USER MANUAL

Version 1.6 - November 2018

XNet.WebMonitor

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Table of Contents

What's New?

In the XNet Webuser manual, the icon NEW ! has been added on the left margin to highlight information on new and updated features.

The changes linked to new features and having an impact on the user manual in version 1.6 are listed below. The full list of new features is available in the release notes.

New fields "Interface", "HDR" in Server Details area, Status tab

- See section "Audio-Video Area" on page 39.

New field "Hardware Edition History" in Server Details area, Hardware tab

- See section "Hardware Tab" on page 45
- See section "Fields in the Monitoring List" on page 34

New tab "Temperature" in Server Details

- See section "Overview on the Server Details Area" on page 36
- See section "Temperature Tab" on page 46
- See section "Fields in the Monitoring List" on page 34

1. Introduction

1.1. Product Overview

XNet Web is a tool aimed at monitoring EVS products. It displays real time information and status about the EVS video servers and other EVS products, as well as past alert and warning messages.

XNet Web uses the SNMP (Simple Network Management Protocol) protocol to request and receive monitoring data from the EVS servers. This internal status data is defined in the MIB (Management Information Base) on each EVS server.

One XNet Web application can monitor several EVS servers and other EVS products while one EVS server or product may also be monitored by several XNet Web polling services.

XNet Web is mainly a monitoring application that cannot act on the monitored servers. Some remote actions are however possible: Multicam version upgrade, keyword file maintenance, as well as remote access to an EVS server desktop, or to an LSM Remote Panel.

NOTE

The full list of EVS products that can be monitored with XNet Web are specified in the release notes. All currently supported EVS servers can be monitored with XNet Web.

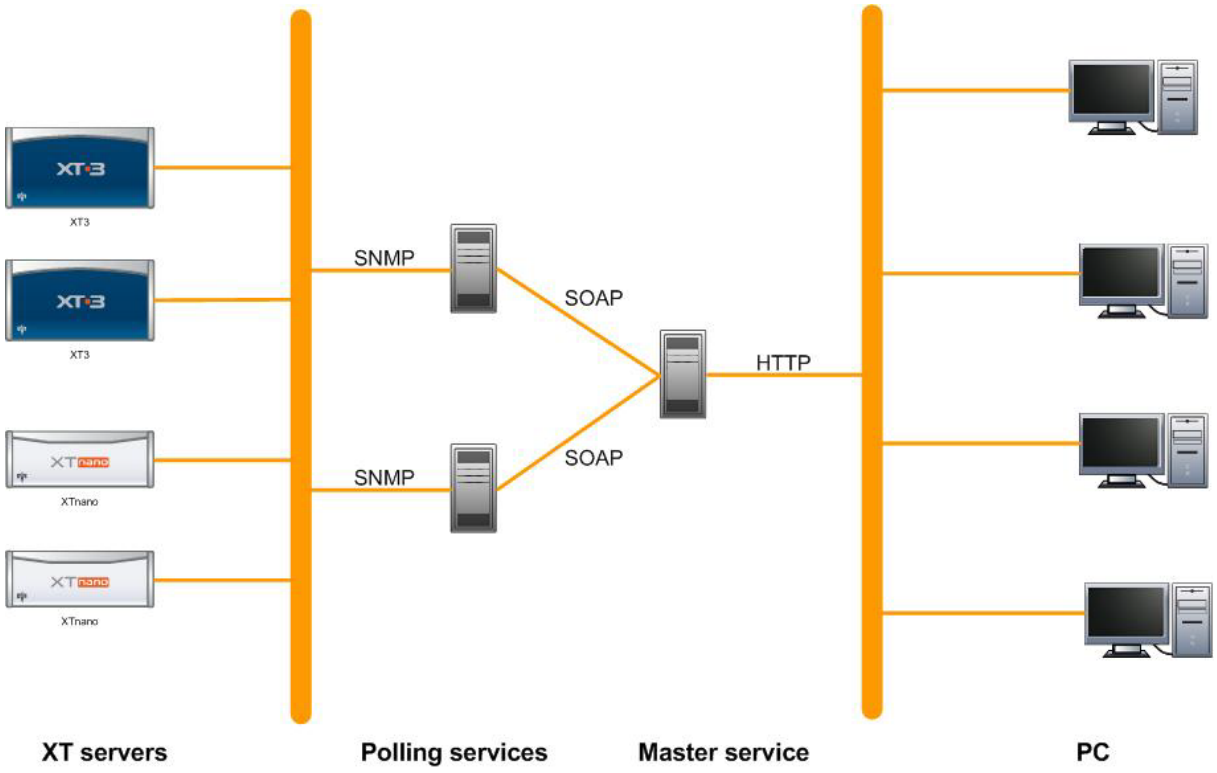
1.2. Architecture Overview

The web interface of XNet Web allows users to connect, from their PC, to the web server using the HTTP protocol, and to access the information defined in the MIB (Management Information Base) of the web server.

The web server communicates with the hosts (EVS video servers or other EVS hardware), and calls for or receives information from them in the following ways:

- The web server discovers automatically the EVS hardware that can be monitored using the Bonjour protocol.
- Polling services hosted on the web server or on dedicated hardware query continuously the hosts for data to transmit. When new data is available, the host transmits the data to the polling service using the SNMP protocol.
- The polling service sends information to the web server using the SOAP protocol.
- Trap messages are sent by the host to the polling service(s) that is/are associated to the given host.

The schema below shows an overview of the underlying architecture that allows the communication flow between the hosts (or monitored devices), the polling services, the web server, and finally the XNet Web.



Note
If one polling service is sufficient, the polling service can be installed on the web server that hosts the master service.

1.3. Accessing the Application

Supported Browsers

XNet Web being a web-based interface, you access it using a web browser.

The following browsers are supported:

- Internet Explorer
- Firefox
- Safari

How to Open an Instance of XNet Web

To open an instance of the XNet Web Monitor interface, type the URL of the XNet Web webserver in the browser.

The URL is made up as follows:

`http://<XNet Web Monitor IP address>/XNetWebMonitor`

where you refer to the IP address of the hardware where XNet Web Monitor is installed.

If XNet Web Monitor is installed on the local computer, use the following URL:

`http://localhost/XNetWebMonitor`

1.4. Standard User versus Administrator

Introduction

When you access the XNet Web Monitor interface, you are logged on by default as a standard user: The **Configuration**, **Install** and **Keyword files** menus are dimmed.

Logging in as an administrator allows you to perform the following actions:

- Configuring how and which monitoring and alert information will be displayed in the main window.
- Installing and/or removing Multicam versions on EVS servers.
- Uploading keyword files on EVS servers.
- Using the XT tools, symbolized by icons on the right of the menu bar.

How to Log on as an Administrator

To log on as an administrator, proceed as follows:

1. Click the login icon 

in the top right corner of the Monitoring window.
2. In the Login dialog box, enter the administrator user name and password provided by EVS.
3. Click the **Login** button.

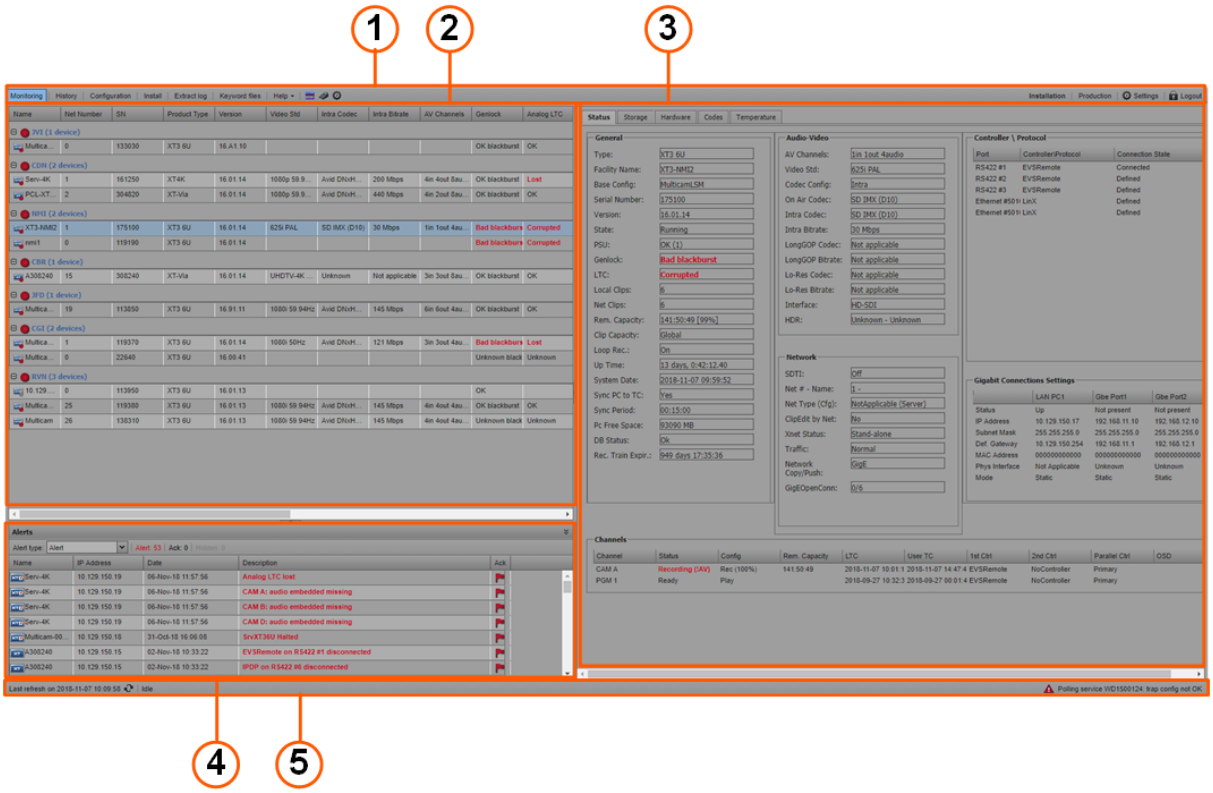
How to Log Out

Once you have finished working in administrator mode, you can log out by clicking the **Logout** icon in the top right corner of the Monitoring window.

1.5. User Interface Overview

Introduction

When you access the XNet Web Monitor interface, the Monitoring window (main window) is displayed. The schema below highlights the various areas on the Monitoring window.



Area Description

The table below describes the various parts of Monitoring window:

#	Window area	Description
1.	Menu bar	Menu giving access to the following items: • on the right, the tabs to the various windows and associated functionality. "Menu Bar" on page 5. • on the left, the commands to log in as an administrator mode and/or change the display mode "Standard User versus Administrator" on page 3.
2.	Monitoring List area	Display of hosts organized in groups, as defined in the Configuration menu, Monitoring Configuration tab. "Description of the Monitoring List" on page 33.

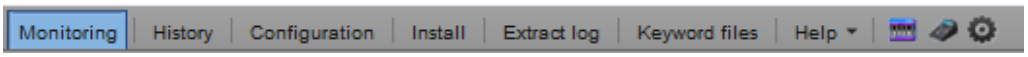
#	Window area	Description
3.	Server Details area	Detailed information on the EVS server or on the EVS hardware selected in the Monitoring List. "Overview on the Server Details Area" on page 36
4.	Alert Information area	Area that allows users to display and acknowledge the alerts. "Description of Alerts Pane" on page 49
5.	Status bar	Status information about the polling service activity, and last refresh time. "Status Bar" on page 6.

1.6. Menu Bar

General Description

The menu bar gives access to the various windows and associated functionality. You will find below a short description of the menu items.

Some menu items are only available when the user is logged on as an administrator. This is the case for the Configuration, Install and Keyword files menus, as well as for the icons on the right hand side.



Area Description

The following table presents the items on the menu bar:

Menu item	Description
Monitoring window	Main window, that allows you to monitor the EVS server information, warnings and alerts. "Overview on the Monitoring Window" on page 31.
History window	Allows you to view archived information, warnings and alerts stored in the XNet Web database. "Event History" on page 63.
Configuration window	Allows you to configure the display of monitoring and alert information, and the polling services. Only available for users logged as administrator. "Configuration" on page 8.
Install window	Allows you to install or remove Multicam versions on EVS servers. Only available for users logged as administrator. "Multicam Upgrades" on page 65
Extract logs window	Allows the extraction of server logs. "Description of the Extract Log Window" on page 76.

Menu item	Description
Keyword files	Allows the distribution of keyword files to EVS servers. Only available for users logged as administrator. "Description of the Keyword Files Window" on page 75.
Help	Allows accessing the: • About window with the product full release number • user manual • Support web page
Icons	Allows accessing tools for remote control. "Remote Access to an EVS Server" on page 71.

1.7. Status Bar

General Description

The status bar provides status information about the polling service activity, and specifies the last refresh time:

Area Description

The following table describes the items on the status bar, from left to right:

Item	Description
Last Refresh on ...	Last refresh date and time of the SNMP information.
Refresh button 	Button to force a refresh of the SNMP information in the application.

Item	Description
SNMP protocol activity	Information on the activity of the SNMP process, for example: Idle or XNet.mvc/GetHostsGrid
Polling status	Status of the SNMP polling. The following error messages can be displayed: • `At least one polling service must be managed`: In this case, you should define a polling service as managed in the Configuration menu > Monitoring Configuration tab > Polling Services pane. • `Polling service <NAME> not responding`: This message is displayed when the SNMP polling service is not responding. • `Polling service <NAME> not started`: In this case, you should start the polling service in the Configuration menu > Monitoring Configuration tab > Polling Services pane. • `Polling service <NAME> port 162 busy`: In this case, there is a problem with the port 162. Check that no other service on the hardware hosting the polling service is using this port. • `Polling service <NAME> trap config not OK`: In this case, there is a problem with the trap registration in the Configuration menu > Trap Configuration tab. Make sure the IP of the polling service is properly registered on all hosts. "Managing Trap Targets" on page 27.

2. Configuration

2.1. Network Settings

Introduction

Should you face issues to set up XNet Web in your network, and should a network configuration be required, you will find the necessary network information in this section.

Description

Connection Client-Server

- Communication in HTTP on port 80 (bidirectional)

Connection Master Service - Polling Service

Both services are often installed on the same machine.

- Communication in HTTP on port 2280 (bidirectional)
- Communication in HTTP on port 2281 (bidirectional)
- Communication in HTTP on port 2282 (bidirectional)

Monitoring

- Monitoring protocol :SNMP
- Communication for the polling : TCP on port 161 (bidirectional)
- Communication of the SNMP traps : UDP on port 162 (outbound out of the server only)

Remote desktop and LSM Remote functions

- TCP 50000 (bidirectional)

Config Web

- Communication in HTTP on port 80 (bidirectional)

2.2. Display Profiles and Settings

2.2.1. General Display Settings

Introduction

You can modify some general display settings in the Settings window, Display tab, that you can open clicking the **Settings** icon in the upper right corner of the Monitoring window.

List of Settings

The editable settings are the following:

Name	Description
Refresh period	Time interval (in seconds) for refreshing the information from the web server.
Temperature unit	Unit of temperature used in the application. The possible values are 'Celsius' or 'Fahrenheit'. Note that this unit selection does not apply to the temperatures measured on the boards of an EVS server.

NEW !

2.2.2. Using Display Profiles

Introduction

Depending on the context of use, users will request different monitoring information to be displayed in the Monitoring list of the Monitoring window. For this reason, two display profiles are available based on whether the EVS servers are monitored in a context of installation or operation. The display profiles are therefore named 'Installation' and 'Production' by default.

You can modify the definition of both display profiles, in other words the way the columns are displayed in the Monitoring list when the profile is enabled. "Customizing Display Profiles" on page 10.

How to Enable a Display Profile

To enable a display profile, simply click the **Installation** or **Production** link in the upper right of the Monitoring window:

When a display profile is selected, the columns displayed in the Monitoring list of the Monitoring window, and the way they are ordered, are adapted accordingly.

2.2.3. Customizing Display Profiles

How to Access the Display Profile Definition

You can customize the display profiles, which define how the columns are organized in the Monitoring List area of the Monitoring window.

To access the display profile definition, proceed as follows:

1. Click the **Settings** icon on the upper right corner of the Monitoring window.

   The Display Settings window opens.

2. Select the **Profile 1** (Installation profile) or **Profile 2** (Production profile) tab depending on the profile you want to modify.

Editing Actions on Display Profile Definition

All actions described below need to be validated by clicking the **Apply** button:

In order to ...	Proceed as follows ...
Add a column to the profile	1. Select the requested column in the list of available columns (left). 2. Click the icon. The column is added to the list of selected columns (right).
Remove a column from the profile	1. Select the requested column in the list of selected columns (right). 2. Click the icon. The column is removed from the list of selected columns (right) and is added to the list of available columns (left).

In order to ...	Proceed as follows ...
Change the position of columns in the profile	1. Select the requested column in the list of selected columns (right) 2. Do one of the following: a. Click the  or  icon to move the column respectively one position up or down in the list. b. Click  or  icon to move the column respectively to the beginning or end of the list. The column is at the desired position in the list.
Reset the column list and order for the profile	Click the **Reset columns** button at the top of the tab. The list of selected columns is reset to the default list, with the default column order.
Change the name of the display profile	1. Click in the **Profile name** field at the top of the tab. 2. Type the requested name for the profile.

2.3. Monitoring Configuration

2.3.1. Overview of the Monitoring Configuration Tab

Introduction

You can access the Monitoring Configuration window by clicking the Configuration menu, then the Monitoring Configuration tab.

The Monitoring Configuration window is organized in two main panes:

- **Tree Configuration** on the left hand side.

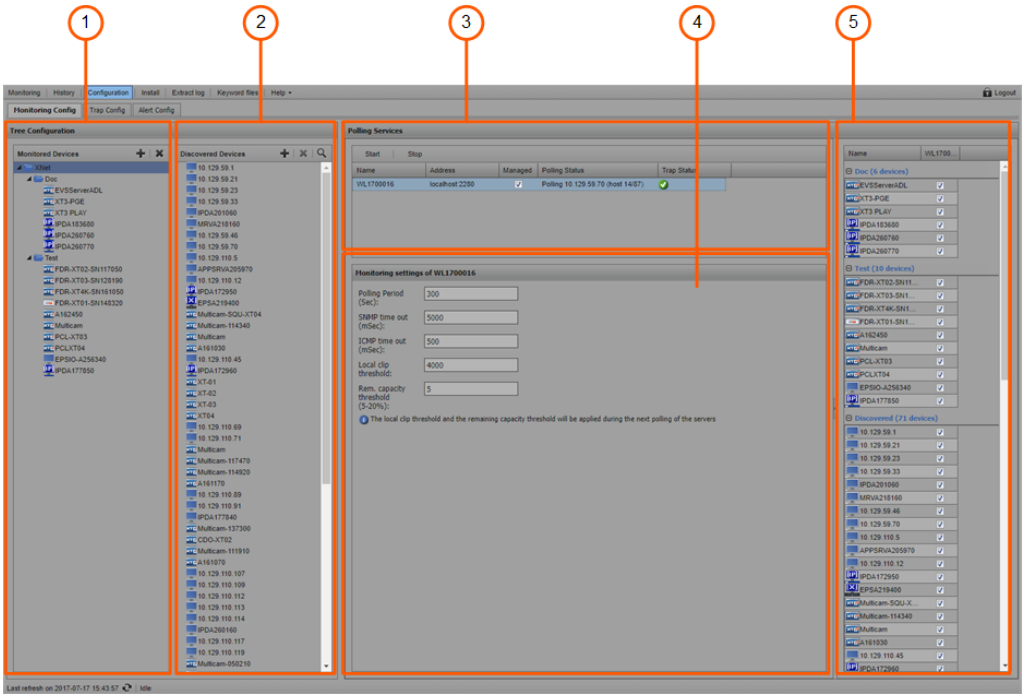
  It allows administrators to configure the tree structure of monitored devices that will be displayed in the Monitoring window, and used in other windows.

- **Polling Services** on the right hand side.

  It allows administrators to configure and manage the polling services. The polling services query continuously the individual monitored devices via SNMP and get information from the devices.

Illustration

Within the above-mentioned two main panes, the Monitoring Configuration window contains five areas highlighted on the screenshot below:



Area Description

The table below describes the various areas of the Monitoring Configuration window highlighted on the illustration above, and briefly explains what they are used for:

Part	Name	Description
	Tree Configuration	"Description of the Tree Configuration Pane" on page 14.
1.	Monitored Devices area	It allows administrators to structure the list of monitored devices (hosts) in a tree view organized in server groups. The Monitoring List on the Monitoring window reflects this tree view structure. "Organizing Monitored Devices" on page 18
2.	Discovered Devices area	It lists the hosts the system has discovered on the network. The hosts are not directly available in the application: you need to launch a global discovery process, or specify an IP address or a range of IP addresses that will be checked for identifying hosts. "Discovering New Devices" on page 16
	Polling Services	"Description of the Polling Services Pane" on page 19

Part	Name	Description
3.	Polling Services List area	It lists the existing polling services, and allows administrators to enable a polling service, as well as to start or stop it. "Configuring and Managing a Polling Service" on page 23
4.	Monitoring Settings area	It allows administrators to define the monitoring settings relevant for polling services, and for alerts using thresholds. "Description of the Polling Services Pane" on page 19.
5.	Polling Service Configuration area	It allows administrators to specify which monitored devices each enabled polling service will manage. "Configuring and Managing a Polling Service" on page 23.

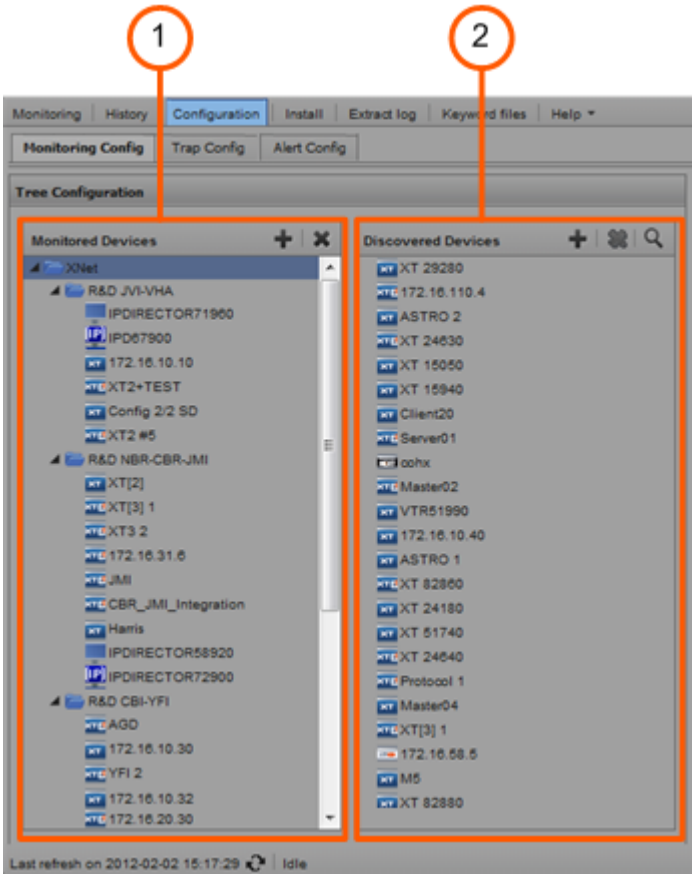
2.3.2. Setting up Monitored Devices

Description of the Tree Configuration Pane

Overview

The Tree Configuration pane, in the Monitoring Config tab of the Configuration menu, consists of the following areas, displayed in the screenshot below:

Part	Name	Description
1.	Monitored Devices	Area where you organize the hosts you want to monitor
2.	Discovered Devices	Area where you identify and manage the list of hosts discovered on the network

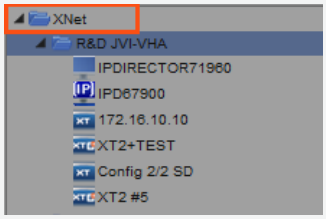
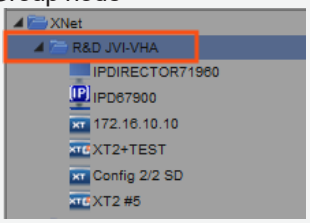
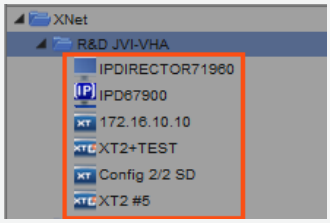


Area Description

Monitored Devices

The table below presents the elements of the Monitored Devices area.

For more information on organizing the tree view, "Organizing Monitored Devices" on page 18.

GUI Element	Description
XNet tree root 	This is always the root of the tree structure. You do not have to create it.
Group node 	Groups that include one or more hosts. You cannot add a host directly below the XNet root. You first need to define a group.
Monitored devices 	Hosts that have been added to a group. To add a host to a group, select a host from the list of discovered devices, and drag it to the requested group in the Monitored Devices area.
Add button 	Button used to add a group to the tree structure
Remove button 	Button used to remove a selected group from the tree structure

Discovered Devices

The table below presents the elements of the Discovered Devices area.

For more information on discovering new devices, "Discovering New Devices" on page 16.

GUI Element	Description
Discovered device	Each element of the list in the Discovered Devices area is a host (EVS server or PC) that has been discovered and is not monitored. It is highly recommended to remove discovered devices that are not monitored to prevent a reduction of the polling performances.
Add button 	Button used to open a dialog box that allows you to discover new hosts using an individual IP address or a range of IP addresses.
Remove button 	Button used to remove a selected host from the list of discovered devices.
Magnifier button 	Button used to launch the discovery process.

Discovering New Devices

Introduction

The first task you should fulfill when you start working with XNet Web consists of identifying the hosts (EVS servers and other EVS hardware) you want to monitor. This is the first stage for defining the hosts you will monitor.

You will discover new hosts in the Configuration menu > Monitoring Config tab > Tree Configuration pane > Discovered Devices area.

Once the hosts are discovered, you can add them to the tree of monitored devices, and organize the tree structure. For more information on this step, "Organizing Monitored Devices" on page 18.

Host Discovery Methods

Three methods can be used to discover new hosts:

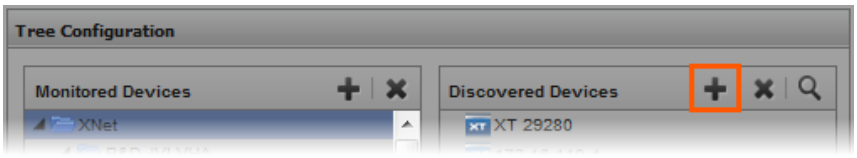
- Discovering a individual host using its IP address
- Discovering the hosts that belong to a range of IP Addresses
- Discovering automatically all hosts available on the network

Warning
It is highly recommended to remove discovered devices that are not monitored to prevent a reduction of the polling service performances.

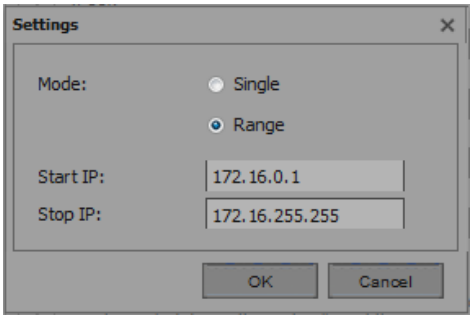
How to Discover New Hosts Using IP Addresses

To discover new hosts using their IP address or a range of IP addresses, proceed as follows:

1. In the Monitoring Configuration window, right-click the + sign on the upper right corner of the Discovered Devices area in the Tree Configuration pane:



   The following dialog box opens:



2. You can discover new devices in one of the following ways:
   - Discover a single host by selecting the **Single** mode and typing the IP address of the host you want to identify in the **Start IP** field.
   - Discover the hosts in a range of IP addresses, by selecting the **Range** mode and typing the first IP address and the last IP address of the range XNet Web has to search for.
3. Click **OK**.

The hosts that are discovered are added to the list of discovered devices in the Discovered Devices area.

How to Automatically Discover Hosts

To launch an automatic discovery of all EVS servers present on the network, click the **magnifier** button on the top right corner of the Discovered Devices area.

The automatic discovery feature can be used to discover EVS servers, not other EVS hardware.

How to Remove Discovered Hosts

To remove one or more discovered devices, proceed as follows:

1. Select the host(s) you want to remove from the list of discovered devices using one of the following method:
   - Click on a host for a single selection
   - CTRL + click for a multiple non-contiguous selection
   - CAPS LOCK + SHIFT + click for a multiple contiguous selection
2. Click the **Remove** button  on the top right of the Discovered Devices area.

Organizing Monitored Devices

Process Overview

Before you can organize monitored devices in the tree view, you need to have discovered the hosts you want to monitor. "Discovering New Devices" on page 16.

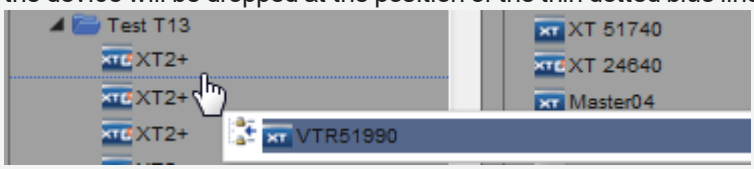
Organizing monitored devices consists of the following main steps:

1. Creating empty groups below the XNet root in the Monitored Devices area.
2. Adding discovered devices to the created groups by dragging and dropping the requested devices from the Discovered Devices area to the requested group in the Monitored Devices area.

Possible Actions

The table below presents the possible actions in the Monitored Devices area:

In order to ...	Proceed as follows ...
Create a new group	Click the  button in the upper right corner of the Monitored Devices area and type the name for the new group.
Rename an existing group	Click the group label in the tree and type a new name for the group.
Move an existing group	Select the group icon of a group node, and drag it to the requested position in the tree. During the drag operation, the requested position is symbolized by a thin dotted blue line. You cannot insert a group into another group: If you drop a group into another group, the moved group will be positioned at the end of the server group where it was dropped.

In order to ...	Proceed as follows ...
Remove a group	Select the group label and click the  button in the upper right corner of the Monitored Devices area. If the group is not empty, you will be prompted to confirm the deletion.
Add a discovered device to a group	Drag and drop the selected discovered device into the requested group defined in the Monitored Devices area. If you drag the device into the group name as illustrated below, the device will be dropped at the end of the group:  If you drag the device between group elements as illustrated below, the device will be dropped at the position of the thin dotted blue line. 

2.3.3. Managing Polling Services

Description of the Polling Services Pane

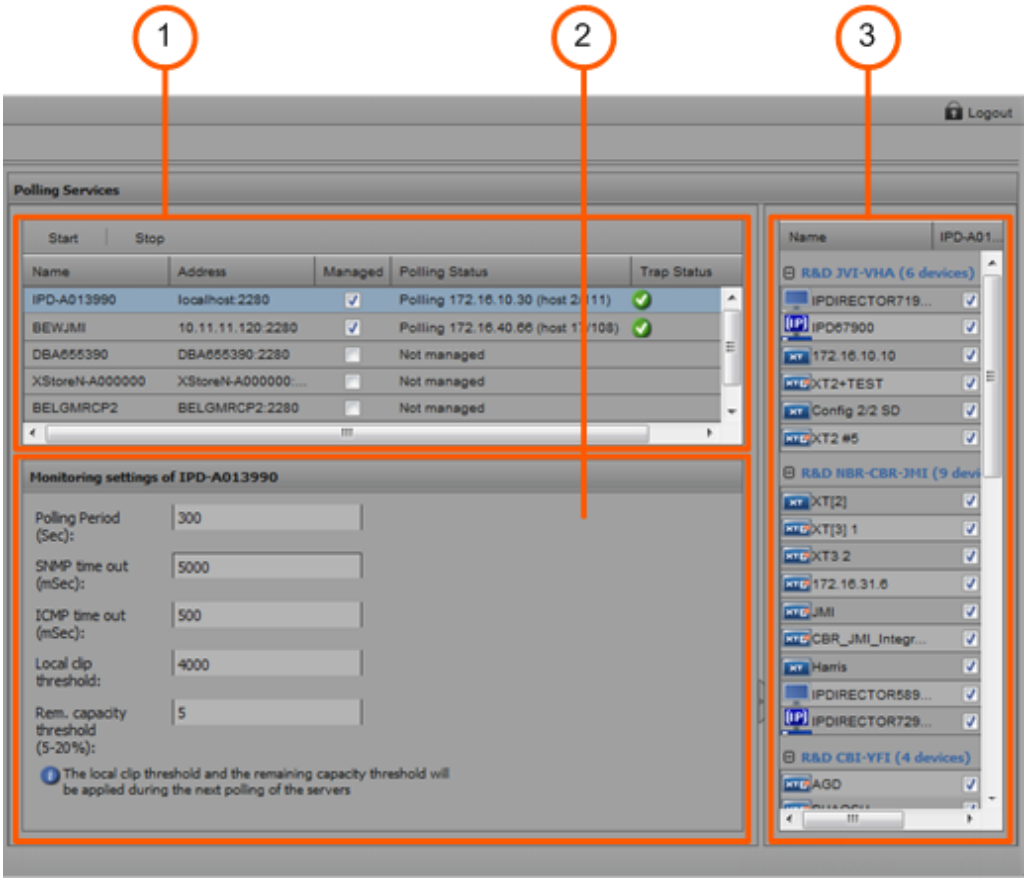
Overview

The polling services allow the transfer of information from the EVS servers and other EVS hardware to the web server.

They continuously query the individual devices using the SNMP protocol, and get updated information from the devices when available.

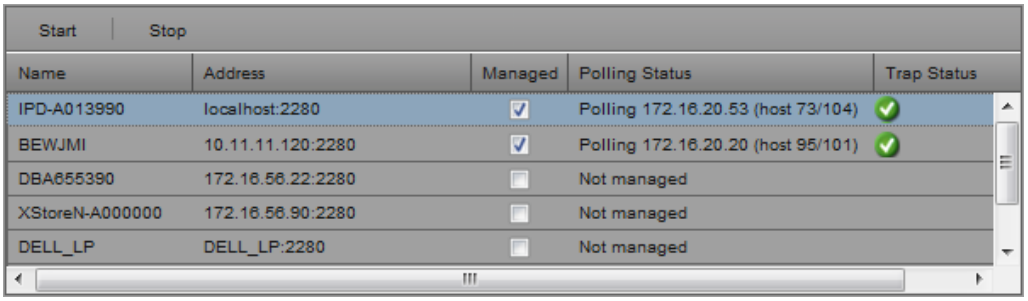
The Polling Services pane, in the Monitoring Config tab of the Configuration menu, consists of the following areas, displayed in the screenshot below:

Part	Name	Description
1.	Polling Services List	Lists the available polling services, and allows administrators to enable the polling services, start or stop them.
2.	Monitoring Settings	Allows administrators to define settings for polling services.
3.	Polling Service Configuration	Allows administrators to define which devices the managed polling services will monitor.



Area Description

Polling Services List



The table below presents the elements of the Polling Services List.

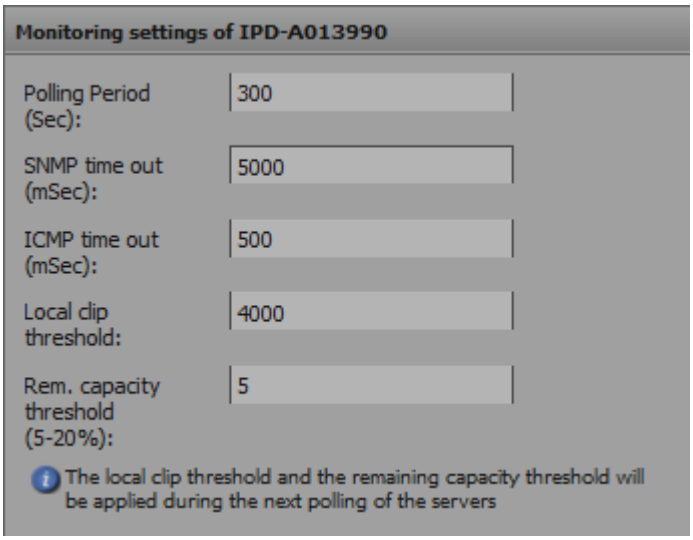
For more information on managing and starting polling services, "Configuring and Managing a Polling Service" on page 23.

GUI Element	Description
Start button	Button used to restart all managed polling services that have been stopped.
Stop button	Button used to stop all polling services enabled (set as 'managed') in the list of polling services.

GUI Element	Description
Name	Windows name of the hardware on which the polling service is installed.
Address	Name or IP address of the computer on which polling service is installed, and communication port (2280): • **localhost: 2280:** Value specified when the polling service is installed on the web server. • **<xxx.xxx.xxx.xxx> : 2280:** The IP address is specified when the polling service is distant, and is or has already been managed. • **<Name> : 2280:** The Windows name of the hardware is specified when the polling service is distant, and is not and has never been managed.
Managed	Check box to enable the polling service. When the polling service is enabled (**Managed** check box selected), it automatically starts querying the devices assigned to it in the Polling Service Configuration area, and managing the SNMP information.
Polling Status	Operational status of the polling service. The following statuses can be displayed: • **Not Managed** The Polling service is not active as the **Managed** check box for this polling service is not selected. • **Polling xxx.xxx.xxx.xxx (host YY/ZZ)** IP address of the host that is being polled. The information between brackets specifies the position of the host in the total number of devices monitored by the polling service. • **Waiting <XXX>/<YYY> sec** It a counter (in seconds) before the next polling period starts for this polling service.
Trap Status	Status that indicates whether the trap messages are correctly received. The following statuses can be displayed: • : The trap messages are correctly received. • : The trap messages are not correctly transmitted. • <Nothing>: The status of the trap message transmission is not known.

Monitoring Settings

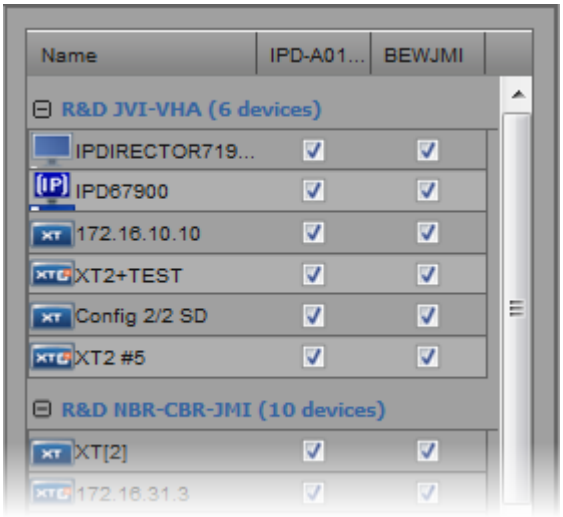
The monitoring settings of the polling service selected in the Polling Services list are displayed below the list.



The table below presents the elements of the Monitoring Settings.

GUI Element	Description
Polling Period	Time period in seconds during which the polling service will wait between two series of queries to all hosts. The default value is 300 seconds.
SNMP time out	Time period in milliseconds after which the application will generate an error message if the SNMP communication between the EVS servers and the polling services cannot be established. The default value is 5000 milliseconds.
ICMP time out	Time period in milliseconds after which the application will generate an error message if the internet communication between the master service and the clients cannot be established. The default value is 500 milliseconds.
Local clip threshold	Number of clips stored on the EVS server above which the application will generate an error message. The default value is 4000 clips.
Rem. capacity threshold	Remaining disk capacity on an EVS server (defined in percents) below which the application will generate an error message. The default value is 5%.

Polling Services Configuration



In the Polling Services Configuration area, you will find:

- The host tree, with all the groups and monitored devices that are defined in the Monitored Devices area.
- A column is displayed for each polling service set as 'managed' in the Polling Services list.

If you want a host to be managed by a polling services, tick the check box of the host in the column of the requested polling service.

For more information on defining which polling service will manage a device, "Configuring and Managing a Polling Service" on page 23.

Configuring and Managing a Polling Service

Introduction

This topic explains the steps to be performed from the XNet Web Monitor interface to make sure that a polling service is properly configured and operational.

All steps are performed in the Configuration menu > Monitoring Config tab> Polling Services pane."Discovering New Devices" on page 16 for more information on the various areas of this pane mentioned below.

Prerequisite(s)

To be able to configure and run a polling service, you first need to define the tree of monitored devices in the Configuration menu > Monitoring Config. tab > Tree Configuration pane > Monitored Devices area.

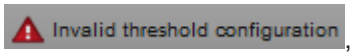
Procedure

To configure and run a polling service, proceed as follows:

1. In the Polling Services List, select the row corresponding to the polling service you want to configure.

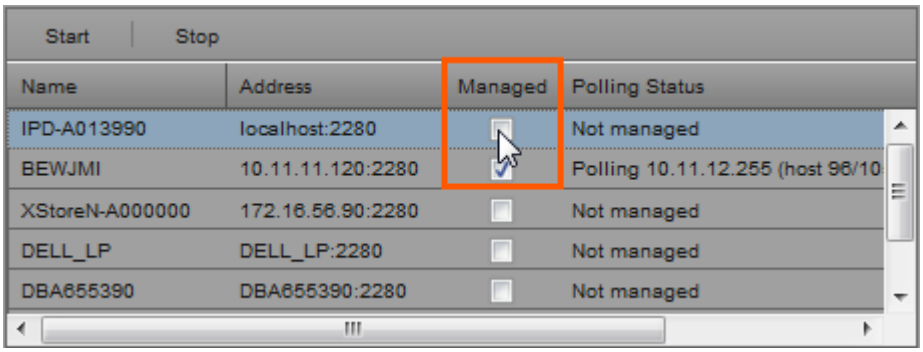
   The Monitoring Settings for the selected polling service are displayed in the Monitoring Settings area below the Polling Services List.

2. In the Monitoring Settings area, modify the monitoring settings for the selected polling service, if requested.

Warning
If you modify the threshold values and the following message appears in the Polling Services List area 

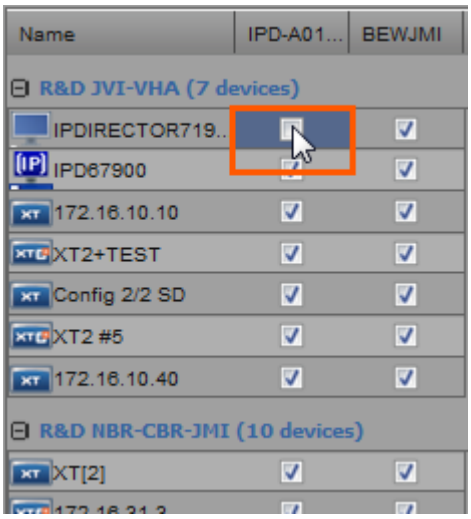
, it means that two or more polling services manage an EVS server with different threshold parameters. As this situation leads to inconsistent alerts, it is highly recommended to set the same threshold values for all polling services that manage the same server.

3. In the Polling Services List, tick the **Managed** check box of the polling service you want to configure and run.



4. In the Polling Services Configuration area, associate the devices to be monitored to the polling service.

   To do this, tick the check boxes in the intersection between the row of the devices to be monitored and the polling service that should manage this device. Repeat this operation for all devices to be monitored by the given polling service.



5. In the Polling Services List, check that the polling status regularly displays 'Polling ...', which means the polling service is started.

   Otherwise, click the **Start** button above the Polling Services List.

2.4. Trap Configuration

2.4.1. Description of the Trap Configuration Tab

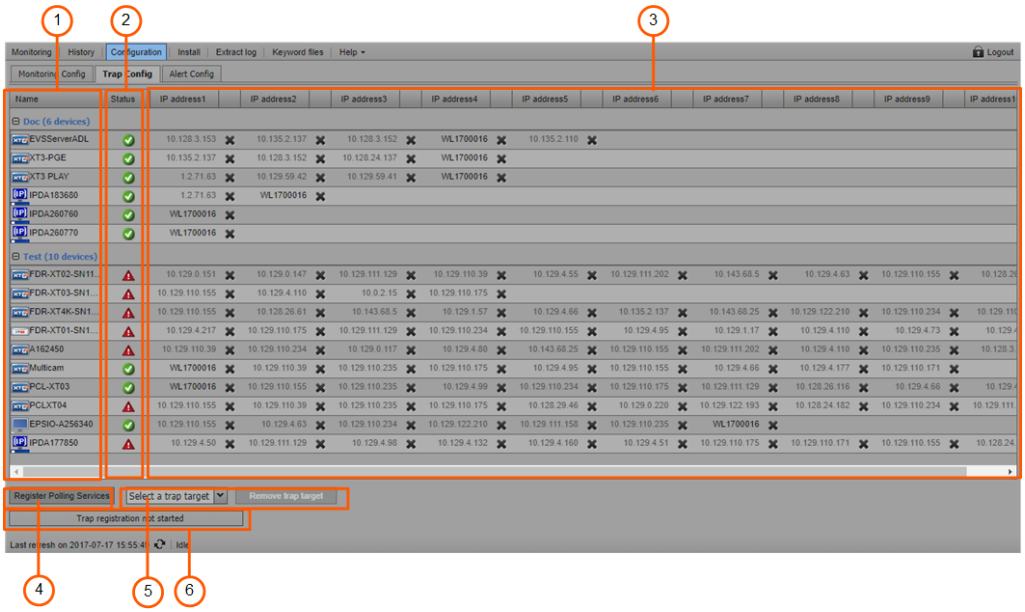
Overview

You can access the Trap Configuration window by clicking the **Configuration** menu, and the **Trap Configuration** tab.

The Trap Configuration window displays the host tree (EVS servers or other EVS hardware). For each host, the list of IP addresses of the computers registered to the host to receive its SNMP trap messages. Such a computer is called a trap target.

The trap targets can be computers that host the XNet Web Monitor interface or a polling service of XNet Web.

The Trap Configuration window contains the areas or buttons highlighted on the screenshot below:



Area Description

The table below describes the various parts of the Trap Configuration window:

Part	Name	Description
1.	Host tree	List of the monitored devices to which polling services (of XNet Web) or XNet Web applications can be registered.
2.	**Trap Status** icon	Global trap status of the polling services registered for the corresponding host: when all polling services managing the host ("Polling Services Configuration" on page 23) are registered as trap targets to the host. when one (or more) polling services managing the host is/are not registered as trap target(s) to the host. when none of the polling services managing the host are registered as trap targets to the host. This status icon does not take into account trap targets for the XNet Web Monitor interface.
3.	**IP Addresses** columns	List of all IP addresses of computers (max. 10 per host) registered as trap targets to the corresponding host. • If the trap target is a registered polling service, its name will be displayed in black. • If the trap target is a computer hosting XNet Web, the registered IP Address will be displayed in gray. The button on the right of the trap target allows removing this trap target for the given device.

Part	Name	Description
4.	**Register Polling Services** button	Button that allows administrators to register polling services as trap targets to all the hosts the active polling services manage.
5	**Remove Trap Target** button	Button that allows administrators to remove, in one go, a trap target from all hosts it is registered to. This button is used in combination with the drop-down list on the left hand side, which allows the selection of the trap target to be removed.
6	**Trap Registration** status bar	Status bar showing the progress of the trap registration or unregistration, when the **Register Polling Services** button or **Remove Trap Targets** button is used.

2.4.2. Managing Trap Targets

Concept of Trap Target

A trap target is the IP address of a computer registered to a host to receive SNMP trap messages. This can be a machine hosting XNet Web or a polling service of XNet Web.

- The trap target for a machine hosting a polling service is defined by the name of the polling service (itself associated to an IP address).
- The trap target for a computer hosting XNet Web is identified by an IP address.

The trap targets are managed in the Configuration menu > Trap Config tab.

Registering Polling Services as Trap Targets

Introduction

From XNet Web, you can only register polling services as trap targets. You cannot register computers hosting the XNet Web Monitor interface.

In XNet Web, you will typically register the polling services as trap targets directly after you have configured the polling services in the Monitoring Configuration tab. "Configuring and Managing a Polling Service" on page 23.

Procedure

To register the managed polling service as trap targets, simply press the **Register Polling Services** button in the Trap Configuration tab. The Trap Registration status bar shows the progress of the registration process.

The polling service is automatically registered to all hosts it manages where at least one IP address is available.

Note
If all IP addresses are used for a given host, the trap status icon for this host will remain orange or red, indicating that at least a polling service managing the host is not registered. In this case, remove a trap target, and repeat the automatic registration process.

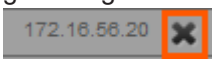
Removing a Trap Target

Introduction

You can remove a trap target in two ways:

- Removing a trap target associated to a given host
- Removing a trap target from all hosts it is associated to

Removing the Trap Target for a Given Host

To remove a trap target for a given device, click the  button next to the trap target name or IP address 

in the row of the requested host.

Removing the Trap Target for all Associated Hosts

To remove a trap target from all hosts it is associated to, proceed as follows:

1. At the bottom of the Trap Configuration tab, select the trap target to remove in the Trap Target drop-down list.
2. Click the **Remove Trap Target** button on the right of the drop-down list.

The selected trap target is removed from all hosts to which was registered in the list.

2.5. Alert Configuration

2.5.1. Description of the Alert Configuration Tab

Overview

You can access the Alert Configuration window by clicking the Configuration menu, and the Alert Configuration tab.

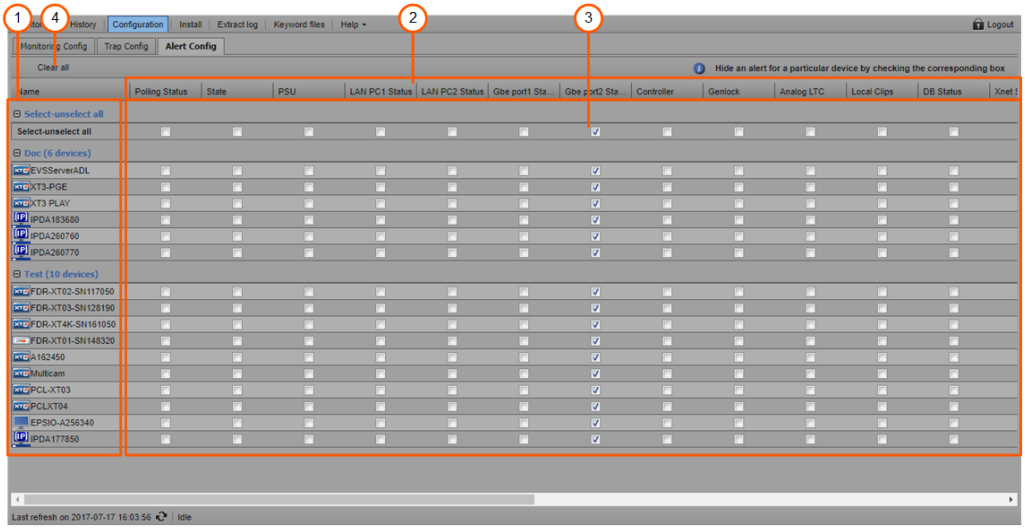
The Alert Configuration tab displays the host tree. Next to each host, check boxes for each alert allow disabling the display of the alert in the Monitoring tab by ticking the corresponding check box.

Warning
Beware that **unselected** check boxes mean the corresponding alerts are **enabled**.

Disabling an alert can be useful, for example, for alert messages on the GbE port2 status when this GbE connector is not used, hence not cabled. Disabling the alert on the GbE port2 Status in this case would prevent the EVS server status to be red for an alert message that is not relevant.

Illustration

The Alert Configuration tab contains the main areas highlighted on the screenshot below:



Area Description

The table below describes the various areas in the Alert Configuration tab:

Part	Name	Description
1.	Host tree	List of the monitored devices, for which alerts can be generated.
2.	List of possible alerts	List of fields (from the Server Details area) for which an alert can be generated.
3.	Check boxes	Check boxes that allow enabling or disabling the generation of a given alert for a given host: If the **check box is not selected** (default), the alert is active. It means: • The alert will appear in the category **Alert** (active alerts) in the Alert pane. • The corresponding error message will be displayed in red or orange in the Monitoring List (if relevant) or Server Details areas. If the **check box is selected**, the alert is NOT active. It means: • The alert will not appear in the category **Alert** (active alerts) in the Alert pane. It will however appear when you select the **Hidden** category in the Alert pane. • The corresponding error message will be displayed in a thick gray font in the Monitoring List (if relevant) or Server Details areas.
4.	**Clear All** button	Button that allows deselecting all the check boxes at once, this way reactivating all alert messages on all hosts.

3. Monitoring

3.1. Overview on the Monitoring Window

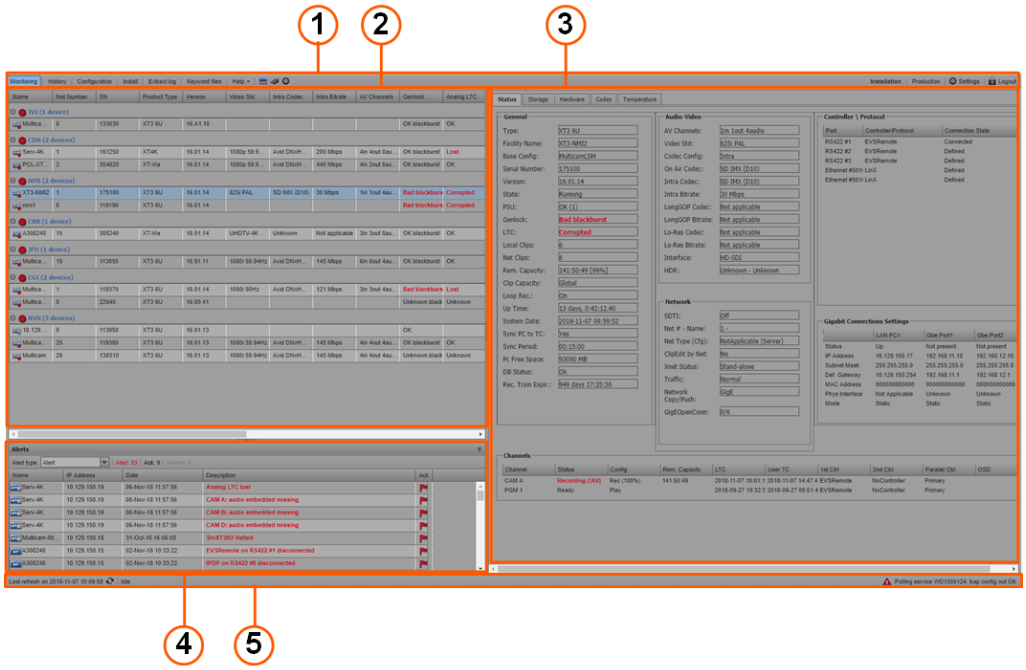
Introduction

The Monitoring window is the main window in XNet Web.

It gives access to the current SNMP information and alerts on all monitored EVS servers and EVS hardware.

Illustration

The Monitoring window contains three panes highlighted on the screenshot below and described in the table below:



Area Description

The table below describes the various areas of the Monitoring window.

Part	Name	Description
1.	Monitoring List	List of EVS Servers and other EVS hardware organized in groups, and related SNMP information. "Description of the Monitoring List" on page 33
2.	Server Details	List of all SNMP information of the EVS server or EVS hardware selected in the Monitoring List or in the Alert List. The SNMP information on EVS servers is organized in four tabs: • Status tab • Storage tab • Hardware tab • Code tab • Temperature tab The SNMP information on other EVS hardware only contains a Status tab. "Server Details" on page 36.
3.	Alerts	List of alerts The displayed alert types are configured in the Alert Configuration tab. "Alert Configuration" on page 29.

Note
The Server Details and Alerts panes can be displayed or hidden by clicking the split boxes on the pane borders.

Display of Monitoring Information

The information displayed on the Monitoring window will be displayed in different ways depending on the information type:

Color	Information Type
black	Information providing a normal status, or acknowledged alert.
orange	warning
bold red	alert
gray	hidden alert

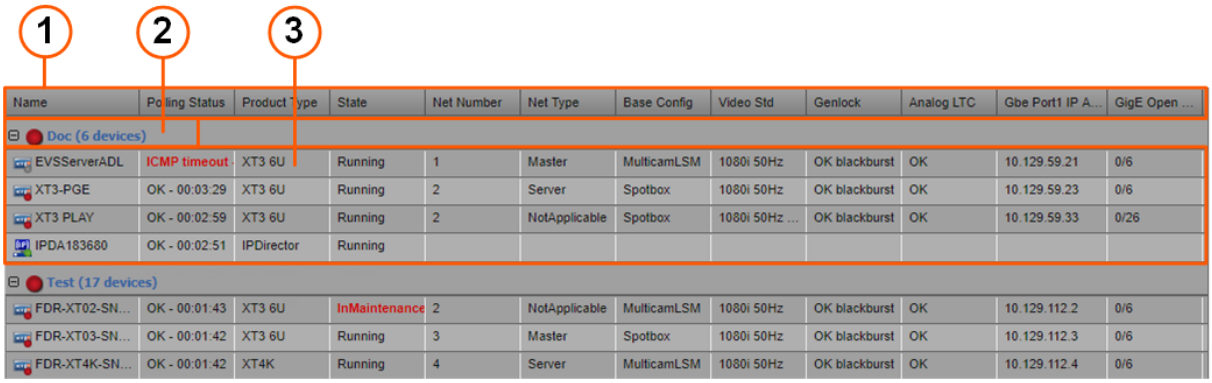
3.2. Monitoring List

3.2.1. Description of the Monitoring List

Overview

The Monitoring List area shows the groups of EVS servers and other EVS hardware, their status, and a set of parameters on each hardware.

The Monitoring List pane contains the areas highlighted on the screenshot below:



Area Description

The table below describes the various parts of Monitoring List area:

Part	Name	Description
1.	Column heading	Type of information available in the given column. The columns available in the Monitoring List are selected and ordered as defined in the Display Profile definition. For more information, "Customizing Display Profiles" on page 10.
2.	Group node	Group of servers. It displays the following elements, from left to right: • Group status (colored bullet): The group inherits the status of the servers of its group, with priority to red, gray, and then green. • Group name • Number of EVS servers or hardware in the group The server list of a group can be collapsed or expanded with the expand button (+/-) in front of the group name. The definition of groups and the tree structure are configured in the Monitoring Configuration tab. For more information, "Setting up Monitored Devices" on page 14.

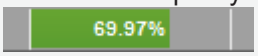
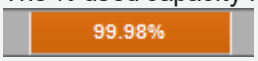
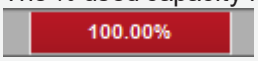
Part	Name	Description
3.	Server List	Information on EVS servers and other EVS hardware belonging to a group. For more details on the fields available in this section, "Fields in the Monitoring List" on page 34. Clicking on a row corresponding to an EVS server or other hardware will display the detailed information on this host in the Server Details area.

3.2.2. Fields in the Monitoring List

The list of fields described in the table below is not exhaustive. It includes the fields available in the default Display Profile 2 (Production).

It provides a short definition of the field. "List of Possible Alerts" on page 53 for more information on possible values for these fields.

Name	Description
Name	name of the EVS server. The name displayed is assigned in the following order of priority, based on whether a value is assigned or not: facility name, net name or IP address. A color circle in front of the EVS server indicates its status: • green: no active alert present for the server • red: at least an active alert present for the given server • gray: XNet Web cannot retrieve information with the SNMP protocol.
Polling Status	status of the polling service. It indicates: • whether the polling service is running correctly • when the polling service last sent a query to the server (time interval in hh:mm:ss from current time)
Product Type	type of EVS hardware. Examples: XT3 4U, XT4K, IPDirector
State	functional status of the EVS server or other EVS hardware. The possible statuses are **Running**, **Initializing**, **In Maintenance**, **Halted** or **Unknown**.
Net Number	server identification number on the SDTI network.
Net Type	server type on the SDTI network. The possible values are: • Master • Server • Client • Not Applicable (SDTI not present or set to off).
Base Config	base configuration used to start the server. In case of a Dual LSM configuration, the term **Dual** is added next to the active base configuration.

Name	Description
Video Std	video standard used on the server ports.
Genlock	presence or absence of genlock synchronization signal, and its type.
Analog LTC	status of LTC (Longitudinal Time Code) analogue signal.
GbE Port1 IP Address	IP address of the GbE 1 interface port
GigE Open Conn.	number of open connections to the GbE port 1. Not more than 6 connections can be open to a GbE port.
Disk	disk connection status, and the number of spare disks.
PSU	status of the power supply units.
Traffic	network traffic status.
DB Status	status of the server database.
Loc Clips	number of clips stored on the server.
Rem. Capacity	remaining recording capacity on the EVS server in hours, and percentage.
% Used Capacity	percentage of whole server capacity that has been used. The cell background is colored to provide a visual representation of the remaining capacity: • The % used capacity is below the defined threshold.  • The % used capacity is above the defined threshold.  • The % used capacity is 100%. 
Physical Memory	Only relevant for PCs, not for EVS servers. It specifies the used memory, the total memory, and the percentage used of the total memory.
NEW ! HW Edition	version of the EVS server hardware, that corresponds to a specific set of board revisions.
CPU Usage	Only relevant for PCs, not for EVS servers. It specifies the CPU usage of each core, in percents.

3.3. Server Details

3.3.1. Overview on the Server Details Area

Introduction

The Server Details area is located on the right hand side of the Monitoring List.

When you select an EVS server in the Monitoring List, the **Server Details** area provides detailed information on the selected server.

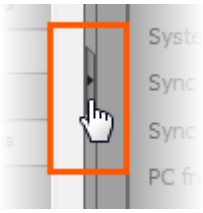
This information is organized in four tabs, which are themselves organized in different group boxes:

Tab Name	Included field groups
Status	General information, data about A/V, network, controllers, GbE connections, and channels
Storage	Information on disk capacity, array definition, disk numbers, and disk models
Hardware	List of the boards fitted on the EVS server
Codes	List of Codes installed on the EVS server
NEW ! Temperature	Temperatures measured at various points in the EVS server

When you select another EVS hardware in the Monitoring List, the **Device Details** area provides data on the selected hardware, its drives and communication interfaces. See section "Device Details" on page 47 for more information.

Hiding and Displaying the Server Details Pane

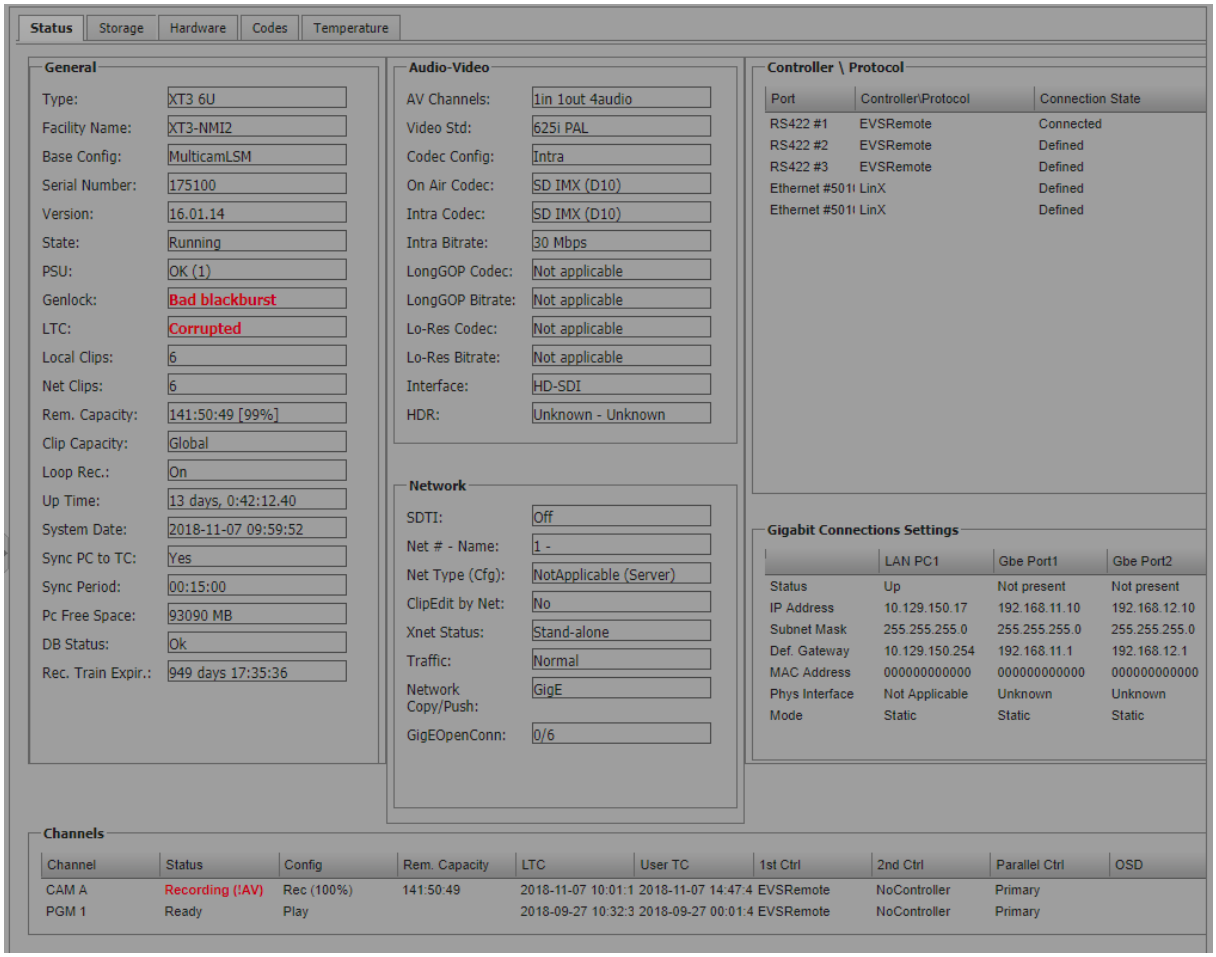
The Server Details pane can be hidden or displayed by clicking the split box on the split bar between the Monitoring pane, and the Server Details pane:



3.3.2. Status Tab

Overview

In the Status tab, the main parameters are organized in several group boxes as shown on the following figure.



The different group boxes and their parameters are detailed hereafter.

You will find more details on many of these parameters in the Configuration manual of the relevant EVS server.

Note
If Multicam is not active and running on the selected server, most of the parameter fields will be left blank.

General Area

The table below describes the fields available in the General area:

Parameter	Description
Type	Server type: XT3, XS3, …
Facility Name	Name given to the product by the user.
Base Config.	base configuration used to start the server. In case of a Dual LSM configuration, the term **Dual** is added next to the active base configuration.
Serial Number	server's unique serial number.
Version	server software revision.
State	functional status of the EVS server or other EVS hardware.
PSU	status of the power supply units.
Genlock	presence or absence of genlock synchronization signal, and its type.
LTC	status of LTC (Longitudinal Time Code) analogue signal.
Local Clips	number of clips stored on the server.
Net Clips	total number of clips stored on the whole SDTI network.
Rem. Capacity	remaining recording capacity on the EVS server in hours, and percentage.
Clip Capacity	Clip capacity as defined on the server: Global or Per Channel.
Loop Rec.	Loop recording mode as defined on the server.
Up Time	Elapsed time since the last boot.
System Date	MTPC date and time.
Sync PC to TC	Indicates whether the internal TC is synchronized to the timecode read on the LTC input of the server and whether the TC discontinuities detected on the LTC input of the system are cleared.
Period	Period at which the Sync PC to TC is applied.
PC Free Disk Space	available space on the MTPC disk in megabytes (MB) or gigabytes (GB).
DB Status	status of the server database.
Rec. Train Expiration	Time lapse by which the field counter for the record trains has to be manually reinitialized on the EVS server. Failing a reinitialization, the record train will not longer be recorded. Warning messages are issued in Multicam.

Audio-Video Area

The table below describes the fields available in the Audio-Video area:

Parameter	Description
AV Channels	configuration defined for video and audio channels: • number of IN and OUT video channels • number of audio embedded mono channels per video channel
Video Std	video standard used on the server ports.
Codec Config	Codec essence(s) active on the EVS server.
On Air Codec	Codec in which the video is played out on the EVS server.
Intra Codec	Intra codec in which the video is stored on the EVS server.
Intra Bitrate	Bitrate of compressed video data for the Intra codec.
LongGOP Codec	LongGOP codec in which the video is stored on the EVS server.
LongGOP Bitrate	Bitrate of compressed video data for the LongGOP codec.
Lo-Res Codec	Lo-Res codec in which the video is stored on the EVS server.
Lo-Res Bitrate	Bitrate of compressed video data for the Lo-Res codec.
NEW ! Interface	Connection interface an EVS server will use in 3D, 1080p, UHD-4K resolutions or with the XIP or XT-VIA rear panel.
NEW ! HDR	OETF function (opto-electric transfer function) used for High Dynamic Profile.

Network Area

The table below describes the fields available in the Network area:

Parameter	Description
SDTI	SDTI (Serial Data Transport Interface) network type.
Net # - Name	Server identification number and name on the SDTI network.
Net Type (Cfg)	server type on the SDTI network. The possible values are: • Master • Server • Client • Not Applicable (SDTI not present or set to off).
Clip Edit by Net	Specifies whether a clip can be edited through the network or not.
XNet Status	status of the SDTI network connection.

Parameter	Description
Traffic	network traffic status.
Network Copy/Push	Preferred network (SDTI or Gigabit) for copy, move and push actions on clips.
GigEOpenConn	Number of open GbE connections on a given port.

Controller / Protocol Area

The table below describes the fields available in the Controller / Protocol area:

Parameter	Description
Port	Port used by the server controller.
Controller\Protocol	Controller or protocol used on that port.
Connection State	Connection status of the control port. If it is disconnected, **Disconnected** displays in red, and this generates an alert.

Gigabit Connection Settings Area

The table below describes the fields available in the Gigabit Connection Settings area for each PC LAN (max. 2) and each GbE port (max. 2) being used on the EVS server:

If teaming is applied on the GbE ports, the GbE #2 port is referred to as "Not Present".

Parameter	Description
Status	Status of the GbE connection.
IP Address	IP address of the interface port.
Subnet Mask	IP mask of the interface port.
Def. Gateway	Default gateway used by the interface port.
MAC Address	MAC address of the hardware
Phys. Interface	Physical location of the corresponding GbE port
Mode	Method used for IP address assignment (static or dynamic)

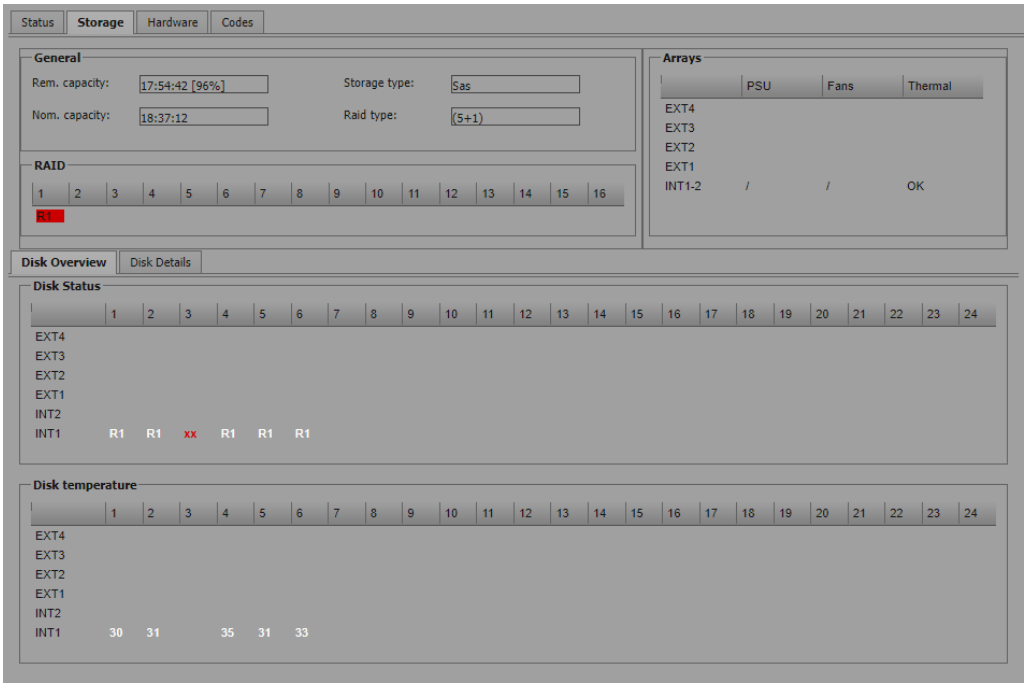
Channels Area

The table below describes the fields available in the Channels area:

Parameter	Description
Channel	Name of the record channel (CAM) or play (PGM) channel.
Status	Status of the channel: • CAM: Recording, Rec Idle • PGM: Ready, Playing, Live, Idle If a channel has no audio or video, it will be displayed with one of the following indication: • (!A) when the audio is missing • (!V) when the video is missing • (!AV) when the audio and video are missing
Config	Configuration of the channel as record or play channel. SLSM recorders, as well as the number of phases, are specified in this field.
Rem. Capacity	remaining capacity for each recorder channel.
LTC	LTC timecode of the channel.
User TC	User timecode of the channel.
1st Ctrl	Primary controller defined for the selected channel. Possible values are: EVS Remote, EVS XTNano Remote, AVSP, IPDP
2nd Ctrl	Secondary controller defined for the channel, if any.
Parallel Ctrl	Controller used in parallel mode.
OSD	Controller (main or secondary) managing the OSD display characters in parallel mode.

3.3.3. Storage Tab

Overview



General Area

The table below describes the fields available in the General area:

Parameter	Description
Rem. Capacity	It specifies the remaining capacity of the storage expressed as a video duration (hours, minutes and seconds) as well as a percentage.
Nom. Capacity	It specifies the total capacity of the storage expressed as a video duration (hours, minutes and seconds).
Storage Type	It specifies the type of disks: SAS.
Raid Type	It specifies the type of RAID: • 4+1: four disks and a parity disk, with a spare disk • 5+1: five disks and a parity disk, without a spare disk

Arrays Area

The table below describes the fields available in the Arrays area:

Parameter	Description
PSU	It specifies the status of the PSU on the given array. See section "PSU HDX" on page 59 for examples of values for this field in case of SAS-HDX array. The values are the same for other arrays types.
Fans	It gives the state of the fans on the given array. See section "Fan HDX" on page 60 for examples of values for this field in case of SAS-HDX array. The values are the same for other arrays types.
Thermal	It gives the temperature status on the given array. See section "Disk Thermal" on page 60 for field values.

Raid Area

This area gives indication on the number of RAIDs defined in the server and their respective identification (R1,…)

Parameter	Description
Raid ID	It specifies the RAID storage system identification

Disk Overview Tab

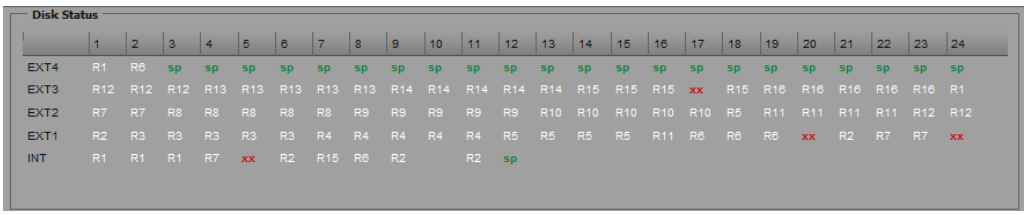
Disk Status Area

This area gives indication on the localization of each RAID and on the spare disks in the arrays:

The **xx** sign (red) identifies faulty disks, that should directly be replaced, especially when you work without spare disks.

The sign (red) identifies disks other than EVS disks.

The **sp** sign (green) identifies the spare disks.

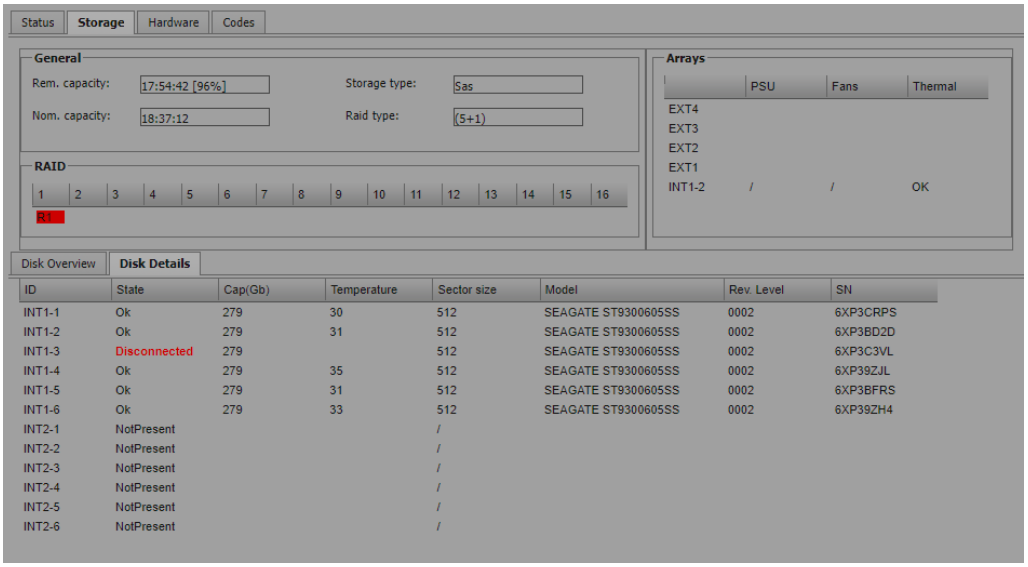


Disk Temperature Area

This area provides the internal temperature of each disk.

Disk Details Tab

The Disk Details tab provides specific information on the disks:

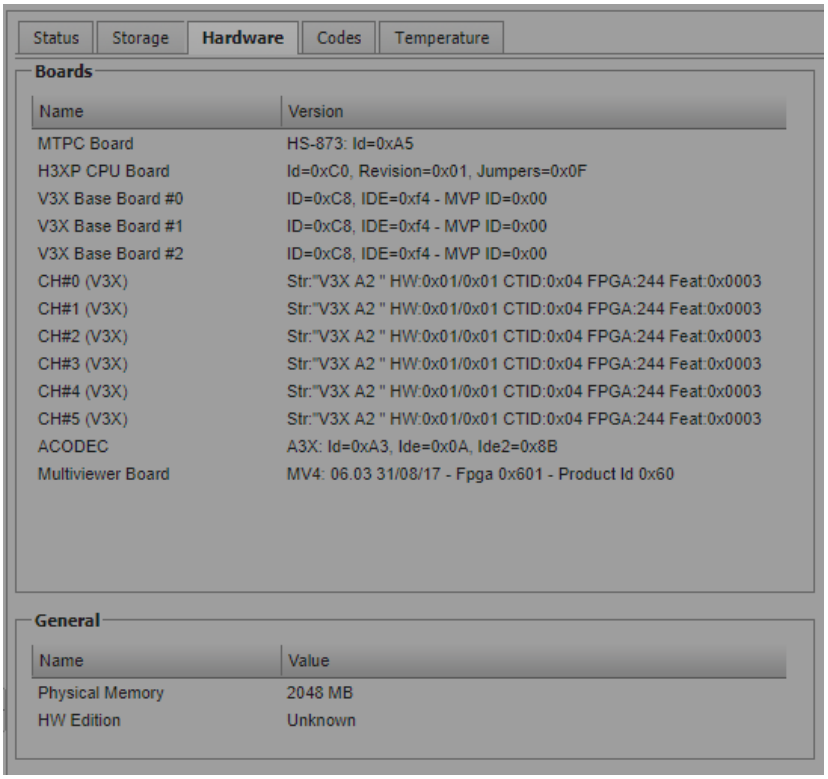


Parameter	Description
ID	Disk identification
State	Disk status: OK, not present, spare,…
Cap	Disk capacity in Gigabytes
Temp	Disk internal temperature in the unit defined in the general display settings
Sector Size	Size of the disk sector
Model	Disk manufacturer and model
Rev. Level	Disk revision Level
SN	Disk serial number

3.3.4. Hardware Tab

Overview

The Hardware tab lists the available modules and boards installed in the server along with their respective version or revision number and their configuration when relevant.



Board Area

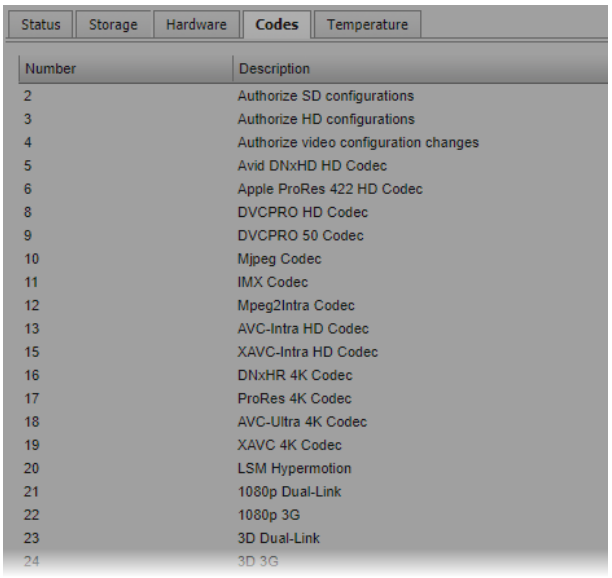
Parameter	Description
Name	Name of the board or module
Version	Revision of the board or module, and additional parameters

General Area

Parameter	Description
Physical Memory	RAM of the MTPC board
NEW ! Hardware Edition	version of the EVS server hardware, that corresponds to a specific set of board revisions. The components of each hardware edition are detailed in the Tech Ref manual, Hardware Edition History section.

3.3.5. Codes Tab

The Codes tab lists the license codes activated on the server along with their description.



3.3.6. Temperature Tab

NEW !

Overview

The Temperature tab lists the temperatures measured in several points of the EVS server.

The measures are always given in Celsius degrees. The temperature settings do not impact these measurements.

- Between 50 °C (122 °F) and 80 °C (176 °F), the warning range is reached and the temperature is displayed on an orange background.
- Above 80 °C (176 °F), the alert range is reached and the temperature is displayed on a red background.

These temperature measurements can also be displayed in the Monitoring List

Temperature Area

Parameter	Description
Name	Name of the board or module where the temperature is measured: • Hxx Board: Controller board • Hxx CPU: CPU module on the controller board • Hxx Memory: Memory module on the controller board • VCodec1: Codec1 module • etc.
Value °C	Temperature in Celsius degrees

3.4. Device Details

Introduction

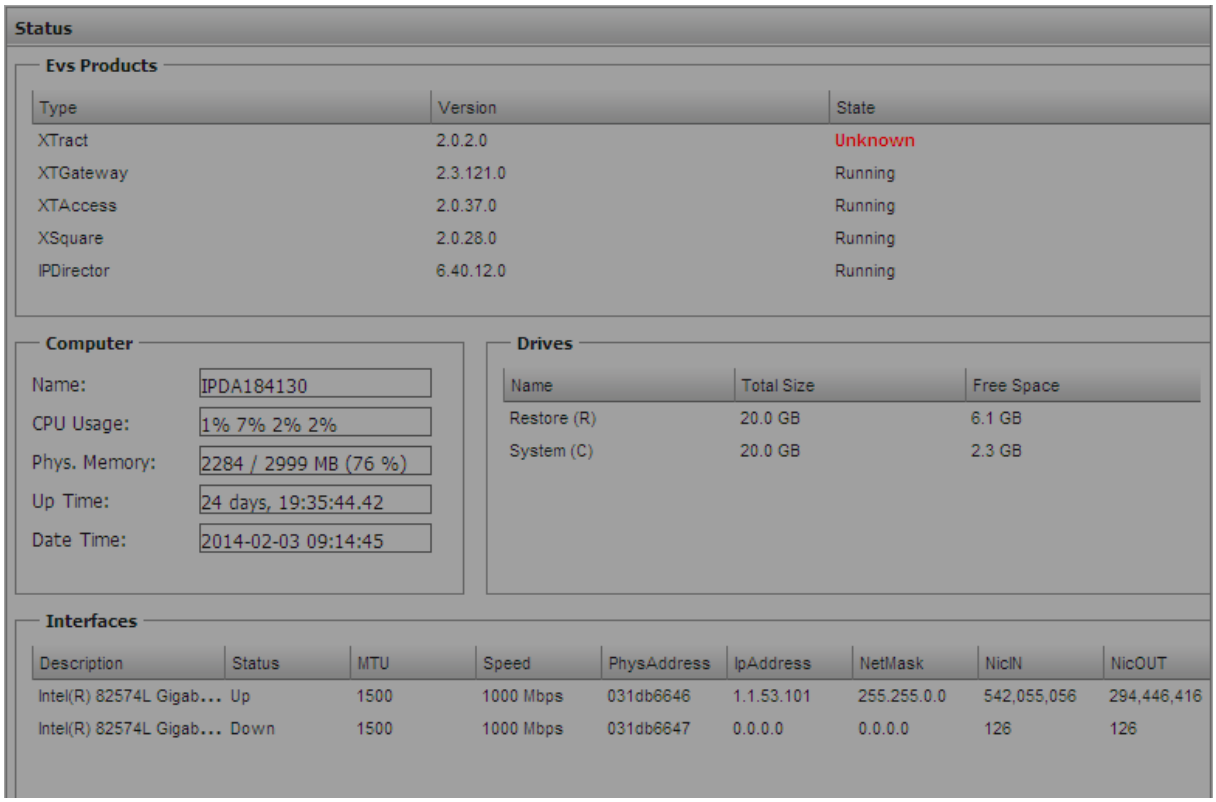
If a hardware other than an EVS server is selected in the Monitoring List, the **Device Details** area on the right displays detailed SNMP information.

This information is organized the following tab, which is organized in different group boxes:

Tab Name	Included field groups
Status	Applications installed on the hardware, data on the computer, the drives, and the communication interfaces

Status Tab

In the Status tab, the main parameters are organized in several group boxes as shown on the following figure.



The different group boxes and their parameters are detailed hereafter.

EVS Products

Parameter	Description
Type	EVS application name.
Version	Server software revision.
State	Server state: running, in maintenance, faulty, halted, unknown.
Custom Name	Name given to the product from the MIB.

Computer

Parameter	Description
Name	Name of the computer.
CPU Usage	Percentage of use of central processing unit (CPU).
Physical Memory	Computer data storage used from the total amount.
Up Time	Elapsed time since the last boot.
Date Time	MTPC date and time.

Drives

This area lists the hard disks drives from the computer.

Parameter	Description
Name	Name of the computer.
Total Size	Total size (GB) of the drive.
Free Space	Free space (GB) still available on the drive.

Interfaces

Parameter	Description
Description	Generic description of the communication interface.
Status	Up or Down
MTU	Maximum Transmission Unit: size (in bytes) of the largest protocol data unit that the layer can pass onwards.
Speed	Data transfer rate in Megabits per second.
Phys. Address	Memory address that is electronically (in the form of binary number) presented on the computer address bus circuitry in order to enable the data bus to access a particular storage cell of main memory.
IP Address	Internet Protocol address of the communication interface.
Net Mask	Prefix bit mask expressed in quad-dotted decimal representation. For example, 255.255.255.0 is the subnet mask for the 192.168.1.0/24 prefix.
NIC IN	Number of octets getting through the network (input)
NIC OUT	Number of octets getting through the network (output)

3.5. Alert Messages

3.5.1. Description of Alerts Pane

Introduction

The Alerts pane is displayed below the Monitoring List pane on the Monitoring window.

It shows the list of alerts generated for the monitored devices (host or host groups).

The alert messages are displayed until you acknowledge them.

In the Alerts pane, you can:

- display alerts based on alert categories.
- sort the columns in the alert list.
- acknowledge an (active) alert if you are logged as an administrator.

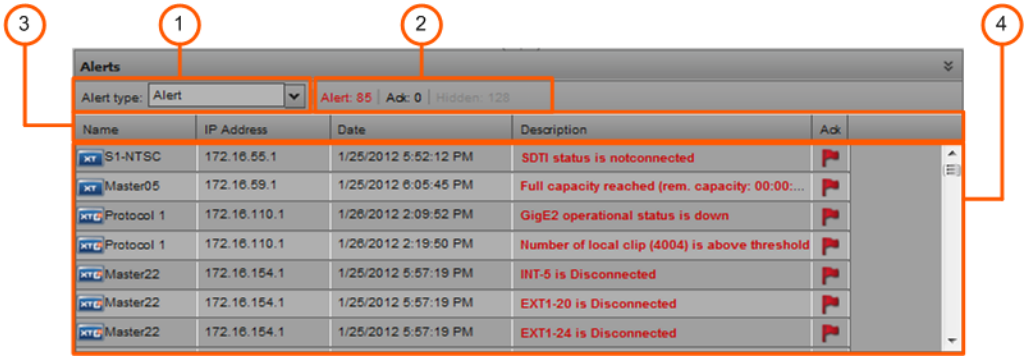
The Alerts pane is displayed by default, To hide it, click the split box below the Monitoring List pane:

Alert Filtering

You can filter the alerts based on the following categories:

Category	Description
(Active) Alerts	Alerts that have been defined, in the Alerts Configuration tab, as alerts to be displayed in the Alerts pane. We will refer to them as **active alerts** to prevent misunderstanding when appropriate.
Acknowledged	Active alerts that have been acknowledged. When an alert is acknowledged, is it moved from the list of active alerts to the list of Acknowledged alerts.
Hidden	Alerts that have been disabled in the Alerts Configuration tab.

Area Description



The table below describes the various parts of Alerts pane:

Part	Name	Description
1.	Alert filter	Drop-down field that allows you to select the alert category to be displayed in the grid.
2.	Alert summary	Total number of alerts generated for each alert type.

Part	Name	Description
3.	Column heading	Type of information available in the given column. Clicking on the column heading allows the sorting of the elements in ascending or descending order. The columns displayed cannot be modified: • **Name:** Name of the host • **IP Address:** IP address of the host • **Date:** Date and time when the alert was generated • **Description:** Error message (For full information on error messages, "List of Possible Alerts" on page 53). • **Ack:** Icon to acknowledge an alert. It is only available for a user logged as an administrator.
4.	Alert Information	Information on the alerts displayed. Clicking an alert message displays the detailed information of the related host in the Server Details area.

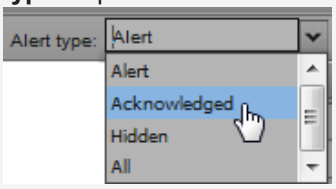
3.5.2. Managing Alerts

Introduction

This topic explains how you can display and manage alerts from the Alerts area in the Monitoring window. The possible actions are summarized in a table below.

Bear in mind that the alerts to be displayed and to be hidden have previously been defined in the Configuration menu, Alert Configuration tab.

Possible Actions on Alerts

In order to ...	Proceed as follows:
Filter the alerts to be displayed	Select the requested alert category in the **Alert type** drop-down field. 
Sort the alert items based on the values of a column (ascending or descending order)	Click the column heading on which the alert items should be sorted. An arrow is displayed next to the column heading to identify the column and order type (ascending or descending) used to sort the items.
Display the host corresponding to the alert in the Server Details tab	Double-click the alert in the Alerts pane
Acknowledge an alert (in administrator mode only)	Click the flag in the **Ack.** column for the alert to be acknowledged. The alert is removed from the Alert list, and added to the **Acknowledged** list.

3.5.3. List of Possible Alerts

Introduction

The section describes the fields for which an alert can be generated and the associated default message(s) (normal status) and alert/error messages.

The warnings are displayed in orange, and the errors in red.

Working Principle

When an error is generated for a field, it is displayed in the Monitoring window:

- **as an alert** in the **Alerts** pane if the given field is not selected in the Alert Configuration window.

  The alert must be acknowledged by an administrator user to be removed from the list of active alerts. It is then sent to the list of acknowledge alerts.

- **as an error message** in the **Server Details** pane, and possibly in the **Monitoring List** pane (if the related field is displayed).

  When the SNMP information is sent back and when the situation is back to normal or when the alert is acknowledged, the field status is updated accordingly, and the error is replaced by the normal status.

Polling Status

It specifies the status of the polling service. It indicates: whether the polling service is running correctlywhen the polling service last sent a query to the server (time interval in hh:mm:ss from current time)

Possible Values

Message	Explanation	Status Type
OK (00:03:00)	The polling service is working correctly, and the SNMP data was last sent 3 minutes ago.	Info
ICMP timeout - 00:03:00	An ICMP (Internet Control Message Protocol) timeout was generated: the information was not sent in the requested time interval from the Master service to the Clients at the last attempt for information transfer, 3 minutes ago.	Error
SNMP timeout - 00:03:00	An SNMP timeout was generated: the information was not sent in the requested time interval from the EVS servers to the polling services at the last attempt for information transfer, 3 minutes ago.	Error

Message	Explanation	Status Type
SNMP error - 00:03:00	An SNMP error was generated: there was an error at the last information transfer from the EVS servers to the polling services, 3 minutes ago.	Error
Not managed	No polling service is associated to the server.	Error

State

It specifies the functional status of the EVS server or other EVS hardware.

Possible Values

Message	Explanation	Status Type
Running	The EVS server is running a given configuration.	Info
Not Running	The EVS server is not running a configuration	Info
Initializing	The EVS server is initializing (in the boot sequence).	Error
Maintenance	The EVS server is in the Multicam Setup window, hence it is not running a given configuration yet.	Error
Halted	The EVS server is turned off.	Error

GbE 1/2 and PC LAN 1/2 Status

It specifies the operational status of the Gigabit Ethernet interface connectors (port 1 & 2), the PC LAN connectors (port 1 & 2), as well as issues related to GbE and/or PC LAN teaming.

Possible Values

Message	Explanation	Status Type	GUI
Up	The corresponding GbE or PC LAN interface is installed and running well.	Info	Server Details
Down	The corresponding GbE or PC LAN interface is not working.	Error	Server Details
Not present	The corresponding GbE or PC LAN is NOT installed.	Error	Server Details
GbE Port 1: operational status is Down	The GbE port 1 is not working.	Error	Alerts

Message	Explanation	Status Type	GUI
PC LAN Port 1: operational status is Down	The PC LAN port 1 is not working.	Error	Alerts
Team Up	The GbE or PC LAN interfaces are running well, and the both links work correctly in teaming.	Info	Server Details
Team Link 1 Down	The GbE link 2 or PC LAN link 2 is functional whereas the GbE link 1 or PC LAN link 1 is either not cabled, or does not work properly.	Error	Server Details
Team Link 2 Down	The GbE link 1 or PC LAN link 1 is functional whereas the GbE link 2 or PC LAN link 2 is either not cabled, or does not work properly.	Error	Server Details
Team Down	The GbE or PC LAN interfaces are installed but do not work properly on both links.	Error	Server Details
GbE Port 1/ PC LAN Port 1: operational status is degraded - team link 1 down	The GbE link 2 or PC LAN link 2 is functional whereas the GbE link 1 or PC LAN link 1 is either not cabled, or does not work properly.	Error	Alerts
GbE Port 1/ PC LAN Port 1: operational status is degraded - team link 2 down	The GbE link 1 or PC LAN link 1 is functional whereas the GbE link 2 or PC LAN link 2 is either not cabled, or does not work properly.	Error	Alerts

Controller

It specifies the connection status of a given controller enabled on an EVS server.

Depending on the pane where the message is displayed, it is displayed in slightly different ways.

Possible Values

Message	Explanation	Status Type	GUI
OK	All defined controllers are connected, which means up and running.	Info	Mon. List
Connected	The corresponding controller is up and running.	Info	Server Details
Defined	The corresponding controller is defined in the configuration but is not used	Info	Server Details

Message	Explanation	Status Type	GUI
Disconnected	The corresponding defined controller is disconnected, or the external communication has been lost.	Error	Server Details
XX on RS422 #Y disconnected	The given controller(s) (XX) is/are disconnected on the given RS422 port number (Y) of the EVS server.	Error	Alerts Pane

Channels

It specifies errors on the status of the record or play channels.

Possible Values

Message	Explanation	Status Type	GUI
Recording	Normal status on the recorded media.	Info	Server Details
Recording (!A)	Embedded audio missing on the recorded media.	Error	Server Details
CAM X: audio embedded missing		Error	Alerts
Recording (!V)	Video missing on the recorded media.	Error	Server Details
CAM X: video missing		Error	Alerts

Genlock

It specifies the presence or absence of genlock synchronization signal, and its type.

Possible Values

Message	Explanation	Status Type
OK Blackburst	A valid Blackburst signal is present.	Info
OK Tri-level	A valid Tri-level signal is present.	Info
Bad Blackburst	Bad Blackburst signal	Error
Unknown Blackburst	No Blackburst signal detected	Error
Bad Tri-level	Bad Tri-level signal	Error
Unknown Tri-level	No Tri-level signal detected	Error

Analog LTC

It specifies the status of LTC (Longitudinal Time Code) analogue signal.

Possible Values

Message	Explanation	Status Type
OK	A valid LTC signal is present on the EVS server.	Info
Missing	No LTC signal is detected on the EVS server.	Error
Corrupted	A bad LTC or an LTC drift is detected on the EVS server.	Error

Local Clips

It specifies the number of clips stored on the server.

For local clips, the alert generation depends on the threshold defined for the Local Clips field in the Monitoring settings defined in the Configuration menu > Monitoring Configuration tab. "Monitoring Settings" on page 22. The default threshold is 4000.

Possible Values

Message	Explanation	Status Type
3500	When the number of clips is displayed in black, it means the number of clips on the EVS server does not exceed the threshold defined for the maximum number of local clips.	Info
4200	When the number of clips is displayed in red and bold characters, it means the number of clips on the EVS server exceeds the threshold defined for the maximum number of local clips.	Error

DB Status

It specifies the status of the server database.

Possible Values

Message	Explanation	Status Type
OK	The DB is OK.	Info
Corrupted	The DB is corrupted.	Error

XNet Status

It specifies the status of the SDTI network connection.

Possible Values

Message	Explanation	Status Type
Connected	The EVS server is connected to the network.	Info
Connecting	The EVS server's connection to the network is in progress.	Info
Stand alone	The system does not have the XNet license, or the required hardware, or the SDTI network is disabled.	Info
Not Connected	The EVS server is not connected to the network.	Error
Disconnected	The EVS server is in a disconnection phase.	Error
Connection fault	The EVS server cannot connect to the XNet network due to an incompatibility error.	Error

Traffic

It specifies the network traffic status.

Possible Values

Message	Explanation	Status Type
Normal	The traffic on the SDTI network is properly managed.	Info
Heavy	The SDTI network makes full use of the available capacity.	Warning (orange)
Corrupted	The SDTI network is overloaded, has lost at least one command from a controller, and is desynchronized.	Error

Rem. Capacity

It specifies the remaining recording capacity on the EVS server in hours, and percentage.

The alert generation depends on the threshold defined for the Remaining Capacity field in the Monitoring settings defined in Configuration menu > Monitoring Configuration tab. See section "Monitoring Settings" on page 22. The default threshold is 5%.

Possible Values

Message	Explanation	Status Type
48:01:53 (97%)	The parameter is in a valid state (black font) when the Remaining Capacity threshold is not exceeded.	Info
01:03:32 (2%)	The parameter is in a warning state (orange font) when the Remaining Capacity threshold is exceeded.	Warning
00:00:00 (0%)	The parameter is in an error state (red font) when the Remaining Capacity is null.	Error

PSU

It specifies the status of the power supply units..

Possible Values

Message	Explanation	Status Type
OK (1)	Only one PSU is installed on the server and is working fine	Info
OK (2)	Two PSUs are installed and are working fine	Info
! PSU 1	The first PSU is down.	Error
! PSU 2	The second PSU is down.	Error

PSU HDX

It specifies the status of the power supply units of the external SAS disk array.

Possible Values

Message	Explanation	Status Type
OK (1)	Only one PSU is installed on the SAS-HDX disk array and is working fine	Info
OK (2)	Two PSUs are installed on the SAS-HDX disk array and working fine.	Info
/	No external storage system is installed.	Info
! PSU1	The first PSU of the SAS-HDX disk array is down.	Error
! PSU2	The second PSU of the SAS-HDX disk array is down.	Error

Fan HDX

It specifies the state of the fans on the external SAS disk array.

Possible Values

Message	Explanation	Status Type
OK	The fans is/are operating.	Info
/	No external disk array is installed.	Info
! Fan 1 **! Fan 1,2**	The fan 1 is faulty. The fans 1 and 2 are faulty.	Error

Disk Thermal

It specifies the temperature on the internal and external disks.

Possible Values

Message	Explanation	Status Type
OK	All temperatures measured on disks are OK.	Info
INT 1: Rising	The temperature of disk 1 on the internal disk array is rising (between 50 and 55°C).	Warning
EXT 2-3 : Rising	The temperature of disk 3 of the second external disk array 2 is rising (between 50 and 55°C).	Warning
INT 1-2 : Overheating	The temperature of disk 2 of the first internal disk storage board 1 exceeds 55°C.	Error

RAID

It specifies the status of the raids.

Possible Values

Message	Explanation	Status Type
OK	The raid system is working fine.	Info
R1: Rebuilt X%	The system is rebuilding raid 1 of the raid matrix, X standing for the part of the rebuild operation processed in %. In the Server Details pane, Storage tab, the raid has an orange background in the RAID area.	Warning

Message	Explanation	Status Type
R1: Degraded	The raid 1 of the raid matrix has lost a disk and cannot afford any new disk failure without loosing the full storage. In the Server Details pane, Storage tab, the raid has a red background in the RAID area.	Error

Raid R/W Retry

It specifies the number of renewed attempts of read and/or write operations on disks of the raids.

As soon as at least one read or write operation has been retried, this generates a warning.

Possible Values

Message	Explanation	Status Type
0r / 0w	0 renewed read attempt, 0 renewed write attempt	Info
0r / 1w	0 renewed read attempt, 1 renewed write attempt	Warning

Raid R/W Error

It specifies the number of errors in read and/or write operations on disks of the raids.

As soon as at least one read or write operation has failed, this generates an error.

Possible Values

Message	Explanation	Status Type
0r / 0w	0 read error, 0 write error	Info
0r / 1w	0 read error, 1 write error	Error

Disk

It specifies the disk connection status, and the number of spare disks.

Possible Values

Message	Explanation	Status Type	GUI
OK (1 sp)	All disks are connected and accepted by the RAID matrix, and 1 spare disk is available.	Info	Mon. List
1 xx (6 sp)	All disks are connected and accepted by the RAID matrix, but one disk is faulty, and 6 spare disks are available.	Error	Mon. List

Message	Explanation	Status Type	GUI
OK	The given disk is working fine.	Info	Server Details
Spare	The given disk is a spare disk.	Info	Server Details
INT/EXT X-X Disconnected	The given disk on the internal or external array (array number + disk number) is out of the RAID matrix.	Error	Alerts & Server Details
INT/EXT X-X Not Present	No disk is connected on the internal or external array (array number + disk number).	Error	Alerts & Server Details

PC Free Disk Space

It specifies the available space on the MTPC disk in megabytes (MB) or gigabytes (GB).

Possible Values

Message	Explanation	Status Type
300 MB	When the space available is more than the value defined in the SNMP agent (100 MB), the label is in a normal state.	Info
75 MB	When the space available is less than the value defined in the SNMP agent (100 MB), the label is in a warning state. For PCs (no MTPC card), this value is not displayed as a warning.	Warning
10 MB	When the space available is less than 20MB, the label is in an error state. For PCs (no MTPC card), this value is not displayed as a warning.	Error

Rec Train Expiration

It specifies that the remaining time left before you have to reinitialize the field counter for the record trains.

Possible Values

Message	Explanation	Status Type	GUI
Record Train Maintenance should be performed in less than 12 weeks.	It remains between 4 and 12 weeks to reinitialize the record train field counter.	Warning	Alerts
Record Train Maintenance should be performed in less than 28 days.	It remains less than 4 weeks to reinitialize the record train field counter.	Error	Alerts

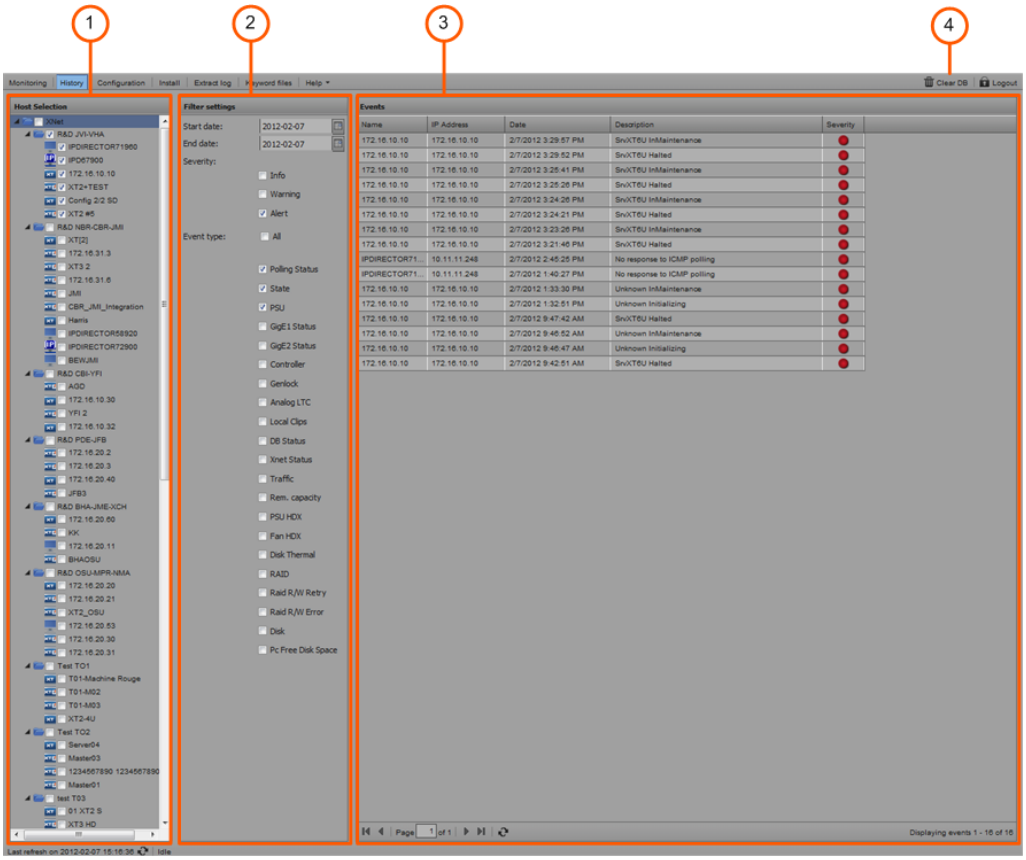
4. Event History

4.1. Description of the History Window

Overview

The History window, accessible via the History menu, makes it possible to view all SNMP messages that have been generated in the past, and filter them based on several criteria (host, date, severity and event type).

The History window mainly consists of two panes for the selection of criteria on the left hand side (1, 2), and one pane for the display of filtered events on the right hand side (3). The areas are described below:



Area Description

The table below describes the various parts of History window:

Part	Name	Description
1.	Host Selection	Tree of monitored devices that you can include or exclude from the search, using the check box in front of each group and host.
2.	Filter Settings	Parameters to refine the search, in addition to the host selection:
	• Start Date	Earliest event date to be taken into account in the search.
	• End Date	Latest event date to be taken into account in the search.
	• Severity	Level of importance of the event to be taken into account in the search.
	• Event Type	Type of event to take into account in the search.
3.	Events	Result of the search based on the criteria defined in the Host Selection and Filter Settings area. At the bottom of the Events pane, the page number is displayed, and the following buttons are displayed: • **Refresh** button to refresh the list of events • **Right and Left Arrow** buttons to move in the results when the search returns more than one page.
4.	**Clear DB** button	Button used to clean the alert database of the alerts. This can be useful in an OB van.

4.2. Filtering Events

To filter events in XNet Web, proceed as follows:

1. In the Menu bar, click the History menu. This opens the History tab.
2. In the Hosts pane, select the hosts for which you want to view the generated SNMP messages.
3. In the Filtering Settings pane, select the filtering criteria among the following ones:
   - Event start and/or end date
   - Event severity
   - Event type

The list in the Events pane is dynamically updated taking into account the changes in the filtering criteria in the Hosts and Filtering Settings panes. You can however click the **Refresh** button at the bottom of the Events pane.

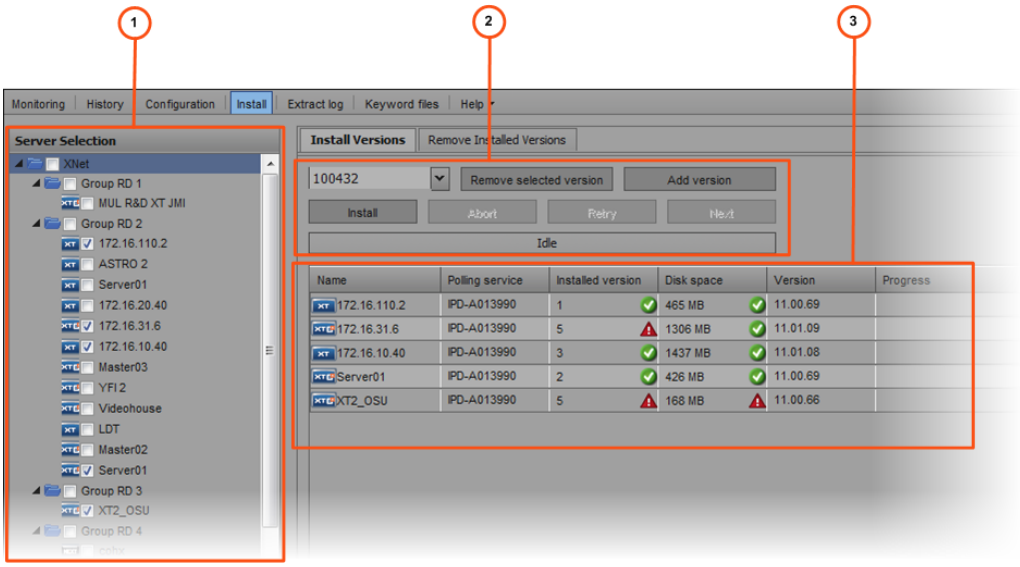
5. Server Maintenance Tasks

5.1. Multicam Upgrades

5.1.1. Description of the Install Versions Tab

Overview

The Install Versions tab available from the main Install window contains the areas highlighted on the following screenshot, and described in the table below:



Area Description

The table below describes the various parts of Install Versions tab:

Area	Name	Description
1.	Server Selection area	This area displays the list of monitored EVS servers on which Multicam versions can be installed.
2.	Version Installation buttons / fields	A series of buttons and fields is used in the installation process of a new Multicam version. For a full description, see the table below.
3.	Servers List	This area displays the list of EVS servers selected in the Server Selection area. It gives information on the number of installed Multicam versions, the available disk space, the version currently used, the installation status (Progress),...

The table below describes the buttons and fields available in the Version Installation tab:

Button / Field	Description
Select a Version field	Used to select a Multicam version present on the web server. '100432' on the above screenshot corresponds to the version 10.04.32.
Remove Selected Version button	Used to remove, from the web server, the Multicam version selected in the **Select a Version** field.
Add Version button	Used to select a Multicam version to be added to the web server.
Install button	Used to install the Multicam version selected in the field on the EVS server.
Abort button	Used to abort the installation of the Multicam version being installed.
Retry button	Used to restart an installation process which has not succeeded.
Next button	Used to skip the installation process on an EVS server and proceed to the next one.
Installation Process Status field	Gives information on the installation process. 'Idle' on the above screenshot.

5.1.2. Installing a Multicam Version

Introduction

To remotely upgrade a Multicam version on one or several EVS video servers, the Multicam version must be previously added to the web server. Consequently, you will proceed in the following sequence:

1. Adding a Multicam Version on the Web Server
2. Installing a Multicam Version on an EVS Video Server

Limitations for the Installation of a Multicam Version

Web Server

Six Multicam versions maximum can be installed on the web server.

EVS Video Server

The installation process will not be possible in the following cases:

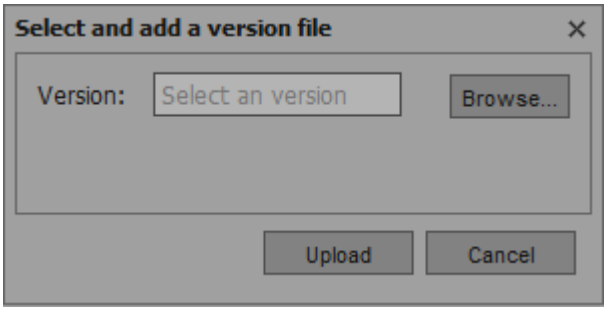
- They are already five Multicam versions installed on the EVS server.
- The space available on disk is not sufficient for a new installation.
- The upload of the version from the polling service to the server is not complete.
- The server is faulty.

Warnings and alerts related to the number of installed versions and disk space is provided by means of icons in the grid:

How to Add a Multicam Version on the Web Server

1. In the Install Versions tab, click the **Add Version** button.

   The following window appears:



2. Click the **Browse** button to select the version file.

   The selected file is displayed in the **Version** field.

3. Click the **Upload** button.

   The version is added on the web server, provided that there are not yet 6 versions installed on the web server.

How to Install a Multicam Version on an EVS Video Server

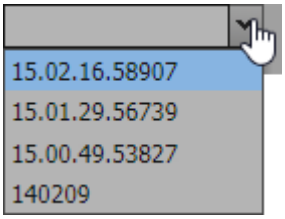
1. In the Server Selection tree view, select the EVS video server(s) you want to install a Multicam version on.

2. In the Install Versions tab, click the arrow next to the 

field.

   The list of Multicam versions available on the web server is displayed.

3. Select a Multicam version from the drop-down list



4. Click the **Install** button.

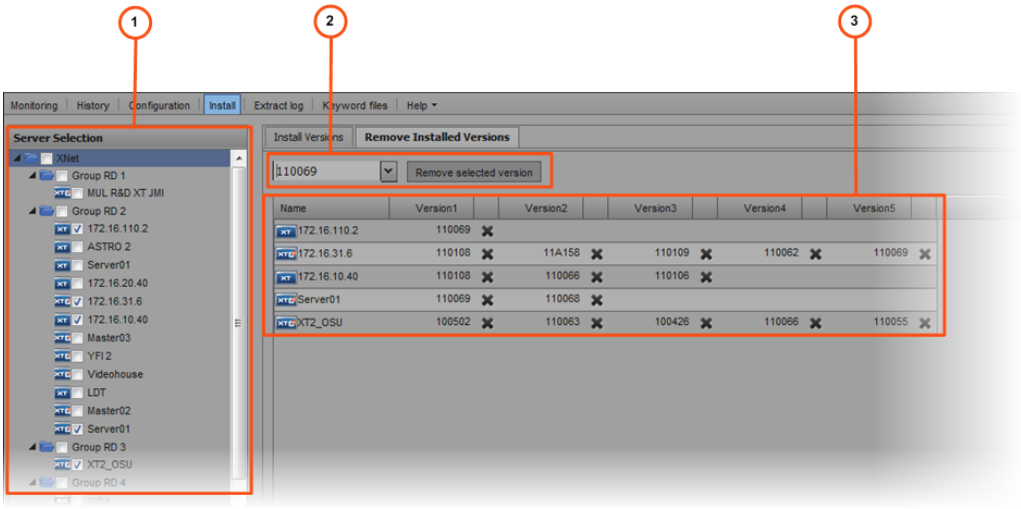
   The Multicam version is installed on the selected servers, provided that none of the limitations has been met.

   Otherwise, an alert is displayed and the **Retry** button is made available to start the installation again.

5.1.3. Description of the Remove Installed Versions Tab

Overview

The Remove Installed Versions tab available from the main Install window contains the areas highlighted on the following screenshot, and described in the table below:



Area Description

The table below describes the various parts of Remove Installed Versions tab:

Area	Name	Description
1.	Server Selection area	This area displays the list of monitored EVS servers from which Multicam versions can be removed.
2.	Version Removal buttons / fields	A series of buttons and fields is used in the removal process of Multicam version from a server. For a full description, see the table below.
3.	Servers List	This area displays the list of EVS servers selected in the Server Selection area. It lists all the Multicam versions installed an each server and allows the deletion of a version from an EVS server.

The table below describes the buttons and fields available in the Remove Installed Versions tab:

Button / Field	Description
Select a Version field	Used to select a Multicam version installed on an EVS server.
Remove Selected Version button	Used to remove, from all the selected EVS servers, the Multicam version selected in the field.

5.1.4. Removing a Multicam Version

NOTE

Servers currently running Multicam 14 will not show Multicam 15 versions and higher.

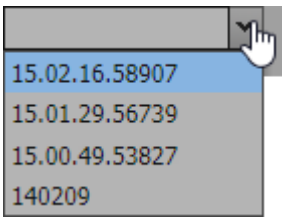
How to Remove a Multicam Version from the Web Server

To remove a Multicam version from the web server, proceed as follows:

1. From the Install Versions tab, click the arrow next to the 

field.

   The list of Multicam versions available on the web server is displayed.
2. Select a Multicam version from the drop-down list



3. Click the **Remove Selected Version** button.

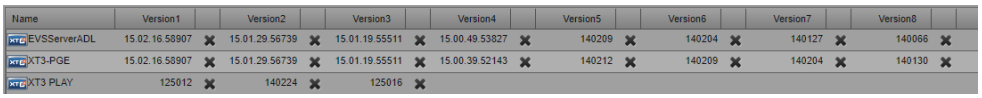
   The version is removed from the web server.

How to Remove a Multicam Version from an EVS Server

To remove a Multicam version on a single EVS video server, proceed as follows:

1. In the Server Selection tree view, select the EVS video server(s) you want to remove a Multicam version from.
2. Open the Remove Installed Versions tab.

   The grid displays the versions installed on all the selected EVS servers.



Name	Version1	Version2	Version3	Version4	Version5	Version6	Version7	Version8
EVSServerADL	15.02.16.58907	15.01.29.56739	15.01.19.55511	15.00.49.53827	140209	140204	140127	140066
XT3-PGE	15.02.16.58907	15.01.29.56739	15.01.19.55511	15.00.39.52143	140212	140209	140204	140130
XT3 PLAY	125012	140224	125016					

3. Click the **Remove** button  next to the Multicam version you want to remove on a specific server.

How to Remove a Multicam Version from all EVS Servers

To remove a Multicam version on a single EVS video server, proceed as follows:

1. In the Server Selection tree view, select the EVS video server(s) you want to remove a Multicam version from.
2. From the Remove Installed Versions tab, click the arrow next to the 

field.

   The list of Multicam versions installed on EVS servers is displayed.
3. Select a Multicam version from the drop-down list.
4. Click the **Remove Selected Version** button.

   The version is removed from all the EVS servers.

5.2. Remote Access to an EVS Server

5.2.1. Accessing Remotely a Server Desktop

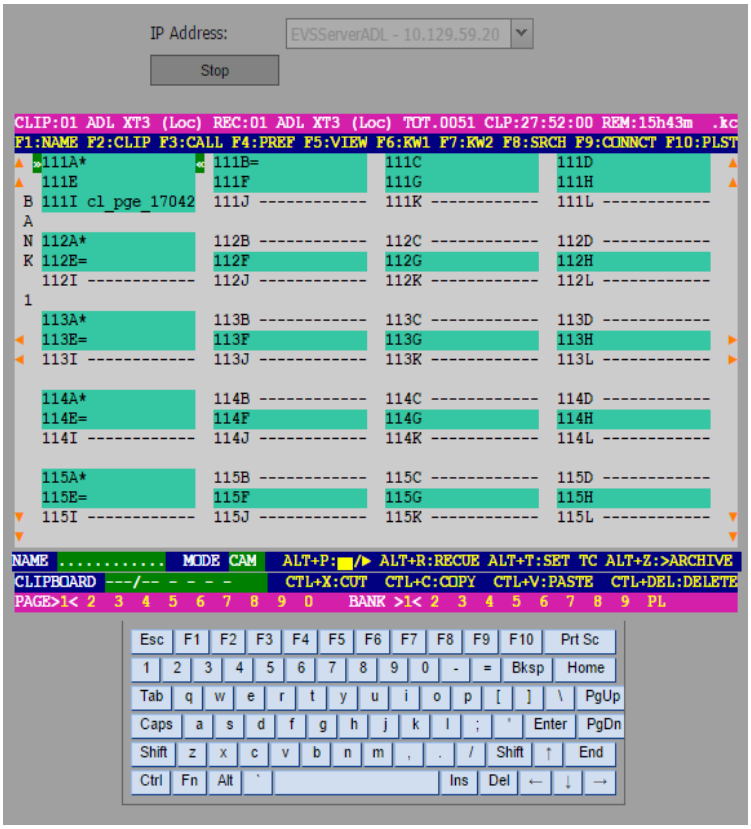
When you are logged on as an administrator, you can remotely access a server desktop.

To access remotely a server desktop, proceed as follows:

1. From the Monitoring window, select the server you want to access.

2. Click the **XT server - Remote desktop** button .

   The Remote Desktop window opens:



   From this window, you are able to navigate through Multicam exactly as if you accessed them from a keyboard.

5.2.2. Accessing the Multicam Web Setup

When you are logged on as an administrator, you can access the Multicam Web Setup page to change the server configuration.

To do so, proceed as follows:

1. From the Monitoring window, select the server you want to access.
2. Click the **XT server - Remote configuration** button .

   The Multicam Web Setup window opens.

   Refer to the EVS Server Configuration manuals for more information.

5.2.3. Accessing Remotely an LSM Remote Panel

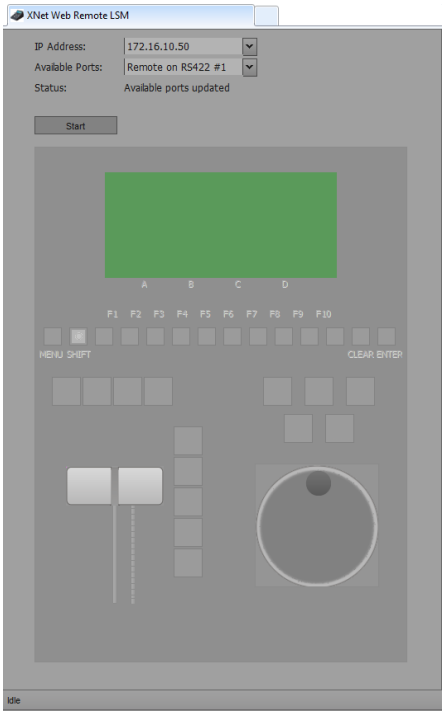
When you are logged on as an administrator, you can take the control of an LSM Remote panel connected to a server. This command should however be used very carefully.

To access remotely an LSM Remote panel, proceed as follows:

1. From the Monitoring window, select the server you want to access.

2. Click the **XT server - Remote control** button .

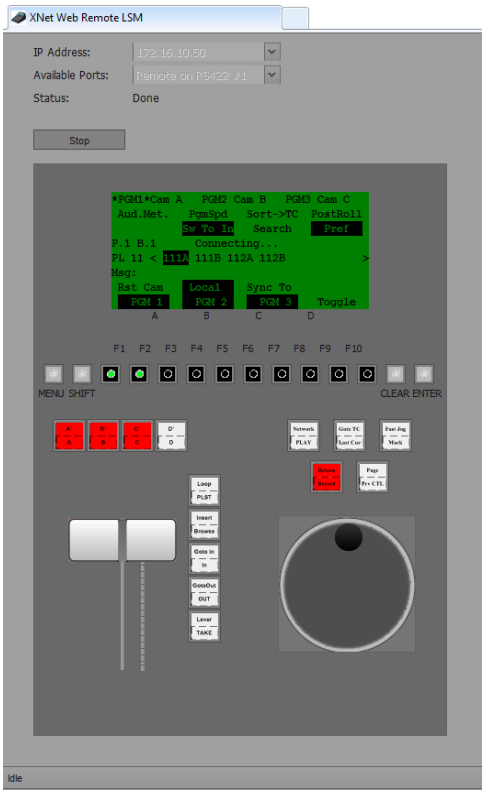
   The LSM Remote Panel window opens:



3. Once all the available ports have been updated, select the port corresponding to the remote LSM device from the **Available Ports** list.

4. Click the **Start** button to start the connection.

   The window display represents the LSM Remote Panel, from which you can use the different commands, in the same way as when you manipulate directly the LSM Remote Panel.



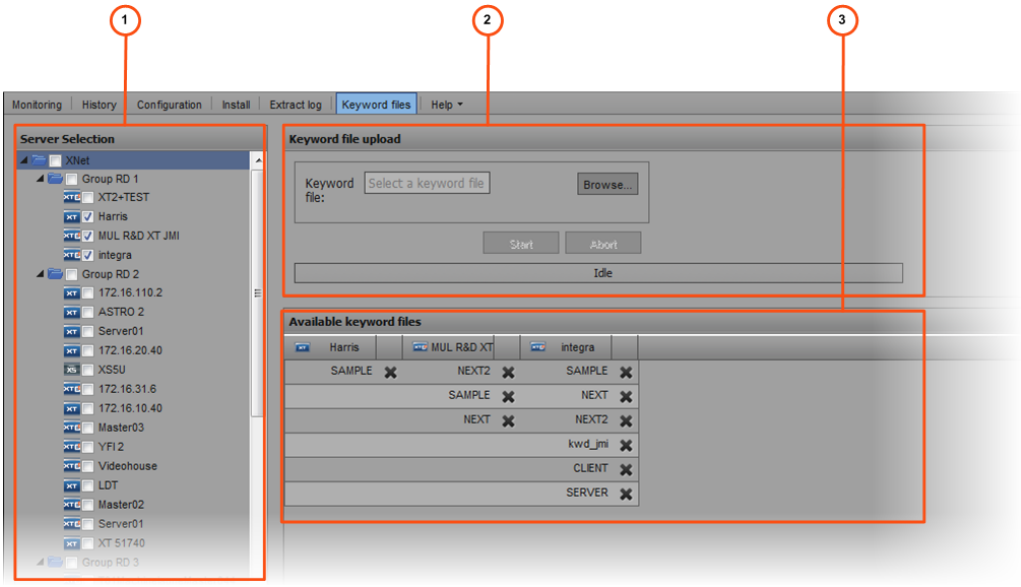
5.3. Keyword File Management

5.3.1. Description of the Keyword Files Window

Overview

The Keyword Files window makes it possible to manage the keyword files on EVS servers.

The Keyword Files window available from the menu bar contains the areas highlighted on the following screenshot below, and described in the table below:



Area Description

The table below describes the various parts of Keyword Files window:

Area	Name	Description
1.	Server Selection	This area displays the list of monitored EVS servers on which keyword files can be uploaded.
2.	Keyword File Upload	This area is used to select keyword files and to start the upload process. It also displays information on the progress of keyword files upload.
3.	Available Keyword Files	This area shows the keyword files already available on the EVS servers selected in the Server Selection area.

The table below describes the buttons and fields available in the Keyword file upload and Available Keyword Files panes:

Button / Field	Description
Keyword File field	Shows the keyword file name selected for upload.
Browse button	Used to select the keyword file to upload.
Start button	Used to start the keyword file upload on the selected EVS servers.
Abort button	Used to abort the keyword file upload process.
Upload Status field	Gives information on the upload process. 'Idle' on the above screenshot.
Remove button	Used to delete the log file from the EVS server.

5.3.2. Uploading a Keyword File on an EVS Server

To upload a keyword file on an EVS server, proceed as follows:

1. In the Server Selection tree view, select the EVS video server(s) on which you want to upload keyword files.

   The selected servers are displayed in the Available Keyword Files area, together with the keyword files already present on each server.

2. In the Keyword File Upload area, click the Browse button to select the keyword file.

   The selected file is displayed in the **Keyword File** field.

3. Click the **Start** button.

   The upload process of the keyword file begins on all the selected servers.

   Once the upload is completed, the new keyword files are displayed in the Available Keyword Files area.

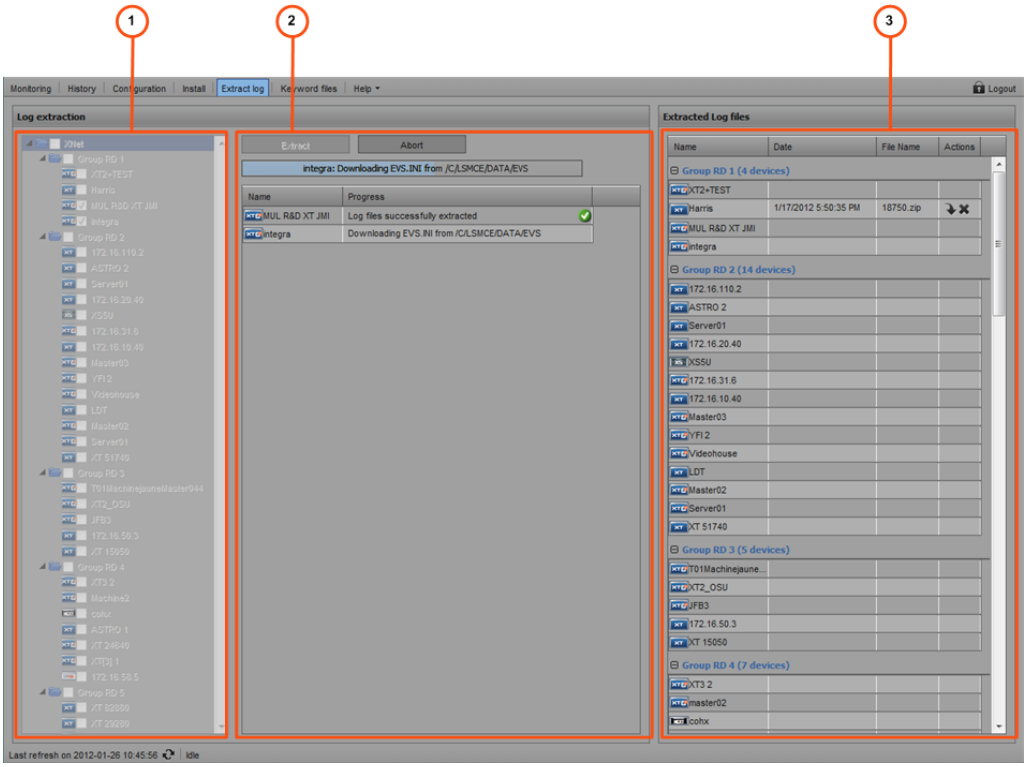
5.4. Server Log Extraction

5.4.1. Description of the Extract Log Window

Overview

The Extract Log window allows users to extract logs from the EVS servers and transfer them to the web server. The log files can then be downloaded from the web server for analysis.

The Extract Log window available from the menu bar contains the areas highlighted on the following screenshot, and described in the table below:



Area Description

The table below describes the various parts of Extract Logs window:

Area	Name	Description
1.	Server Selection area	This area displays the list of monitored EVS servers from which logs can be extracted.
2.	Log Extraction buttons / fields	This area is used to start the log extraction process and to display information on the progress of log extraction.
3.	Extracted Log Files grid	This area shows, for the EVS servers selected in the Server Selection area, the date of log extraction, the name of the extracted log file, and it provides buttons to download the file from the web server or to delete the log file.

The table below describes the buttons and fields available in the Log Extraction and Extracted Log Files panes:

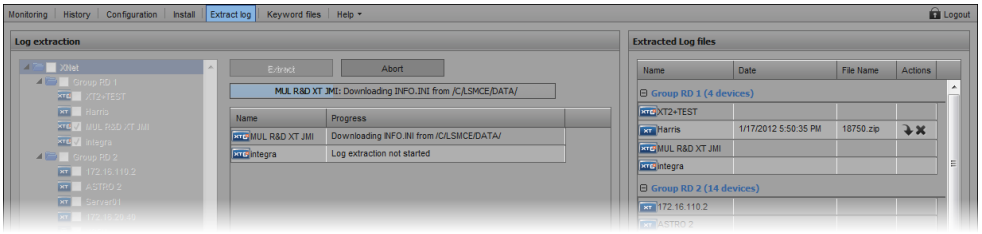
Button / Field	Description
Extract button	Used to start the log extraction from the selected EVS servers.
Abort button	Used to abort the log extraction process.
Extraction Status field	Gives information on the extraction process. 'Integra:Downloading EVS...' on the above screenshot.
Download button	Used to download the log file from the web server.
Remove button	Used to delete the log file from the web server.

5.4.2. Extracting Logs from an EVS Server

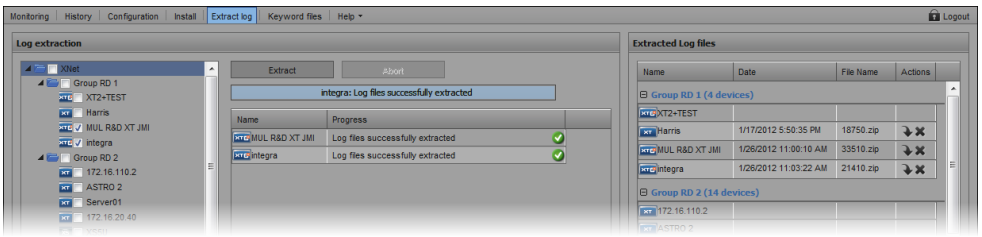
To extract logs from an EVS Server, proceed as follows:

1. In the Server Selection tree view, select the EVS video server(s) you want to extract logs from.
2. Click the **Extract** button.

   Logs are extracted for the selected servers one by one.



   When the logs have been extracted for all selected EVS servers, the log extraction date and the name of the log file is displayed in the Extracted Log Files area.



Note
Only one log file per EVS server is available on the web server.

Corporate
+32 4 361 7000

North & Latin America
+1 973 575 7811

EVS Headquarters
Liège Science Park
13, rue Bois St Jean
B-4102 Seraing
Belgium

Asia & Pacific
+852 2914 2501

Other regional offices
www.evs.com/contact

To learn more about EVS go to **www.evs.com**