Exacq

exacqVision Enterprise Manager User Manual

www.exacq.com

2024-12-18

Version 24.12

Johnson Controls

Contents

New in version 24.12

This release includes the following updates for exacqVision Enterprise Manager:

- SSL certification for Python web server.
- General improvements and bug fixes.

Introduction

exacqVision Enterprise Manager includes the following features:

- Maximize your exacqVision Enterprise server uptime with constant server health monitoring. Receive email notifications or use the exacqVision Enterprise Manager browser-based dashboard to receive immediate system errors and warnings.
- Assess all exacqVision Enterprise servers from anywhere using the dashboard to confirm server health from a PC browser, tablet, or smart phone.
- Automatically send flexible email notifications for errors and warnings such as VMS recorder offline, storage warnings, drive failures, temperature alarms, or disconnected cameras. Allow users or groups of users to receive e-mails in real-time or periodically for 32 errors and warnings.
- Reduce software maintenance time with scheduled exacqVision software updates.
- Monitor camera health and events to confirm camera uptime and positioning.

Figure 1: exacqVision Enterprise Manager

Installation

Use the following requirements, prerequisites and information to install the exacqVision Enterprise.

Hardware and software requirements

Refer to the following tables for hardware and software requirements.

Table 1: Server requirements

Requirements	Minimum	Recommended
Processor	Intel i3	Intel i7
RAM	16 GB	16 GB
Operating system drive	128 GB SSD	128 GB SSD x 2 (RAID 1)
Storage	4 TB HDD	8 TB HDD
Operating System	Ubuntu 22.04	Windows Server 2022

Table 2: PC Client minimum requirements

Requirements	PC Client
Processor	Intel Celeron or faster
RAM	4 GB
Browser	Google Chrome or Microsoft Edge

Table 3: Database requirements

Requirements	Database
Included	PostGre (Windows only)
Optional	Microsoft SQL v 2008, 2012, 2014, 2016, 2022 or PostGres v.13+ (customer provided and installed)

Table 4: Ports

Port requirements	Port number	*Related knowledge base article
Connection for failover and failback	28774	• Windows firewall rules for VFBA (video failback agent) https://support.exacq.com/#/knowledge-base/article/17779 • Stuck pinned spare/data restore pending due to firewall blocking VFBA process https://support.exacq.com/#/knowledge-base/article/6051
Connection to exacqVision servers:	22609*	• How do I change the listen port for exacqVision Server in Windows Ubuntu Linux? https://support.exacq.com/#/knowledge-base/article/2135
Web Service running on exacqVision servers:	port 80*	• How do I change the listen port for exacqVision Server in Ubuntu Linux? https://support.exacq.com/#/knowledge-base/article/2135

Installation prerequisites for exacqVision Enterprise Manager

Before you install exacqVision Enterprise Manager, use these guidelines to prepare for installation.

- You must have administrator privileges for a Windows installation, or root access for Linux installations.
- You can install exacqVision Enterprise Manager on a Linux or Windows platform.

- **Note:** exacqVision does not support the installation of exacqVision Enterprise Manager on network video recorders (NVR), including NVRs that have been added to Enterprise Manager as spares or protected servers.

- Installations of exacqVision Enterprise Manager 24.11 and later require an upgrade to PostgreSQL version 13+ or later. Enterprise Manager running on Windows systems automatically upgrades to PostgreSQL 13+ without any input from the user. Linux systems require the user to manually upgrade. For more information on upgrading PostgreSQL, see https://support.exacq.com/#/knowledge-base/article/21672.

- If you are using an existing external database, you must have network connectivity between the exacqVision Enterprise Manager system and the database.

- If you are connecting to a Microsoft SQL server database, ensure that the following requirements are met before you install exacqVision Enterprise Manager.

  a. You must create an empty SQL Server database by using the SQL server engine. It is not necessary to create database tables. You can use any naming convention for the database name, for example exacqVision Enterprise Manager.

  b. You must specify a username during the exacqVision Enterprise Manager installation to connect to the SQL database. This user must have *db_ddladmin* privileges as a minimum requirement.

  - **Note:** The username and password for the database can use Windows domain authentication or SQL Server authentication.

- If you are using the Microsoft SQL Server Windows Authentication method, the user account that runs the installer must also have Windows authentication access on the external database.

- Select the default database option unless you have an existing database that you want to use. In you have an existing database, the installer will use the credentials for the database; you do not need to manually export and import the schema.

  - **Note:** If you need to connect a server to more than one instance of Enterprise Manager or Integrator Services Portal, it is necessary to set only one instance to **Automatically resolve conflicts**. For more information see Adding a Group. In this case, one instance of Enterprise Manager or Integrator Services Portal must use the inbound connection and another instance of Enterprise Manager or Integrator Services Portal must use the outbound connection. For more information, see Adding a server.

Installing exacqVision Enterprise Manager

To install exacqVision Enterprise Manager, complete the following steps:

1. Navigate to https://exacq.com/support/downloads.php and click the exacqVision Enterprise download link for your operating system.

2. When the download is complete. Double-click the executable `.exe` file. Follow the instructions on each page of the installation wizard.

   - **Note:** If you install the Enterprise Manager application in a location other than the default installation path, which is `C:\Program Files\exacqvision \EnterpriseManager`, then the installation file path must be in the following format, `selected_path\EnterpriseManager`.

3. On the **Configure and Install Web Server** page, enter an HTTP and HTTPS port number. If a selected port is in use, you must select an unused port before you continue.

4. On the **Select Database Type** page, select one of the following database types:
   - Select **Postgres** if there is no existing database.
   - Select **Microsoft SQL** to connect to an existing Microsoft SQL database.
5. For the Microsoft QSL database, On the **Select MS QSL Authentication Type** page, choose one of the following authentication types:
   - Select **Windows Authentication** to log on with Windows credentials. This is the default option in Enterprise Manager.
     i. If you select **Windows Authentication**, in the **Configure Microsoft SQL Database Connection** page, enter the **Hostname**, **Port** and **Database Name**.
   - Select **SQL Server Authentication** to log on with SQL server authentication. Users need to log on with a user name and password.
     i. If you select **SQL Server Authentication**, in the **Configure Microsoft SQL Database Connection** page, enter the **Hostname**, **Port**, **Database Name**, **Username**, and **Password**.
6. In the **Configure Administrator Username** page, enter the exacqVision Enterprise Manager administrator password. The password must meet the following criteria:
   - The password must contain a minimum of 8 characters.
   - The password must contain at least the following characters:
     - One uppercase letter (A - Z)
     - One lowercase letter (a - z)
     - One number
     - One special character for example, `!`, `@`, `#`

     ⓘ **Note:** Alternatively, you can enter a passphrase. The passphrase must contain a minimum of 20 characters and cannot start or end with a space.
7. Click **Finish**.

What to do next:

- If you connect to exacqVision Enterprise Manager from a browser on a separate computer, you must use the IP address of the computer on which you installed exacqVision Enterprise Manager, see Logging on to exacqVision Enterprise Manger.

Installation checklist

To install exacqVision Enterprise Manager complete all the steps in the following checklist.

Table 5: Installation checklist

Step	Task
Install the hardware.	See Hardware and software requirements.
Complete the installation prerequisites for the exacqVision Enterprise Manager.	See Installation prerequisites for exacqVision Enterprise Manager.
Install the software.	See Installing exacqVision Enterprise Manager.
Configure the groups.	See Viewing the Group List.
Add the servers.	See Adding a server and Add Multiple Servers.
Optionally configure SMTP to use email server setting features.	See Email.
Configure Rules.	See Rules.

Getting started

How to logon to the exacqVision Enterprise Manager dashboard, become familiar with the user interface, and how to navigate the dashboard.

Logging on to exacqVision Enterprise Manger

1. To logon to exacqVision Enterprise Manager on a separate computer, type the IP address of the computer that you installed exacqVision Enterprise Manager on into the browser.
2. In the **Login** dialog, type the **Username** and **Password**. Click **Login** to launch the dashboard.

Dashboard

Use the exacqVision Enterprise Manager **Dashboard** to see the overall health of all servers and associated cameras on the system. The summary charts for servers and cameras are updated every three seconds.

There are four color coded health indicator categories: error (red), warning (orange), healthy (green), and maintenance (gray). The total number of server or camera health indicators is displayed in the center of the chart, this number is further classified into the four categories. For information about the color-coded categories, see Server and camera health indicators.

Figure 2: Dashboard page
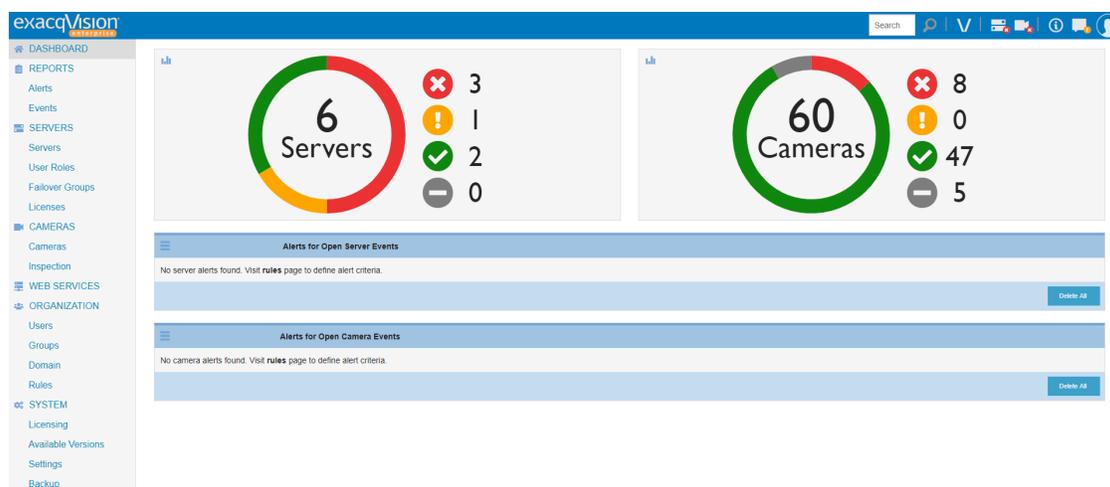
Quick access toolbar

The following table is an overview of the quick access toolbar on the exacqVision Enterprise Manager title bar.

Table 6: Interface icons

Icon	Icon name	Description
	Profile	View your profile details or select **Logout** to exit the system.
	Notifications	View system messages. After you view a message, it is sorted by priority. Only administrators can modify the messages.

Table 6: Interface icons

Icon	Icon name	Description
(information icon)	Information	View additional information. From the **Information** list, select any of the following options: • **User Manual**: View the manual in PDF format. • **Help on this Page**: View context-sensitive online help. • **About**: View information such as the version, scheduled system updates, and other information. If no schedule exists, you can click **SYSTEM** > **Updates** to create a schedule. See Software Update for details. ⓘ **Note:** You require the correct administrator privileges to schedule an update.
(camera health icon)	Camera Health	View the camera health indicators and the total number of cameras in each category. The categories include error, warning, healthy, and maintenance indicators. Select any category from the list to open the detailed **Camera List** page for that category. For more information, see Server and camera health indicators.
(server health icon)	Server Health	View the server health indicators and total number of servers in each category. Select any category from the list to open the detailed **Server List** page for that category. For more information, see Server and camera health indicators.
(search icon)	Search	Enter a text string to search for devices, servers, and any other information.

Interface overview

The following table is an overview of the exacqVision Enterprise Manager interface icons and their functions. The icons that you see depend on the open page context.

Table 7: Interface icons

Icon	Icon name	Description
(checkmark icon)	Acknowledge	Acknowledge one or more alerts or events.
(calendar icon)	Calendar	Select a date for server maintenance, save or change a configuration, update software, or import licenses for one or more servers.
(trash icon)	Delete	Delete one or more alerts, servers, or user accounts.
(download icon)	Download	Download server lists, licenses, or camera inspections. In addition, you can download a configuration file, graphics, or both.
(pencil icon)	Edit	Edit configuration properties, user accounts, or domain properties.
(filter icon)	Filter	Change search and display options.

Table 7: Interface icons

Icon	Icon name	Description
	Filter list	Select one of the following items from a list or chart display: • Alerts for open camera events • Alerts for unacknowledged camera events • Alerts for open or unacknowledged camera events • All camera alerts.
	Information	See additional information about an item.
	Inspection	Inspect a camera and classify the findings as good or bad.
	Manage	Manage users or user roles from exacqVision Enterprise Manager.
	Manual failover	Manually failover a server for maintenance.
	Manual failback	Manually return or failback to a server.
	Refresh	Refresh the software version from the internet or a compressed zip file.
	Search	Search for devices, servers, and any other information on a page.
	Shield	Strengthen the server password.
	Show Columns	Select which columns to show in a table.
	Sort	Sort a list alphabetically or sort camera status. The type of sort operation depends on the list context.
	Start	Start the exacqVision client system.
	Un-acknowledge	Un-acknowledge one or more alerts or events.
	Un-manage	Remove users or users roles from exacqVision Enterprise Manager.
	View	Alternate between list and chart views.

Server and camera health indicators

The following table displays the color code for the server and camera health indicators.

Table 8: Health color code for the server and camera

Indicators	Description
❌	Indicates one of the following states: • Server or camera is not detected • Alert for occurring and unacknowledged event
❗	Indicates one of the following states: • Health warning on server such as temperature, storage alarm, archive alarm, or CPU fan • Server license subscription is expiring soon • Alert for unacknowledged but open event • Alert for unacknowledged but closed event
✅	Indicates one of the following states: • Server or camera connected and operating • Alert for acknowledged and closed event
➖	Indicates one of the following states: • Server is in maintenance mode • Server or camera are in the process of being located

Navigating the Dashboard page

Select a category from the chart or click the associated icon to open the detailed **Camera List** or **Server List** page for that category.

Use the right and left arrows in the upper-right corner of a pane to scroll through additional pages of servers, cameras, and alerts. To alternate between list and chart views for servers and cameras, click **View** in the upper-left corner of the **Servers** or **Cameras** pane. See Table 7 for a description of the interface icons.

The following figure shows the servers in chart format and the cameras in list format:

Figure 3: Servers in chart format and cameras in list format

You can select whether to display server open events, unacknowledged events, open or acknowledged events, or all alerts. On the toolbar, click **Filter list** and select which option to display. The following example shows camera alerts for events that are either open or unacknowledged in list format:

Figure 4: Alerts for Open or Unacknowledged Camera Events pane
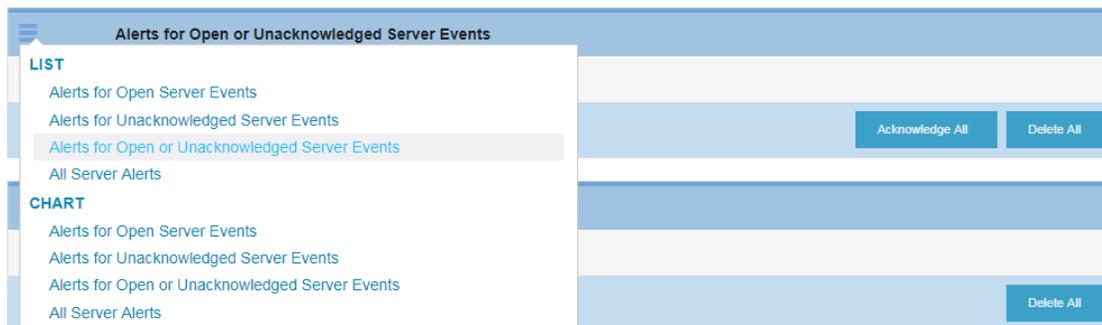
- To acknowledge all alerts currently displayed in the list, click **Acknowledge All**.
- To acknowledge an individual alert, identify the row, and click **Acknowledge** on the right side of the pane .
- To not acknowledge an individual alert, identify the row, and click **Un-acknowledge** on the right side of the pane.
- To delete all displayed alerts, click **Delete All**.
- To delete an individual alert, identify the row, and click **Delete** at the far right side of the pane.

    ⓘ **Note:** Deleting alerts simply removes the alert from all alert lists. The underlying event can still be viewed in the Event List under Reports menu.

For more information about alert definitions see Rules.

For more information about acknowledging alerts and events, see Reports.

Reports

Alert Reports

The alert list displays only those events for which the user has set up a notification in the Rules page. Alerts are set up for a specific user and can be customized to match the users needs.

Figure 5: Alerts for Open Events page
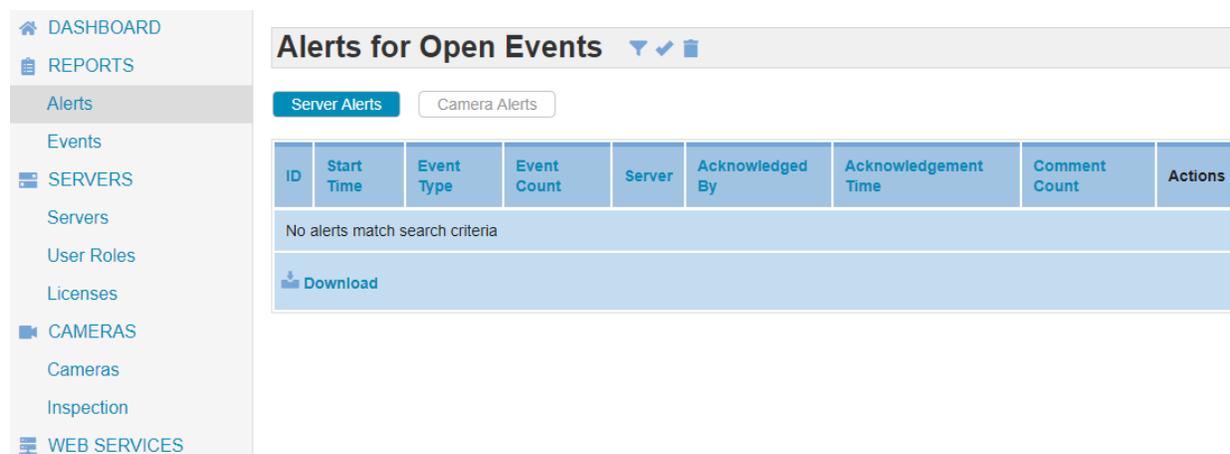
Acknowledging an alert acknowledges the underlying event. See Table 7 for a description of the interface icons. To acknowledge all alerts and events at once, on the toolbar click **Acknowledge**. To

acknowledge individual alerts and events, identify the row, and click **Acknowledge** in the **Actions** column. To set an alarm as unacknowledged, click **Un-acknowledged** in the **Actions** column.

To delete all displayed alerts, on the toolbar, click **Delete**. To delete a specific alert, identify the row, and click **Delete** in the **Actions** column.

To display the events detail page, select an the alert row.

Event Reports

An event is a noteworthy occurrence on the server, see Available Events for a list of all events. All events, except for video motion are automatically logged and can be viewed in the event list. The system groups all camera events, soft triggers, and input triggers into fifteen second intervals. You can view additional information about a grouped event on the event's details page. To log motion events, an alert rule for motion must be created see Rules.

Event Reports allow you to view, acknowledge, and set unacknowledged, server and camera events.

Figure 6: Open or Unacknowledged Server Events page

Events can be acknowledged and unacknowledged, but cannot be deleted. See Table 7 for a description of the interface icons. To acknowledge all displayed events at once, on the toolbar click **Acknowledge**. To acknowledge individual events, identify the row, and click **Acknowledge** in the **Actions** column. To set an event as unacknowledged, click **Un-acknowledged** in the **Actions** column.

Clicking on the event row displays the event details page.

Event Details

You can acknowledge camera or server events on the **Event Details** page. In addition, you can view a detailed history of all the users that view, acknowledge, or comment on the event in the log file.

To view the **Event Details** page, select either the event or any of the alerts generated by that event.

Figure 7: Event details page

To acknowledge or unacknowledge the event, click **Acknowledgement Status**. In the **Log** pane, you can view the history for that event. The event log includes such items as user name, user action, creation date, and any comments about the event. To hide one or more columns in the event **Log**, in the upper-right corner, click **Show Columns**. Clear the check box next to each heading that you do not want to display.

To add a comment about an event such as the circumstances leading up to the event, enter the comment and click **Add**.

Searching the event log

You can search the event log on the **Event Details** page.

To search the event log, complete the following steps:

1. On the **Event Details** page, in the upper-right corner, click **Search**.
2. Enter the term you want to search for.

Filtering the event log

You can filter to narrow the list of items that you want to display in the event log.

To filter the list of items to display in the event log, complete the following steps:

1. On the **Event Details** page, in the upper-right corner, click **Filter**.
2. From the **Filter Data** list, select one of the following fields:
   - **User**
   - **Action**
   - **Created**
   - **Comment**
3. From the comparison operator list, select a comparison such as **Contains** or **Starts After**.
4. Enter or select the filter criteria and click **APPLY**.

Available Events

The following events except video motion are automatically monitored and can be viewed on the event list. An alert can be set up for any of these events, see Rules.

Table 9: Camera Events

Camera Events	Definition	Helpful Tips
Video Loss	Analog or IP video signal lost.	• Ensure camera is connected to exacq recorder • Ensure camera is powered on • View camera using an exacq client • Ping IP address of camera from exacq • View camera's admin page in browser • Power cycle camera
Video Motion	Camera has detected motion.	• If motion happens too often set motion sensitivity lower in exacqVision • Disable motion detection
Camera Disconnected	Network cannot connect to analog or IP camera.	• Ensure camera connected to exacq recorder • Ensure camera is powered on • Ping IP address of camera • Power cycle camera
Camera Analytics	An analytics event defined on the camera has been detected.	• The on-board camera analytic has been triggered.
Recording Alarm	An event that triggers when the system writes the video from a stream to disk.	• This event is best used as a duration alert.

Table 10: Server Events

Server Events	Definition	Helpful Tips
Security Integration Connection Alarm	An error in connecting to the Security Integration panel	• View the Security Integration page of exacq and note status of panel connection • Check credentials and retry • Ping IP address of Security Panel • Power cycle Security Panel
Archive Alarm	Failure on archiving target, such as bad mount point.	• View Archive page of exacqVision • Ensure remote storage is powered on • Ping remote storage from exacqVision • Check mount point on remote storage
Archive Task Alarm	Archive task failed.	• View Archive page of exacqVision • Check mount points on remote storage • Verify tasks have enough time to complete
Auto export	A user exported video from the server using the exacqVision client.	• Check the system's log. • For more information, see Auto Export window in the *exacqVision User Manual*.
Button Press	Button input on server pressed.	• N/A

Table 10: Server Events

Server Events	Definition	Helpful Tips
Content Age Alarm	Video deleted before configured retention period. For example, the server is configured to retain video for 30 days, but the server does not have enough space to store that much video. For information about troubleshooting Content Age Alarm events, see https://exacq.com/kb/?crc=64975.	• View Storage page in exacqVision • Adjust Video Space slider • Adjust Desired Age • Assess number of cameras, resolution, quality, and overall data rate required • When a new system starts recording video for the first time, a content age alarm will not be triggered even though the age of the oldest recorded video is lower than the desired oldest content. This event cannot be triggered until the system automatically deletes data when the storage capacity is filled earlier than desired.
Core Throttling	Server load requires that video frames be discarded to compensate.	• This is almost always due to other software requiring resources. Evaluate other software running on system such as an integration.
Device Failure	Capture card malfunctioned.	• Contact exacq support
Device Temperature	Capture card temperature not within recommended range.	• Usually due to dust buildup • Contact exacq support
Fan Alarm	Fan has failed on capture board	• Usually due to dust buildup • Contact exacq support
Fan speed sensor alarm	System fan not operating at recommended speed.	• Usually due to dust buildup • Contact exacq support
Input Trigger	Discrete input on a hybrid server (or IP camera with alarm input) activated.	• N/A
IP Serial Disconnected	A serial-over-IP connection has become disconnected	• Check Serial Ports page in exacqVision • Check the source of serial data • Ping IP address of serial data
Login Failure	Login attempt failed on server.	• Review Login History, System Log and Audit Trail on exacqVision recorder
Network Activity	Any unexpected network activity on the server's network	• N/A
Power Supply Alarm	Alarm on a server with redundant power supply.	• Contact exacq support

Table 10: Server Events

Server Events	Definition	Helpful Tips
Server Disconnected	Connection to server lost.	• Try to connect to server with exacq client • Ping server's last known IP address • Physically locate server • Ensure recorder is powered on • Ensure network connectivity • Connect to server with exacq client on at server's location
Server License Error	Invalid license on server.	• Connect to server with exacq client and navigate to Systems page to view license information • Contact exacq support
Server License Warning	License will expire in less than 30 days.	• Contact exacq support to extend license
Soft Trigger	Signal sent from Client to server.	• Soft Triggers are generally actuated by exacqVision clients or 3rd party integrations. Be aware of any integrations that have been implemented on managed exacq recorders. • Review exacqVision System Log and Audit Trail to determine what/who actuated the soft trigger.
Storage Alarm	Drive capacity threshold reached.	• Review settings on Storage page of exacqVision.
Storage Hardware Alarm	Server storage malfunctioned.	• See Storage page of exacqVision • View System Logs and Audit Trail on exacqVision recorder to get more information.
Temperature Sensor Alarm	System temperature not within recommended range.	• Check for dirt and dust blocking airflow • Contact exacq support
UART serial disconnected.	A UART serial port is disconnected.	• For more information, see UART pane in the *exacqVision User Manual*.
Update Downloading	Software update download in progress.	• N/A
Update Failure	Server software update failed.	• Retry • Check network connection • Check license expiration date • Check that exacqVision recorder can reach internet
Update Installing	Server software update installing.	• N/A
Update Pending	Server restarting after software update.	• N/A

Table 10: Server Events

Server Events	Definition	Helpful Tips
Update Success	Server software update completed.	• N/A
Voltage Sensor Alarm	System voltage not in recommended range.	• Check exacqVision System Log, Login History and Audit Trai
Security Integration Health	An intrusion panel that has a health condition active for the device.	• N/A

Audit Log

The **Audit Log** displays a paginated list of all tracked changes, for example the creation, modification, and deletion of users or servers. To see the general and log details for a log entry, click on the relevant entry.

Searching the audit log

You can search the audit log on the **Audit Log** page.

To search the audit log, complete the following steps:

1. On the **Audit Log** page, in the upper-right corner, click **Search**.
2. Enter the term you want to search for.

Filtering the audit log

You can filter to narrow the list of items that you want to display in the audit log.

To filter the list of items to display in the audit log, complete the following steps:

1. On the **Audit Log** page, in the upper-right corner, click **Filter**.
2. From the **Filter Data** list, select one of the filter fields
3. From the comparison operator list, select a comparison such as **Contains** or **Equals**.
4. Enter or select the filter criteria and click **APPLY**.

Changing the audit log display

You can select which columns to display on the audit log.

To change the audit log display, complete the following steps:

1. On the **Audit Log** page, in the upper-right corner, click the **Show Columns** icon.
2. From the **Show Columns** list, select the checkboxes of the columns that you want to display, and clear the checkboxes of the columns that you want to hide.

Servers

Use the following features to view server information and to configure servers.

Server List

The **Server List** page displays the current list of connected servers, along with networking and configuration information.

Figure 8: Server List Page

See Table 7 for a description of the interface icons on the toolbar.

Click **Server Actions** to display a list of scheduled and completed activities on connected servers. You can open, edit, or delete the action from this list.

Figure 9: Server Actions page

Search and Display Options

Many exacqVision Enterprise Manager pages, including Users, Groups, Cameras, Servers, Events and Alerts, contain **Search and Display Options**. Use this option to select all the information columns that you want display on a page.

On the toolbar, click **Filter** to display the **Search and Display Options** window. See Table 7 for a description of the interface icons on the toolbar.

Figure 10: Search and Display Options window
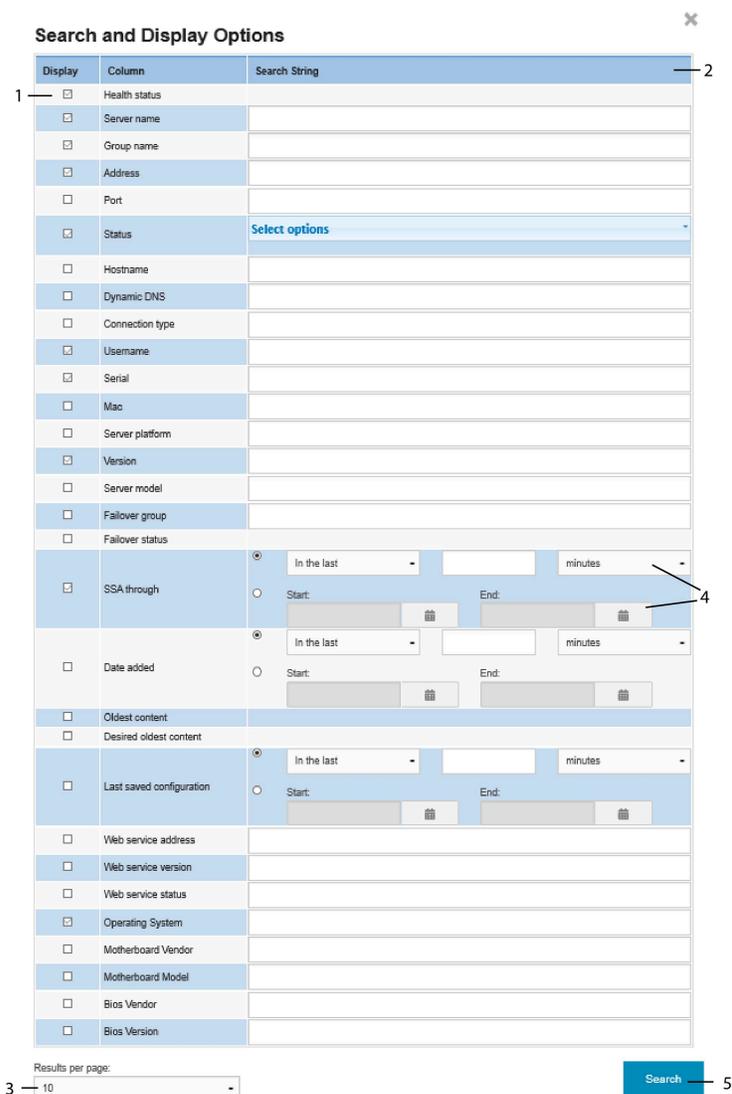
Table 11: Search and display options

Callout	Description
1	To display a column, select the check box adjacent to the attribute name. Not all columns display by default, so view the options on each page to make sure you are displaying the appropriate information for your situation.
2	To search for any matching text, enter the text in the **Search String** column.
3	To determine the number of list entries that display, enter the number in the **Results per page** field.
4	To enhance a search, use the date and time filters.
5	To start a search, click **Search**.

Many columns can be sorted, to sort a column click the column name. On the toolbar, click **Sort** to sort the status column.

To remove filters from any displayed list, click **Clear Filter**..

To quickly find devices, servers, and other information on any page, type a word or phrase in the **Search** box. Results can take up to 30 seconds to appear.

Add Server page

On the Add Server page, you can add servers to exacqVision Enterprise Manager. In the exacqVision Enterprise Manager dashboard, you can see all cameras and events belonging to the servers that you add. For information on the exacqVision Enterprise Manager dashboard, see Dashboard. To add a server, see Adding a server. For more information on the functionality of the Add Server page, see Table 12.

You can add an exacqVision server to exacqVision Enterprise Manager by using an inbound connection or by using an outbound connection.

ⓘ   **Note:** To monitor an exacqVision server, the exacqVision server must have the latest exacqVision Enterprise license. License information for the server is in the **Configure System** window of the exacqVision Enterprise client. For more information, see the *exacqVision User Manual*.

Table 12: Add Server page

Interface element	Description
Hostname Settings pane	To activate DNS, click **[show]**, select the **Enable Dynamic DNS** check box, and enter a hostname. If you do not enter a hostname, the system uses the IP address.
Web service field	Establishes a connection to the web service that you are adding. For information on the web service options, see Table 13.
Server image area	To upload an image for easy identification of a server, select **Choose File**.
Delete check box	Deletes the image in the **Server image** area.
Additional data field	Enter other information about the server that can assist an exacqVision Enterprise Manager user.
Save & New button	To save the server information, and to add another server, click **Save & New**.

The following table describes the **Web service field** options on the **Add Server** page.

Table 13: Web service options on the Add Server page

Option	Description
No web service	The system does not attempt to connect to a web service.
Create new web service	Adds a web service to the exacqVision Enterprise Manager configuration.
Select existing web service	Displays a list of previously configured web services.
Use server address and credentials	Adds the web service that you want on the Add Server page. To log on to the web service, use your existing address, username, and password.

Adding a server

To add a server, complete the following steps:

1. In the navigation panel, click **Servers**.
2. Click **Add Server** in the **Server List** pane.
3. From the **Server Connection Type** list, select one of the following options:
   - **Inbound**: If you select **Inbound**, enter the IP address of the exacqVision server.
   - **Outbound**: If you select **Outbound**, enter a serial number.

     ⓘ **Note:** If you select **Outbound**, you must configure the connection using the exacqVision client. For more information, see Configuring outbound connections.
4. In the **Port** field, enter a port number. The default port number is 22609.
5. Enter a server administrator username, and password.
6. From the **Group** list, select an option.

   ⓘ **Note:** Every server must be part of a group. The default group that the server belongs to is at the top of the **Group** list.
7. From the **Failover Group** list, select an option.

   ⓘ **Note:** If you designate a server as a spare, this is the failover group that the server protects. If the server is a monitored server, the spares from the failover group protect the server in case of failure.
8. From the **Designate as a spare** list, select an option.

   ⓘ **Note:** Selecting the **Designate as a spare** option removes the existing server configuration, and video recording capabilities, and designates the server as a backup in case any servers belonging to the failover group fail.
9. **Optional:** From the Hostname Settings pane, click **[show]** to show the hostname settings options. In the **Hostname** field, enter the hostname.
10. **Optional:** To establish a video connection from the server that you are adding, select one of the options from Table 13.
11. **Optional:** To enable live streaming from the server, select the **Enable Live Streaming** check box.
12. **Optional:** To upload an image for easy identification of a server, click **Choose File**. To remove the uploaded image, select the **Delete** check box.
13. **Optional:** In the **Additional Data** field, enter other information about the server that can assist an exacqVision Enterprise Manager user.
14. To complete the configuration, click **Save**.
    Optional: To save this server, and repeat these steps for another server, click **Save & New**.

Configuring outbound connections

About this task:
To configure an outbound connection, connect the exacqVision client to the server. On the **Outbound Connections** tab, you can connect to services outside the system's network, such as exacqVision Enterprise Manager or exacqVision Integrator Services Portal. Using an outbound connection, it is not necessary to configure inbound firewall rules for exacqVision Enterprise Manager to reach the server. Ensure that the server has outbound access on port 35111.

To configure an outbound connection, complete the following steps:

1. In the Configuration pane, click **System Configuration**.
2. Click the **Outbound Connections** tab.

3. In the exacqVision Enterprise Manager configuration pane, click **Configure**.
4. From the **Server Account** list, select an Admin user configured on the server for exacqVision Enterprise Manager to use.
5. Enter the email address, and password of your exacqVision Enterprise Manager dealer account.
6. Click **OK**.

Result

If the exacqVision server can reach exacqVision Enterprise Manager, the URL of the exacqVision Enterprise Manager dealer instance populates in the outbound connections list.

Add Multiple Servers

About this task:

A list of servers can be imported into exacqVision Enterprise Manager. Before you import the list, you must export the list from the exacqVision client, the list is exported as an `.xdv` file.

Figure 11: Add Multiple Servers page

To import a list of servers from a file, complete the following steps:

1. Export the list from the **Add Systems** page in exacqVision client.
2. Select **Servers** in exacqVision Enterprise Manager navigation panel.
3. Click **Add Server** in the **Server List**.
4. Click **Bulk Add Servers**.
5. Click **Choose File** and then locate the exported file from exacqVision Client.
6. Enter an administrator username and password.
7. Select a group. Every server must be part of a group, and the default group is shown in the **Group** list.
8. To establish a video connection from the server you are adding, select one of the following options:
   a. **(No web service)** - Do not try to connect to a web service
   b. **Create new web service** - Select this option to add a web service to the exacqVision Enterprise Manager configuration
   c. **Discover web service**
   d. **Select existing web service** - This option provides you with a list of previously configured web services from which to choose from.
   e. **Use server address and credentials**

9. **Optional:** To enable live streaming from the server, select the **Enable Live Streaming** check box.
10. Click **Save**.

Add Discovered Servers

About this task:
Instead of adding servers manually, users can also discover exacqVision servers available within their subnet.

1. In the navigation panel, click **Servers**.
2. Click **Add Server** in the **Server List** pane.
3. Select **Discover Servers ()**.
4. From the **Servers:** list, select the discovered servers that you want to add.
5. To close the list, click the close (X) button or click the white space outside the list.
6. Enter the username for servers selected.
7. Enter the password for servers selected. Click **Show** to see the password as you type.
8. From the **Group** list, select a group.
9. If you want to add and associate a discovered web service, select **Discover web service** from the **Web service** list.
10. From the **(Select Web Services)** list, select **one** web services.
11. Enter a web service user.
12. Enter a password for this user. Click **Show** to view password characters as you type.
13. To allow exacqVision Enterprise Manager to also administer this web service, select the **Web Service Administration** check box.
14. Enter a user name for the web service.
15. Enter a password for this user.
16. Click **Save** to add all the selected servers to the system

Recurrence scheduling

Use the recurrence scheduling feature to configure the system to save periodically at a user-selected schedule. The following table lists the options available for recurrence scheduling.

Table 14: Recurrence scheduling options

Repeat Options	Description
Never	The system saves the configuration immediately, and does not repeat.
Daily	The system saves the configuration recurrently on the specified daily schedule.
Weekly	The system saves the configuration recurrently on the specified weekly schedule.
Monthly	The system saves the configuration recurrently on the specified monthly schedule.

ⓘ **Note:** There is a maximum limit to number of manually and recurrently saved configurations. For more information, see Settings.

Server Details

To view a server's detail page, select the server from the **Server List** page. This page displays all the details about the server, along with several options.

Figure 12: Server detail page

From the toolbar, you can complete the following tasks:

- Click **Edit**, to edit the servers configuration.
- Click **Calendar**, and from the list select one of the following options:
  - **Save Configuration**
  - **Change Configuration**
  - **Update Software**
  - **Import License**
  - **Schedule Maintenance**
- Click **Delete**, to delete the server.
- Click **Manual failover**, to manually failover the server for maintenance. This option is not always available.

To hide or show the tables at the bottom of the page, click the title name.

Saving configurations

To save a configuration, complete the following steps:

1. In the navigation panel, click **Servers**.
2. Select the server that you want to configure.
3. On the toolbar, click **Calendar** and from the list, select **Save Configuration**.
4. In the **Config name** field, enter a configuration name.
5. In the **Scheduled time** field, enter or select a time and date.
6. **Optional:** In the **Notes** field, enter any additional notes.
7. Click **Save**.

Saving configurations for multiple servers

To save configuration changes to multiple servers, complete the following steps:

1. In the navigation panel, click **Servers**.
2. On the toolbar, click **Filter**, and filter for the servers that you want to change.
3. On the toolbar, click **Calendar** and from the list, select **Save Configuration**.
4. In the **Name** field, enter a configuration name.
5. In the **Scheduled time** field, enter or select a time and date.
6. **Optional:** In the **Notes** field, enter any additional notes.
7. Click **Save**.
   The system saves the new configuration in the **Saved Configurations** table on the server details page.

   ⓘ **Note:** If you do not see the **Saved Configurations** table, click the **Saved Configurations** tab to open it. For more information, see Server Details.

Applying saved configurations

To apply a saved configuration, complete the following steps:

1. In the navigation panel, click **Servers**.
2. On the toolbar, click **Filter**, and filter the servers that you want to change.
3. On the toolbar, click **Calendar**, and select **Save Configuration**.
4. Select an option from the **Configuration to apply** dropdown list.
5. **Optional:** Select a license from the **Server license to import** dropdown list.
6. In the **Scheduled time** field, enter or select a time and date.

   ⓘ **Note:** When typing a date in the **Scheduled time** field use the following date and time format, yyyy-mm-ddThh:mm. Do not replace the T in the center of the format with any other number or character.

7. **Optional:** In the **Notes** field, enter any additional notes.
8. Click **Apply.**

Applying saved configurations to multiple servers

To apply saved configuration changes to multiple servers, complete the following steps:

1. In the navigation panel, click **Servers**.
2. On the toolbar, click **Filter**, and filter the servers that you want to change.
3. On the toolbar, click **Calendar**, and select **Save Configuration**.
4. Select an option from the **Configuration to apply** dropdown list.
5. In the **Scheduled time** field, enter or select a time and date.
6. **Optional:** In the **Notes** field, enter any additional notes.
7. Click **Save**.

Software Update

To perform or schedule a software update, from the toolbar, click **Calendar** and from the list, select **Update Software**.

See Server Update section for more information.

Import License

To import a license to a server, from the toolbar, click **Calendar** and from the list, select **Import License**.

In the **Import License** window, you import a license by using one of the following options:

- Import a license from a file
- Manually type the license key

To import a new license from a file, complete the following steps:

1. From the **Import new or select existing license** list, select **(import new license from file)**.
2. Click **Choose File**, browse and select the license file.
3. Enter the date and time to schedule the license application.
4. Enter any additional notes for this license application event.
5. Click **Apply**.

To import a new license by typing the license key, complete the following steps:

1. From the **Import new or select existing license** list, select **(Manual license key entry)**.
2. Type the license key.
3. Enter the date and time to schedule license application.
4. Enter any additional notes for this license application event.
5. Click **Apply**.

Strengthening server passwords

About this task:
To strengthen your server's password, migrate the exacq DVR server to enhanced authentication through exacqVision Enterprise Manager. To migrate, you require full server administration privileges and the presence of no other exacqVision Enterprise Manager managing users on that server. You can migrate one or more servers, on the **Server List** page or the **Server detail** page.

ⓘ **Note:** In the exacqVision Client, you must enable **Password Strengthening and Augmented Authentication** on the **Security** tab of the **Configure System** section.

To strengthen the password of one or more servers, complete the following steps:

ⓘ **Note:** Save your server's configuration before you apply the password strengthening changes. For more information, in the **Schedule Password Strengthening** dialog box, click the **Save Server's Configuration** link, or see Saving configurations.

1. Choose from one of the two following options:
   - To strengthen the password of one server: From the **Servers** page, select a server.
   - To strengthen the password of more than one server: From the **Servers** page, on the toolbar, click **Filter**, and filter the servers that you want to change.
2. On the toolbar, click the **Shield** icon to **Enable password strengthening for server name**.
3. In the **Scheduled time** field, enter or select a time and date.
4. In the **Password** field, enter your administration password.

   ⓘ **Note:** If the server requires a second reviewer's password, enter the second password.

5. **Optional:** In the **Additional data** field, enter any Additional data.
6. Click **Apply**.

   ⓘ **Note:** If you migrate multiple servers, the system skips servers that require a second reviewer.

Schedule Maintenance

In the **Server List** page, you can schedule a server for maintenance. When you schedule a server for maintenance, the status of the server changes to **Maintenance**. A server in maintenance mode does not report events or generate alerts, even when part of a rule. The server's cameras also do not generate any alerts or events. To schedule an individual server for maintenance, on the toolbar, select **Calendar** on the server's details page. To schedule a multiple of servers for maintenance, see Scheduling a server for maintenance.

Scheduling a server for maintenance

To schedule a server for maintenance, complete the following steps:

1. In the navigation panel, click **Servers**.
2. On the toolbar, click **Calendar** and from the list, select **Schedule Maintenance**.
3. From the **Servers to schedule** list, select a server or servers.
4. From the **Start or stop maintenance** list, select **Start Maintenance**.
5. Select a time and date to schedule the maintenance.
6. **Optional:** Enter a note about the maintenance of the server in the **Additional data** field.
7. Click **Apply**.

Removing the maintenance status from a server

To remove the maintenance status from a server, complete the following steps:

1. In the navigation panel, click **Servers**.
2. On the toolbar, click **Calendar** and from the list, select **Schedule Maintenance**.
3. From the **Servers to schedule** list, select the server or servers for which you want to remove the maintenance status.
4. From the **Start or stop maintenance** list, select **Stop Maintenance**.
5. Click **Apply**.

   ⓘ   **Note:** You can view a status log history of the system's servers by clicking **Server Actions** in the Server List page.

Importing Licenses

In the **Server List** page, you can import a license file for one or more servers. The license file must be a comma separated values text file (.csv).

About this task:
You can export the licenses file from one of the following locations:

- **Server List** page: on the toolbar, click **Download** and from the **Download** list, select **Export Server Licenses**.
- exacqVision client **Systems** window: refer to the *Systems window* section in the *exacqVision Client User Manual*.

To import a license file, complete the following steps:

1. In the navigation panel, select **Servers**.
2. On the toolbar, click **Calendar**, and from the list, select **Import Licenses**.
3. From the **Servers to schedule** list, select the server or servers.
4. Click **Choose File**, locate and select the .csv file that you want to import.
5. In the **Schedules time** field, click **Calendar**, and specify a start date and time.

6. Click **Apply**.

Download Configuration

About this task:

It is possible to download configuration files for each managed exacqVision server. You may want to download a copy of each exacqVision server for a variety of reasons. For example, you might want to store the configuration in a backup location or use the file to upload directly to an exacqVision server through an exacqVision client.

ⓘ **Note:** A configuration must have first been saved in order to perform a download of it through exacqVision Enterprise Manager.

Figure 13: Saved Configurations pane

To download an exacqVision server's configuration file from the **Server Detail** page, complete the following steps:

1. On the **Server Detail** page, select the **Saved Configurations** tile if the **Saved Configurations** pane is not displayed.
2. Select a saved configuration. You must have at least one saved configuration.
3. Click the **Download** icon. In the pop-up menu, select the type of configuration information you want to download.
   - **Download Configuration and Graphics** to save a `.config` .file.
   - **Download Configuration File** to save a `.settings` file.
   - **Download Graphics File** to save a `.graphics` file

   ⓘ **Note:** All three file types can be restored or imported by each individual server or exacqVision Enterprise Manager to the server.

4. In the browser window, choose a name and location for the file, and then click **OK**.

User Roles

User roles correspond directly with user groups on Exacq servers. The user role defines the permissions and privileges that apply to all servers that are associated with a group.

You can create a custom role, assign either privileges or permissions, or both to that role. You can then synchronize the user role on all servers that are associated with the group.

The following list identifies the default user roles on exacqVision systems:

- Full Admin
- Live Only
- Live+Search
- Power User
- Search Only

Synchronizing unmanaged user roles

On the **User Roles** page, you can view and synchronize custom user roles which are defined on exacqVision servers but are not under exacqVision Enterprise Manager management control.

1. On the **User Roles** page, click **Unmanaged User Roles**.
2. From the **Unmanaged User Roles** page, identify the role and click **Manage** in the **Actions** column.

   ⓘ **Note:** The user role displays in the **User Roles** page, you can then modify or delete custom user roles.

Adding a custom user role

On the user role page, you can create a custom role, associate it to a group, assign privileges, and permissions for that role. The user role is applied to all servers associated with the group.

1. Click **User Roles**.
2. Click **Add User Role** in **User Roles**.
3. In the **Name** field, type the user role name.

4. From the **Group** list, select the group to associate with the user role. The group that you select determines the list of servers that display in the **Permissions** pane.

5. In the **Privileges** pane, select or clear the individual privilege options to associate with the user role.
   For **Live Viewing** and **Search** privileges, complete the following steps first:
   - Expand **Live Viewing**, and select the **Allow Live Viewing Privileges** check box
   - Expand **Search**, and select the **Allow Searching Privileges** check box.

6. **Optional:** To grant permissions to specific servers, complete the following steps:
   a. Clear the **Include all future servers** check box.
   b. In the **Privileges** pane, clear the **Config** check box.
   c. In the **Permissions** pane, complete the following steps:
      i. Clear the server name check box, expand the server node and the device node.
      ii. To select individual permissions for a device node, ensure that the following check box is not selected: **Include all future**<specific device>check box, where the specific device value can be video inputs, audio inputs, soft triggers, or serial ports.
      iii. Select the required permissions.
      iv. Repeat steps i to iii for each server that you want to configure.

7. **Optional:** To grant different privileges to live versus search behavior, clear the **Use same permissions for live and search** check box.

8. **Optional:** To automatically grant access to the user group if an additional server is added, ensure that you select the **Include all future servers** check box.

   ⓘ **Note:** If this option is selected, you cannot make further configuration changes to any devices in the server list. However, all current server and device configurations are automatically included.

9. Click **Save** to complete the configuration, or **Save & New** to repeat these steps to create another user role.
   The following table lists the privileges that can be selected from the four main categories:

Table 15: Privileges

Privilege category	Individual privilege options
Live Viewing	Allow Live Viewing Privileges, Available in Live Cameras, Available in Live Groups, Available in Live Maps, Available in Live Views, ExacqReplay, Allow PTZ, 2-Way Audio, Include in Event Monitor, Save Image and Copy to Clipboard, Print Image, and Web Panels.
Search	Allow Searching Privileges, Available in Search Cameras, Available in Search Groups, Available in Search Maps, Available in Search Views, Available in Search Events, Available in Search Cases, Metadata Keywords, Same Image and Copy to Clipboard, Print Image, Burn Disc, Export, and Smart Search.
Config	User Admin, View Admin, User View Admin, and Case Admin.
Other	Allow Sending Display.

Failover groups

Configure failover groups to ensure that recorded video information is available in the event of a hardware failure. Failover groups consist of associated protected servers and spare servers.

A spare server must be a dedicated machine and used only for backup purposes. If a protected server stops recording, the failover process initiates automatically, and the spare server starts recording. When the protected server is restored, the failback process initiates, and recording starts again on the restored server. During the failback process, IP camera video data is restored to the protected server.

You can also manually failover to a spare server to perform maintenance on a protected server. When you complete the maintenance on the protected server, you can manually failback to the protected server.

Figure 14: exacqVision Enterprise Manager failover and failback process
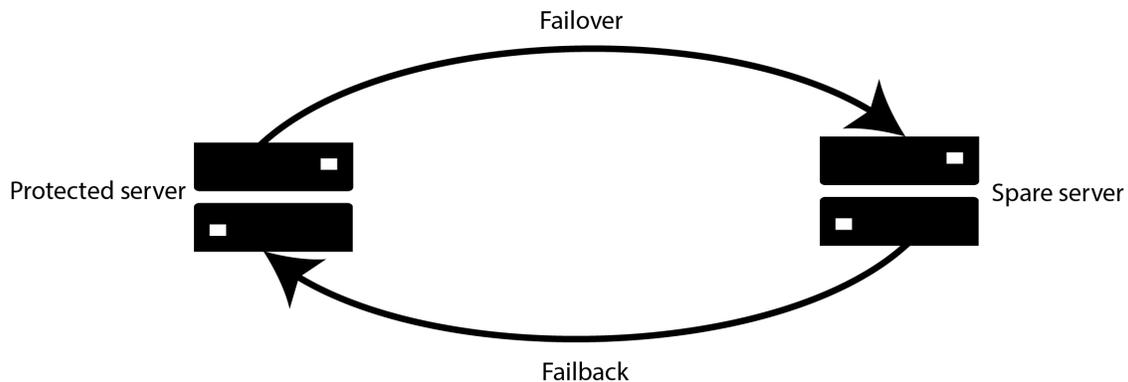
The following configurations are included in a failover:

- Cameras
- Recording schedules
- Users
- Event Linking
- Saved layouts, views, groups, and maps
- Serial profiles
- Archiving
- Notification rules
- Auto Export rules

The following configurations are **not** included in a failover:

- System IP address
- Storage (recorded video remains on the system where it was recorded)
- Analog cameras
- Camera licenses and software agreements

Adding a failover group

You can configure a failover group to protect a server by associating a server with a backup or spare server.

Before you begin:
A spare server must be a dedicated backup machine only. For successful failover and failback, ensure that port 28774 is not blocked. For more information, see https://support.exacq.com/#/knowledge-base/article/6051

To add a failover group, complete the following steps:

1. In the navigation panel, click **Failover Groups**.
2. In the **Failover Group List** page, click **Add Failover Group**.
3. In the **Name** field, enter a name for the failover group.
4. From the **Spare Servers** list, select one or more servers as a backup server. Servers are designated as spares on the server configuration page. See Adding a server for more information.

   ⓘ **Note:** You can designate any spare server that is not associated with another failover group.
5. From the **Protected Servers** list, select one or more servers to protect.
6. In the **Timeout prior to automatic failover (in seconds)** field, enter the number of seconds the protected servers must fail to record before the automatic failover process starts.
7. Click **Save** to add the failover group to the **Failover Group List** page, or **Save & New** to repeat the steps for a new group.

Failover compatibility issues

Protected servers and spare servers in the same failover group do not need to be identical. Compatibility issues are listed for a failure group on the **Failover Compatibility Issues** pane. To prevent backup and restore errors, review all issues that are listed.

See the following list for potential issues:

- If a spare server is licensed for 16 cameras and a protected server is licensed for 32 cameras, the spare server only records the first 16 cameras that connect to it during the failover process.
- If a spare server has less memory or hard drive space than the protected server, recording performance might be reduced on the spare server.
- If servers with previous versions that do not support failover, or certain types of servers such as exacqVision Edge servers are present they are listed as `Not Supported`.
- If a protected or spare servers do not support failback, only the failover process initiates. As a result, any video that record's during failover is not automatically moved back to the protected server when restored.

Figure 15: Failover Group page

Manually starting a failover and failback process

You can manually start a failover process, for example, if you need to perform hardware maintenance. After you complete the task, you can start a failback process to restore the server.

1. On the **Failover Group List** page, select the group containing the server that you want to failover to a spare server.
2. In the **Protected Servers** pane, select the server.
3. On the server's page, click the **Manual failover** icon on the toolbar. When the failover is complete, the status of the protected server changes from `Protected > Failed Over`. The status of the spare server changes from `Spare Standby > Spare in Use`.
4. To restore to the primary server from the **Spare Servers** pane, select the spare server.
5. On the spares server's page, click the **Manual failback** icon on the toolbar. During the failback process, the IP camera video data is restored to the protected server. You can monitor the progress of the restore in the percentage complete display from the groups **Spare Status** pane. The status changes from `Spare In Use > Pinned Spare > Spare Standby`.
6. **Optional:** Click **[stop restore]** to pause the restore and click **[start restore]** to resume the restore.

Result
When the protected server is restored, the status shows `Protected`, and the spare server status shows `Spare standby`.

Manage Licenses

You can use the **Manage Licenses** page to assign channels from the exacqVision Enterprise Manager **CHANNEL POOL** to one or more servers. In addition, you can move an existing channel or channels from one server to another server. For example, you can move existing camera channels from an old server to a newly acquired one.

When you select either a source or target server, the credentials are verified with the licensing server to ensure that no conflicts exist. To view detailed information, see and Table 16.

Table 16: Manage licenses interface elements

Name	Description
CHANNEL POOL	Identifies the channels in the pool. The channel pool includes, the number of available channels that are unassigned, the total number of channels, and the number of pending transfer channels. ⓘ **Note:** The license is not assigned an expiration date until you assign it to a server.
Source	List that contains the **Channel Pool** and server names. Identifies the number of channels that are available in the pool or on a server. The information that is shown varies, depending on whether the source selection is a **Channel Pool**, or server name. The following list describes the interface elements for both options: • **Available**: The number of available channels in the **Channel Pool** or on the server but does not include any pending transfers. • **Total**: The total number of channels in the **Channel Pool** or on the server. • **Used**: The number of used channels on the server. This applies to servers only. • **Pending**: The number of pending transfer channels in the **Channel Pool** or on the server. • **Expiration Date**: The license expiration date on the server. This applies to servers only. ⓘ **Note:** If there are licensing conflicts, a warning message appears that indicates the source of the problem. Resolve all conflicts before transfer-ring any channels.
Transfer	Select the number of channels to transfer.
Target	List of servers that can receive the channels. After you select a server, the following information is displayed: • **Pending Total**: The total number of channels the server contains after the transaction completes. • **Total**: The total number of channels on the server. • **Used**: The number of used channels on the server. • **Pending**: The number of pending transfer channels. • **Expiration Date**: The license expiration date. ⓘ **Note:** If there are licensing conflicts, a warning message appears that indicates the source of the problem. Resolve all conflicts before you trans-fer any channels.

Requesting channels to add to the channel pool

You can request and generate a quote to add channels to the exacqVision Enterprise Manager **CHANNEL POOL**.

To generate a quote to purchase additional channels, complete the following steps:

1. In the **SERVERS** pane, click **Licenses**.
2. On the **Manage Licenses** page, in the **CHANNEL POOL** pane, click **ADD CHANNELS**.
3. In the **Channels** field, select or enter the number of channels that you require.
4. Click **REQUEST**.

What to do next:
Review the channel quote PDF document and forward the PDF and quote ID to your Select or Elite exacqVision dealer. Once processing is complete, the channels are added to the pool.

Assigning channels from the channel pool

To view and assign exacqVision Enterprise Manager channels from the **CHANNEL POOL**, use the **Manage Licenses** page.

Before you begin:
Ensure that the server receiving the channels adheres to the following requirements:

- An up-to-date Software Subscription Agreement (SSA) license exists or no license exists on the server.
- If the server has a up-to-date SSA license, the SSA license period remains the same when you assign the new channel.
- If the server has no license, a 1 year SSA license commences after activation.

ⓘ **Note:** After you complete the license transfer to the server with a SSA expiration date, you cannot return it to the **CHANNEL POOL**.

To assign channels from the channel pool, in the navigation panel, complete the following steps:

1. In the **SERVERS** pane, click **Licenses**.
2. From the **Source** list, select **CHANNEL POOL**.

   ⓘ **Note:** You can see the number of available channels in the pool and also any pending transfer channels. If there are no channels available in the pool, a warning message is displayed. Click **REQUEST CHANNELS**, to obtain channels for the pool.

3. From the **Target** list, select the server to receive the channels.
4. In the **Transfer** field, click the arrows to select the number of channels to transfer.

   ⓘ **Note:** The **Pending** status updates for both the **Channel Pool** and **Target** servers.

5. **Optional:** Click **ADD ANOTHER** and repeat steps 2 to 4.
6. Click **APPLY**.
7. In the **Confirm License Transfer** window, review the proposed changes, and click **CONFIRM** to proceed with the transfer, or **DISMISS**, to cancel the transfer.

Transferring channels between servers

To transfer channels between servers, use the **Transfer Licenses** page.

Before you begin:
You must adhere to the following requirements:

Source server requirements

- Transfer only channels on the server that are not currently in use.
- An up-to-date Software Subscription Agreement (SSA) exists on the server.
- No licensing conflicts exists on the server with the licensing server.

Number of channel transfer requirements

- The number of channels that you can transfer is the total number of unused and unallocated channels on the source server.

- The total number of channels for the target server must be less than 253 channels. This number includes all pending channels that are awaiting transfer.

Target server requirements

- An up-to-date SSA exists on the server receiving the channels.
- No licensing conflicts exist on the server with the licensing server.

About this task:
You must resolve any server licensing conflicts before you transfer channels.

To transfer channels between servers, in the navigation panel, complete the following steps:

1. In the **SERVERS** pane, click **Licenses**.
2. From the **Source** list, select the server with unused channels that you want to transfer.

   ⓘ **Note:** For each server, you see the server name and the number of available channels. A value of zero indicates that there are no unused channels and that you cannot select this server.

3. From the **Target** list, select the server to receive the channels.
4. In the **Transfer** field, click the arrows to select the number of channels to transfer.

   ⓘ **Note:** The **Pending** status updates for both the **Source** and **Target** servers.

5. **Optional:** Click **ADD ANOTHER** and repeat Steps 2 to 4.
6. Click **APPLY**.
7. In the **Confirm License Transfer** window, review the proposed changes, and click **CONFIRM** to proceed with the transfer, or **DISMISS**, to cancel the transfer.

Resolving conflicts with the licensing server

You must resolve any server licensing conflicts before you can transfer channels.

About this task:
The following warning message appears when a licensing conflict exists between the server and the licensing server:
Server's license does not match the record on the license server.

If a resolve conflict button is present, select the button to send out a resolve request to the licensing server.

To resolve a conflict on a server with the licensing server, complete the following steps:

1. When an server conflict exists, a warning message appears.
2. Click **RESOLVE CONFLICT**.
3. If the problem persists, contact technical support for assistance.

Cameras

The Cameras page lists all the cameras attached to all the managed servers. To view the **Camera List**, in the navigation panel, click **CAMERAS**.

Table 17: Camera List interface elements and columns

Interface element	Description
Sort	The list of cameras can be sorted by camera status. Click **Sort** on the first column to alter the list according to the status of the cameras. See Table 7 for a description of the interface icons.
Filter	The column headings that display can be altered. On the toolbar, click **Filter** to open the **Search and Display Options** window and select the relevant check boxes to display.
Camera Name	The name of the camera as it resides on the server.
Address	IP address of the camera.
Server Name	The name of the server that you have connected the camera to.
Group Name	The name of the group you included the camera in.
MAC Address	The MAC address of the camera.
Status	Status of the portal's relationship with the camera: **Monitoring** exacqVision Integrator Services Portal is monitoring the camera. **Locating** The exacq server is not reporting on this camera. **Video Loss** The exacq server is reporting a video loss on the camera **Analog Loss** The exacq server is reporting an analog camera video loss. **Motion (Rule match)** Camera has detected motion (rule must be created).
Camera Model	The model of the camera.
Camera Firmware	The firmware installed on the camera.
Last Connection	The last time that the camera was connected to the server.
Last Recorded Video	The last recorded video timestamp. The date or time will be within five minutes of the video captured.

From the **Camera List**, select a camera to view details about the camera.

Figure 16: Details about the camera

Table 18: Camera details page

Callout	Description

1	1. Select **Add camera image** to add an image to represent the camera throughout exacqVision Enterprise Manager.
	  a. Click **Choose file** to browse for an image file.
	  b. Add any additional notes.
	  c. Click **Apply**.

2	Shows Status of camera.
3	Displays details about the camera and server.
4	Graph displays camera events over time.
5	Shows live video feed from camera. In order to view live video, the exacqVision Enterprise Manager user must have live viewing privileges. See User Roles for more information.
6	List displays camera events.
7	Use current image as camera image link - This makes the current camera stream the camera image (Item #1).

Camera event details

To view event details, click on an event on the **Events** page.

Click on a Camera Event from the Camera Events List (Item #6) to display details about that event.

Inspections

Camera inspections provide a way for the administrator to check and verify many different attributes of the cameras being monitored by exacqVision Enterprise Manager. You can filter for any cameras that have not been inspected within a certain timeframe. You can also choose to show the fields **Camera Model** and **Camera Firmware** from the filter window.

To start a camera inspection, click **Inspection** under the **CAMERAS** menu item or on the **Camera List** toolbar, click **Inspection**. See for a description of the interface icons.

Figure 17: Starting camera inspection

On the **Camera Inspection** page, you can mark each camera, **Good** or **Bad** based on the view you see and the details presented. A yellow border indicates that the camera has not yet been inspected.

Figure 18: Camera Inspection
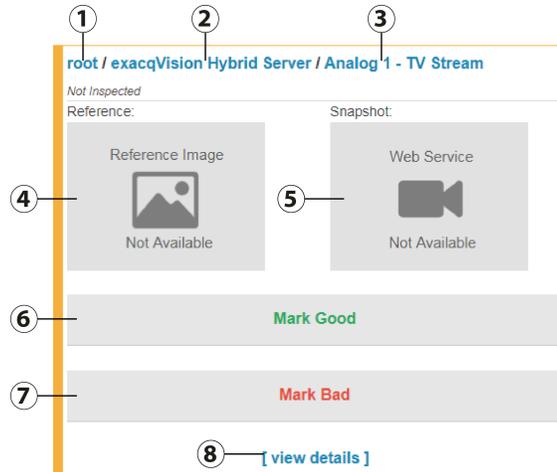
Table 19: Camera Inspection details

Callout	Description
1	Link to Group Details.
2	Link to Server Details.
3	Link to Camera Details.
4	Default image indicates no image reference image has been saved yet. Use **[view details]** link to set a reference image.
5	Snapshot of actual camera video stream.
6	Once camera is aimed, focused and all other aspects of the camera are correct, click this button to mark it as **Good**.
7	If something is not right with the view or if camera has been tampered with, click this button to mark it as **Bad**.
8	**[view details]** displays a new window with a few more options including setting a reference image and adding a comment. See Figure 19.

Figure 19: [view details] page
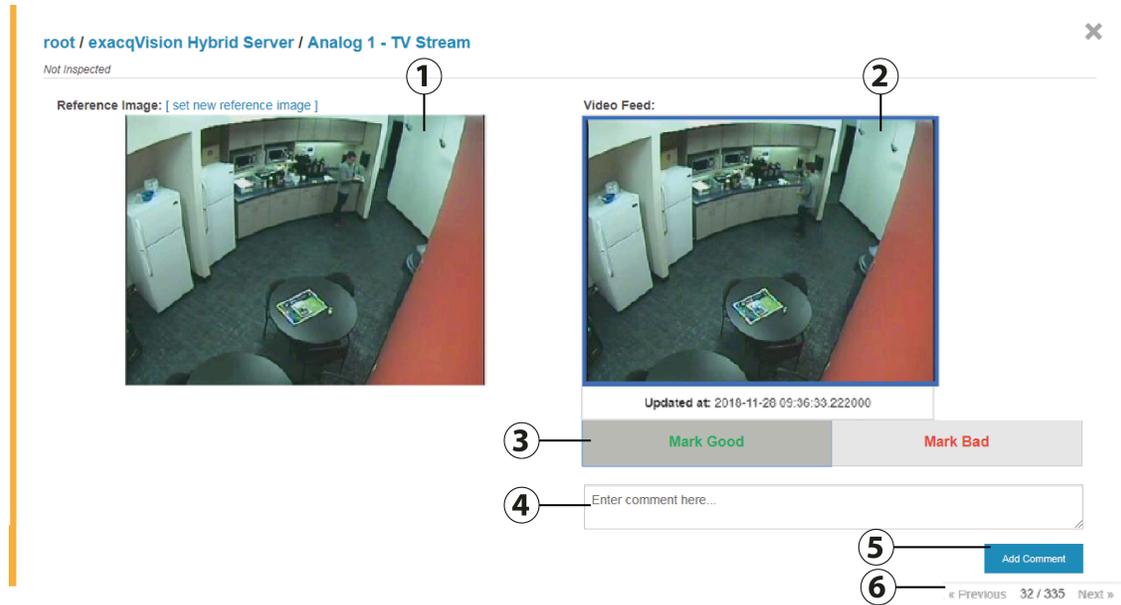
Table 20: Camera view details page

Callout	Description
1	You can set a reference image using the current snapshot and use it to compare against the future camera image.
2	If you are not getting a current snapshot from the camera, check that the user role has live viewing privileges enabled, see the Viewing the Group List page.
3	You can mark the camera **Good** or **Bad** on this page.
4	Enter a comment. A comment is recommended especially if the camera is to be marked **Bad**.
5	Click **Add Comment** to add the comment.
6	Controls are provided to navigate to the next or previous camera for inspection.

The border colors indicate the following:

- Camera has not yet been inspected

- Camera has been inspected and marked **Good** or **Fixed**

- Camera has been marked **Bad**

When a camera is marked Bad, then the **Mark Good** button text will become **Mark Fixed**. Once the issue is resolved and the **Mark Fixed** button is clicked, the button text will return to **Mark Good**.

On the **Camera Inspection** toolbar, click **Download** to export camera inspection information in a CSV format.

Figure 20: Camera Inspection example
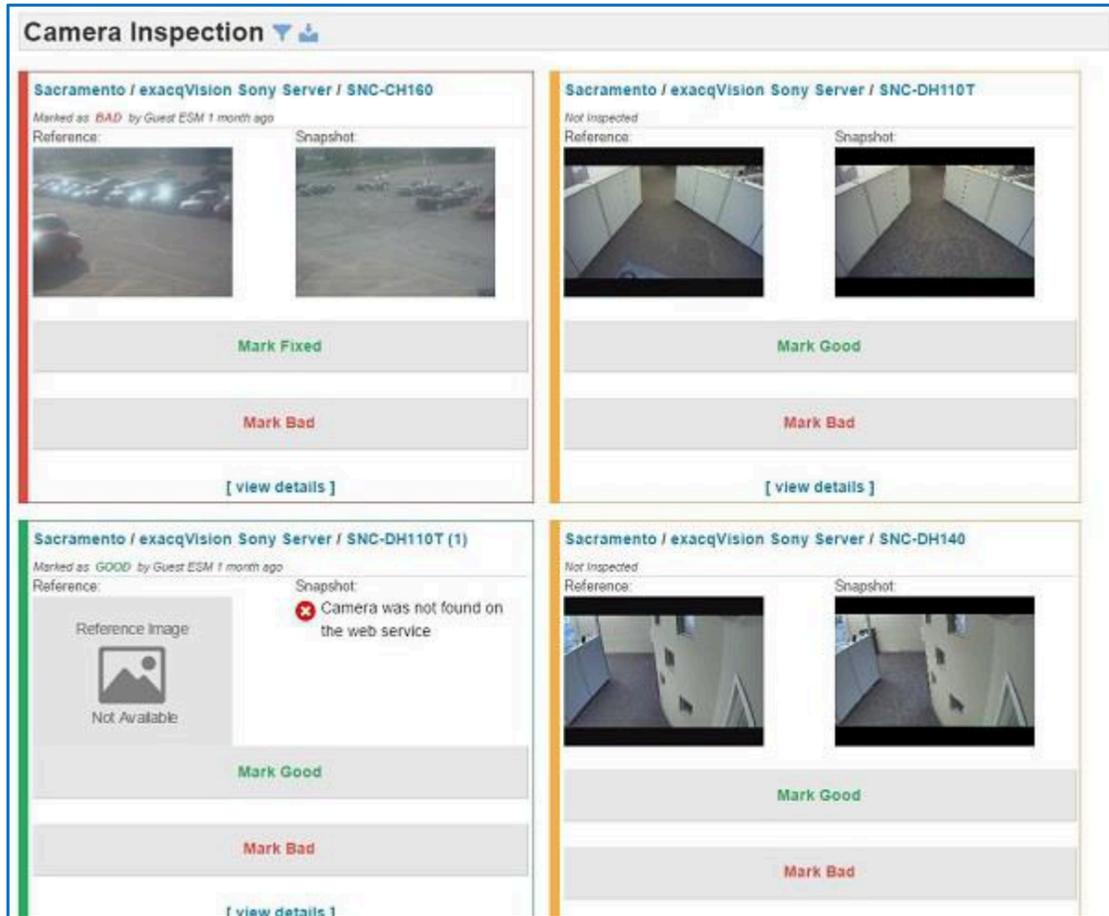
Web Services

When adding a server, you have the option to add its web service, or other web services, to its configuration. See Add Server page and Add Multiple Servers sections for more details. If you added web services to exacqVision Enterprise Manager when you added servers, the web services are displayed web services page.

1. Select an entry in the list view details.
2. On the toolbar, click **Edit** to change the configuration.
3. To update web services or schedule updates see Web Service Update section.
4. Click **Web Service Actions** to display a list of any scheduled activities for a web service. You can open, edit, or delete the action from this list. There are no upcoming actions for the web services configured at this time. To update the web service, see Web Service Update.

Support Diagnostics window

Use the support diagnostics tool to download log files for Enterprise Manager servers and web services. You can also submit configured log files directly to technical support.

- Enterprise Manager logs edit, delete, and create operations in a variety of categories, including, licensing operations, failover configuration, servers, scheduled actions, user roles, groups, rules, and users. Audit logs are stored in the Enterprise Manager database, in the `auditlogger_auditlog` table. Log entries are trimmed according to the `auditlog_retention_days` setting value. The default value is 30 days. You can modify this value in the `auditlogger_auditlogsettings` database table. Audit log entries are also written to the normal text logs, as well as to the newly supported Seq connector.
- Entropy Manager also supports structured logging events. Structured logging is a combination of the following concepts:
    - Every log event is unique, and has a unique identifier.
    - Log events contain data in a structured format that is more readily consumed by electronic means.

    In Enterprise Manager, these new structured logging events maintain compatibility with older log entries and are in the same format and include additional data as a JSON blob.
- Enterprise Manager provides support for a Seq connector. For more information see Appendix B: Connecting to Seq.

Table 21: Interface icons

Icon	Icon name
Advanced Options	Select Advanced Options to show the LOG RANGE and LOGS for servers and web services.
LOGS area	When you select **Advanced Options**,
Servers list	Shows Enterprise Manager server names. Select the server name you want log files for.
Include list	Select **Verbose Logs**, **Configuration Files**, **License Key**, and **Audit** information to include in the log files.
Web services list	Shows Enterprise Manager web services. Select the web services you want log files for.
Enterprise logs	Select Enterprise logs to include Enterprise Manager log files.
LOG RANGE	Select the start time and end time for logs.

Submitting or downloading support diagnostics in the information tab

1. Click the **Information** icon in the toolbar.
2. Select **About** from the list.
3. In the **System** area, click **Support Diagnostics**.
4. In the **Support Diagnostic** window, click **Advanced Options**.
5. Select a start time and end time from the log range list.
6. Select a server from the **Server** list.
7. Choose **Include**, **Verbose Logs**, **Configuration Files**, **License Key**, or **Audit** from the **Include** list.
8. Select a web service from the **Web Service** list.

9. Select **Enterprise Logs** to include Enterprise Manager logs in the log files.
10. Click **DOWNLOAD** to download the zip file to your computer.
11. Click **SUBMIT** to send the log files to Exacq technical support.

Submitting or downloading support diagnostics in the web services tab

1. In the navigation panel, click **WEB SERVICES**.
2. Select a web service from the **WEB SERVICES** list.
3. In the server name toolbar, click the **Support Diagnostic** icon.
4. In the **Support Diagnostic** window, click **Advanced Options**.
5. Select a start time and end time from the log range list.
6. Select a server from the **Server** list.
7. Choose **Include**, **Verbose Logs**, **Configuration Files**, **License Key**, or **Audit** from the **Include** list.
8. Select a web service from the **Web Service** list. The web service you selected from the **WEB SERVICES** list is automatically included in the support diagnostics **Web Services** list.
9. Select **Enterprise Logs** to include Enterprise Manager logs in the log files.
10. Click **DOWNLOAD** to download the zip file to your computer.
11. Click **SUBMIT** to send the log files to Exacq technical support.

Submitting or downloading support diagnostics in the server tab

1. In the navigation panel, click Servers.
2. Select a server from the **Servers** list.
3. In the server name toolbar, click the **Support Diagnostic** icon.
4. In the **Support Diagnostic** window, click **Advanced Options**.
5. Select a start time and end time from the log range list.
6. Select a server from the **Server** list. The server you selected from the **Servers** list is automatically included in the support diagnostics **Servers** list.
7. Choose **Include**, **Verbose Logs**, **Configuration Files**, **License Key**, or **Audit** from the **Include** list.
8. Select a web service from the **Web Service** list.
9. Select **Enterprise Logs** to include Enterprise Manager logs in the log files.
10. Click **DOWNLOAD** to download the zip file to your computer.
11. Click **SUBMIT** to send the log files to Exacq technical support.

Organization

The **ORGANIZATION** menu allows you to configure **Users**, **Groups**, and **Domain** connections.

Users page

The **Users** page lists all exacqVision user accounts associated with system as well as the accounts of the exacqVision Enterprise Manager system itself. An account may be an account on an exacqVision server, or an account for the exacqVision Enterprise Manager system, or an account that exists on

both systems and is synchronized between both systems. In addition, users who have logged in to exacqVision systems via LDAP/ActiveDirectory are displayed in this list.

Figure 21: Users page

Table 22: Interface elements on the Users page

Interface element	Description
Status	Defines the user account status: • **Active** - Indicates that the user account is OK. • **Conflict** - Indicates that the user server privileges must be synchronized. • **Locked** - Indicates that the user account is locked. Contact your system administrator to unlock the account. • **Inactive** - Indicates that the user account is inactive.
Username	Displays the username of the account.
Last Name	Displays the last name of the user.
First Name	Displays the first name of the user.
Group	Displays the group that the account is associated with. ⓘ **Note:** This column displays the highest level group that the user account has access to.
Email Address	Displays the email address of account.
Last Login	Displays the last login time and date.
System Access	• **Admin** - This account has exacqVision Enterprise Manager access with Admin privileges. • **User** - This account has exacqVision Enterprise Manager access with User privileges. • (No System Access) - This account has no exacqVision Enterprise Manager access.
Date joined	Displays the date that the user joined.
User type	Displays the type of user.

ⓘ **Note:** By default the columns for **Email**, **Last Login**, **Date joined**, and **User type** are not displayed on the **Users** page. To display, click on the column selector icon in the top-right corner of the table.

Table 23: Actions on the Users page

Action	Description
Add a user account	At the top of the table, click the **Add User** icon.
Remove a user	Select the check box in the row of one, or multiple users, and click **Delete** in the table header.
Unlock a user	Select the check box in the row of one, or multiple users, and click the **Unlock** icon in the table header.

Verifying an email address

To verify that the email is sending correctly from the server, complete the following steps:

1. In the navigation panel, select **ORGANIZATION** > **Users**.
2. From the **Users** list, select a user.
3. Beside the user's email address, click **send test email**.
4. Verify that you receive a test email.

Adding a new user

In the add new user page, you can add a new user to the system, and change a user's role for each group.

1. In the navigation panel, select **ORGANIZATION** > **Users**.
2. Enter a user name and password for the new user.
3. From the **Group** list, select a group.
4. From the **Server User Roles** list, select a set of privileges. For more information on the entries in the **User role** list, see Table 24.
5. **Optional:** After you select a user role for a parent group, you can copy this role to child groups. Click the **Propagate selected user role to child groups** arrow to copy the user role. Alternatively, you can set a user role to automatically copy. Click **Auto propagate**.
6. Click **Save**.

Table 24: Server User Roles in the Add User page

Name	Description
No Server Access	The user cannot connect to the server using the exacqVision client.
Search Only	The user can search video, but cannot view live video.
Live+Search	The user can search and view live video.
Full Admin	The user can access all features in the system.
Live Only	The user can view live video, but cannot search video.
Power User	The user can access all features in the system, except creating and deleting users.
Custom	A custom role that you create for a user or user group.

Authentication of users

On the **Add User** page, you can set up authentication to validate the identity of a user. The authentication process validates the identity of a user through a user ID and password.

The maximum of unsuccessful logon attempts is five, after which the user account is locked. Contact your system administrator to unlock the account.

Unlocking a user account

On the **Users** page, you can unlock a user account. You must have administrator privileges to access this action.

To unlock a user account, complete the following steps:

1. On the **Users** page, select the user name whose account is locked. A **Locked** status in the **Status** column indicates that the account is locked.
2. In the table, click on the user's row.
3. In the **System Access** pane, click the **Edit** icon and clear the Account locked check box.
4. Click **Apply**.

Changing a user's server role for each group

About this task:
In the **Users** page, an administrator can change a user's server privileges for each group.

ⓘ **Note:** A user role in exacqVision Enterprise Manager is separate to a user privileges in the exacqVision client.

To change a user's server role, complete the following steps:

1. On the **Users** page, select a user.
2. In the **User Settings** pane click **User Roles**.
3. In the **User Roles** pane, select the role for each group.

   ⓘ **Note:** The **Server User Roles** pane displays every user group for the user that is logged on to the system. It does not display every group.

4. Click **Apply**.

Changing a user's auto propagation status

About this task:
In the Users page, an administrator can change a user's auto propagation status.

To change a user's auto propagation status, complete the following steps:

1. On the **Users** page, select a user.
2. In the **User Settings** pane click **User Roles**.
3. Click **Edit > Auto propagate**.

   ⓘ **Note:** If Auto propagate is enabled, the system displays a blue icon. If it is disabled, the system displays a grayed out icon.

4. Choose one of the following options depending on your scenario:
   a. If you want to enable Auto propagation, click the gray icon. In the **Do you wish to enable auto propagation? Propagated user role changes may not take effect immediately.**

box, click **CONFIRM** or **DISMISS**.

    b. If you want to disable Auto propagation, click the blue icon. In the **Do you wish to disable auto propagation?** box click **CONFIRM** or **DISMISS**.

5. Click **Apply**.
You can easily check which user roles are being propagated in the **Server User Roles** pane.

Adding a domain user

Before you begin:
To add a domain user, the user must be part of the domain.

1. In the navigation panel, click **Users** under **ORGANIZATION**.
2. Click **Add User** in the **Users** pane.
3. In the **Username** field, click **Search**.
4. Click **Search table Data** in **Domain Users**.
5. In the **Search string** field, enter the name you want to add.
6. Select the user.
7. Click **Save**.

User settings

In the user settings pane, you can enter information on the user, upload an image to represent the user, and apply settings to a user's account.

ⓘ   **Note:** To edit any user settings, click the **Edit** icon located in the top right corner of each panel.

Viewing the Group List

The group list page lists all groups, the parent groups along with the number of servers and users associated with the groups. Every server must be associated with one group.

1. In the lower-left corner, click **Download** to download the Group List to a `.csv` file.
2. To view details about the group, from the **Groups List** select a group .
3. On the toolbar, click **Download**, to download the `server.ini` file.

Adding a Group

About this task:
To create a new group, select the parent group, define the group name, and method to resolve conflicts.

1. Click **Groups** and click **Add Group** in **Group List**.
2. **Parent group** - Select the parent group from the drop-down list. By default, root is the top level of the group hierarchy. The new group can be created in root, or it can be created in any groups that have previously been created.
3. **Group name** - Enter a name for the new group.
4. Select a method by which to resolve user and privilege conflicts and synchronize accounts and user roles. The automated options are an easy way to automatically reverse any undesired or unauthorized changes to user accounts and roles.

    a. **Inherit from parent group** – use the parent group's resolution setting.

    b. **Manually resolve conflicts** – all synchronization conflicts in a group will be displayed on the group, user, privilege, and server detail pages for user's review.

c. **Automatically resolve conflicts** – Any user, server, or privilege that gets created in exacqVision Enterprise Manager will be automatically created on all the servers that are in the group.

d. **Automatically resolve conflicts and remove unmanaged server users** – Same as above option, but selecting this will ensure that any user or user role that gets created directly on any of the servers in the group will be removed. This ensures that no users or user role are added to the servers without going through exacqVision Enterprise Manager.

5. Click **APPLY** to complete the group configuration, or **APPLY & NEW** to complete the first group and configure another. Alternatively, click **CANCEL**.

Viewing domain details

The domain page shows all the domain connection properties

1. Click **View All Domain Groups** to display a list of all domain groups that have been imported from the domain
2. If no domain has been added, click **Domain** from the menu to display the **Add Domain** form. See Adding a domain.
3. If an existing domain needs to be modified, click **Edit** in the **Actions** column.
4. For information about any of the fields available on the domain editing page, click **Help On This Page** at the bottom of the page and then click **Next** until you see the applicable information.
5. Click **Apply**.

Adding a domain

About this task:
To add a domain, complete the following steps. You made need to obtain some of this information from your IT department or administrator.

1. In the **Hostname or IP** field, enter the hostname or IP of the machine running Domain services
2. In the **Binding username** field, enter a username
3. In the **Binding password** field, enter the binding password
4. The **Port** field, displays the default LDAP port 389.
5. Select one of the following options from the **Security** list menu:
   - **SSL** Secure Sockets Layer
   - **TLS** Transport Layer Security (newer than SSL).
6. The **Schema** list menu, shows the default Active Directory (Nested).
7. In the **Minutes between queries** field, the default is 5.
8. In the **Additional data** field, enter any additional information.
9. In the **Search criteria** choose from the following options:
   - **User search base DN** Query for users (example shown in box).
   - **User search filter** Used to filter user search results.
   - **Group search base DN** Query for groups (example shown in box).
   - **Group search filter** Used to filter group search results.
10. In the **Attribute names** area, choose from the following options:
    - **Attribute name for username** default: userPrincipalName
    - **Attribute name for first name** default: givenName

- - **Attribute name for last name** default: sn
  - - **Attribute name for email address** default: mail
11. Click **Apply**
    When the connection is successful you see the domain details and subgroups.

Adding a domain group association

The group associations table displays all associations between the domain's groups and the exacqVision Enterprise Manager groups. A partial list of groups appears on the domain details page

1. Click **View all domain groups** link, to see the full list of domain groups.
2. Click **Add Association** to add a group to the list.
3. **Domain** shows the connected domain
4. In the **Domain Group** list menu, choose from a list of discovered domain groups.
5. In the **Server Privilege** list menu, choose from the list of server privileges.
6. In the exacqVision Enterprise Manager **Group** field, select exacqVision Enterprise Manager group.
7. In the exacqVision Enterprise Manager **Access** check box, select the check to enable all users that belong to the domain group to have access to System Manager.
8. The **Is Admin** check box, allows user to add servers, add users and schedule updates.
   - - If not selected, an exacqVision Enterprise Manager user can view items for their associated group and all subgroups.
   - - If selected an exacqVision Enterprise Manager admin can add, modify, or delete for their associated group and all subgroups.
9. Click the **Associate** button.

Result

After completing the association the **Domain group** and exacqVision Enterprise Manager **group** are associated. Users of the **Domain group** will have the privileges defined by **Server Privilege** selection across the servers defined by the exacqVision Enterprise Manager **Group**.

Rules

The rules page lists all rules that you created and all rules that other users created that affect you the logged in user. You can only edit or delete rules that you created.

Use the rules page to complete the following tasks:

- Create email notification rules.
- Create alert notifications to display on the dashboard.
- Create duration rules to avoid sending larger numbers of notifications on certain frequent events.

You can configure email or dashboard notifications based on a wide variety of situations. Click **ADD RULE** in the upper right hand corner. Rules use IF and Then syntax. Select the options on the page for the rules that you want to create. Refer to the following examples:

Adding email rules:

Email rules send an email notification to the specified users. For example, the following rule sends an email to root and test users when a logon failure event happens on any server in the test group.

```
IF
```

```
Login Failure
starts
IN any group
ON any server
For any camera
THEN send email immediately TO root user
```

Adding alert rules:

Use alert rules allow to customize which events are visible on your dashboard. Select only those events that are most important to help make them more visible. The following rule will display an alert on the test user's dashboard if Input 3 on Test Server is disconnected or an archive alarm event occurs on Test Server..

```
IF
camera disconnected
starts
IN Test group 1
ON Thermal 5MP Temperature
FOR Thermal EST 2
THEN display alert TO root user
```

Adding duration rules:

Use duration rules to avoid sending and receiving large numbers of notifications for certain frequent events, such as the video loss that intermittently occurs on a camera that fails to consistently stream video. For example, the following rule generates an email when video loss occurs, but only if the duration of video loss is at least five seconds. Any momentary losses of video would be ignored as part of this rule for sending notifications.

ⓘ **Note:** Duration rules do not apply to certain instantaneous events. Instantaneous events last for a very brief amount of time, such as video motion or a camera disconnect that lasts for less than a second.

```
IF
Video loss
lasts for at least 5 seconds
IN any group
OO any server
FOR any camera
THEN send email immediately TO root user
```

Backup

You can schedule system backups and system restores to ensure you never lose configuration information and user data.

Schedule system backups and restores, and view scheduled actions on the **SCHEDULE** tab.

ⓘ **Note:** You can perform other actions in Enterprise Manager while the backup is ongoing.

To download a backup file, on the **BACKUP** tab, select a backup file checkbox and click the Download backup icon.

To upload a backup file, on the **BACKUP** tab, click the Upload backup icon and browse to the backup file location.

For more information about scheduling system backups and restores, see the Scheduling a system backup and Scheduling a system restore topics.

Scheduling a system backup

Schedule a system backup to save configuration information and user data to a specific location.

Before you begin:
Specify the backup location on the **BACKUP** tab on the **System Backup** page.

1. In the navigation panel, click **Backup**.
2. Click the **SCHEDULE** tab on the **System Backup** page.
3. Click **SCHEDULE SYSTEM BACKUP**.
4. Complete the required fields and click **APPLY**.

Result
The scheduled backup appears on the **BACKUPS** page when the backup is complete at the scheduled time.

Scheduling a system restore

Schedule a system restore to restore system configuration and user data from a system backup.

Before you begin:
Ensure the backup file you want to restore is from the same version of ExacqVision Enterprise Manager version as the version you currently have installed.

1. In the navigation panel, click **Backup**.
2. Click **SCHEDULE** on the **System Backup** page.
3. Click **SCHEDULE SYSTEM RESTORE**.
4. Select the backup file you want to use from the **Backup File** list.
5. Complete the required fields and click **APPLY**. Once a scheduled system restore starts, you can not stop the action. Ensure you back up your existing data before you schedule a system restore.

Editing system backup information

Edit the backup location and the number of backups on the **BACKUP** tab. You can use a local system filepath or a mapped network path. You must specify the full network path in the **Backup Location** field.

1. In the navigation panel, click **Backup**.
2. Click the **BACKUP** tab on the **System Backup** page.
3. To change the backup location, click **Backup Location** in the **DETAILS** area.
4. Enter the maximum number of backups in the **Max Backups** field, or select the **No maximum backups** checkbox. When the number of maximum backups is reached, older backup files are overwritten with newer backup files.

Licensing

Before you begin:
Contact your sales representative and request an email with activation and licensing instructions.

About this task:
Use the **Licensing** page to update the exacqVision Enterprise Manager license.

To obtain or update a license, in the navigation panel, complete the following steps:

1. In the **OPTIONS** pane, select **Licensing**.
2. In the lower-right corner of the **Licensing** page, click **SHOW**.
3. Click **DOWNLOAD ID FILE**, to download the `EnterpriseManager.id` file. If the system is not connected to the Internet, save the file to a portable storage device.
4. Follow the activation and licensing instructions, in the email, and submit the `EnterpriseManager.id` file to the activation website.
5. To apply the exacqVision Enterprise Manager license file, on the **Licensing** page, click **UPLOAD LICENSE**. Browse to the file's location and click **Open**.
6. In the exacqVision Enterprise Manager page, on the top of the **Licensing** page, verify that the following message appears: `This Installation is Licensed for Use`.

    ⓘ   **Note:** If a license update fails, exacqVision Enterprise Manager uses the default license.

Available Versions

About this task:
Available Versions shows the versions of all the exacqVision components that are available by exacqVision Enterprise Manager for updating.

*   Server
*   Client
*   Web service

Only global administrators and admins who are not assigned to groups can see this information.

-   **Refresh version from Exacq.** If the system is connected to the Internet, use this option to obtain a list of available software releases directly from Exacq.
-   **Refresh versions from ZIP File.** If the system is not connected to the Internet, use this option to load a ZIP file that contains the updated exacqVision components. The ZIP file can be loaded into exacqVision Enterprise Manager and exacqVision Enterprise Manager can then deploy the software throughout the VMS infrastructure.

1. To obtain the ZIP file for use with exacqVision Enterprise Manager, perform the following steps. Navigate to : https://www.exacq.com/support/downloads.php?section=softwareUpdatesPackagingUtil.
2. On the **Software Downloads** > **Download software updates for offline use** click the **Click here** link to start the download.
3. Click **Recent Software Versions**.
4. Select the check box for the files to download.
5. Click **Zip Selected Files** .
6. Select **Click to Download Packaged Files**.

    ⓘ   **Note:** The download is available for approximately 1 hour.

7. Transfer this file to the exacqVision Enterprise Manager system
8. In exacqVision Enterprise Manager select **Refresh versions from Zip File**
9. Navigate to the location of the zip file, select the file, and click **Open**
    The following message displays during the import:
    Please wait, updating versions list

    When the import is complete, the following message displays:

New installers are available

The **All Versions** page, shows the current list of all software versions imported.

Server Update

1. In the **Server List** page, on the toolbar, click **Calendar** and from the list, select **Update Software**.
2. In the **Schedule Software Update** dialog, in the **Servers to schedule** list menu, select the servers that you want to apply the software update to. You can select individual servers, if required.
3. If you do not want to apply the software update immediately adjust the time in the **Scheduled Time** field.

   ⓘ **Note:** If you have any difficulty selecting a date from a calendar when you attempt to apply a server configuration change, type the date and time in a `yyyy-mm-ddThh:mm` format (yyyy=year; mm=month; dd=date; hh=hour; mm=minute). The "T" should not be replaced by any other number or character.

4. In the **Additional data** field, you can add additional notes about this configuration update.
5. Click **Apply**.

Client Update

About this task:
Client updates are not pushed out to clients within the VMS infrastructure unlike server updates. Instead client updates must be pulled by each client. However, the exacqVision Enterprise Manager system can provide client updates so that each client within the VMS infrastructure is not required to have an internet connection. Each client must be configured to look for updates from the exacqVision Enterprise Manager system as opposed to exacq.com website. There must be an exacqVision Enterprise Manager account so that the client can log in to the exacqVision Enterprise Manager system.

Figure 22: Client configuration
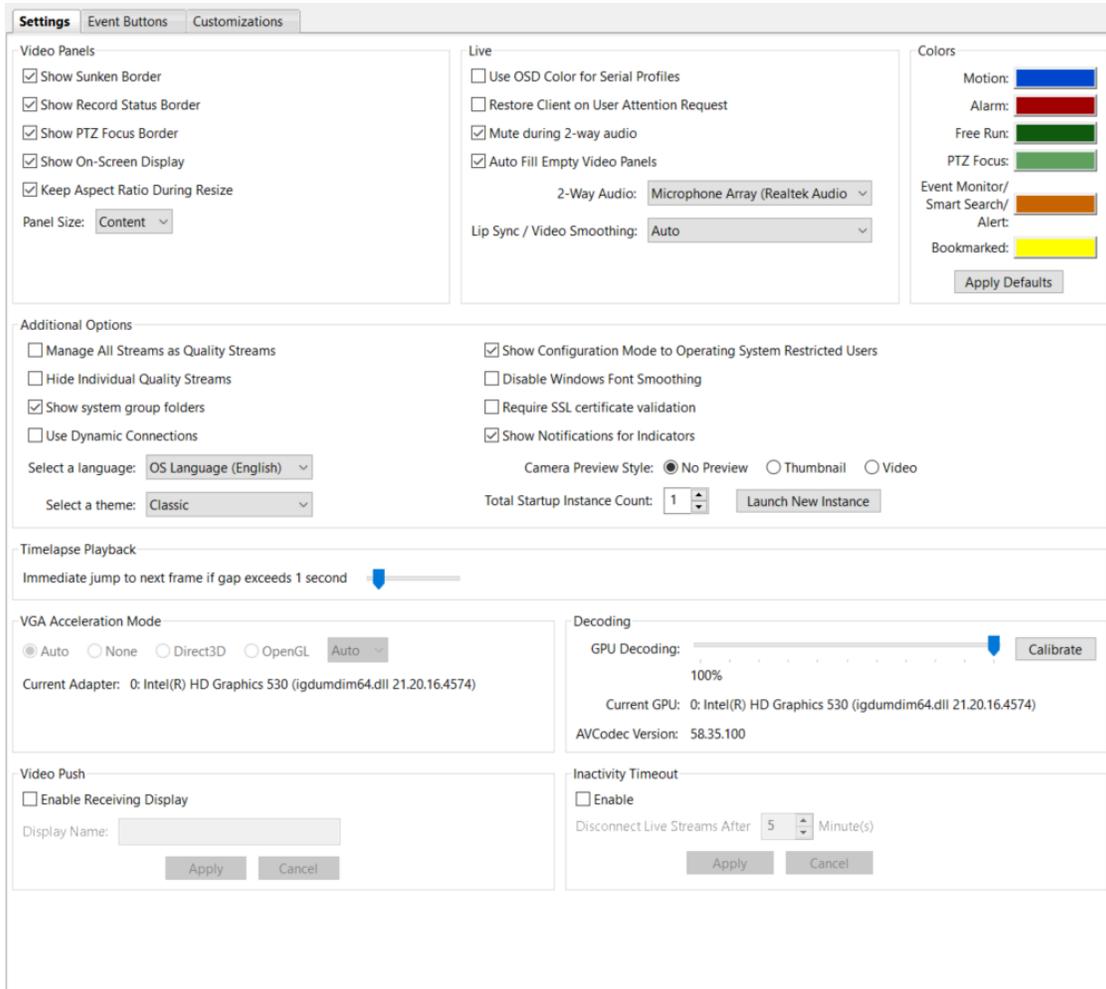
1. Click **Add Systems**
2. Select the **Import/Export** tab
3. Check the **Enable** check box
4. Select **Synchronize with exacqVision Enterprise Manager**
5. Enter the **URL** of the exacqVision Enterprise Manager system
6. Select **Use credentials entered below**
7. Enter the exacqVision Enterprise Manager User Name
8. Enter the exacqVision Enterprise Manager Password
9. Click **Apply**
10. Click the exacqVision logo in the upper right corner of the window
11. Click **Check for Updates**
12. Click **Install**
    Follow the prompts through the client install process.
13. Click **Next** to start the installation.

Web Service Update

About this task:

Before scheduling software updates for web services, you must check that there are no **Remote Restrictions** on the web service you want to update. In the example below the web service has remote restrictions enabled. This means that a remote user, including exacqVision Enterprise Manager, cannot edit, change, or update the configuration or web service software. **Remote Restrictions** must be disabled on the web service system itself.

Figure 23: Web services page

1. On the machine that the web service is running on, navigate to the landing page of exacqVision web service. (127.0.0.1 in the URL of a web browser)
2. Click the **Web Service Configuration** link in the lower right corner of the page
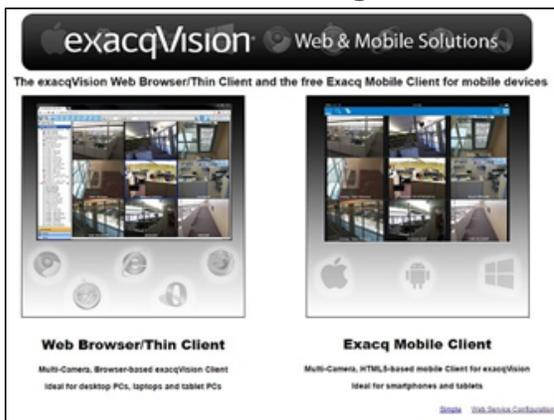
3. Log on to the **Web Service Administration** page with admin credentials. The default values are `admin` and `admin256`.
4. Click **Admin** section
5. Clear the **Enable Localhost Restriction** check box
6. Click **Apply**.
7. To perform or schedule an exacqVision web service software update navigate to the **Web Services** page, on the toolbar, click **Calendar** and from the list, select **Update Software**.

    ⓘ   **Note:** A green badge with a check mark indicates that the web service can be updated.

8. If you do not want to apply the software update immediately adjust the time in the **Scheduled Time** field.

    ⓘ   **Note:** If you have any difficulty selecting a date from a calendar when you attempt to apply a server configuration change, type the date and time in a `yyyy-mm-ddThh:mm` format (yyyy=year; mm=month; dd=date; hh=hour; mm=minute). The "T" should not be replaced by any other number or character.

9. In the **Additional data** field, you can add additional notes about this configuration update.
10. Click **Apply**.

exacqVision Enterprise Manager Update

About this task:
To perform or schedule an exacqVision Enterprise Manager software update, complete the following steps. See Table 7 for a description of the interface icons.

ⓘ **Note:** Installations of exacqVision Enterprise Manager 24.11 and later require an upgrade to PostgreSQL version 12+ or later. Enterprise Manager running on Windows systems automatically upgrade to PostgreSQL 12+ without any input from the user. Linux systems require the user to manually upgrade. For more information see --KB link to go here--

⚠ **CAUTION:** Before you update Enterprise Manager, you must complete a system backup. Without a system backup, it is not possible to restore the current version. For more information, see Backup.

1. Select the **Information** icon in the top right of any page.
2. Select **About**.
3. In the **About** dialog box, under **System**, select **Updates**.
4. In the **Schedule System Software Update** dialog box, select the version to schedule, and the scheduled time to apply the update, and click **Apply**.

   ⓘ **Note:** Enterprise does not refresh its list of available versions automatically. You must manually refresh this list. To do so, see Refreshing available versions.

   At the scheduled time, the system will go down to apply the update. This process can take up to approximately 15 minutes to complete.

Refreshing available versions

1. From the **Systems** menu, select **Available Versions**.
2. Hover over the **Refresh** icon and select **Refresh versions from Exacq** or **Refresh versions from Zip File**.

Settings

On the settings page in the email area, you can configure the email server for exacqVision Enterprise Manager. In the data retention settings area, you can configure the system to automatically delete monitoring data after a specified number of days. In the session timeout settings area, you can change the number of minutes of inactivity until the system logs the user out.

Email

To enter or modify the email server information, complete the following steps:

1. On the **Settings** page, in the email server area, click the **Edit** icon.
2. Enter email host name. For example, smtp.gmail.com, or an IP address.
3. Select the **Requires TLS** check box if using TLS, using port 465.
4. In the **System URL** field, enter the URL of the exacqVision Enterprise Manager system.
5. In the **From Address** field, enter the sender's address.
6. In the **Anonymous** field, select the check box to remain anonymous.
7. In the **Username** and **Password** fields, enter the user name and password for this email account.

Data retention

To configure the system to delete data after a specified number of days, complete the following steps:

1. On the **Settings** page, in the **Data Retention** area, click the **Edit** icon.
2. In the **Days of Event Retention** field, enter the number of days for which the system retains data.
3. In the **Max Number of Manually Saved Configs** field, enter the maximum number of manually saved configurations.
4. In the **Max Number of Recurrently Saved Configs** field, enter the he maximum number of recurrently saved configurations.

Session timeout

To adjust the session inactivity timeout settings, complete the following steps:

1. On the **Settings** page, in the **Session Timeout Settings** area, click the **Edit** icon.
2. To enable or disable session timeout, use the **Enable Timeout** checkbox.
3. To set the timeout duration, in the **Timeout Duration** field, set the number of minutes until timeout. The default timeout duration is 30 minutes. The minimum timeout duration is five minutes.
4. Three minutes before timeout, a message displays. To remain logged on, click **Confirm**.

   ⓘ **Note:** If you have more than one browser tab open and the system logs you out due to inactivity, all tabs are logged out.

Saving configuration limits

About this task:
When the system reaches the maximum limit of manually saved configurations, you must delete one or more of the saved configurations. You can then save new configurations. When the system reaches the maximum limit of recurrently saved configurations, the system automatically deletes the oldest saved configuration, and then saves the new configurations.

To prevent the system from automatically deleting a saved file, complete the following steps:

1. From the **Saved Configuration** list, select the saved configuration that you want to edit.
2. Click the **Edit** icon.
3. Select the **Save file permanently** check box.

Support

To support the troubleshooting of exacqVision servers, you can launch the exacqVision client directly from the exacqVision Enterprise Manager browser. If a user has full administration privileges, they can launch the exacqVision client on a server, camera, or event details page by clicking the **exacqVision client** icon from the toolbar. For all other users, see Launching the exacqVision client.

Launching the exacqVision client

To launch the exacqVision client, complete the following steps:

1. Select a server.
2. In the navigation panel, select **SUPPORT** > **Launch exacqVision Client** .
3. Click **Launch exacqVision Client**. If the exacqVision client application does not open, click **Download Launch File**.

   ⓘ   **Note:** To launch the exacqVision client directly when you click **Launch exacqVision Client** from the navigation panel, select the check box in the lower left corner of the **Launch exacqVision Client** window. This option is also available on the .

Appendix A: SSL Certification for Python web server

About this task:
To configure and enable SSL certification for Python web server in exacqVision Enterprise Manager, complete the following steps:

1. Obtain a signed certificate from an authority such as VeriSign.
2. Rename the artifacts before the extension to `server`, for example `server.crt`.
3. Save the artifacts to a directory accessible to Enterprise Manager.
4. Update the following `settings.yaml` fields:
   ```
   https_settings:
   ssl_keyfile:"<path to key file>"
   ssl_certfile:"<path to cert file>"
   ```
5. To force any user of exacqVision Enterprise Manager to redirect to https, set the `enable_redirect` field to `true`.
6. Restart the web server service `enterprise-webservice`.

Appendix B: Connecting to Seq

About this task:
Enterprise Manager provides support for a Seq connector. Seq is a log analyzer and viewing tool designed specifically for structured log events. Seq is not installed as part of Enterprise Manager. To use Seq you need to download and install Seq separately. For the most up-to-date installation information see the https://datalust.co/seq website. Use the following steps to connect to Seq.

Windows:

1. Download the latest Seq `msi` installer from https://datalust.co/download.
2. Install the application using the default values.
3. Seq is accessible at `http://localhost:5341/` or `https://localhost:5341` on the host machine.
4. Update the address for the Seq server in the settings file in the following location, `<EM Install Location>/EnterpriseSystemManager/logs/seq_settings.yaml`. Restart the Enterprise Manager services to implement the changes.

Linux:

1. Docker is required to run Seq on Linux. For detailed information about running Seq in a docker container, refer to the following URL, https://docs.datalust.co/docs/getting-started-with-docker.
2. Seq is accessible at `[http://localhost:%3cport%3e/][http://localhost:%3cport%3e/]http://localhost:<port>/` on the host machine, where *<port>* is the port that you use to map to the docker container port 80.
3. Update the address for the Seq server in the settings file in the following location, `/usr/local/exacq/esm/logs/seq_settings.yaml`. Restart the Enterprise Manager services to implement the changes.

Copyright and trademark information