Notices

Note: Please note that the system's CPU is a HiSilicon 3535, and HiSilicon is a subsidiary of Huawei.

Installation

Before you turn on the M-Series server, the installation environment must meet the following requirements:

Mounting and operating requirements

- Mount the exacqVision server in a dust-free, and climate controlled location, where the temperature is less than 70°F (21°C), and the humidity level is less than 40% non-condensing.

  CAUTION: Dust can cause components of the server to overheat, and elevated temperatures can contribute to premature hard drive failures.

- If you use an outdoor camera, the server must connect permanently to the ground wire. Ensure that you use an 18 AWG wire or larger for the connection, and that you label the grounding screw near the power connector with the grounding wire image ⏚.
- All outdoor cameras must have a suitable surge suppressor between the camera and the recorder.

Electrical requirements

- For maximum reliability, connect the exacqVision server to an online uninterrupted power supply (UPS). An online UPS, filters power surges and dips that can damage the server.
- Connect the exacqVision server's WAN interface to the company's network or to a network with internet access.
- Connect a mouse to the server. You can also connect a keyboard. However, there is a virtual keybord on the desktop.
- Before you configure the M-Series server, you must change the passwords for the user and administration default accounts
- Use cables with a ferrite core for connecting to monitors. If the cable does not have a ferrite core, the unit performs as expected, but may not meet CE safety regulation standards.

Network configuration

By default, the LAN and WAN interfaces are configured by a DHCP service. To set a static IP for one of these interfaces, open the **Network** tab on the **Configure System** window. For more information on the **Network** tab on the **Configure System** window, see Table 1 or refer to the *exacqVision User Manual*.

Table1: Network tab on the Configure System window

Interface element	Description
IP Reconnection pane	The default IP reconnection time is 300 seconds. If the IP camera disconnects from the network, lowering the IP reconnection time can increase the reconnection speed.
Show individual PoE adapters check box	To show all the PoE ports, select the **Show individual PoE adapters** check box.
Interface list	To configure the LAN, WAN, or PoE ports, select it from the **Interface** list.
Configure All list	Displays a list of IP ranges that are available for configuring. If the WAN or LAN interface has an IP address that conflicts with an IP subnet in the **Configure All** list, it does not display and cannot be assigned to the PoE ports
IP Configuration area	The default type is **Dynamic**. If the system is not configured, contact your network administrator.
	For LAN and WAN interfaces, select **Static** if you know the IP address and netmask.
Enable DHCP servers check box	All PoE interfaces have DHCP enabled by default in order to configure cameras that connect to them.
	All PoE interface IP addresses end with the number one.
	All PoE interfaces attempt to configure DHCP enabled cameras with an IP address that ends with the number two.

Remote client connection

If you are configuring the M-Series server using a remote client machine, see Configuring the M-Series server remotely. If you are configuring the M-Series server on the M-Series system, see Connecting cameras.

Configuring the M-Series server remotely

To configure the M-Series server remotely, complete the following steps:

1. Download and install the latest version of the client application software on the remote system using the following link: https://exacq.com/support/downloads.php.
2. Start the exaqVision client application.
3. Click the **Config (Setup)** icon to open the **Configuration** window.
4. From the navigation tree, select **Add System**.
5. Click **New**, and enter the IP address or hostname of the exacqVision M-Series server.
6. Enter the following username and password:

   - **Username:** `admin`
   - **Password:** `admin256`

7. Verify that the server appears in the **Systems** list and that the status is **Connected**.

Note: If the server does not connect, but you can confirm the server's ability to connect, check for anti-virus software on the remote client machine. Anti-virus software can block the communication between the server IP addresses and ports.

What to do next: To prevent unauthorized access or modifications to the system, change the default system administration and user accounts passwords. For more information, refer to the *exacqVision Start User Manual*.

Connecting cameras

The EasyConnect feature automatically discovers and configures most DHCP cameras.

To connect cameras to the system, complete the following steps:

1. Ensure that the cameras are in their factory default states.
2. Start the exacqVision client application, and click the **Config Setup** icon.
3. From the navigation tree, expand the server and then the **Configure System** node, and select **PoE Ports**.
4. On the back panel of the server, plug the cameras into the PoE ports.
5. Monitor the **PoE Ports** window to ensure that the cameras configure and connect. The connection can take up to six minutes. For information on the connection status of the ports, see Table 2

Table2: Port Status

Port status	Description
	Camera is not connected.
	Camera discovery and configuration is continuing.
	Camera is connected and streaming.
	There are errors with the camera. Possible problems include an invalid username or password, or that it requires further configuration.

Troubleshooting

When you encounter a problem, accurately define and isolate the problem before you attempt to resolve it.

When an EasyConnect camers successfully connects to the system, the status column in the **PoE Ports** window displays **Connected**. If **Connected** does not display, use the following troubleshooting guidelines.
Troubleshooting may require you to delete and reconnect cameras that fail to connect. To delete and reconnect a camera, complete the followings steps:

1. Open the **Add IP Cameras** window.
2. Select the camera that you want to delete, and then click **Delete**.
3. Click **Rescan Network** to reconnect the camera.

The following sections contain information about status messages and possible solutions.

Invalid username or password, or Manual intervention required status

To resolve this problem, complete the following steps:

1. Place the pointer over the status message and the tooltip message suggests how to resolve the problem.
2. Reset the camera to its default settings by pressing the **Factory Reset** button on the camera.
3. Open the **Add IP Cameras** window and enter the correct information for the camera. For more information, refer to the *exacqVision User Manual*.
4. Connect to the built in browser to configure the camera. For more information, see Connecting the camera to the built in browser.

   Note: The built in browser has a limit to the number of camera connections it can support. You may require a separate system with Firefox, Chrome, or Internet Explorer to connect and configure the camera.

No camera detected status

To resolve this problem, complete the following steps:

1. Ensure that the camera is on the supported camera list. See: https://exacq.com/integration/ipcams.
2. Unplug the camera and then reconnect the camera into the port.
3. Open the **Add IP Cameras** window, and click **Rescan Network**.

Connecting the camera to the built in browser

To connect the camera to the built in browser, complete the following steps:

1. Click the **Monitor** icon in the upper-left corner of the **Home** page, and select **Run**.
2. Enter `surf` and the IP address of the camera.
3. Click **Ok**.
4. Choose one or more of the following options:

   - Reset the camera to its default settings.
   - Check that the camera's information is correct.

5. Power cycle the camera, and then click **Rescan Network** on the **Add IP Cameras** window.

Temporarily changing the PoE port for a camera's IP address

If the IP address of a camera is entered incorrectly and not on the same subnet as the Network Video Recorder (NVR) you can change the IP address of the PoE port temporarily to connect the camera with the built in browser.

To temporarily change the PoE port, complete the following steps

1. In the **Configure System** window, select the **Network** tab.
2. Select the **Show individual PoE adapters** check box.
3. Select the PoE port that you want to change.
4. In the **Network Configuration** area, enter the new IP address by adding one to the last number of the camera's IP address. For example: change the cameras IP address from 192.168.1.20 to `192.168.1.21`
5. Click **Apply**.

CAUTION: Do not set a PoE port to conflict with the LAN or WAN IP settings.

6. Connect to the build in browser to configure the camera. For more information, see Connecting the camera to the built in browser.
7. Restore the PoE port back to its original IP address after you configure the camera.

Connections

For information on the exacqVision M-Series server's back panel, see Figure 1 and Table 3.

Figure 1: M-Series server back panel

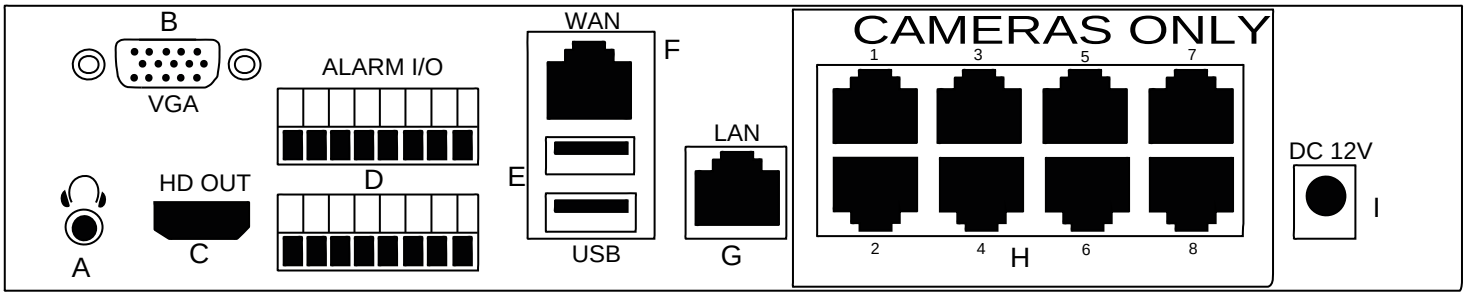

Table3: M-Series server back panel

Item	Name	Description
A	Audio output	The M-Series NVR does not support the audio output port.
B	VGA video port	The VGA video port gives the same output as the HDMI port. You cannot use this port to connect a second monitor.
C	HDMI video port	You cannot use this port to connect a second monitor.
D	Alarm IO and RS485	For information on the Alarm IO and RS485 connections, see Figure 2 and Table 4
E	USB 3.0 ports	Use the USB port to connect a compatible keyboard, mouse, or USB memory device.
F	10/100/1000 Ethernet	This port is for the main network with internet connectivity and incoming client connections. You can also use it for auxiliary camera connections instead of PoE connected cameras. The maximum number of cameras that you can connect is 4 or 8, depending on the camera model and the system license.
G	10/100/1000 Ethernet	You can use this port for auxiliary camera connections instead of PoE connected cameras.
		The maximum number of cameras that you can connect is 4 or 8, depending on the camera model and the system license.
H	10/100 PoE camera port	These ports support DHCP ports for IP cameras. Each port is a VLAN to the operating system.
		A total of 30 Watts for a 4 port model, and a total of 60 Watts for an 8 port model.
		Do not connect other devices to the camera PoE ports such as, switches, routers, computers, or printers.
I	Power supply	DC 12V Power.

Figure 2: Alarm IO and RS485

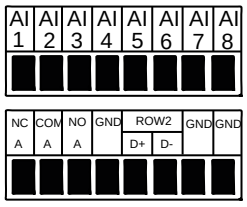

Table4: Alarm IO and RS485

No.	Description	No.	Description
1	Alarm In 1	9	Normal Closed
2	Alarm In 2	10	Common
3	Alarm In 3	11	Normal Open
4	Alarm In 4	12	Ground
5	Alarm In 5	13	RS485 D+
6	Alarm In 6	14	RS485 D-
7	Alarm In 7	15	Ground
8	Alarm In 8	16	Ground