server that the drive has been connected to hardware- or software-wise.  The server can be an EVOIP <i>neo</i> server or a recorder of the product line EVOLUTION <i>neo</i> .
<i>Tenant</i>	Name of the tenant whom the drive has been mapped to. Only this tenant has access to the drive.
<i>Creation Date</i>	Date on which the drive has been configured, i. e. recognized automatically by the system.
<i>Updated</i>	Date on which the settings for the drive were updated for the last time.

## 6.1

### Toolbar

The toolbar offers the following functions.

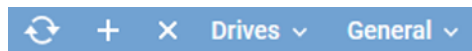






Fig. 2: Toolbar Drives

	<i>Refresh</i>	Refreshes the main view.
	<i>Create</i>	Creates a new network drive ( <a href="#">NAS</a> , Centera or Amazon S3) in the recording system.  Drives which are connected directly to a system component are recognized automatically as soon as they have been connected. These drives can be selected from the list in the main view and configured directly.  See <a href="#">chapter "Configure drives"</a> , p. 45.
	<i>Delete</i>	Deletes the selected drive. The configuration of the drive is deleted. The drive is being removed from the list of the main view.  You can only delete drives with the status <i>Inactive</i> .
<i>Drives</i>	<i>Disconnect Network Drive</i>	Disconnects the selected drive from the system and deletes the configuration of the drive. Upon refreshing the view (  ) , the drive is deleted from the main view.  This function is only available for drives which have been connected to the recording system via network connection and which have the job status <i>Deactivated</i> .
	<i>Eject Medium</i>	Ejects the medium of the selected drive.

		The function is available for DVD and RDX drives only.
	<i>Detach Drive</i>	Detaches the selected drive from the recording system. The configuration of the drive remains. The drive merely receives the status <i>Not connected</i> . It can be connected again at any moment and used immediately.  The function is only available on external drives which have neither been integrated by <a href="#">NAS</a> technology nor mapped to a tenant.
	<i>Format</i>	Formats the selected medium.  Drives for which a write protection has been activated cannot be formatted. Exception: write protection on the file system, see <a href="#">chapter "Group field Write Protection"</a> , p. 30.
<i>General</i>	<i>Print</i>	Prints the table of the main view.
	<i>Adjust Table</i>	Opens a window in which you can adjust the following settings for the main view: <ul style="list-style-type: none"> <li>• Displayed information</li> <li>• Order of the displayed columns</li> <li>• Number of rows per page</li> </ul>
	<i>Save Table Configuration</i>	Saves the current table configuration of the main view as default view of the user.
	<i>Search</i>	Opens the window of the search function. The search function allows searching systematically for sets of data which meet certain criteria (see <a href="#">chapter "Search"</a> , p. 13).
	<i>Reset Search</i>	Resets all manually entered search criteria.
	<i>General Help</i>	Opens the online help.
	<i>Module Help</i>	Opens the module-specific online help.



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

### 6.1.1

#### Search

The search function allows searching systematically for sets of data which meet certain criteria.

1. Click on the menu item *General > Search* in the toolbar.

⇒ The window *Search Criteria* appears.

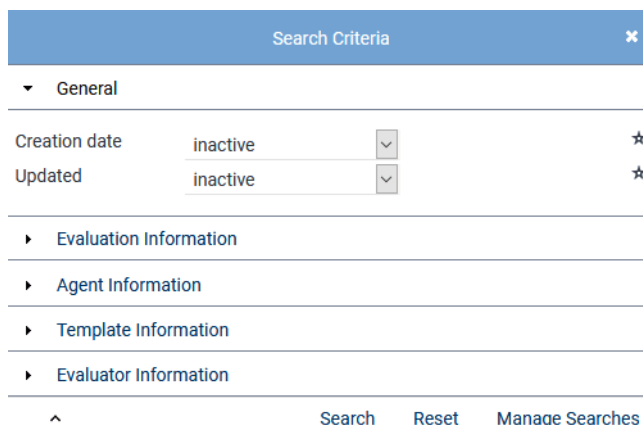


Fig. 3: Window Search Criteria (example)

2. Set the respective search criteria.  
**NOTICE!** It depends on the respective module which search criteria are available.
3. To start the search, click on the button *Search*.  
To reset all manually entered search criteria, click on the button *Reset*.  
⇒ After running the search, only those sets of data are displayed in the main view which meet the set search criteria.
4. To display all original sets of data in the main view again, i. e. to reset the manually entered search criteria, click on the menu item *General > Reset Search* in the toolbar.

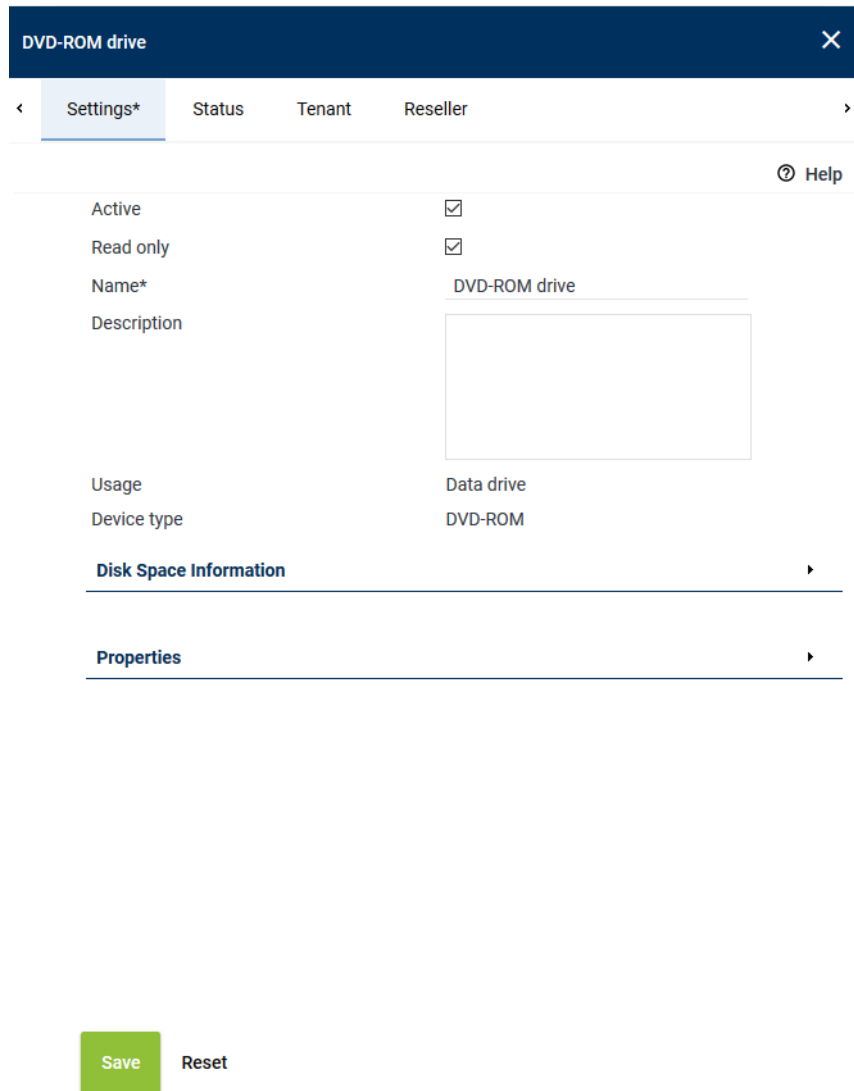
Via the button *Manage Searches* you can save the defined search criteria under an unambiguous name, to load saved search criteria or delete them.

Via the icon ★ you can tag the search criterion as favorite. Criteria tagged as favorite are displayed additionally in the upper area of the window *Search Criteria* and marked with the icon ★.



A detailed description of the search function can be found in the user manual *System Configuration - General information*.

The detail view contains additional information about and functionalities of the selected drive.



DVD-ROM drive

Settings\*

Status

Tenant

Reseller

Active

Read only

Name\*

Description

Usage

Device type

Disk Space Information

Properties

☒

☒

DVD-ROM drive

Data drive

DVD-ROM

Save

Reset

Fig. 4: Drives - detail view (example)

The detail view can consist of the following tabs:

- **Settings**  
Here, you can display and edit general settings of the drive.  
See [chapter "Tab Settings", p. 16](#).
- **Status**  
Here, you can see different statuses of the drive in an overview.  
See [chapter "Tab Status", p. 26](#).
- **Network**  
Here, you can display and edit the information about the network connection of the drive.  
See [chapter "Tab Network", p. 31](#).
- **Volumes**  
Here, you can display and edit the settings to create the individual volumes.  
See [chapter "Tab Volumes", p. 38](#).
- **Write Protection**

Here, you can display and edit the settings of the write protection for the drive.

See [chapter "Tab Write Protection", p. 39](#).

- *Tenant*

Here, you can display and select for which tenant the drive is supposed to be available.

See [chapter "Tab Tenant", p. 39](#).

- *Post-compression*

Here, you can display and edit the settings for the post compression of the recordings.

See [chapter "Tab Post Compression", p. 43](#).



It depends on the type and on the purpose of the selected drive which tabs and configuration possibilities are available.

## 7.1

### Tab Settings

It depends on the selected drive type which settings are displayed here and can be edited.

#### 7.1.1

#### Tab Settings DAS

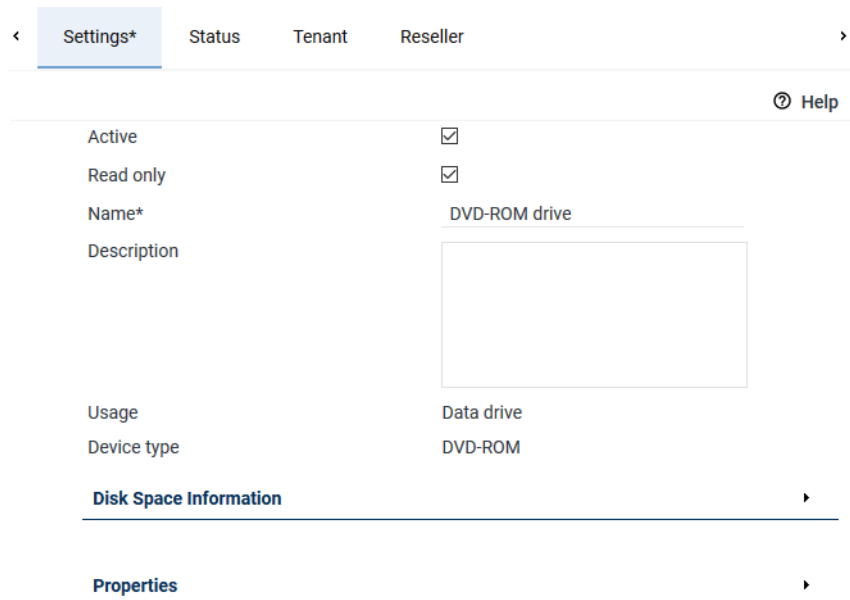


Fig. 5: Tab Settings DAS

<b>Active</b>	<p>Shows for data drives whether the drive has been released to be used. Select whether the configuration of the drive is supposed to be released and can be used.</p> <p><input checked="" type="checkbox"/> = Drive is active; configuration of the drive has been released.  <input type="checkbox"/> = Drive is inactive.</p> <p><b>NOTICE!</b> This option is only available for data drives.</p>
<b>Read only</b>	<p>Shows whether the drive can be used only for the replay of recordings. Select whether the drive is supposed to be used only for the replay of recordings.</p> <p><input checked="" type="checkbox"/> = Drive can only be read.  <input type="checkbox"/> = Drive can be read and data can be written on it.</p>



	<b>NOTICE!</b> This option is only available for data drives.
<i>Name</i>	Name of the drive.
<i>Description</i>	Here, you can enter a description for the drive.
<i>Usage</i>	<p>Shows the category of the drive and for which functions it is thus available.</p> <p>For the <a href="#">DAS</a> and the <a href="#">NAS</a> drives which are not used as system drives, you can select 2 different categories:</p> <ul style="list-style-type: none"> <li>• <i>Data drive</i> The drive can be used for archiving, import, and export.</li> <li>• <i>Storage expansion</i> The drive exclusively serves as an expansion to the memory space. It can neither be used for archiving nor for import or export. At least one tenant must be mapped, see <a href="#">chapter "Tab Tenant", p. 39</a>.</li> </ul> <p>Select the category for the drive from the drop-down list.</p> <p><b>NOTICE!</b> The purpose of all other drives has been preset and cannot be changed.</p> <p>For information about the drive categories, see <a href="#">chapter "Drive categories", p. 10</a>.</p>
<i>Device type</i>	Shows the drive type.

## 7.1.2

## Tab Settings NAS

<
Settings\*
Status
Network\*
Volumes
Tenant
Reseller
>

ⓘ Help

Active

☒

Read only

☒

Name\*

Storage Expansion

Description

Usage

Storage expansion ▼

Job status

Deactivated ▼

WORM mode

☐

Activate period of time

☐

Start

0:00 ▼

End

23:00 ▼

Device type

NAS

Disk Space Information

▶

Properties

▶

Fig. 6: Tab Settings NAS

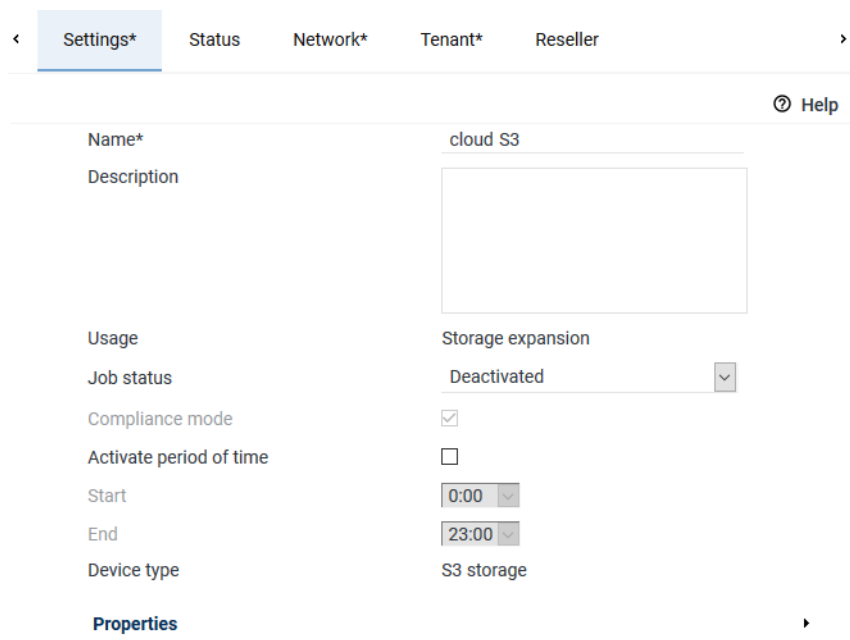
<b>Active</b>	<p>Shows for data drives whether the drive has been released to be used. Select whether the configuration of the drive is supposed to be released and can be used.</p> <p><input checked="" type="checkbox"/> = Drive is active; configuration of the drive has been released.</p>
---------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	<input type="checkbox"/> = Drive is inactive. <b>NOTICE!</b> This option is only available for data drives.
<i>Read only</i>	<p>Shows whether the drive can be used only for the replay of recordings.          Select whether the drive is supposed to be used only for the replay of recordings.</p> <p><input checked="" type="checkbox"/> = Drive can only be read.  <input type="checkbox"/> = Drive can be read and data can be written on it.</p> <p><b>NOTICE!</b> This option is only available for data drives.</p>
<i>Name</i>	Name of the drive.
<i>Description</i>	Here, you can enter a description for the drive.
<i>Usage</i>	<p>Shows the category of the drive and for which functions it is thus available.          For the <a href="#">DAS</a> and the <a href="#">NAS</a> drives which are not used as system drives, you can select 2 different categories:</p> <ul style="list-style-type: none"> <li>• <i>Data drive</i>          The drive can be used for archiving, import, and export.</li> <li>• <i>Storage expansion</i>          The drive exclusively serves as an expansion to the memory space. It can neither be used for archiving nor for import or export. At least one tenant must be mapped, see <a href="#">chapter "Tab Tenant", p. 39</a>.</li> </ul> <p>Select the category for the drive from the drop-down list.</p> <p><b>NOTICE!</b> The purpose of all other drives has been preset and cannot be changed.</p> <p>For information about the drive categories, see <a href="#">chapter "Drive categories", p. 10</a>.</p>
<i>Job status</i>	<p><b>NOTICE!</b> This field is only available for storage expansions.</p> <p>Select whether the storage expansion is supposed to be released or deactivated.</p> <p>Select the respective setting from the drop-down list.</p> <ul style="list-style-type: none"> <li>• <i>Released</i>          The storage expansion may be used to its full extent by the system. The recordings are transferred to the storage expansion.</li> <li>• <i>Deactivated</i>          The storage expansion may be used to a limited extent by the system. No recordings are transferred to the storage expansion. This is a precondition to be able to disconnect the storage expansion from the recording system (menu item <i>Disconnect network drive</i>).          A deactivated storage expansion continues to be available for the following functions:         <ul style="list-style-type: none"> <li>– Searching conversations</li> <li>– Replaying conversations</li> <li>– Deletion job (deleting recordings after the retention period (<a href="#">TTL</a>) is over)</li> </ul> </li> </ul>
<i>WORM mode</i>	<p>Select whether WORM mode is supposed to be activated for the drive.</p> <p><input checked="" type="checkbox"/> = WORM mode has been activated for the drive.  <input type="checkbox"/> = WORM mode has not been activated for the drive.</p> <p><b>NOTICE!</b> This option cannot be revoked once it has been activated!</p>

<i>Activate period of time</i>	<p>If you have selected the option <i>Storage expansion</i> for the drive, select the period of time during which the data is supposed to be transferred to the storage expansion.</p> <p>Tick the check box so that the selection boxes become active by means of which you can enter the start and the end time of the period during which the data is supposed to be transferred. That way, you can guarantee that data is only transferred when there is sufficient network bandwidth.</p> <p><b>NOTICE!</b> This option is only available for storage expansions.</p>
<i>Device type</i>	Shows the drive type.

## 7.1.3

## Tab Settings S3 and iCAS



The screenshot shows the 'Settings\*' tab for a drive named 'cloud S3'. The interface includes a navigation bar with tabs: Settings\*, Status, Network\*, Tenant\*, and Reseller. A 'Help' icon is visible in the top right. The main configuration area lists several settings:

- Name\***: cloud S3
- Description**: A large empty text area for entering a description.
- Usage**: Storage expansion
- Job status**: Deactivated (with a dropdown arrow)
- Compliance mode**: ☒
- Activate period of time**: ☐
- Start**: 0:00 (with a dropdown arrow)
- End**: 23:00 (with a dropdown arrow)
- Device type**: S3 storage

At the bottom, there is a 'Properties' section with a right-pointing arrow.

Fig. 7: Tab Settings cloud S3

<i>Name</i>	Name of the drive.
<i>Description</i>	Here, you can enter a description for the drive.
<i>Usage</i>	<p>Shows the category of the drive and for which functions it is thus available. The purpose has been preset in this case and cannot be changed.</p> <p>Drives which serve as storage expansion can neither be used for archiving nor for import or export. At least one tenant must be mapped to them, see <a href="#">chapter "Tab Tenant", p. 39</a>.</p> <p>For information about the drive categories, see <a href="#">chapter "Drive categories", p. 10</a>.</p>
<i>Job status</i>	<p>Select whether the storage expansion is supposed to be released or deactivated.</p> <p>Select the respective setting from the drop-down list.</p> <ul style="list-style-type: none"> <li>• <i>Released</i> <p>The storage expansion may be used to its full extent by the system. The recordings are transferred to the storage expansion.</p> </li> <li>• <i>Deactivated</i></li> </ul>

	<p>The storage expansion may be used to a limited extent by the system. No recordings are transferred to the storage expansion. This is a precondition to be able to disconnect the storage expansion from the recording system (menu item <i>Disconnect network drive</i>).</p> <p>A deactivated storage expansion continues to be available for the following functions:</p> <ul style="list-style-type: none"> <li>– Searching conversations</li> <li>– Replaying conversations</li> <li>– Deletion job (deleting recordings after the retention period (TTL) is over)</li> </ul>
<i>Compliance mode</i>	<p>Select whether the data is saved on the drive in order to fulfill compliance guideline. In such a case, you have to define a retention period in the following step, during which it will not be possible to edit or delete the saved data.</p> <p><b>NOTICE!</b> This option is only available for S3 and iCAS storage. When using an iCAS storage, compliance mode has been activated by default and cannot be deactivated.</p> <p><b>NOTICE!</b> Keep in mind that once compliance mode has been saved for this drive, this setting cannot be undone anymore.</p>
<i>Activate period of time</i>	<p>Tick the check box so that the selection boxes become active by means of which you can enter the start and the end time of the period during which the data is supposed to be transferred. That way, you can guarantee that data is only transferred when there is sufficient network bandwidth.</p>
<i>Device type</i>	<p>Shows the drive type.</p>

Keep in mind when entering the period of time that due to technical reasons those periods can only be configured on the top of the hour; half-hours are adjusted upward. This has an impact if the server containing the data to be exported is located in a time zone which differs from Coordinated Universal Time (UTC) by  $x \frac{1}{2}$  hours.



Example: Recorded data is supposed to be transferred from the export server in India (UTC + 5 1/2) to a target server in Germany during 8 pm and 10 pm Indian local time. This corresponds to 2:30 pm and 4:30 pm UTC. By adjusting the half-hour upward, the period for the export is translated into 3 pm to 5 pm which corresponds to Indian local time of 8:30 pm to 10:30 pm.

#### 7.1.4 Tab Settings Centera, Azure, Google Storage

Settings\*

Status

Network\*

Tenant\*

Reseller

② Help

Name\*

Description

Usage

Job status

Activate period of time

Start

End

Device type

Storage expansion

Deactivated

☐

0:00

23:00

Azure

Disk Space Information

Properties

Fig. 8: Tab Settings Cloud Azure (example)

<b>Name</b>	Name of the drive.
<b>Description</b>	Here, you can enter a description for the drive.
<b>Usage</b>	<p>Shows the category of the drive and for which functions it is thus available. The purpose has been preset in this case and cannot be changed.</p> <p>Drives which serve as storage expansion can neither be used for archiving nor for import or export. At least one tenant must be mapped to them, see <a href="#">chapter "Tab Tenant", p. 39</a>.</p> <p>For information about the drive categories, see <a href="#">chapter "Drive categories", p. 10</a>.</p>
<b>Job status</b>	<p>Select whether the storage expansion is supposed to be released or deactivated.</p> <p>Select the respective setting from the drop-down list.</p> <ul style="list-style-type: none"> <li><b>Released</b> <p>The storage expansion may be used to its full extent by the system. The recordings are transferred to the storage expansion.</p> </li> <li><b>Deactivated</b> <p>The storage expansion may be used to a limited extent by the system. No recordings are transferred to the storage expansion. This is a precondition to be able to disconnect the storage expansion from the recording system (menu item <i>Disconnect network drive</i>).</p> <p>A deactivated storage expansion continues to be available for the following functions:</p> <ul style="list-style-type: none"> <li>– Searching conversations</li> <li>– Replaying conversations</li> <li>– Deletion job (deleting recordings after the retention period (TTL) is over)</li> </ul> </li> </ul>

<i>Activate period of time</i>	Tick the check box so that the selection boxes become active by means of which you can enter the start and the end time of the period during which the data is supposed to be transferred. That way, you can guarantee that data is only transferred when there is sufficient network bandwidth.
<i>Device type</i>	Shows the drive type.

Keep in mind when entering the period of time that due to technical reasons those periods can only be configured on the top of the hour; half-hours are adjusted upward. This has an impact if the server containing the data to be exported is located in a time zone which differs from Co-ordinated Universal Time (UTC) by x 1/2 hours.



Example: Recorded data is supposed to be transferred from the export server in India (UTC + 5 1/2) to a target server in Germany during 8 pm and 10 pm Indian local time. This corresponds to 2:30 pm and 4:30 pm UTC. By adjusting the half-hour upward, the period for the export is translated into 3 pm to 5 pm which corresponds to Indian local time of 8:30 pm to 10:30 pm.

### 7.1.5 Group field Disk Space Information

It depends on the selected drive type which information is displayed.

#### 7.1.5.1 Disk space information DAS/NAS


Disk Space Information	
Used space	20.63 GB
Free space	19.03 GB
Capacity	39.66 GB
Level unit	GB 
Warning level	7.5GB
Error level	5.0GB

Fig. 9: Group field Disk Space Information DAS/NAS

<i>Used space</i>	Shows how much disk space is already occupied on the drive.
<i>Free space</i>	Shows how much free disk space remains on the drive.
<i>Capacity</i>	Shows how much disk space is available on the drive in total.
<i>Level unit</i>	Select the unit in which the values for the warning level and for the error level are supposed to be displayed. Select the unit from the drop-down list.
<i>Warning level</i>	Select the threshold of storage space consumption of the medium at which a warning is supposed to be issued. In the Notifications module, you can select who is notified when a drive has reached its warning level.
<i>Error level</i>	Select the threshold of storage space consumption of the medium at which an error message is supposed to be issued. In the Notifications module, you can select who is notified when a drive has reached its error level.



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

### 7.1.5.2 Disk space information storage expansions

Disk Space Information	
Used space	0.22 GB
Free space	19.78 GB
Capacity	20.0 GB
Delete oldest recordings, if disk space is running out	<input checked="" type="checkbox"/>
Capacity level	10.0GB
Warning level	7.5GB
Error level	5.0GB

Fig. 10: Group field Disk space information storage expansions

<i>Used space</i>	Shows how much disk space is already occupied on the drive.
<i>Free space</i>	Shows how much free disk space remains on the drive.
<i>Capacity</i>	Shows how much disk space is available on the drive in total.
<i>Delete oldest recordings, if disk space is running out</i>	<p>Select what is supposed to happen if the disk space is lower than the value entered in the field <i>Capacity level</i>.</p> <ul style="list-style-type: none"> <li>Activate this option if old recordings are supposed to be deleted once the value entered in the field <i>Capacity level</i> has been reached. The oldest secured recordings are deleted so that there is memory space for new recordings again. Old recordings which have already been saved on another server via data transfer or transmitted to the storage expansion are deleted.</li> </ul> <p><b>NOTICE!</b> This option is only available for system storages and storage expansions but not for the Cloud storage <a href="#">Amazon S3</a>.</p>
<i>Capacity level</i>	Select the level of the remaining memory space of the medium which has to be reached before the oldest secured recordings are supposed to be deleted if the respective option has been activated in the radio button for the write protection.
<i>Warning level</i>	<p>Select the threshold of storage space consumption of the medium at which a warning is supposed to be issued.</p> <p>In the Notifications module, you can select who is notified when a drive has reached its warning level.</p>
<i>Error level</i>	<p>Select the threshold of storage space consumption of the medium at which an error message is supposed to be issued.</p> <p><b>NOTICE!</b> When reaching the error level, all unsecured recordings are deleted.</p> <p>In the Notifications module, you can select who is notified when a drive has reached its error level.</p>



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

### 7.1.5.3 Disk space information system storage

Disk Space Information	
Used space	0.06 GB
Free space	19.94 GB
Capacity	20.0 GB
<input type="radio"/> Stop saving recordings when error level is reached <input checked="" type="radio"/> Delete oldest recordings, if disk space is running out	
Capacity level	10.0GB
Warning level	7.5GB
Error level	5.0GB

Fig. 11: Group field Disk Space Information system storage Centera

<i>Used space</i>	Shows how much disk space is already occupied on the drive.
<i>Free space</i>	Shows how much free disk space remains on the drive.
<i>Capacity</i>	Shows how much disk space is available on the drive in total.
<i>Stop recordings when error level is reached</i>	<p>Select what is supposed to happen if the disk space is lower than the value entered in the field <i>Error level</i>.</p> <ul style="list-style-type: none"> <li>Activate this option if no new recordings are supposed to be saved once the value entered in the field <i>Error level</i> has been reached.</li> </ul> <p>As soon as the defined warning level or error level has been reached, the system issues a corresponding warning.</p>
<i>Delete oldest recordings, if disk space is running out</i>	<p>Select what is supposed to happen if the disk space is lower than the value entered in the field <i>Capacity level</i>.</p> <ul style="list-style-type: none"> <li>Activate this option if old recordings are supposed to be deleted once the value entered in the field <i>Capacity level</i> has been reached. The oldest secured recordings are deleted so that there is memory space for new recordings again. Old recordings which have already been saved on another server via data transfer or transmitted to the storage expansion are deleted.</li> </ul>
<i>Capacity level</i>	Select the level of the remaining memory space of the medium which has to be reached before the oldest secured recordings are supposed to be deleted if the respective option has been activated in the radio button for the write protection.
<i>Warning level</i>	<p>Select the threshold of storage space consumption of the medium at which a warning is supposed to be issued.</p> <p>In the Notifications module, you can select who is notified when a drive has reached its warning level.</p>
<i>Error level</i>	<p>Select the threshold of storage space consumption of the medium at which an error message is supposed to be issued.</p> <p><b>NOTICE!</b> When reaching the error level, all unsecured recordings are deleted.</p> <p>In the Notifications module, you can select who is notified when a drive has reached its error level.</p>



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



### 7.1.6 Group field Properties

Which settings are required depends on whether the drive is a network drive (see [chapter "Properties for network drives", p. 25](#)) or a drive which has been connected directly (see [chapter "Properties of directly connected drives", p. 26](#)).

#### 7.1.6.1 Properties for network drives



Fig. 12: Tab Settings - Properties of network drives

<i>Server</i>	<p>Name of the server that the drive has been connected to hardware- or software-wise.</p> <p>Select the server by means of the button <b>+</b> behind the entry field, see <a href="#">chapter "Select server", p. 25</a>.</p> <p>If you would like to delete the entry in the entry field, click on the button <b>-</b> behind the entry field.</p> <p>The server can be an EVOIP<sup>neo</sup> server or a recorder of the product line EVOLUTION<sup>neo</sup>.</p>
<i>Connected</i>	<p>Shows the technical status of the drive. Only drives with the status <i>Active</i> and the status <i>Connected</i> can be used.</p> <p><input checked="" type="checkbox"/> = Drive has been connected.</p> <p><input type="checkbox"/> = Drive has not been connected.</p>

##### 7.1.6.1.1 Select server

1. Click on the button **+** behind the entry field.




Fig. 13: Assign server

2. Select the appropriate server from the list.

Servers		
Name ↕	IP Address ↕	Path ↕
RC-02	192.168.173.176	C:\
REC-01	192.168.173.171	C:\
REC-04	192.168.173.174	C:\
REC-02	192.168.173.172	C:\
RC-01	192.168.173.175	C:\
CTI-01	192.168.173.177	C:\
CTI-02	192.168.173.178	C:\

Rows per page 20 1 - 8 of 8

Add Cancel

Fig. 14: Select server (example)

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

### 7.1.6.2 Properties of directly connected drives

**Properties**

Current file system NTFS

Default file system NTFS

Connected ☒

Fig. 15: Tab Settings - Properties of directly connected drives

<b>Current file system</b>	File system on which the medium has been mounted.
<b>Default file system</b>	File system which is created when the medium is formatted. Select the file system from the drop-down list. It depends on the type of the drive which file systems are available.
<b>Connected</b>	Shows the technical status of the drive. Only drives with the status <i>Active</i> and the status <i>Connected</i> can be used. <input checked="" type="checkbox"/> = Drive has been connected. <input type="checkbox"/> = Drive has not been connected.

## 7.2 Tab Status

Here, you can see different statuses of the drive in an overview.

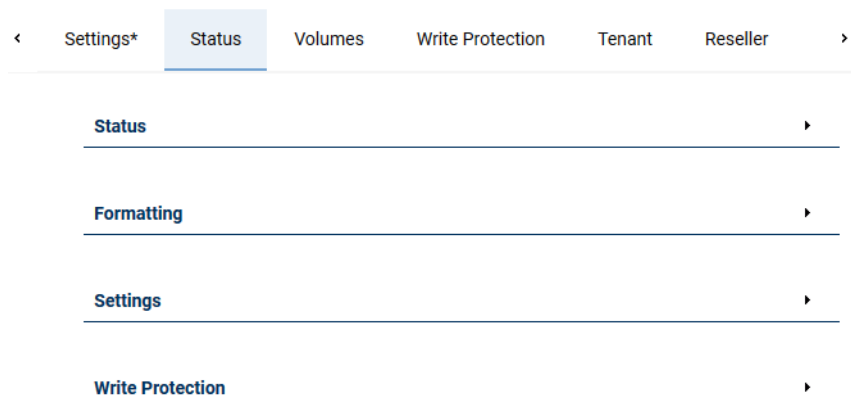


Fig. 16: Tab Status

The tab contains the following group fields:

- *Status*  
Contains information about the availability of data on the drive.
- *Formatting*  
Contains information about the last formatting of the drive.  
**NOTICE!** This group field is only displayed for drives which can be formatted.
- *Settings*  
Contains information about the manageability of the drive.
- *Write Protection*  
Contains information about dependencies when formatting the drive and about the possibilities to overwrite existing data.

### 7.2.1

#### Group field Status

Contains information about the availability of data on the drive.

Status	
Name	Value
Drive status	Empty
Medium status	
Volume status	

Fig. 17: Tab Status - Status

Possible values for *drive status* are:

<i>Eject</i>	Medium is being ejected.
<i>Remove</i>	Drive is being detached from the system.
<i>Error</i>	Data of the medium cannot be read.
<i>Load</i>	Drive is being checked.
<i>Empty</i>	No medium has been inserted.

<i>Not connected</i>	Drive is not connected.
<i>Available</i>	Drive can be used.
(no entry)	Status is unknown. No drive available.

Possible values for *medium status* are:

<i>Available</i>	Medium can be used.
<i>Empty</i>	No data available on the medium.
<i>Finished</i>	Medium has been finished.
<i>Wrong format</i>	Contains data but it cannot be read. The data format does not coincide with the expected format.
<i>Update inserted</i>	Drive contains an update medium.
<i>Load</i>	Medium is being checked.
<i>Save</i>	Data is being saved.
<i>Terminate</i>	Medium is being terminated.
<i>Is formatting</i>	Medium is being formatted.
<i>Error</i>	An error occurred on the medium.
<i>Unknown format</i>	The format of the medium is unknown. The medium cannot be used.
<i>Unknown data</i>	Contains data which has not been created by the recording system, though. Data on this medium is not overwritten.
<i>Recovery not possible</i>	Data of the medium cannot be recovered.
(no entry)	Status is unknown. No medium available.

Possible values for *volume status* are:

<i>Available</i>	Volume can be used.
<i>Finished</i>	Volume has been finished.
<i>Load</i>	Volume is being checked.
<i>Save</i>	Data is being saved on the volume.
<i>Terminate</i>	Volume is being terminated.
<i>Error</i>	An error occurred in the volume.
<i>Recovery not possible</i>	Data on the volume cannot be recovered. The medium has not been formatted.
(no entry)	Status is unknown. No volume available.

### 7.2.2

#### Group field Formatting



This group field is only displayed for drives which can be formatted.

Contains information about the last formatting of the drive.

Formatting	
Status	Not started
Last execution	

Fig. 18: Tab Status - Formatting

<b>Status</b>	Status of the formatting. <ul style="list-style-type: none"> <li><i>Not started</i></li> </ul>
---------------	------------------------------------------------------------------------------------------------

	<p>No formatting has been carried out on this drive.</p> <ul style="list-style-type: none"> <li>• <i>In progress</i> The drive is being formatted.</li> <li>• <i>Finished</i> The last formatting of the drive has been finished successfully.</li> <li>• <i>Error</i> An error occurred during the last formatting of the drive. The drive has not been formatted correctly.</li> </ul>
<i>Last execution</i>	Date on which the formatting was finished.

### 7.2.3 Group field Settings

Contains information about the generally possible manageability of the drive hardware-wise.

Settings	
Name	Value
Detachable	✗
Ejectable	✗
Formattable	✗
Terminable	✗

Fig. 19: Tab Status - Settings

<i>Detachable</i>	<p>Shows whether the drive can be detached from the recording system by means of the function <i>Detach medium</i>.</p> <p>✓ = Drive can be detached. ✗ = Drive cannot be detached.</p>
<i>Ejectable</i>	<p>Shows whether the drive can contain a medium which can be ejected by means of the function <i>Eject medium</i>.</p> <p>✓ = Medium can be ejected. ✗ = Medium cannot be ejected.</p>
<i>Formattable</i>	<p>Shows whether the medium or the drive can be formatted by means of the function <i>Format</i>.</p> <p>✓ = Can be formatted. ✗ = Cannot be formatted.</p>
<i>Terminable</i>	<p>Shows whether the medium or the drive can be terminated in the tab <i>Volumes</i>.</p> <p>✓ = Can be terminated. ✗ = Cannot be terminated.</p>



It depends on the current status of the medium whether the respective functions, such as *Eject medium*, are actually available, see [chapter "Group field Status", p. 27](#).

#### See also

📄 Group field Status [▶ 27]

#### 7.2.4 Group field Write Protection

Contains information about the write protection of the drive.

If there is a write protection, either data cannot be written on the medium or the medium cannot be formatted; this depends on the kind of the write protection.

Write Protection ▼	
Name	Value
License	✗
File system	✗
Drive configuration	✗
Medium configuration	✗
Volume configuration	✗
Hardware	✗

Fig. 20: Tab Status - Write Protection

<i>License</i>	<p>Shows whether the systems accepts the medium as a valid medium for the tenant. If the medium contains data which cannot be mapped to the tenant whose drive this is, the write protection is activated automatically. In this case, the medium cannot be formatted.</p> <p>✓ = Write protection is active. Medium cannot be formatted. ✗ = Medium has no write protection.</p>
<i>File system</i>	<p>Shows whether the file system of the medium can be used to write data to the medium. If the file system of the medium is not the same as the file system configured for the drive, then the write protection is activated automatically. If no other write protection has been activated to prevent this, the medium can be formatted.</p> <p>✓ = Write protection is active. ✗ = Medium has no write protection.</p>
<i>Configuration drive</i>	<p>Shows whether the drive type (see <a href="#">chapter "Drive categories", p. 10</a>) allows writing data to the drive for archiving, export, etc. Only storage expansions and data drives can be used for these job types. Other drives (system storages, database drives, ...) have been disabled for these tasks and must thus be considered as write-protected.</p> <p>✓ = Drive type does not allow writing data to the drive. Write protection is active. Medium cannot be formatted. ✗ = Drive has no write protection.</p>
<i>Medium configuration</i>	<p>Shows whether the medium has been terminated and whether it has an active write protection.</p> <p>✓ = Write protection is active. Medium cannot be formatted. ✗ = Medium has no write protection.</p>

<i>Volume configuration</i>	Shows whether the volume has been terminated. <div> <div>✓</div> = Write protection is active.  <div>✗</div> = Volume has no write protection. </div>
<i>Hardware</i>	Shows whether the medium or the drive has an active hardware write protection. <div> <div>✓</div> = Write protection is active. Medium cannot be formatted.  <div>✗</div> = Write protection is not active. </div>

In the following cases formatting the medium is not possible:

- The drive type does not allow formatting (e. g. [NAS](#), Centera, DVD-ROM).
- No medium has been inserted.
- The currently inserted, terminated medium has an active write protection.
- The medium is hardware-write-protected.
- The drive is a system drive.
- The tenant who owns the medium or the volume is not the same as the one who owns the drive.
- The drive is used in an active job.
- The drive is not connected.
- If the drive has been mapped to a tenant, only this tenant may format the drive.

### 7.3

#### Tab Network



This tab is only available for network drives.

Here, you can display and edit the information about the network connection of the drive.

Which settings are required depends on the type of the network drive.

#### 7.3.1

##### Network settings for NAS drives

It depends on the selected authentication type which settings for the network connection are necessary. The following options can be selected:

- *User name and password*  
Authentication takes place by means of the data entered in the fields *User name* and *Password*.
- *None*  
Authentication is not required.

### Authentication via user name and password

< Settings\* Status **Network\*** Volumes Tenant Reseller >

Authentication type User name and password ▾

Server address\* 192.168.173.171

Share name\* NAS 1

User name\* Administrator

Password\* ●●●●●●●●●●●●●●●●●●●●

Confirm password\* ●●●●●●●●●●●●●●●●●●●●

Fig. 21: Tab Network - NAS drives (User name and password)

<b>Authentication type</b>	Select the entry <i>User name and password</i> from the drop-down list.
<b>Server address</b>	IP address of the server or of the recorder to which the drive has been connected. Enter the IP address for the connection to the drive.
<b>Share name</b>	Name under which the drive is displayed in the network. Enter the share name of the drive.
<b>User name</b>	User name which allows accessing the drive.
<b>Password</b>	Password required for the authentication.
<b>Confirm Password</b>	Repeat the password required for the authentication.

### No authentication

< Settings\* Status **Network\*** Volumes Tenant Reseller >

Authentication type None ▾

Server address\*

Share name\* |

User name\*

Password\*

Confirm password\*

Fig. 22: Tab Network - NAS drives (no authentication)

<b>Authentication type</b>	Select the entry <i>None</i> from the drop-down list.
<b>Server address</b>	IP address of the server or of the recorder to which the drive has been connected. Enter the IP address for the connection to the drive.
<b>Share name</b>	Name under which the drive is displayed in the network. Enter the share name of the drive.



### 7.3.2 Network settings for Centera

It depends on the selected authentication type which settings for the network connection are necessary. The following options can be selected:

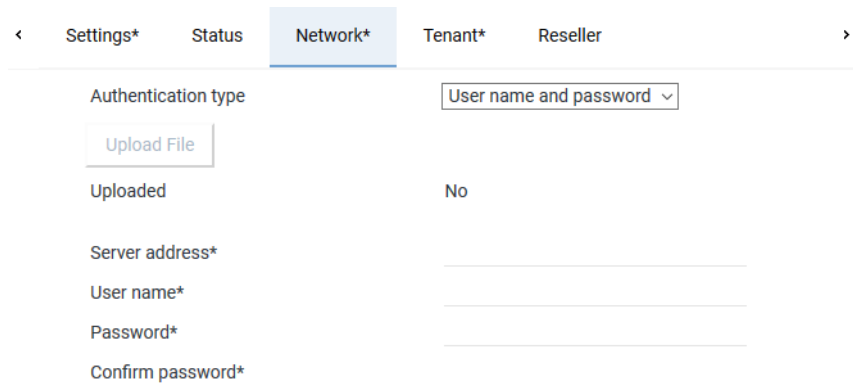
- *User name and password*

Authentication takes place by means of the data entered in the fields *User name* and *Password*.

- *File*

Authentication takes place via a file.

#### Authentication via user name and password



Settings\* Status **Network\*** Tenant\* Reseller

Authentication type User name and password ▾

Upload File

Uploaded No

Server address\*

User name\*

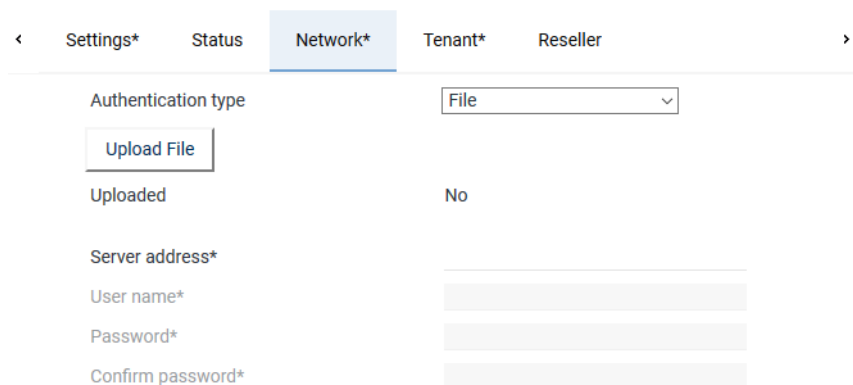
Password\*

Confirm password\*

Fig. 23: Tab Network - Centera (User name and password)

<b>Authentication type</b>	Select the entry <i>User name and password</i> from the drop-down list.
<b>Server address</b>	IP address of the server or of the recorder to which the drive has been connected. Enter the IP address for the connection to the drive.
<b>User name</b>	User name which allows accessing the drive.
<b>Password</b>	Password required for the authentication.
<b>Confirm Password</b>	Repeat the password required for the authentication.

#### Authentication via file



Settings\* Status **Network\*** Tenant\* Reseller

Authentication type File ▾

Upload File

Uploaded No

Server address\*

User name\*

Password\*

Confirm password\*

Fig. 24: Tab Network - Centera (Upload file)

<b>Authentication type</b>	Select the entry <i>File</i> from the drop-down list.
----------------------------	-------------------------------------------------------

<b>Upload File</b>	Starts a dialog which allows uploading the authentication file. See <a href="#">chapter "Upload File", p. 34</a> .
<b>Uploaded</b>	Shows whether an authentication file has already been uploaded.
<b>Server address</b>	IP address of the server or of the recorder to which the drive has been connected.  Enter the IP address for the connection to the drive.



The fields *User name*, *Password* and *Confirm password* are only active if the authentication type *User name and password* has been selected.



The button *Upload File* is only active if the authentication type *File* has been selected.

### 7.3.2.1

#### Upload File

1. Click on the button *Upload File*.

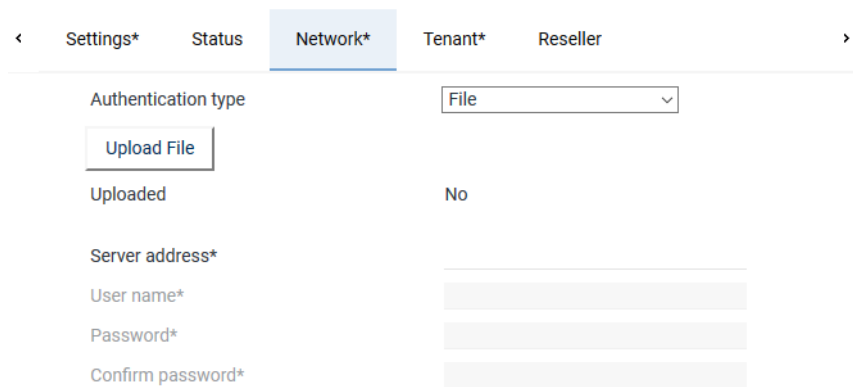
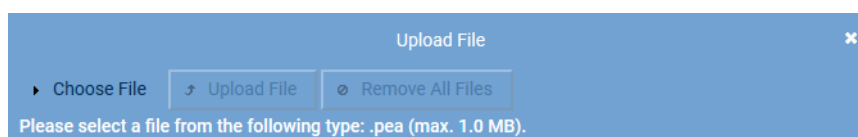


Fig. 25: Upload authentication file

⇒ The window *Upload File* appears.

2. Click on the button *Choose File*.




Close

Fig. 26: Select authentication file (example)

3. Select the respective file via the Explorer and click on the button *Open*.



If required, you can repeat the last two steps several times and thus select several files. However, you can only upload one of the selected files.

4. To upload the file, click on the button *Upload File*.  
To remove a selected file from the list, click on the button  next to the respective file.
5. Upon clicking on the button *Upload file*, the respective file is uploaded.

### 7.3.3 Network settings for Amazon S3

It depends on the selected authentication type which settings for the network connection are necessary. The following options can be selected:

- *User name and password*

Authentication takes place by means of the data entered in the fields *User name* and *Password*.

- *File*

Authentication takes place via a file.

#### Authentication via user name and password

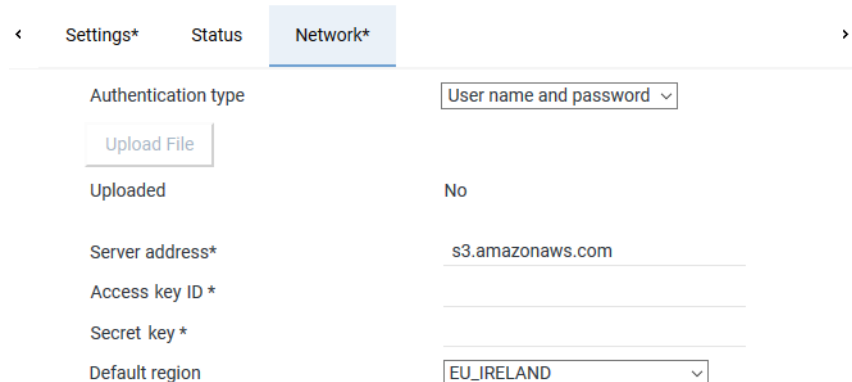


Fig. 27: Tab Network - Amazon S3 (User name and password)

<b>Authentication type</b>	Select the entry <i>User name and password</i> from the drop-down list.
<b>Server address</b>	URL of the <a href="#">Amazon S3</a> server. Always enter the following URL here: <i>s3.amazonaws.com</i>
<b>Access key ID</b>	Alphanumeric <b>ID</b> which allows accessing your Cloud storage area. This <b>ID</b> coincides with the name of the user (e. g. AKIAITOAWBN4D-HD3573A) who is allowed to access the Cloud storage area.
<b>Secret key</b>	Password required for the authentication to the <a href="#">Amazon S3</a> server.
<b>Default region</b>	Select the <a href="#">Amazon S3</a> server location that you would like to access. Select the server location from the drop-down list.

### Authentication via file

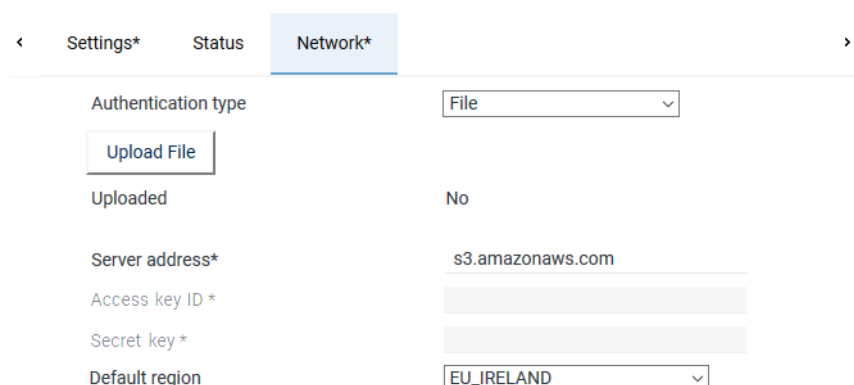


Fig. 28: Tab Network - Amazon S3 (Upload File)

<b>Authentication type</b>	Select the entry <i>File</i> from the drop-down list.
<b>Upload File</b>	Starts a dialog which allows uploading the authentication file. See <a href="#">chapter "Upload File", p. 34</a> .
<b>Uploaded</b>	Shows whether an authentication file has already been uploaded.
<b>Server address</b>	URL of the <a href="#">Amazon S3</a> server. Always enter the following URL here: <i>s3.amazonaws.com</i>
<b>Default region</b>	Select the <a href="#">Amazon S3</a> server location that you would like to access. Select the server location from the drop-down list.



The button *Upload File* is only active if the authentication type *File* has been selected.

#### 7.3.4

### Network settings for iCAS drives

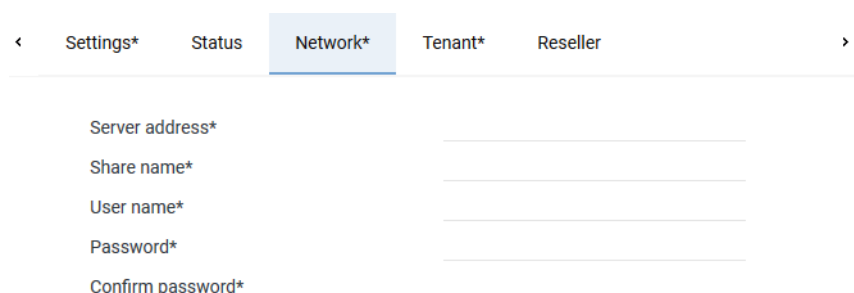


Fig. 29: Tab Network - iCAS drives

<b>Server address</b>	IP address of the server or of the recorder to which the drive has been connected. Enter the IP address for the connection to the drive.
<b>Share name</b>	Name under which the drive is displayed in the network. Enter the share name of the drive.
<b>User name</b>	User name which allows accessing the drive. Enter the user name.
<b>Password</b>	Password for the access to the drive. Enter the password.

*Confirm Password* Repeat the password for the access to the drive.  
Repeat the password.

### 7.3.5 Network settings for Azure

< Settings\* Status **Network\*** Tenant\* Reseller >

User name\* \_\_\_\_\_

Password\* \_\_\_\_\_

Confirm password\* \_\_\_\_\_

Fig. 30: Tab Network - Azure drives

<i>User name</i>	User name which allows accessing the drive. Enter the user name.
<i>Password</i>	Password for the access to the drive. Enter the password.
<i>Confirm Password</i>	Repeat the password for the access to the drive. Repeat the password.

### 7.3.6 Network settings for Google Storage

< Settings\* Status **Network** Tenant\* Reseller >

**Upload File**

Uploaded No

Server address \_\_\_\_\_

Cloud storage class ☒ Multi-regional  
☐ Regional  
☐ Nearline  
☐ Coldline  
☐ Default

Multi-region Data centers in the European Union

Cloud region

Fig. 31: Tab Network - Google Storage

<b>Upload File</b>	Starts a dialog to upload a JSON authentication file with a service account key for authentication purposes. See <a href="#">chapter "Upload File", p. 34</a> . For <i>neo</i> , the service account key is the only authentication method supported by the FileMan. <b>NOTICE!</b> For information about creating a service account key refer to <a href="https://cloud.google.com/iam/docs/creating-managing-service-account-keys">https://cloud.google.com/iam/docs/creating-managing-service-account-keys</a> .
<i>Uploaded</i>	Shows whether an authentication file has already been uploaded.
<i>Server address</i>	<a href="#">URL</a> of the Google Storage server. If no server address is entered <a href="https://www.googleapis.com">https://www.googleapis.com</a> is used by default.

<i>Cloud Storage Class</i>	Select the cloud storage class. <b>NOTICE!</b> For information about cloud storage classes refer to <a href="https://cloud.google.com/storage/docs/storage-classes?hl=de">https://cloud.google.com/storage/docs/storage-classes?hl=de</a> .
<i>Multi-region</i>	From the drop-down list, select the geographic region where the data is supposed to be stored.  The availability of this setting depends on the selection you have made under <i>Cloud Storage Class</i> .
<i>Cloud region</i>	From the drop-down list, select the cloud region where the data is supposed to be stored.  The availability of this setting depends on the selection you have made under <i>Cloud Storage Class</i> .

## 7.4

## Tab Volumes



This tab is only available for data drives with the exception of DVD-ROM drives and DVD-RAM drives, though.

Here, you can display and edit the settings to create the individual volumes.

<
Settings\*
Status
Volumes
Write Protection
Tenant
Reselle >

☒ Sub-archive size  

20 GB

☐ Terminate after time  

Year(s)
 Month(s)
 Day(s)

☐ Terminate according to data  

☐ Weekly
☒ Monthly
☐ Yearly

Please remember that for technical reasons there is an upper limit of 150 GB for volumes.  
This upper limit is valid for time-based configuration, too.

Fig. 32: Tab Volumes

Select how volumes are supposed to be installed.

Select one of the following options:

<i>Sub-archive size</i>	Volumes are being created. As soon as a volume has reached the entered size, it is terminated and a new volume is configured.  Configure the volume size by entering the respective value directly via the keyboard into the entry field. As an upper limit 150 GB have been preset by default; if the drive is smaller than 150 GB, the value is reduced to the respective size.
<i>Terminate after time</i>	Volumes are being created. After the entered time the volume is terminated and a new volume is configured. The entered time starts as soon as new data is archived on the volume.  Configure the time by entering the value directly via the keyboard into the entry fields.
<i>Terminate according to data</i>	Volumes are being created. The volume is terminated periodically, depending on the start time of the conversation, and a new volume is created.  Configure the time by activating the respective radio button.

- *Weekly*: the volume is terminated one week after data has been archived on it for the first time.
- *Monthly*: the volume is terminated one month after data has been archived on it for the first time.
- *Yearly*: the volume is terminated one year after data has been archived on it for the first time.

## 7.5

## Tab Write Protection



This tab is not available for all drives.

< Settings\* Status Volumes **Write Protection** Tenant Reseller >

☒ Keep always  
☐ Remove after

0 Year(s) 0 Month(s) 0 Day(s)

☐ No write protection

Fig. 33: Tab Write Protection

Select whether and under which conditions the medium may be overwritten.

**NOTICE!**

If the drive has been mapped to a tenant, you cannot change any settings in this tab.

<i>Keep always</i>	<p>The medium may never be overwritten.</p> <p>When the medium has been terminated, another medium has to be used.</p>
<i>Remove after</i>	<p>The medium may be overwritten after the time entered here.</p> <p>When the medium has been terminated, it is protected for the time being. After the entered time the medium can be formatted manually and used for archiving again.</p> <p>Configure the time by entering the respective value directly via the keyboard into the fields <i>Year(s)</i>, <i>Month(s)</i>, <i>Day(s)</i>.</p>
<i>No write protection</i>	<p>The medium may be overwritten immediately.</p> <p>When the medium has been terminated, it can be formatted manually immediately and used for archiving again.</p>

**ATTENTION!****Possible loss of data!**

When using the setting *No write protection*, loss of data can occur if you use the drive for archiving! A medium terminated under this setting can be formatted manually immediately and used for archiving again.

## 7.6

## Tab Tenant



This tab is exclusively available for the following drives:

- Data drives which are not used for import purposes
- Storage expansions

Here, you can display and select the tenant mapping of a drive. The way a drive is mapped depends on the drive's purpose of usage.

- Data drive  
Only 1 tenant is mapped to a data drive. Only this tenant may use the drive, e. g. to archive recordings.
- Storage expansion  
You can map several tenants to a storage expansion. The storage expansion is used for all mapped tenants. All recordings of the mapped tenants are copied to the storage expansion.

### 7.6.1 Map tenant for data drives

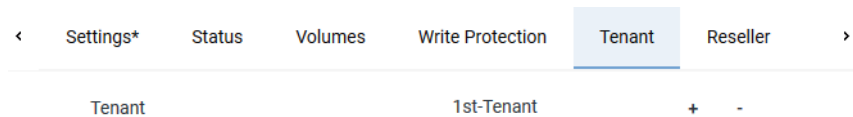


Fig. 34: Tab Tenant - data drive

+	Opens a window in which you can select and add a tenant.
-	Deletes the entry from the entry field.

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

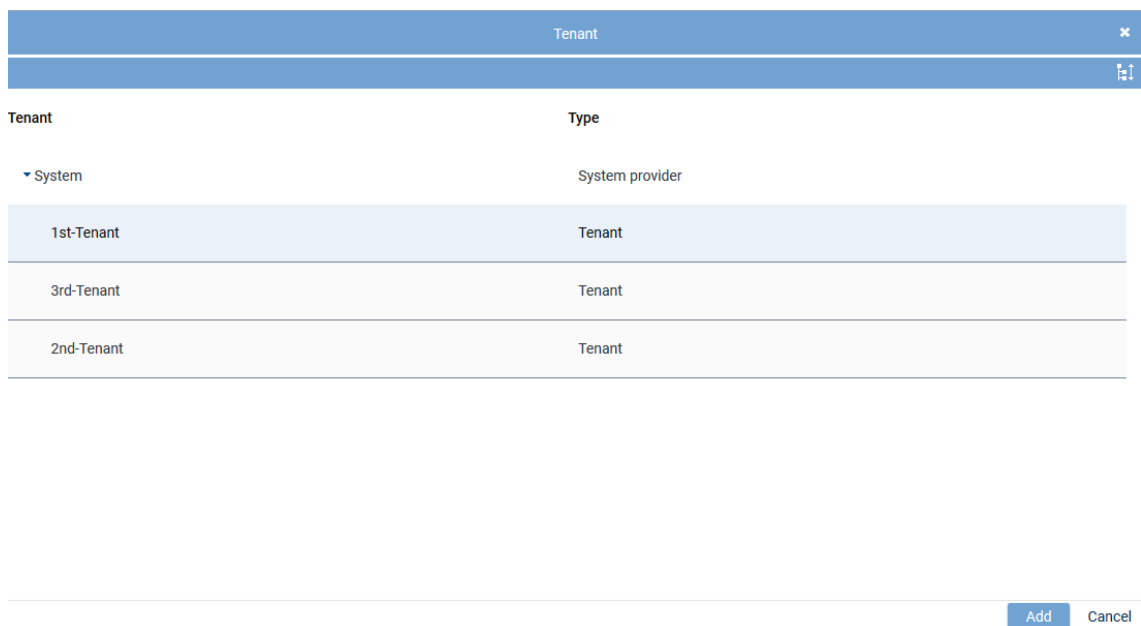


Fig. 35: Add tenant - data drive

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



## ATTENTION!

### Possible loss of data!

When deleting a tenant mapping while the tenant is using the drive actively, then the job which is actively running on the drive is canceled. With immediate effect, the drive is not available anymore for the tenant and the jobs he has defined.

Check back with the affected tenant before deleting a mapping to avoid the loss of data on part of the tenant.

## 7.6.2 Map tenant for storage expansions

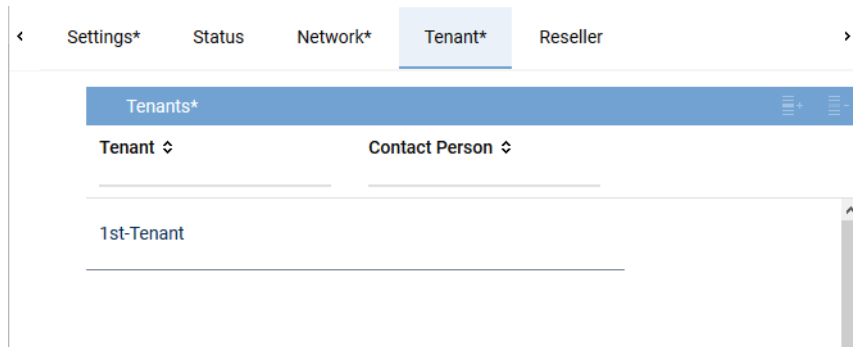





Fig. 36: Tab Tenant - storage expansion

	<b>Add</b>	Opens a window in which you can select and add tenants.
	<b>Remove</b>	Deletes the selected entry from the list.

1. Click on the icon  (**Add**).
2. Select 1 or several tenants from the list.  
To select several tenants or to revoke the selection, click on the respective line while holding the [Ctrl] key down.

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

Add Cancel

Fig. 37: Add tenant - storage expansions

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



If you delete a tenant mapping while a copy job is writing data to the storage expansion, the current execution of the copy job is finished regularly. Starting with the next execution of the copy job, the recordings of the tenant are no longer copied to the storage expansion.

## 7.7

## Tab Reseller



This tab is exclusively available for the following drives:

- Data drives which are not used for import purposes
- Storage expansions

Here, you can map resellers to the drive. From the perspective of the system provider, resellers are a kind of tenant who does not use the drive himself but maps it to its own tenants or to other resellers.

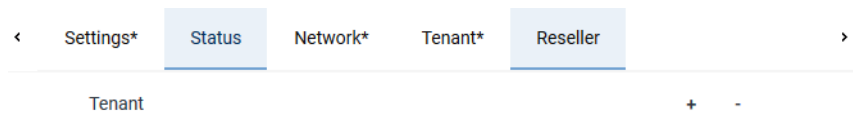


Fig. 38: Tab Reseller

- Data drive  
Resellers who have been mapped a data drive cannot map this drive to more than one tenant.
  - Storage expansion  
Resellers who have been mapped a storage expansion can map this storage expansion to more than one tenant. The storage expansion is used by all tenants that the storage expansion has been mapped to.
1. To map the drive to a tenant (reseller), click on the button **+** on the right of the entry field.
  2. Select a tenant from the list.

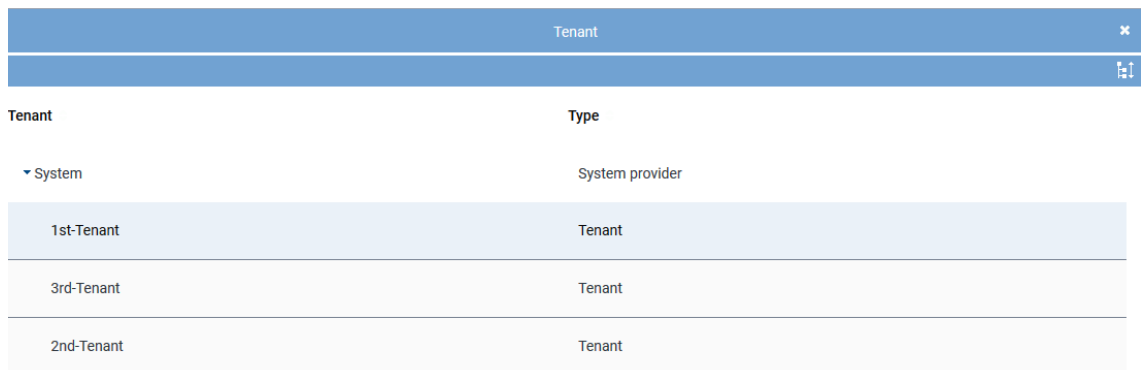


Fig. 39: Add tenant - data drive

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

## ATTENTION!

### Possible loss of data!

When deleting a reseller mapping while a tenant of the reseller is using the drive actively, then the job which is actively running on the drive is canceled. With immediate effect, the drive is not available anymore for the reseller, its tenants or the jobs which have been defined.

Check back with the affected reseller before deleting a mapping to avoid the loss of data on part of the tenant.

## 7.8

### Tab Post Compression



This tab is only available for system storages.



To be able to use post-compression, you need one license of the type *Data Compression* for each channel which is supposed to be compressed.

Here, you can display and edit the settings for the post compression of the recordings.

Compressing the saved conversations allows increasing the number of recordings which can be saved. In addition, the network bandwidth necessary for a possible transfer of recording data is decreased.

The standardized algorithm [G.729A](#) is used to compress the recordings. [G.729A](#) compresses audio data in stereo and in mono calls from 128 kbit/s to a data rate of 16 kbit/s and from 64 kbit/s to 8 kbit/s respectively. The precondition for using post-compression is that the conversations are available in G.711 or G.722 format (A-law or  $\mu$ -law).

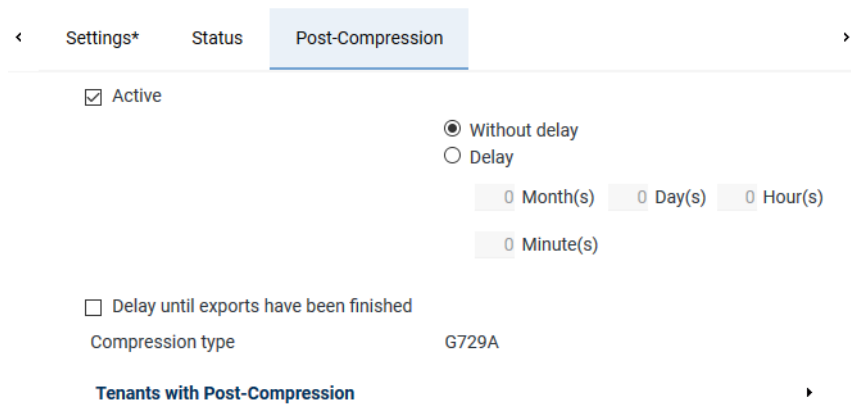


Fig. 40: Tab Post Compression

Active	<p>Select whether the recorded conversations are supposed to be compressed.</p> <p><input checked="" type="checkbox"/> = Recordings are compressed.</p> <p><input type="checkbox"/> = Recordings are not compressed.</p>
Radio button for delay	<p>Select whether the recorded conversations are supposed to be compressed directly during the saving process or after a delay period which can be entered freely.</p> <ul style="list-style-type: none"> <li>• <i>Without delay</i> Recordings are compressed directly during the saving process.</li> <li>• <i>Delay</i></li> </ul>

	<p>Recordings are compressed after a delay period which can be entered freely.</p> <p>This makes sense, for instance, if you would like to use the recordings for audio analysis. Since the recording data has to be available in its uncompressed state if it is supposed to be used for audio analysis, it must not be compressed before the audio analysis has been completed.</p> <p>Configure the delay by entering the respective value directly via the keyboard into the 4 entry fields.</p>
<i>Delay until exports have been finished</i>	Select whether the recorded conversations are supposed to be compressed directly during the saving process or after they have been exported successfully. <b>NOTICE!</b> Activate this check box if you would like to use the recording for audio analysis.
<i>Compression type</i>	The compression type is displayed here.



If the compression has been activated, data is only transferred to the storage expansion once it has been compressed.

A compression delay thus delays the transfer to the storage expansion, too.



Data which has already been compressed is not decompressed in the event of a data transfer even if no compression has been selected for the target drive. This means that compressed data is not decompressed neither when transferred between different system storages nor from one system storage to a storage expansion.



When activating the compression subsequently, i. e. when recordings already exist, then all recordings stored in the system storage are compressed retroactively. Recordings which have already been transferred to the storage expansion are **not** compressed retroactively.

Only new recordings which have directly been stored in compressed form are also transferred to the storage expansion in compressed form.

### 7.8.1 Group field Tenants with post-compression

Shows for which tenants a post-compression has been activated. This table is for your information only and cannot be edited. The tenant-specific activation of post-compression can be carried out by the system provider in the Tenants module and requires the respective license. For information about the Tenants module refer to the administration manual *System Configuration - User management (for system providers)*.

#### Tenants with Post-Compression

Name

1st-tenant

Fig. 41: Tenants with post-compression

8

Configure drives

Before you can configure a drive, you have to configure the server to which the drive has been connected in the Setup module so that the respective functions are activated on the drive.

1. In the Setup module, select the menu item *Servers*.
2. In the main view, select the server that the drive has been connected to.
3. Click on the tab *Usage* in the detail view.

Data Processing

☒ Data storage

☒ Transfer data for replay

Target Server	
Name	IP Address
No records found	

☒ Transfer data for data storage

Target Server	
Name	IP Address
No records found	

Activate period of time

☒

from

11:59:36

to

11:59:36

Receives data from

Name	Only Replay
No records found	

☒ Archiving

☒ Export

☒ Import







Recording architecture

Please choose...

Fig. 42: Configure drive usage

4. Enter the following parameters:

<i>Data storage</i>	<p>Activate the function <i>Data storage</i> if recording data is supposed to be stored on this server.</p> <p>As soon as the function <i>Data storage</i> has been activated, all other optional functions of the group field are released for editing.</p> <p><input checked="" type="checkbox"/> = Function has been activated.</p> <p><input type="checkbox"/> = Function has not been activated.</p> <p><b>NOTICE!</b> As long as the server is used in a running recording architecture, you can neither activate nor deactivate the data storage. If the data storage has been activated, you can only configure the remaining functions of the group field. To be able to activate or deactivate the function <i>Data storage</i>, you have to deactivate the recording architecture in which this server is used.</p>
<i>Transfer data for replay</i>	<p>Here, you can enter servers to which the recorded data is supposed to be transferred for replay. The data is not stored on the target servers but deposited in a cache temporarily in order to be replayed.</p>


	<p>You can only configure this function if additional servers have been configured for replay and are available.</p> <p><input checked="" type="checkbox"/> = Function has been activated.</p> <p><input type="checkbox"/> = Function has not been activated.</p> <p>If the function has been activated, you can adjust the following settings:</p> <ul style="list-style-type: none"> <li>• Add servers for replay to the list by clicking on the icon  (Add), see <a href="#">chapter "Add target server to a list", p. 47</a>. In the function, all servers are displayed on which the function <i>Replay</i> has been activated.</li> <li>• Remove servers from the list by clicking on the icon  (Remove).</li> </ul>
<i>Transfer data for data storage</i>	<p>Here, you can enter servers to which the recorded data is supposed to be transferred for data storage. The data is copied to the target server and stored there.</p> <p><input checked="" type="checkbox"/> = Function has been activated.</p> <p><input type="checkbox"/> = Function has not been activated.</p> <p>If the function has been activated, you can adjust the following settings:</p> <ul style="list-style-type: none"> <li>• Add servers for data storage to the list by clicking on the icon  (Add), see <a href="#">chapter "Add target server to a list", p. 47</a>.</li> <li>• Remove servers from the list by clicking on the icon  (Remove).</li> <li>• Activate a certain period of time for transferring the data.  <i>Activate period of time</i> <input checked="" type="checkbox"/>:  Via the entry fields <i>from</i> and <i>to</i> you can define a period of time during which data is supposed to be transferred on a daily basis.  <i>Activate period of time</i> <input type="checkbox"/>: Data is transferred permanently.</li> </ul> <p><b>NOTICE!</b>  In distributed systems with slow network connections, the storage interval for the data transfer can be adjusted. The storage interval for the data transfer has to be configured by an ASC service technician or by an authorized partner company.</p>
<i>Receives data from</i>	<p>This table contains those servers which transfer data to this server.</p> <p>In the column <i>Name</i>, the name of the server appears from which data has been transferred.</p> <p>In the column <i>Only Replay</i>, the purpose of the transfer is displayed:</p> <p> = Data is transferred only for replay.</p> <p> = Data is transferred for data storage.</p>
<i>Archiving</i>	<p>Select whether archiving recording data on the server is supposed to be possible.</p> <p><input checked="" type="checkbox"/> = Function has been activated.</p> <p><input type="checkbox"/> = Function has not been activated.</p>
<i>Export</i>	<p>Select whether the manual export of recording data from the server is supposed to be possible.</p> <p><input checked="" type="checkbox"/> = Function has been activated.</p> <p><input type="checkbox"/> = Function has not been activated.</p>
<i>Import</i>	<p>Select whether the manual import of recording data to the server is supposed to be possible.</p> <p><input checked="" type="checkbox"/> = Function has been activated. From the drop-down list, select the recording architecture which is supposed to be used for import.</p>

☐ = Function has not been activated.

5. Activate the function *Data storage* to allow storing recording data on the system storage drive of this server and activate the other functions.
6. If required, activate the functions for the transfer of the recording data to another server.




The transfer of recording data from one server to another server can only take place from system storage to system storage.


7. Activate all or individual functions *Archiving*, *Export*, *Import* - depending on which functions you would like to activate for the drives of the server.
8. Click on the button *Save* to save the settings.
9. Open the Drives module to configure the drive.
10. In the main view, select the drive you would like to configure.  
If the drive has not been created yet, click on the icon  (*Create*) in the toolbar in the Drives module to create it.
11. Adjust all necessary settings in the tabs of the detail view.  
You can change tabs without buffering without risking the loss of your settings.
12. To save the settings, click on the button *Save* in the detail view of the Drives module.  
To discard all settings which have not yet been saved, click on the button *Reset*.

### 8.1

#### Add target server to a list

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

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

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

 

Fig. 43: Select server



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

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

**NOTICE! If you would like to format media, the following preconditions apply:**

- There must not be a hardware write protection for the medium.
- The drive and the medium must have been mapped to the same tenant.
- As long as a drive has been mapped to a tenant, only this tenant may eject, remove or format the medium, not the system provider, though.
- It may not be a system drive or a database drive.
- The currently inserted medium may not have an active overwrite protection.

If a job is active on the drive, the inserted medium may only be formatted if the medium:

- has been terminated or
- is empty but the format is not identical with the preset format or
- contains third-party or unknown data.

1. In the main view, select the drive the medium of which you would like to format.
2. Click on the menu item *Drives > Format* in the toolbar.
3. From the drop-down list *Default file system*, select the file system with which the medium is supposed to be formatted.

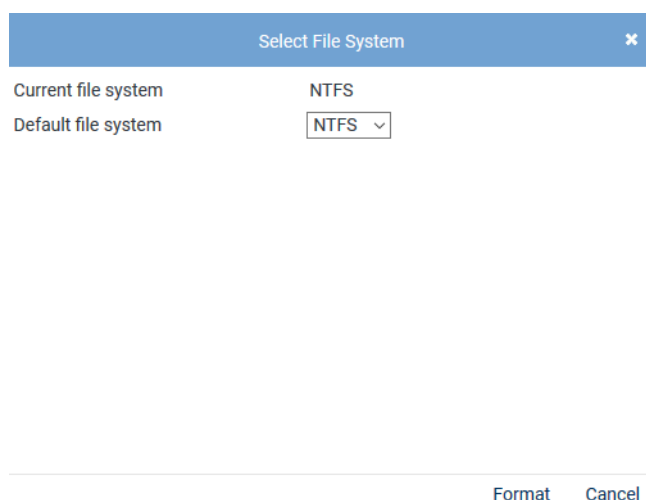


Fig. 44: Format drive manually

4. To format the medium with the selected file system, click on the button *Format*. To cancel the process and not format the medium, click on the button *Cancel*.



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## Glossary

### Amazon S3

Amazon Simple Storage Service; Cloud storage

### ASCFS

ASC File System. A proprietary file system of ASC for DVD-RAM media.

### CIFS

Common Internet File System stands for network share. The term was introduced by Microsoft in 1996 and describes an advanced version of SMB (Server Message Block). CIFS builds on NetBIOS over TCP/IP and SMB and, in addition to file and printer sharing, offers additional services such as Windows's RPC and NT domain service. Name resolution continues to be carried out via NBT broadcast message or in general via the NBT Name Service or via DNS if NBT is not available. (Source: Wikipedia 4th May 2017)

### DAS

Direct-attached storage is digital storage directly attached to the computer accessing it. (Source: Wikipedia 5th April 2017)

### G.729A

G.729 Annex A is a codec for the compressing of audio into digital signals with low complexity, fixed point arithmetic and a data rate of 8 kbit/s.

### iCAS

iTernity Compliant Archive Software is a flexible and scalable solutions to manage and archive data.

### ID

Identifier, ID

### iSCSI

Internet Small Computer Systems Interface is a method enabling the usage of the SCSI protocol via TCP. iSCSI specifies the native transmission and operation of direct storage protocols via TCP. This method compiles SCSI data in TCP/IP packages and transfers them via IP networks (ports 860, 3260). (Source: Wikipedia 4th May 2017)

### NAS

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

### SMB

Server Message Block is a network communication protocol for providing shared access to files, printers, and serial ports between nodes on a network. It also provides an authenticated inter-process communication mechanism. (Source: Wikipedia 24th October 2019)

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**TTL**

Time to Live is the retention period indication for how long a recording is supposed to be held available in the system.

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**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)

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**USB**

Universal Serial Bus