



Hewlett Packard
Enterprise

HPE G3 KVM Console Switch

User Guide

Abstract

This document is for the person who installs, administers, and troubleshoots servers and storage systems. Hewlett Packard Enterprise assumes you are qualified in the servicing of computer equipment and trained in recognizing hazards in products with hazardous energy levels.

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Overview

HPE G3 KVM Console Switch overview

The HPE G3 KVM Console Switch is an analog KVM switch providing local access to data center servers and remote access when using an optional RAK (AF650A).

USB, serial, and BladeSystem IAs enable direct KVM connectivity to devices. The KVM Console Switch supports all previous IAs with the exception of the KVM Console Serial/Power G2 Interface Adapter (AF625A).

The KVM Console Switch does not support virtual media or CAC (smart cards). IAs with VM/CAC support provide only keyboard, video, and mouse functionality when used with the KVM Console Switch.

The KVM Console Switch provides a local OSD for local switch management and a remote web-based OBWI for remote switch management. Access the OSD through the local port. Access the OBWI directly from the switch using a browser. The OBWI also provides a remote KVM session to target devices when using the optional RAK. Access the terminal console interface through the DIAG port and a terminal screen or a PC running terminal emulation software.

Both IPv4 and IPv6 are supported by the KVM Console Switch.

Installing the HPE G3 KVM Console Switch

Rack-mount safety instructions

The HPE G3 KVM Console Switch ships with rack-mounting brackets for easy integration into the rack. Stabilize the rack in a permanent location before installing the equipment. Avoid uneven loading or overloading of the rack cabinets.

When rack-mounting this product, consider the following factors:

- Elevated operating ambient temperature—In a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment can be greater than room ambient temperature. Install the equipment in an environment compatible with the operating temperature.
- Reduced air flow—In the rack, the rate of air flow required for safe operation of the equipment must not be compromised.
- Circuit overloading—When connecting the equipment to the supply circuit, consider the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Consider the equipment nameplate ratings when addressing this concern.
- Reliable earthing—Maintain reliable earthing of rack-mounted equipment. Pay particular attention to supply connections other than direct connections to the branch circuit, such as the use of power strips.
- Product orientation—The equipment should not be mounted with the rear panel facing downward.

Installation checklist

Before installation, refer to the following lists to be sure that all of the listed components were received.

Console switch kit contents

- Console switch
- Power cords
- Rack mounting kit
- CAT5 to DB9 serial cable adapter
- Documentation kit

This kit might contain extra hardware for your convenience.

Required items not included

- IAs ("[Installing the interface adapter](#)" on page 18)
One IA with one of the following connections is required for each server or device.
 - USB connection
 - Serial connection
 - HPE BladeSystem connection
- UTP CAT5 cable or higher

Required tools

The following tools are required for some procedures:

- Phillips screwdriver
- Cage nut insertion tool (included with your original rack hardware kit)

Rack-mounting the console switch

To install the KVM Console Switch into the rack:



WARNING: To reduce the risk of fire, do not mount this product with the rear panel, which is the side of the KVM Console Switch with I/O connectors and the AC power inlet, facing downward (facing the floor).

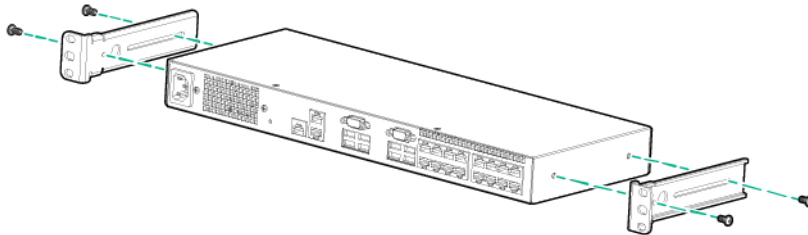
1. Before installing the KVM Console Switch into the rack, connect the KVM Console Switch to a power source, using the power cords provided, and power on the unit.

The system health LED illuminates after a few seconds. If the system health LED does not illuminate, be sure that the power is on, the power cord is connected, and the power source is valid.

2. Choose one of the following configurations:
 - Standard-mount ("[Performing a standard-mount installation](#)" on page 9)
 - Cantilever-mount ("[Performing a cantilever-mount installation](#)" on page 10)
 - Side-mount ("[Performing a side-mount installation](#)" on page 11)

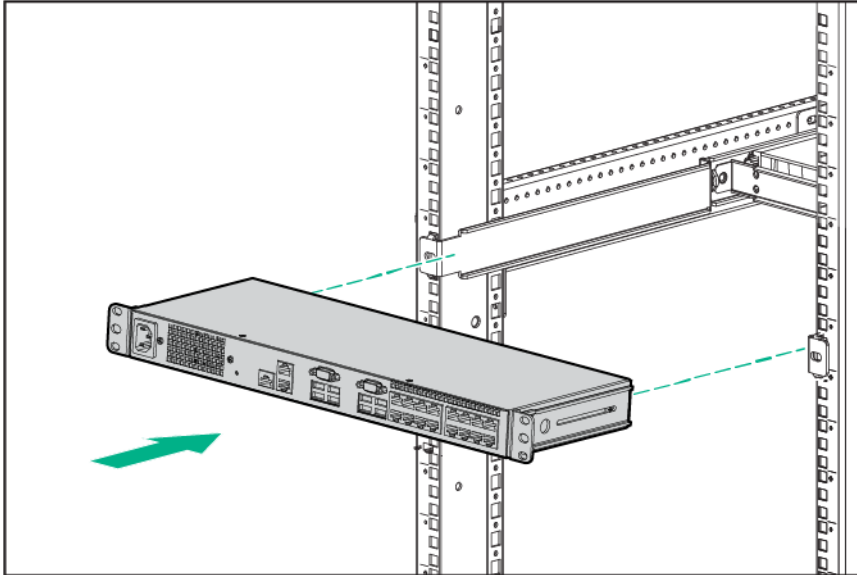
Performing a standard-mount installation

1. Remove the four screws, two on each side, from the console switch.
2. Attach the short 1U brackets to the console switch using the four screws you removed.

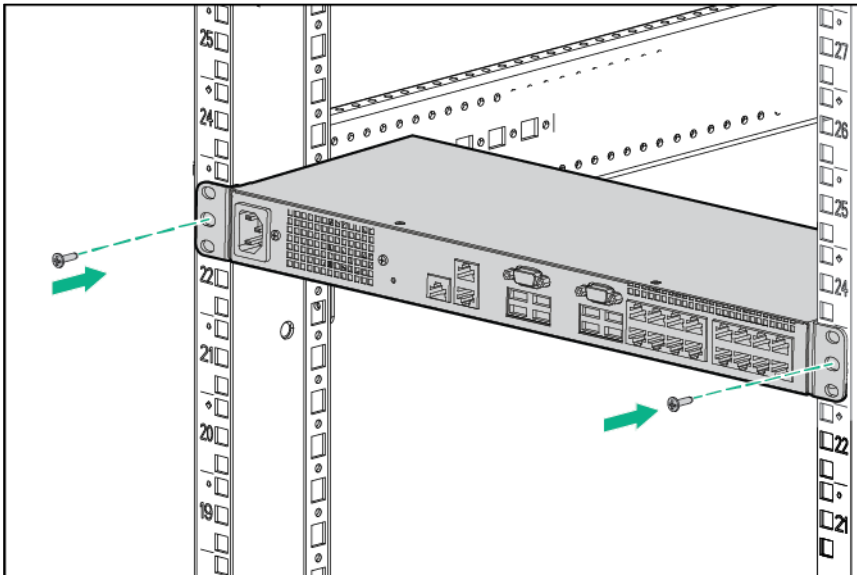


3. If not already installed, install a cage nut behind each rear rail.

4. Slide the console switch into the rear of the 1U product.



5. Secure the console switch to the rails using two M-6 screws, one on each side.

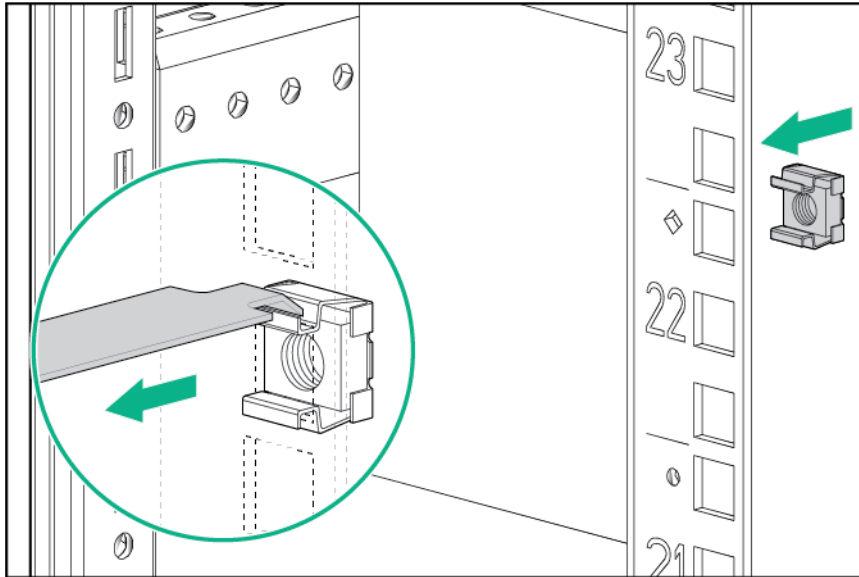


Performing a cantilever-mount installation

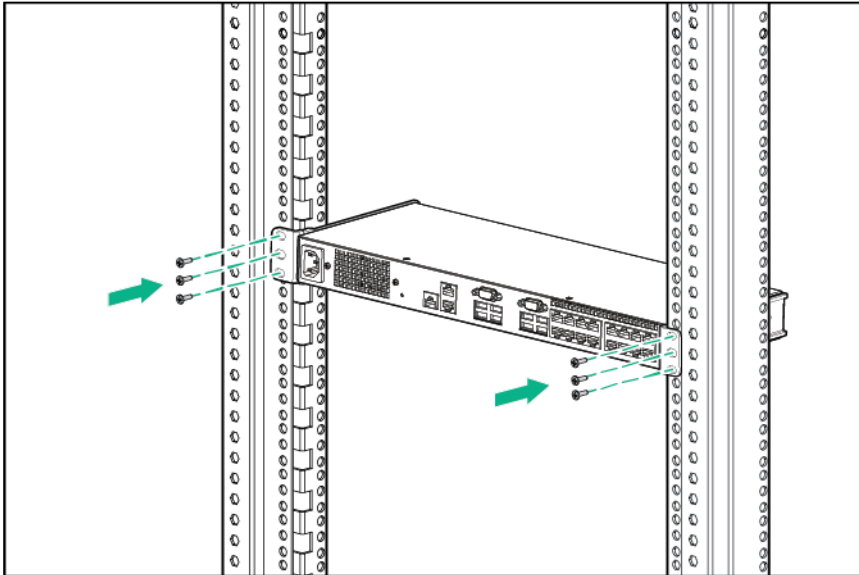
To perform a cantilever-mount installation:

1. Remove the four screws, two on each side, from the console switch.
2. Attach the short 1U brackets to the console switch as shown in the standard-mount installation ("[Performing a standard-mount installation](#)" on page 9).

3. Install up to six cage nuts.



4. Secure the console switch to the rails using the appropriate number of M-6 screws.

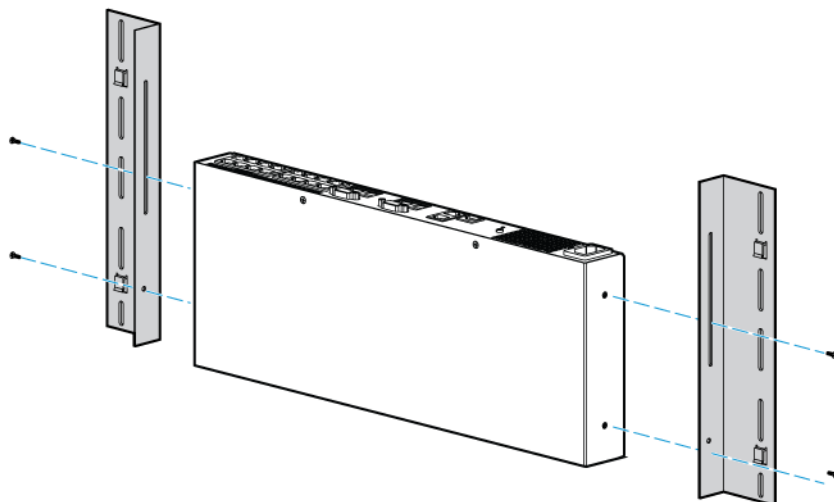


Performing a side-mount installation

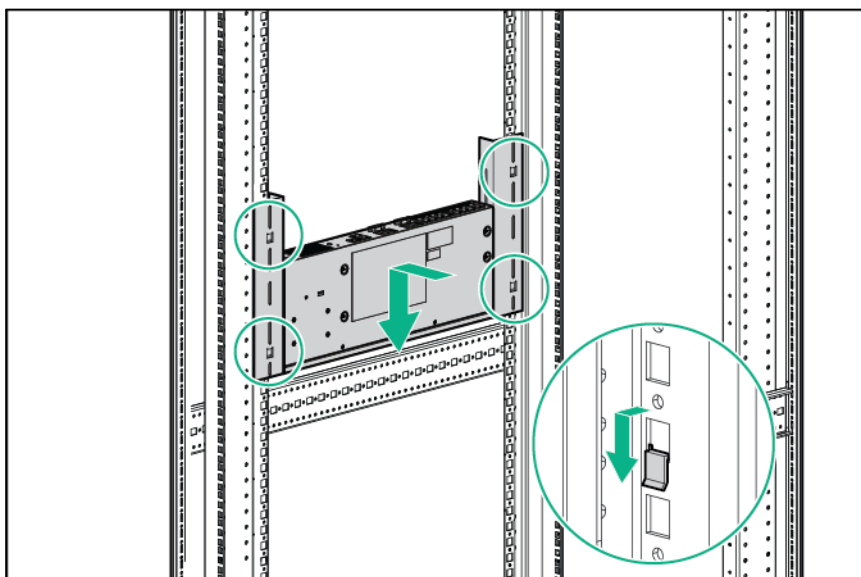
To perform a side-mount installation:

1. Remove the four screws, two on each side, from the console switch.

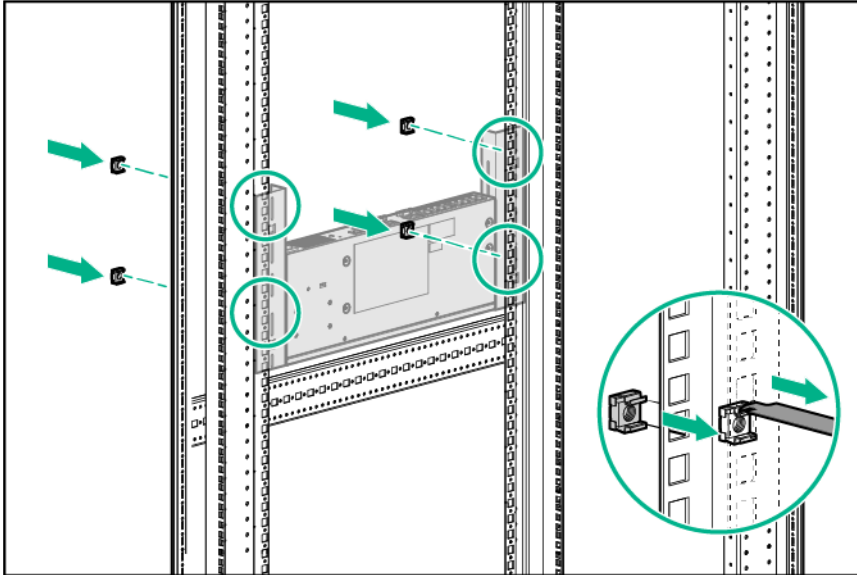
2. Attach the side-mounting brackets to the console switch using the four screws you removed.



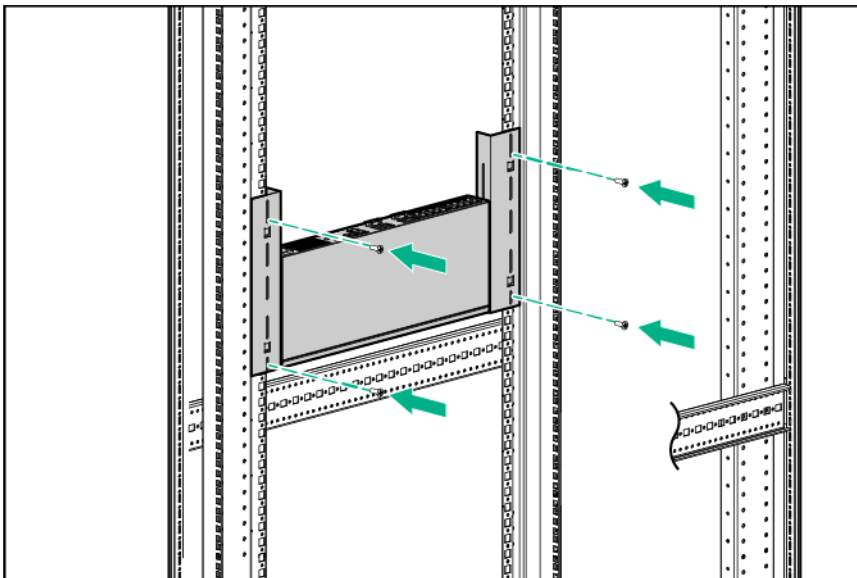
3. Slide the side-mounting bracket tabs into the U locations on each side of the rack.



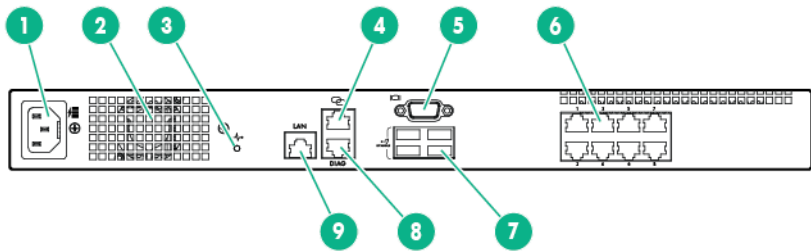
4. Install four cage nuts into the side-mounting bracket U locations.



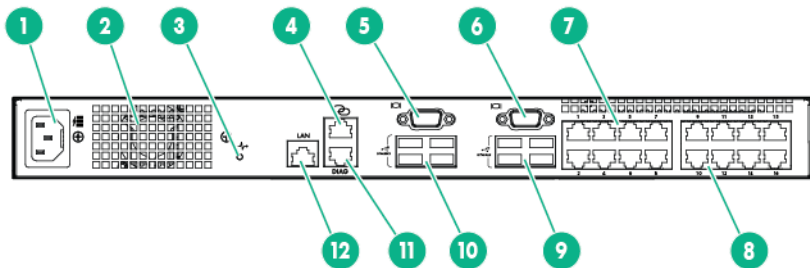
5. Secure the console switch to the rails using four M-6 screws, two on each side.
On some racks, you can use four sheet metal screws in place of M-6 screws and cage nuts.



Console switch components



Item	Description
1	Power cord connector
2	Fan
3	System health LED
4	RJ-45 tiering port
5	Console port video connector
6	Server connection ports 1-8
7	Console port USB ports
8	DIAG port
9	LAN port



Item	Description
1	Power cord connector
2	Fan
3	System health LED
4	RJ-45 tiering port
5	Console port A video connector
6	Console port B video connector
7	Server connection ports 1-8
8	Server connection ports 9-16
9	Console port B USB ports
10	Console port A USB ports
11	DIAG port
12	LAN port

Item	Description
12	LAN port

Connecting the local console switch

To connect the local console switch:

1. Connect the local keyboard, video, and mouse to the console switch.



WARNING: To reduce the risk of electric shock or damage to the equipment:

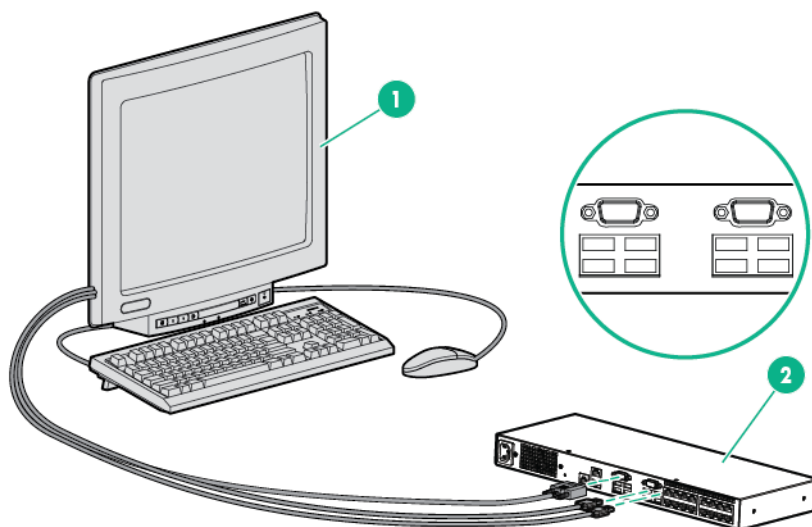
- Do not disable the power cord grounding plug. The grounding plug is an important safety feature.
- Plug the power cord into a grounded (earthed) electrical outlet that is easily accessible at all times.
- Unplug the power cord from the power supply to disconnect power to the equipment.
- Do not route the power cord where it can be walked on or pinched by items placed against it. Pay particular attention to the plug, electrical outlet, and the point where the cord extends from the storage system.

2. Plug the console switch power cord into a power source.

The system health LED ("[Console switch components](#)" on page 14) flashes when the KVM Console Switch boots up. When the system health LED is solid green, the KVM Console Switch is operational.

3. Power on the monitor.

The following figure shows one possible configuration for the console switch system.



Item	Description
1	Local console
2	Console switch

Remote access key

The optional USB RAK provides the following features:

- **KVM remote access**

The RAK supports a single KVM remote session. Use the RAK to manage remote operating systems, operating system recovery, hard drive recovery or duplication, and server backup.

- **DSView management software plug-in**

IT administrators can use the DSView management software plug-in to securely access and monitor target devices on multiple platforms remotely through a single web-based user interface. A single point of access can launch a session to a device.

Manage KVM Console Switches using DSView by installing the HPE KVM plug-in for DSView.

- **Local video scaling**

The KVM Console Switch digitizes a video signal with a maximum resolution of 1600 x 1200 or 1680 x 1050 (widescreen). The maximum resolution depends on the cable length between the KVM Console Switch and the devices.

- **Encryption**

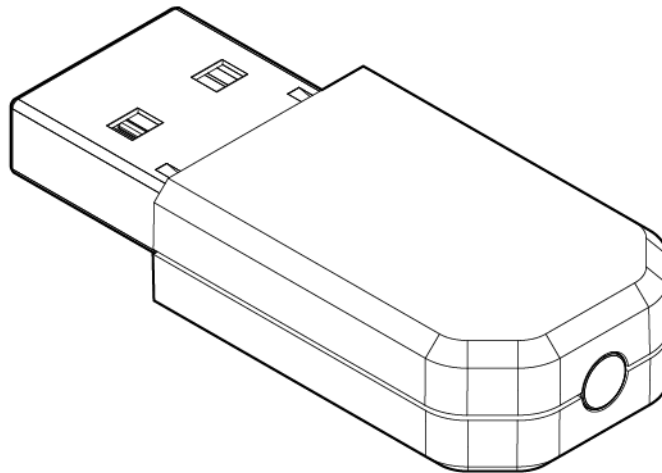
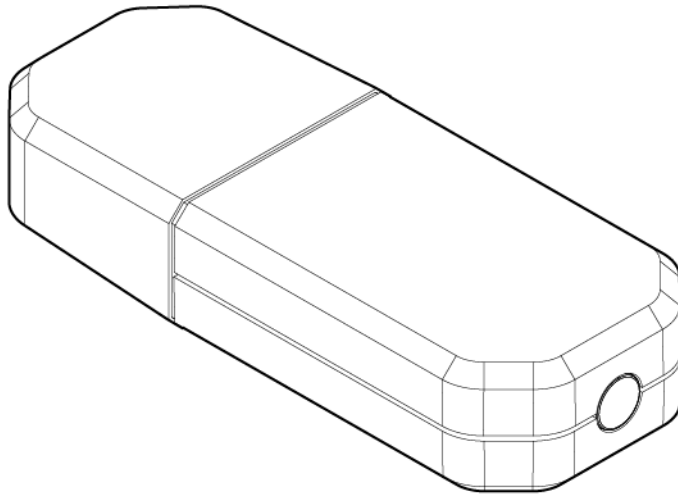
The KVM Console Switch supports 128-bit SSL (ARCFOUR), AES, DES, and 3DES encryption of keyboard/mouse and video sessions.

Connecting the RAK



IMPORTANT: Configure the network settings for the switch using the OSD or the DIAG port for KVM remote access to function.

Connect the RAK to any USB port on the KVM Console Switch. When the RAK receives USB power, the LED on the RAK flashes slowly, followed by rapid flashing. The rapid flashing indicates successful enumeration. When the RAK is accepted, the LED on the RAK is continuously illuminated.



Installing the interface adapter

Integrating the IA

An IA (sold separately) is required for the KVM Console Switch system to function properly. An IA connects to the KVM Console Switch using UTP CAT5 or higher cables. The IA connects to the keyboard, video, and mouse interfaces of the server.

NOTE: UTP CAT5 or higher cables are used throughout the examples in this guide.

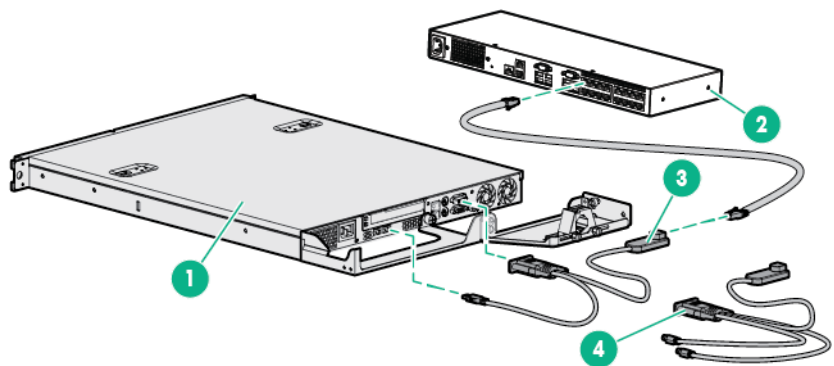
Connecting the IA

To connect the IA:

1. Connect a UTP CAT5 cable or higher to the server connection port ("Console switch components" on page 14) on the KVM Console Switch.
2. Connect the other end of the cable to the RJ-45 connector on the IA.
3. Connect the IA to the appropriate connectors on the server.
4. Repeat these steps to connect additional servers to this system, if needed.

To add server names, see "Assigning names to servers (on page 35)."

The following figure shows one possible configuration for the KVM Console Switch system with an IA.



Item	Description
1	Server
2	Console switch
3	USB IA
4	PS/2 IA

Cascading console switches



IMPORTANT:

- If console port A is cascaded with an RJ-45 tiering port to a primary console switch, the console port A video connector on the secondary console switch will not operate; however, port B will still operate. If you connect to port A even though it will not operate, the following message appears, "User has been disabled as another appliance is currently tiered."
 - Cascading a tertiary console switch is not supported.
 - Cascading multiple secondary Console Switches to a primary Console Switch is supported.
-

Compatible console switch models

This product supports only one level of cascading. Before cascading console switches, review the following information.



CAUTION: Do not use interface adapters to cascade one KVM Console Switch system with another KVM Console Switch system. If interface adapters are used to cascade these products, undesirable operations might occur.

KVM firmware upgrades cannot be done through a cascading connection. Each KVM console switch must have its firmware updated individually.

IP Console Switch



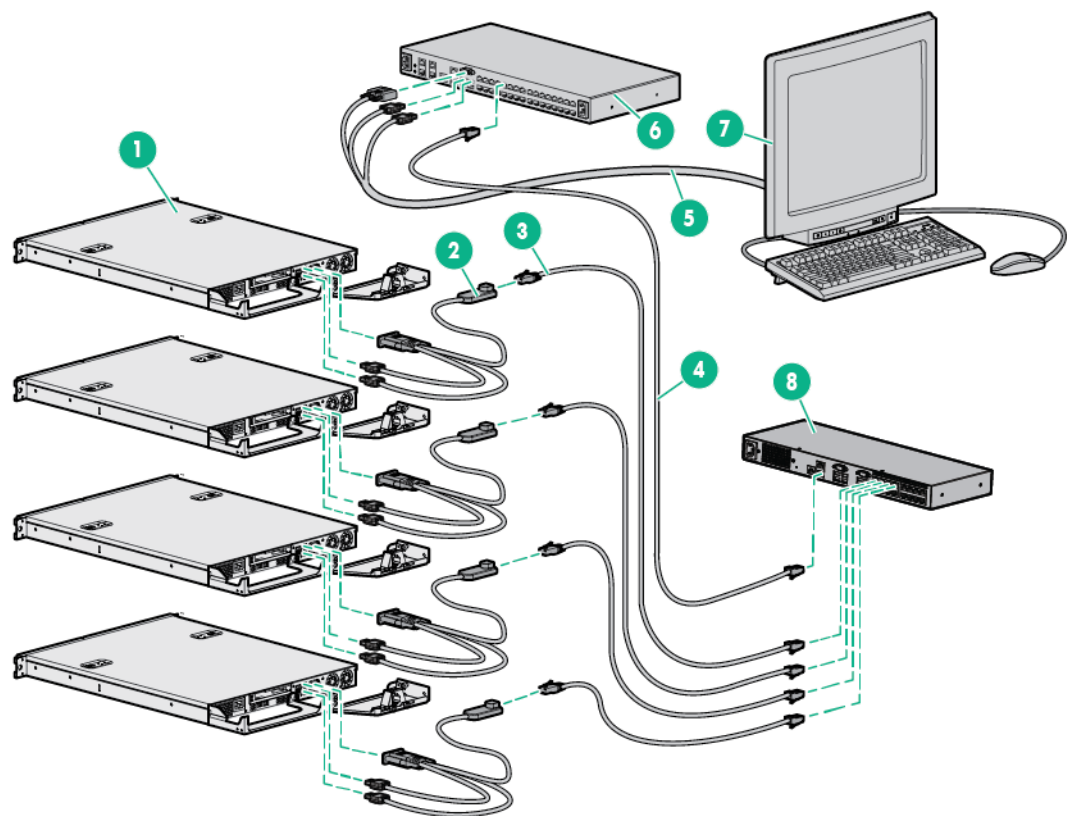
CAUTION: Do not use an interface adapter to cascade an IP Console Switch with an KVM Console Switch. If an interface adapter is used to cascade these products, undesirable operations might occur.

The following IP Console Switches can be integrated into the KVM Console Switch system. Compatible IP Console Switch models include:

- 2 x 1 x 16 [PN AF601A]
- 4 x 1 x 16 [PN AF602A]
- 1 x 1E x 8 [PN AF620A]
- 2 x 1E x 16 [PN AF621A]
- 4 x 1E x 32 [PN AF622A]

All IP Console Switches must have the latest SoftPaq firmware upgrade when cascaded.

Example of an IP Console Switch cascade configuration



Item	Description
1	Server
2	IA
3	UTP CAT5 cable or higher
4	UTP CAT5 cable or higher
5	KVM cable
6	Main IP Console Switch
7	Local port
8	Cascaded KVM Console Switch

Cascading two HPE KVM Server Console Switch G3 systems

To cascade two KVM Console Switch systems:

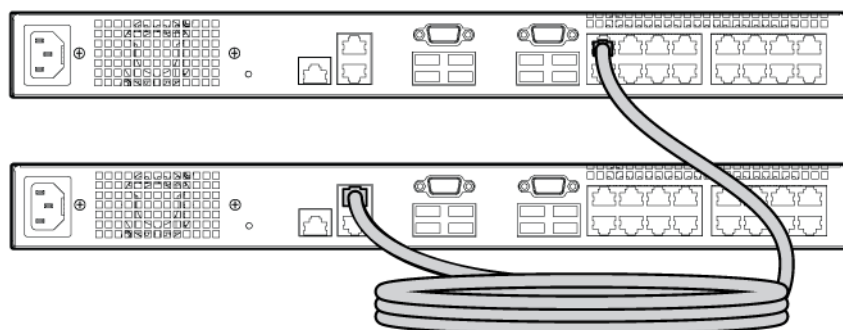
1. Locate a UTP CAT5 cable or higher.
2. Connect one end of the UTP CAT5 cable to the server connection port on the primary console switch.
3. Connect the other end of the UTP CAT5 cable to the RJ-45 tiering port on the secondary (cascaded) console switch.

To perform a firmware upgrade for a cascaded KVM Console Switch and all attached IAs, locally connect the keyboard, monitor, and mouse to the cascaded KVM Console Switch to access the local OSD.

The following figure shows a KVM Console Switch cascaded with another KVM Console Switch. The primary KVM Console Switch is on the top. The secondary (cascaded) KVM Console Switch is on the bottom.



CAUTION: Do not use interface adapters to cascade one KVM Console Switch system with another KVM Console Switch system. If interface adapters are used to cascade these products, undesirable operations might occur.



Cascading matrix

The following table lists with which console switches the KVM Console Switch can cascade. The primary console switch cascades to the secondary console switch.

Primary console switch	Secondary console switch
G3 KVM Console Switch [PN AF651, AF652]	G3 KVM Console Switch [PN AF651, AF652]
G3 KVM Console Switch [PN AF651, AF652]	KVM Console Switch G2 [PN AF616A, AF617A, AF626A]
G3 KVM Console Switch [PN AF651, AF652]	IP Console Switch G2 with Virtual Media [PN AF620A, AF621A, AF622A]
IP Console Switch G2 with Virtual Media [PN AF620A, AF621A, AF622A]	G3 KVM Console Switch [PN AF651, AF652]
IP Console Switch with Virtual Media [PN AF601A, AF602A]	G3 KVM Console Switch [PN AF651, AF652]

Local port operation

Overview

The HPE G3 KVM Console Switch system has at least one local port (based on the specific model) on the rear panel ("[Console switch components](#)" on page 14) that enables the user to connect a keyboard, monitor, and mouse to the HPE G3 KVM Console Switch for direct access.

Use the Main dialog box ("[Accessing the Main dialog box](#)" on page 22) to view, configure, and control servers in the HPE G3 KVM Console Switch system.

Accessing the Main dialog box

To access the Main dialog box, choose one of the following default key sequences.

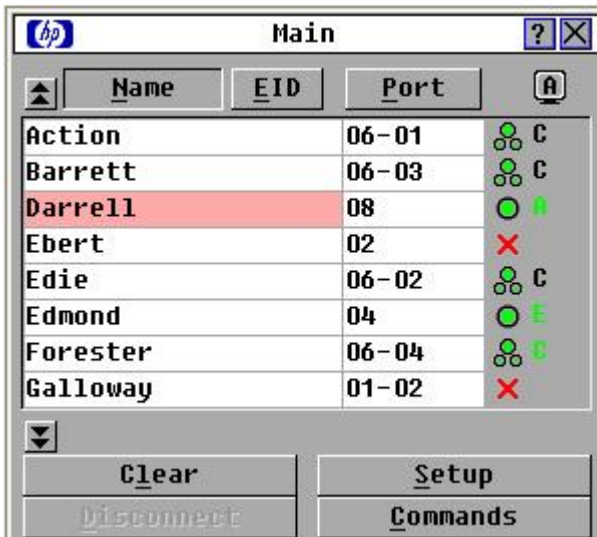
- **Print Scrn**
- **Ctrl + Ctrl**

To configure the following additional key sequences, see "Accessing the Menu dialog box (on page 27)."

- **Alt + Alt**
- **Shift + Shift**

Press the **Alt**, **Shift**, or **Ctrl** key twice within one second to launch the OSD. Use this key sequence where you see **Print Scrn**. For more information, see "Accessing the Menu dialog box (on page 27)."

The Main dialog box appears.



Button	Description
Clear	Clear all offline IAs
Disconnect	Disconnect the local KVM session
Setup	Access the Setup dialog box and configure the OSD
Commands	Access the Commands dialog box

Viewing servers

You can view servers by name, port, or by the unique EID embedded in each interface adapter.

Viewing the Port column

When you launch the Main dialog box ("[Accessing the Main dialog box](#)" on page 22) for the first time, an OSD-generated port list appears.

The Port column indicates the port to which a server is connected. For example, in the following figure, the first number represents the port number of the first console switch and the second number represents the port number of the cascaded console switch port to which the server is connected.

Port
16-01
14-02
01-04
02
02
04
05

Port number of the first console switch	Port number of the cascaded console switch	Server status icon displayed	Description
16	01		The server is connected to port 01 of the 2 x 8 KVM Console Switch, and that KVM Console Switch is cascaded from port 16 of the first KVM Console Switch.
14	02		The server is connected to port 02 of the 2 x 16 KVM Console Switch, and that KVM Console Switch is cascaded from port 14 of the first KVM Console Switch.
04			The server is connected to the first console switch and the interface adapter is not connected, or the server is powered off.
05			The server is connected to the first console switch and is active.

Viewing the Server Status column

The status of each server in the KVM Console Switch system is indicated by the icons in the right column of the Main dialog box ("[Accessing the Main dialog box](#)" on page 22).

Item	Description
	The interface adapter is connected directly, cascaded through a KVM Console Switch, or powered on.
	The interface adapter is not connected or the server is powered off.
	The interface adapter is being upgraded.

Item	Description
	This symbol identifies the port to which the console switch is connected.
	This symbol identifies the port to which you are connected and viewing.
	This symbol identifies another active port to which you are not connected.

Selecting servers

From the Main dialog box ("[Accessing the Main dialog box](#)" on page 22), select specific servers. When you select a new server, the console switch reconfigures the KVM to the setting for the selected server.

- Double-click the server **Name**, **EID**, or **Port**.
- Highlight a server using the up or down arrow keys, and then press the **Enter** key.
- If the display order of the server list is by Port (the Port button is clicked), enter the port number, and then press the **Enter** key.
- If the display order of the server list is by Name or EID number, enter the first few letters of the name of the server or the EID number to establish it as unique, and then press the **Enter** key.

The EID is an electronic identification number found on the IA cable label that is automatically assigned to the IA.

Soft switching

Soft switching is the ability to switch servers using a hotkey sequence. You can soft switch to a server by pressing the **Print Scrn** key, entering the first few characters of the server's name or port number, and pressing the **Enter** key.

Soft switching to a server

If the display order of your server list is by port, press the **Print Scrn** key, select the **Port**, and press the **Enter** key.

If the display order of your server list is by name, press the **Print Scrn** key, select the **Name**, and press the **Enter** key.

Configuring switches for soft switching

1. From the Main dialog box ("[Accessing the Main dialog box](#)" on page 22), click **Setup>Menu**. The Menu dialog box appears.
2. For Screen Delay Time, enter the number of seconds of delay desired before the Main dialog box displays after the **Print Scrn** key is pressed.
3. Click **OK** to save settings.

Soft switching to a previous server

Press the **Print Scrn** key, then press the **Backspace** key. This key combination toggles between the previous and current connection.

Disconnecting from a server

Press the **Print Scrn** key, and then press the **Alt+0** keys; press the **Alt+D** keys; or click **Disconnect**.

This leaves no server selected and the console switch is in a free state. The status flag ("[Controlling the status flag](#)" on page 31) on the OSD appears as Free.

Using basic OSD navigation keys

Keystroke	Description
Print Scrn	Opens the OSD Main dialog box. Press the Print Scrn key twice to send the Print Scrn keystroke to the currently selected device.
F1	Opens the Help screen for the current dialog box.
Esc	Closes the current dialog box without saving changes and returns to the previous dialog box. In the Main dialog box, it closes the OSD and returns to the selected server. In a message box, it closes the pop-up box and returns to the current dialog box.
Alt	Opens dialog boxes, selects options, and executes actions, when used in combination with the other keys.
Alt + X	Closes the current dialog box and returns to the previous dialog box.
Alt + O (the letter o)	Selects the OK button and returns to the previous dialog box.
Enter	Completes the console switch operation in the Main dialog box and exits the OSD.
Single-click, Enter	Selects the text, in a text box, for editing and enables the left and right arrow keys to move the cursor. Press the Enter key again to quit Edit mode.
Print Scrn, Backspace	Toggles back to the previous selection if no other keystrokes have been entered.
Print Scrn, Alt + 0, Alt + D	Disengages the user immediately from a server—no server is selected. Status Flag displays Free. (This only applies to the 0 on the keyboard, not the keypad.)
Print Scrn, Pause	Activates the Screen Saver mode immediately and prevents access to that particular console if it is password protected.
Up or Down arrows	Moves the cursor from line to line.
Right or Left arrows	Moves the cursor between columns. When editing a text box, these keys move the cursor within the column.
Page Up or Page Down	Pages up and down through Name and Port lists.
Ctrl + Ctrl, Shift + Shift, or Alt + Alt	Activates OSD.
Home or End	Moves the cursor to the top or bottom of a list.
Backspace	Erases characters in a text box.
Delete	Deletes current selection in the Scan dialog box or characters in a text box.
Shift, Delete	Deletes from current selection to all lines below it when editing a scan list.
Numbers	Adds numbers from the keyboard or keypad.
Caps Lock	Disables the user. (Use the Shift key to change case.)

Configuring the Setup dialog box

You can configure the KVM Console Switch and manage routine tasks for your servers from the Setup dialog box ("[Accessing the Setup dialog box](#)" on page 26) within the OSD.

Accessing the Setup dialog box

From the Main dialog box ("Accessing the Main dialog box" on page 22), click **Setup**. The Setup dialog box appears.



Managing routine tasks for servers

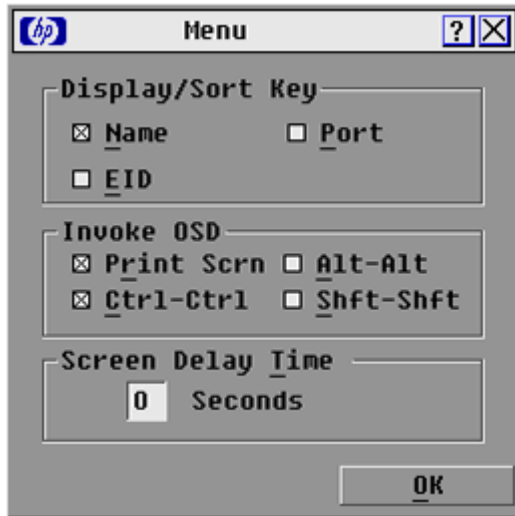
Button	Function
Menu	Changes the server listing between a numerical listing using the port or EID numbers and an alphabetical listing using the server name. After you press Print Scrn , changes the delay time before the Main dialog box appears.
Security	Sets password to restrict server access. A valid password must be alphanumeric and contain a minimum of five characters and a maximum of 15 characters. Permitted characters are case sensitive and can consist of A–Z, 0–9, spaces and hyphens. Enables the Screen Saver mode.
Flag	Changes the display, timing, color, and location of the status flag.
Language	Changes the OSD interface language.
Devices	Identifies device types attached to the KVM Console Switch, including servers and other legacy console switches. Also modifies the type of legacy console switches.
Names	Names the IA.
Keyboard	Changes the keyboard country code reported by the IA if queried.
Scan	Sets up custom scan patterns for up to 16 servers.
Network	Selects the network speed, transmission mode, and configuration.

Changing the display behavior

From the Menu dialog box ("Accessing the Menu dialog box" on page 27), the display order of servers, HPE G3 KVM Console Switch connection mode, and a time to delay display of the OSD after pressing the **Print Scrn** key can be changed. The display order setting alters how servers display in several screens, including the Main, Devices, and Broadcast dialog boxes.

Accessing the Menu dialog box

To access the Menu dialog from the Main dialog box ("[Accessing the Main dialog box](#)" on page 22), click **Setup>Menu**. The Menu dialog box appears.



Selecting the display order of servers

1. From the Menu dialog box ("[Accessing the Menu dialog box](#)" on page 27), select **Name** to display servers alphabetically by name.
-or-
Select **EID** to display servers numerically by interface adapter ID number.
-or-
Select **Port** to display servers numerically by port number.
2. Click **OK** to save settings.
-or-
Click **X** to exit, or press the **Esc** key to exit without saving settings.

Selecting and setting the OSD hot key command

1. Select the desired hot key sequence.
Clearing all boxes leaves the **Print Screen** as the default option.
2. Choose one of the following options:
 - o Click **OK** to save settings
 - o Click **X** or press the **Esc** key to exit without saving settings.

Setting a screen delay time

Setting a time to delay the display of the OSD enables you to complete a soft switch ("[Soft switching](#)" on page 24) without displaying the OSD. It is strongly recommended to leave the number of seconds (0-9) the OSD is delayed to the default (0).

1. From the Main dialog box ("[Accessing the Main dialog box](#)" on page 22), enter the number of seconds (0–9) the OSD is delayed after pressing the **Print Scrn** key. Entering **0** instantly displays the OSD with no delay.
2. Click **OK** to save settings.

-or-

Click **X** to exit, or press the **Esc** key to exit without saving settings.

Setting local console switch security

The OSD enables you to set security on the local port consoles. You can establish a Screen Saver mode that engages after the KVM Console Switch remains unused for a user-definable time delay. When engaged, the KVM Console Switch remains locked until any key is pressed or the mouse is moved. Then you can enter the password to log in.

Use the Security dialog box ("[Accessing the Security dialog box](#)" on page 28) to lock your KVM Console Switch with password protection, set or change the password, and enable the screen saver.

NOTE: If a password has been previously set, you must enter the password before you can access the Security dialog box.

Accessing the Security dialog box

From the Main dialog box ("[Accessing the Main dialog box](#)" on page 22), click **Setup>Security**. The Security dialog box appears.



Changing the password

1. From the Security dialog box ("[Accessing the Security dialog box](#)" on page 28), click the **New** field or double-click the **New** field.
2. Enter the new password in the New field, and then press the **Enter** key.
3. In the Repeat field, re-enter the password and press the **Enter** key.
4. Click **OK** to change the password.



IMPORTANT: A valid password must be alphanumeric and be 5 to 15 characters in length. Permitted characters are case-sensitive and can consist of A–Z, 0–9, spaces, and hyphens.

Setting password protection

1. From the Security dialog box ("[Accessing the Security dialog box](#)" on page 28), set your password as described in the previous procedure ("[Changing the password](#)" on page 28).

2. Select **Enable Screen Saver**.
3. Enter the number of minutes for Time Delay (from 1 to 99) to delay activation of password protection and the screen saver feature.
4. (Optional) Click **Test** to activate the screen saver test, which lasts 10 seconds and returns you to the Security dialog box.
5. Click **OK** to save settings.



CAUTION: Monitor damage can result from the use of energy mode with monitors not compliant with Energy Star®.

Logging in to the console switch

1. Press any key on the keyboard, or move the mouse. The Authorize dialog box appears.
2. Enter the password, and then click **OK**.



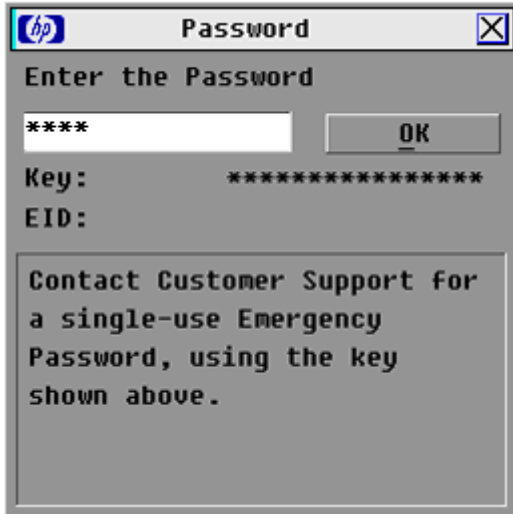
Removing the password protection

1. From the Main dialog box ("[Accessing the Main dialog box](#)" on page 22), click **Setup>Security**.
2. Choose one of the following options:
 - o In the Security dialog box, click the **New** field and press the **Enter** key.
 - o Double-click the **New** field, leave the New field blank, and press the **Enter** key.
3. Choose one of the following options:
 - o Click the **Repeat** field and press the **Enter** key.
 - o Double-click the **Repeat** field, leave the Repeat field blank, and press the **Enter** key.
4. Click **OK** if you want to eliminate the password.

Resetting a console switch password

1. Press any key on the keyboard, or move the mouse. The Authorize dialog box appears.

2. Enter help in the password field. A dialog box appears with a Hewlett Packard Enterprise technical support phone number, a 16-bit key, and the EID number of the console switch.



3. Call Hewlett Packard Enterprise technical support ("[Accessing Hewlett Packard Enterprise Support](#)" on page 74). Give the service person your 16-bit key and EID number of the console switch. A one-time unlock code, which is specific to your console switch, is given to you.
4. Enter the one-time unlock code in the field.
5. Click **OK**. Your previous console switch password is deleted.

Exiting screen saver mode

To exit the Screen Saver mode, press any key or move the mouse. The Main dialog box ("[Accessing the Main dialog box](#)" on page 22) is displayed.

Activating Screen Saver mode without password protection

1. If your KVM Console Switch does not require a password to gain access to the Security dialog box ("[Accessing the Security dialog box](#)" on page 28), proceed to step 2.
-or-
If your KVM Console Switch is password protected, refer to the Deactivating the Screen Saver (on page 31) section, then go to step 2.
2. Select **Enable Screen Saver**.
3. Enter the number of minutes for Inactivity Time (1 to 99) to delay activation of the screen saver.
4. (Optional) Click **Test** to activate the screen saver test, which lasts 10 seconds, then returns you to the Security dialog box.
5. Click **OK** to save settings.



CAUTION: Monitor damage can result from the use of energy mode with monitors not compliant with Energy Star®.

NOTE: No server is selected after the activation of the screen saver mode disconnects the user from a server. The status flag displays Free.

Deactivating the screen saver

- 1. From the Security dialog box ("[Accessing the Security dialog box](#)" on page 28), deselect **Enable Screen Saver**.
- 2. Click **OK** to save settings.

To immediately activate the screen saver, press the **Print Scrn** key, and then press the **Pause** key. This command only works when the user is connected to a server.

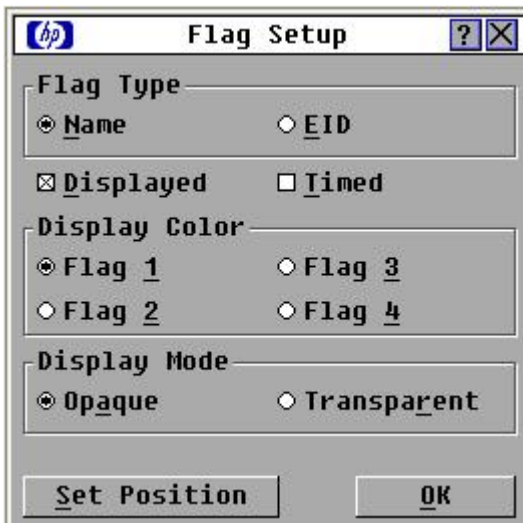
Controlling the status flag

The status flag appears on the desktop and shows the Name or EID number of the selected server or the status of a particular port. Use the Flag Setup dialog box ("[Accessing Flag Setup dialog box](#)" on page 31) to change the flag display by server name or EID number or to change the flag color, opacity, display time, and location on the desktop.

Flag	Description
	Flag type by name
	Flag type by EID number
	Flag indicating that the user has been disconnected from all systems
	Flag indicating that the broadcast is activated
	Flag indicating that the user is in share mode
	Control used to set flag position

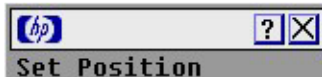
Accessing Flag Setup dialog box

From the Main dialog box ("[Accessing the Main dialog box](#)" on page 22), click **Setup>Flag**. The Flag Setup dialog box appears.



Displaying the status flag

1. From the Flag Setup dialog box ("[Accessing Flag Setup dialog box](#)" on page 31), select **Name** or **EID** to determine what information appears.
2. Select **Displayed** to show the flag constantly, or select **Timed** to display the flag for only five seconds after soft switching.
3. Select a flag color in Display Color.
4. In the Display Mode, select **Opaque** for a solid-color flag or **Transparent** to see the desktop through the flag.
5. Position the status flag on the desktop:
 - a. Click **Set Position** to gain access to the Position Flag screen.
 - b. Click and hold the title bar and drag to a location.
 - c. Right-click to return to the Flag dialog box.



6. Choose one of the following options:
 - o Click **OK** to save settings.
 - o Click **X** to exit, or press the **Esc** key to exit without saving settings.

Changes made to the position flag are not saved until you click **OK** in the Flag Setup dialog box ("[Accessing Flag Setup dialog box](#)" on page 31).

Setting the OSD interface language

Use the Language window to configure the OSD interface languages.

1. Access the Setup ("[Accessing the Setup dialog box](#)" on page 26) window.
2. Click **Language**. The Language window appears.



3. Select a language.
4. Choose one of the following options:
 - o Click **OK** to change the OSD interface language and return to the Setup window.
 - o Click **X** or press the **Esc** key to exit without changing the keyboard language.

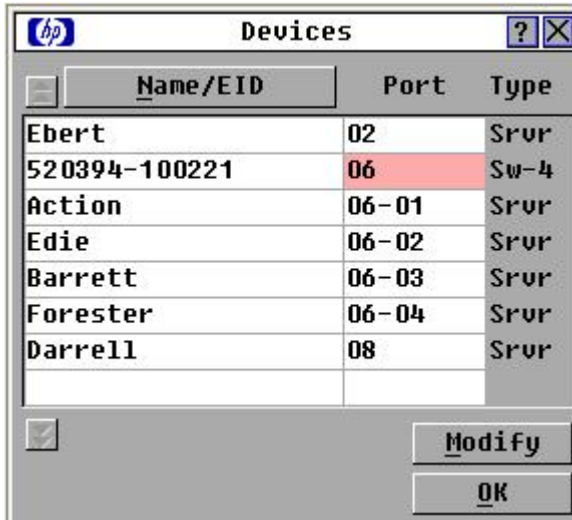
Assigning device types

While the KVM Console Switch automatically discovers cascaded Server Console Switches attached to the unit, you must specify the number of ports on the cascaded Server Console Switch through the Devices dialog box ("[Accessing Devices dialog box](#)" on page 33).

Accessing Devices dialog box

From the Main dialog box ("[Accessing the Main dialog box](#)" on page 22), click **Setup>Devices**. The Devices dialog box appears.

The Modify button is only available when a configurable Server Console Switch is selected.



When the KVM Console Switch discovers a cascaded KVM Console Switch, the port numbering changes automatically to accommodate each server. For example, if the KVM Console Switch is connected to port 02, the switch port is listed as 02, and each server under it is numbered sequentially 02-01, 02-02, and so on.

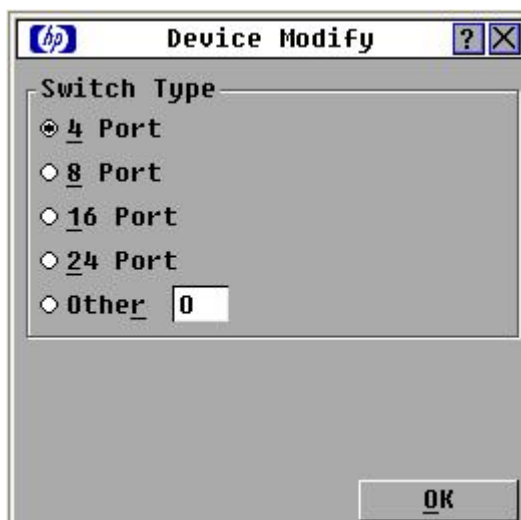
However, when a KVM Console Switch discovers a cascaded Server Console Switch, select the number of ports on the Server Console Switch through the Device Modify dialog box.

Modifying device types

To modify the device types:

1. From the Devices dialog box ("[Accessing Devices dialog box](#)" on page 33), select the Port number.

2. Click **Modify**. The Device Modify dialog box appears.



3. Select the number of ports supported by the cascaded Server Console Switch. If the number of ports on the tiered switch is not listed, click **Other**, and then enter a port number between 4 and 24.
4. Click **OK**.
5. Repeat the previous steps for each port the user wants to assign a device type.
6. Choose one of the following options:
 - o Click **OK** in the Devices dialog box to save settings.
 - o Click **X** to exit, or press the **Esc** key to exit without saving settings.

Changes made in the Device Modify dialog box are not saved until you click **OK** in the Devices dialog box.

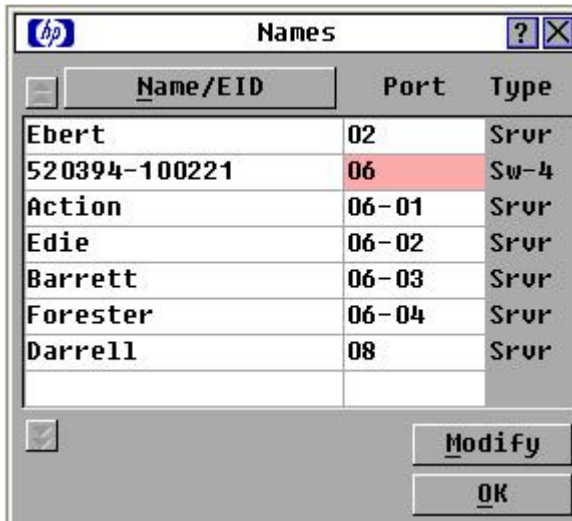
Assigning server names

Use the Names dialog box ("[Accessing the Names dialog box](#)" on page 34) to identify individual servers or serially managed devices by name rather than by port number. The Names list is always sorted by port order, and the names are stored in the IA ("[Installing the interface adapter](#)" on page 18). If you move the IA or server to another switch port, the HPE G3 KVM Console Switch recognizes the names and configurations.

Accessing the Names dialog box

From the Main dialog box ("[Accessing the Main dialog box](#)" on page 22), click **Setup>Names**. The Names dialog box appears.

If the server list changed since it was last displayed, the mouse cursor turns into an hourglass as the list automatically updates. No mouse or keyboard input is accepted until the list update completes.



Assigning names to servers

1. From the Names dialog box ("[Accessing the Names dialog box](#)" on page 34), select the name or port number and click **Modify**. The Name Modify dialog box appears.



2. In the New Name field, enter a name. Names can be 1 to 15 characters in length. Permitted characters are case-sensitive and can consist of A–Z, 0–9, spaces, and hyphens.
3. Click **OK** to transfer the new name to the Names dialog box.
4. Repeat steps the previous steps for each server in the system.
5. Choose one of the following options:
 - o Click **OK** to save settings.
 - o Click **X** to exit, or press the **Esc** key to exit without saving settings.

Changes made in the Name Modify dialog box are not saved until you click **OK** in the Names dialog box.

Changing the keyboard language

You can select the language for all USB Interface Adapters connected to the console switch.

Accessing the Keyboard dialog box

From the Main dialog box ("[Accessing the Main dialog box](#)" on page 22), click **Setup>Keyboard**. The Keyboard dialog box appears.



Selecting the keyboard language

1. From the Keyboard dialog box ("[Accessing the Keyboard dialog box](#)" on page 36), select the keyboard country code. A Keyboard Warning appears.



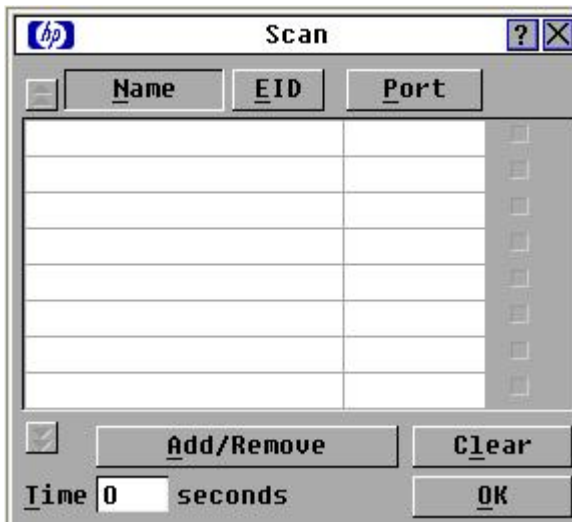
2. Click **OK**.

Setting up a scan pattern

In Scan mode ("[Activating Scan mode](#)" on page 38), the HPE G3 KVM Console Switch automatically scans port to port (server to server). You can select up to 16 servers from a list of all servers attached to the HPE G3 KVM Console Switch. You can display the list by either server name or EID number by clicking the appropriate button. Selecting the checkbox beside each server to be added to the scan list creates the scan list. The creation of a scan list does not start Scan mode. You must enable Scan mode through the Scan Enable checkbox on the Commands dialog box ("[Accessing the Commands dialog box](#)" on page 40).

Accessing the Scan dialog box

From the Main dialog box ("[Accessing the Main dialog box](#)" on page 22), click **Setup>Scan**. The Scan dialog box appears.



Adding servers to the scan setup

1. From the Scan dialog box ("[Activating Scan mode](#)" on page 38), select the checkbox beside each server to scan.
-or-
Double-click a server name or port.
Double-clicking a server name or port toggles whether or not to scan the server.
-or-
Press the **Alt** key plus the number of the server to scan. Select up to 16 servers.
Pressing the **Alt** key plus the number of the server toggles whether or not to scan the server.
-or-
Press the up or down arrow key to highlight a server, and then click the **Add/Remove** button.
The Add/Remove button toggles whether or not to scan the server.
2. In the Time box, enter the number of seconds (from 3 to 99) before the scan moves to the next server in the sequence.
3. Click **OK** to save settings.
-or-
Click **Clear** to remove all servers from the scan setup.



IMPORTANT: Selecting the checkbox beside each server to scan sets up the scan pattern. The creation of a scan pattern does not start the Scan mode. You must enable Scan mode through the Scan Enable checkbox in the Commands dialog box ("[Accessing the Commands dialog box](#)" on page 40).

Servers are scanned in the order they are added to the scan setup. Removing a server from the Device Modify dialog box later might affect a custom scan pattern.

Removing servers from the scan setup

1. From the Scan dialog box ("[Activating Scan mode](#)" on page 38), clear the checkbox beside each server to remove from the scan setup.
-or-
Double-click a server name or port.
Double-clicking a server name or port toggles whether or not to scan the server.
-or-
Press the **Alt** key plus the number of the server to scan.
Pressing the **Alt** key plus the number of the server toggles whether or not to scan the server.
-or-
Press the up or down arrow key to highlight a server, and then click the **Add/Remove** button.
The **Add/Remove** button toggles whether or not to scan the server.
-or-
Click **Clear** to remove all servers from the scan setup.
2. Click **OK** to save settings.

Activating Scan mode

1. From the Commands dialog box ("[Accessing the Commands dialog box](#)" on page 40), select **Scan Enable**.
2. Click **X** to close the Commands dialog box.

NOTE: The scanning begins as soon as you click **Scan**.

Deactivating Scan mode

If the OSD is open, select a server.

-or-

If the OSD is not open, move the mouse or press any key on the keyboard. Scanning stops at the currently selected server.

-or-

From the Commands dialog box ("[Accessing the Commands dialog box](#)" on page 40), clear the **Scan Enable** checkbox. Any active connections on the local port are disconnected.

Configuring the Switch and Share modes

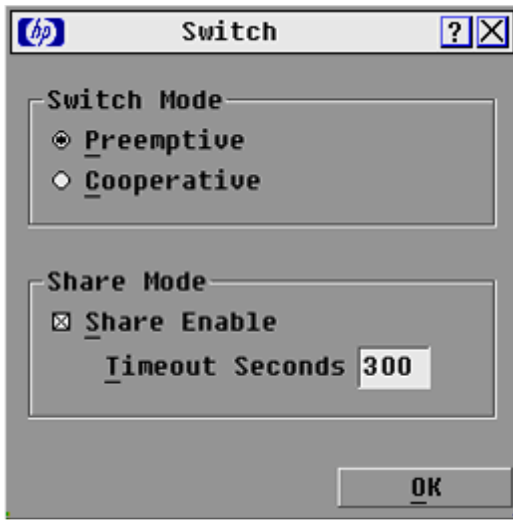
The Switch window can be used to set one of the following switch modes:

- **Preemptive** (default setting)—Enables any user to select any server at any time; a request from another user disconnects the current user without warning.
- **Cooperative**—Maintains the current user connection; the current user will not be disconnected if another user requests connection.

You can also enable or disable Share mode and specify a time-out period from the Switch window. Share mode enables two users to access a primary server.

Accessing the Switch dialog box

1. From the Main dialog box ("[Accessing the Main dialog box](#)" on page 22), click **Setup>Switch**. The Switch window appears.



Setting the Switch and Share modes

1. Access the Switch window ("[Accessing the Switch dialog box](#)" on page 39).
2. Select either **Preemptive** or **Cooperative** as the Switch mode. For more information, see [Configuring the Switch and Share modes](#) (on page 38).
3. (Optional) Select **Share Enable**.
4. Specify the share time-out period.
5. Choose one of the following options:
 - o Click **OK** to save the settings and return to the Setup window.
 - o Click **X** or press the **Esc** key to exit without saving the settings.

Configuring network settings

Use the Network dialog box to set the network speed, transmission mode, and network configuration feature.

To change network settings:

1. If the OSD interface is not open, press **Print Screen** to open the Main dialog box ("[Accessing the Menu dialog box](#)" on page 27).
2. Click **Setup>Network** to open the Network dialog box.
3. Make any changes, and then click **OK** to confirm or click **X** to exit without saving.

Changing the network settings causes the switch to reboot.

4. Click **OK** in the Devices dialog box to save the settings.

Changes made in the Device Modify and Name Modify dialog boxes are not saved to the switch until you click **OK** in the dialog box.

The EID is the default name of an IA module.

Managing console switch tasks using the OSD

Manage the KVM Console Switch system from the Commands dialog box ("[Accessing the Commands dialog box](#)" on page 40) with the OSD, including:

- Engaging Scan mode ("[Activating Scan mode](#)" on page 38)
- Managing user connections
- Updating IA firmware

Feature	Purpose
Scan Enable	Begin scanning servers*
User Status	Display all active connections and disconnect a connection
IA Status	Upgrade multiple IAs simultaneously
Display Versions	Display version information for the console switch, and firmware information for individual IAs. Upgrade individual IA firmware.
Display Config	Display the values of configurable settings for the KVM in a single text list
Device Reset	Reset local console PS/2 devices on switches with PS/2 ports

*Set up servers to scan in the Setup dialog box ("[Accessing the Setup dialog box](#)" on page 26).

Accessing the Commands dialog box

From the Main dialog box ("[Accessing the Main dialog box](#)" on page 22), click **Commands**. The Commands dialog box appears.



Displaying version information

The Versions dialog box ("[Accessing the Version dialog box](#)" on page 40) enables you to view the HPE G3 KVM Console Switch versions, as well as keyboard and mouse information for the currently selected server.

Accessing the Version dialog box

NOTE: Provide the application version number when communicating with Hewlett Packard Enterprise customer service centers.

1. From the Main dialog box ("[Accessing the Main dialog box](#)" on page 22), click **Commands>Versions**. The Version dialog box appears. The top half of the box lists the firmware application and subsystem versions in the KVM Console Switch.



Using the on-board Web interface (OBWI)

Setting up the built-in web server

Before using the OBWI to access the KVM Console Switch, specify the IP address using the OSD or by establishing a terminal session through the DIAG port.

Launching the OBWI

The remote OBWI supports the following operating systems and browsers.

Operating System	32-bit	64-bit	IA-64
Microsoft Windows 7 SP1	Yes	No	No
Microsoft Windows Server 2008 R2 SP1	No	Yes	No
Microsoft Windows 8.1	No	Yes	No
Microsoft Windows Server 2012	No	Yes	No
Microsoft Windows Server 2012 R2	No	Yes	No
Red Hat Enterprise Linux 5.10	Yes	No	No
Red Hat Enterprise Linux 6.5	No	Yes	No
Ubuntu 12.04 LTS	Yes	No	No
Ubuntu 14.04 LTS	No	Yes	No
openSUSE 12.3	Yes	No	No
openSUSE 13.1	No	Yes	No
Apple OS X Mountain Lion (10.8)	No	Yes	No
Apple OS X Mavericks (10.9)	No	Yes	No
VMware ESXi 4.1 u3	No	Yes	No
VMware ESXi 5.5	No	Yes	No
HP-UX 11i v3 update 12	No	No	Yes

Web browser	Operating system
Microsoft Internet Explorer 9	Windows Server 2008 R2 SP1
Mozilla Firefox Extended Support Release 24	Windows, Linux, OS X
Mozilla Firefox version 30 and version 31	Any
Apple Safari 6.1	OS X Mountain Lion (10.8)
Apple Safari 7	OS X Mavericks (10.9)
Google Chrome 3.7.0.2062.120m	Windows, Linux, OS X

To log in to the KVM Console Switch OBWI:

1. Install Java 1.6 or higher.
For more information on installing Java without Internet capabilities, see the Documentation CD.
2. Open a browser window.
3. Enter the secure IP address (https://) of a console switch.
When using IPv6 mode, include square brackets around the IP address.

To set the IP address of the console switch, use the OBWI or the OSD. For more information, see the installation guide or user guide specific to the console switch.

If a dialog box appears indicating that there are problems with the security certificate, accept the certificate for this session:

- In Microsoft Internet Explorer, click **Yes**.
- In Mozilla Firefox, select **Accept this certificate temporarily for this session** and then click **OK**.

To prevent this dialog box from appearing every time you launch the OBWI, manually install the certificate ("[Generating a certificate](#)" on page 47).

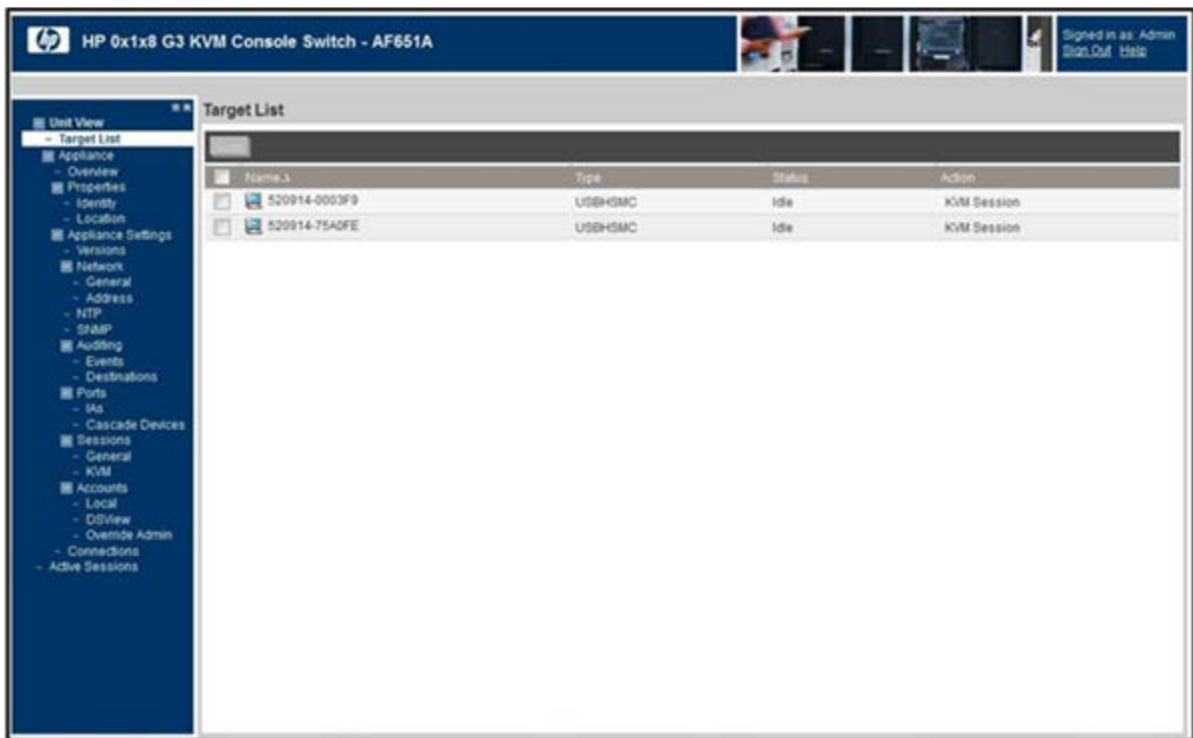
4. Enter your username and password.

The default username is Admin (case sensitive) and the password field is left blank.

5. Click **Login**.

6. Select a server from the target list to launch a video viewer session.

The RAK must be installed to initiate a KVM session. The **KVM Session** link in the Action column does not appear if the RAK is not installed.



If Java is not installed, a Java Not Detected error message appears.



7. If Java is installed, the following dialog appears. Manually check the file association of the .jnlp file with Java Web Start Launcher.



8. Click **OK**.

When you are logged in, launch multiple sessions of the OBWI without logging in again. However, if the connection is inactive for a time that exceeds the inactivity timeout set by the administrator or if you log out, log in again.

To log in to the switch OBWI from outside a firewall, repeat the procedure but enter the external IP address of the firewall.

Connecting to the remote OBWI through a firewall

Any console switch installation that uses the remote OBWI for outside access must have four ports opened in a firewall.

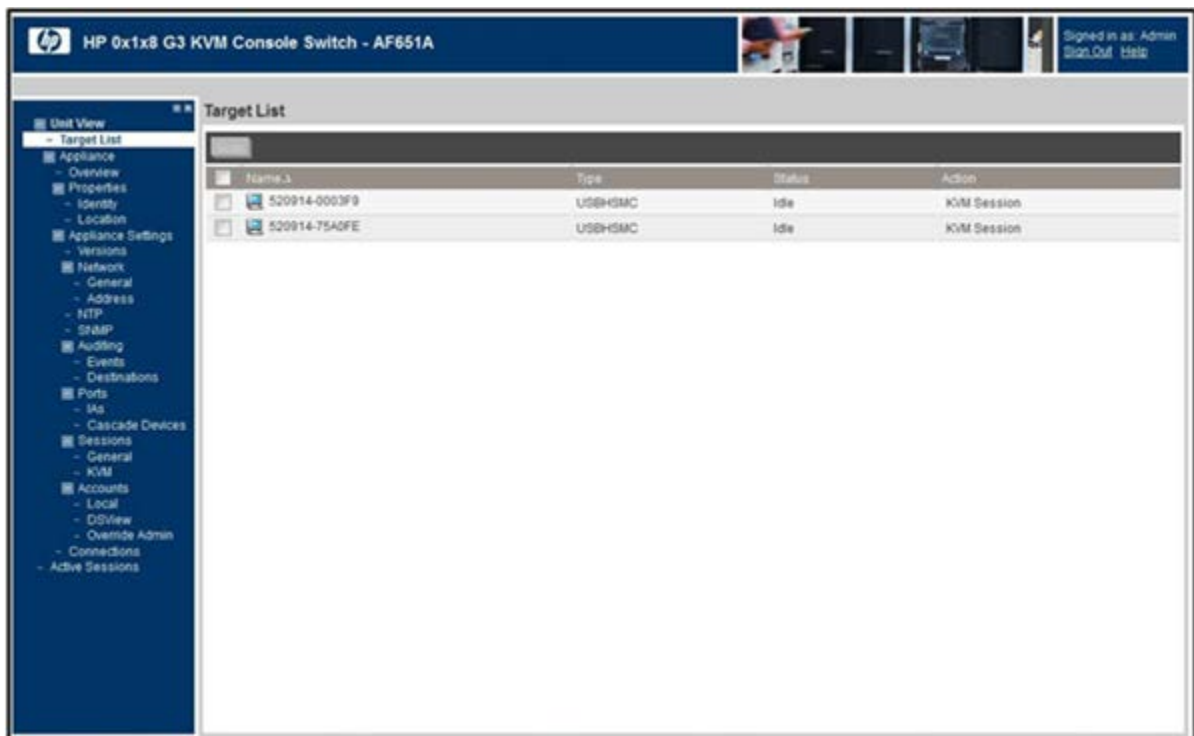
TCP port number	Function
80	Used for the initial download of the Video Viewer (for downloading the Java applet)
443	Used by the web browser interface for managing the switch and launching KVM sessions
2068	Used for transmission of KVM session data or transmission of video on switches (requires the RAK)
TCP/UDP 3211	Used for discovery (requires the RAK)

In some configurations, the workstation is located outside the firewall, and the console switch is located inside the firewall. To configure the firewall, forward ports 80 and 443 from the external interface to the KVM Console Switch through the firewall internal interface. For port forwarding instructions, see your firewall documentation.

An administrator can configure ports 80 and 443. Reboot for a port change to take effect.

Managing console switches

After authenticating, the OBWI appears.



Use the top option bar to contact technical support, view general software information, log out of an OBWI session, and access help.

Use the side navigation bar to select the information to display.

Use the content area to view information and make changes.

Viewing system information

View switch and target device information from the following screens in the OBWI.

- **Unit View>Target List**
Target List lists the connected devices, as well as the name, type, status, and action of each device. Click a target device to view the name, type, EID, available session option, and the connection path.
- **Unit View>Appliance>Overview**
Overview lists the name, type, and the KVM Console Switch tools: Reboot, Save Appliance Configuration, Save Appliance User Database, Reset Appliance Configuration to Factory Defaults, Ping, Manage Appliance Web Certificate, Upgrade Firmware, Restore Appliance Configuration, Restore Appliance User Database, and Save Appliance Trap MIB.
- **Unit View>Appliance>Properties>Identity**
Identity lists the part number, serial number, and status of the RAK.
- **Unit View>Appliance>Properties>Location**
Location lists the site, department, location, and location discovery information of each unit.
- **Unit View>Appliance Settings>Versions**
Versions lists the current application, boot, build, hardware, UART, and video ASIC versions.
- **Unit View>Appliance Settings>Network**
Network lists the MAC address, LAN speed, and web server ports.
- **Unit View>Appliance Settings>Address**
Address lists IP version, the IP address, subnet, gateway, and the status of BOOTP.
- **Unit View>Appliance Settings>NTP**
NTP lists the status of NTP, the NTP servers (if enabled), the status of the update interval, and the update interval value.
- **Unit View>Appliance Settings>SNMP**
SNMP lists the system description, SNMP setting, contact, read/write and trap settings, and designations for allowed managers.
- **Unit View>Appliance Settings>Auditing**
Auditing lists the events list and status, as well as the SNMP trap destinations.
- **Unit View>Appliance Settings>Ports**
Ports lists the status, EID, name, port, application and interface type for each IA adaptor; name, port, type, channels, and status for each tiered switch.
- **Unit View>Appliance Settings>Sessions**
Sessions lists the general session timeout and sharing details; KVM encryption levels and keyboard language; drive mappings, encryption level, and IA adapter settings.
- **Unit View>Appliance>User Accounts**
User Accounts lists the security and user lock-out for the user account; authentication server assignments for DSView management software; and override admin username and password in case of a failed operation.
- **Unit View>Appliance>Connections**
Connections lists the connection path name and type.
- **Active Sessions**
Active Session lists the server, owner, remote host, duration, and type of each active session.

Generating a certificate

Install a web certificate to access the OBWI without having to acknowledge the switch as a trusted web device each time you access it. Using the Install Web Certificate window, generate a new self-signed OpenSSL or upload a certificate. Uploaded certificates must be in OpenSSL PEM format with an unencrypted private key.

To install a web certificate:

1. Click **Unit View>Appliance>Overview**.
2. Click **Manage Appliance Web Certificate**.
3. Click **Update**.
4. Select the **Generate a new Self-Signed Certificate** radio button, and then enter information in the following fields:
 - o **Common name:** your name. Because this is your root certificate, use an appropriate name, such as "Company_Name Certificate Authority."
 - o **Organization:** organization unit name (for example, "marketing").
 - o **City or Locality:** the city where the organization is located.
 - o **State or Province:** the unabbreviated state or province where the organization is located.
 - o **Country:** the two-letter ISO abbreviation for the country.
 - o **Email Address:** the email address for the Certificate Authority to contact.
5. Click **Generate** to create the certificate.

To upload a new certificate:

1. Click the **Upload a New Certificate** radio button.
2. Select the upload method:
 - o Filesystem
 - o TFTP
 - o FTP
 - o HTTP
3. Click **Browse** to search for the certificate or enter the certificate filename.
4. Click **Install**. Close the web browser, and then launch the OBWI again for the same IP address. If importing a company certificate file, it might take up to 30 seconds to launch the OBWI.
5. When prompted, click to view the certificate and follow the instructions to import the certificate into the Root Certificate Authority folder. After the certificate is stored, you do not see the certificate warning.

Rebooting and upgrading the KVM console switch

From **Unit View>Appliance>Overview**, view the switch name and type, reboot the switch, and then upgrade the switch firmware.

Rebooting the KVM console switch

To reboot the KVM Console Switch:

1. Click **Unit View>Appliance>Overview** to open the Unit Maintenance screen.
2. Click **Reboot**.
A dialog box appears warning that all active sessions will be disconnected.
3. Click **OK**.

When using the local UI, the screen is blank while the KVM Console Switch reboots. When using the remote OBWI, a message appears informing you the interface is waiting on the switch to complete the reboot.

Upgrading the console switch firmware

Update the switch with the latest available firmware.

After the firmware is updated, the switch performs a soft reset, which ends all IA sessions. A target device experiencing an IA firmware update might not appear, or might appear as disconnected. The target device appears normally when the update completes.



CAUTION: Disconnecting an IA during a firmware update or while cycling power to the target device renders the IA inoperable. The IA must be returned to the factory for repair.

To upgrade the switch firmware:

1. From the side navigation bar, click **Unit View>Appliance>Overview** to open the Unit Maintenance screen.
2. Click **Upgrade Firmware**.
3. Select one of the following methods to load the firmware:
 - Filesystem
 - TFTP
 - FTP
 - HTTP

The Filesystem option is only available on the remote OBWI.

4. If you select Filesystem, select **Browse** to specify the location of the firmware upgrade file.
If you select TFTP, enter the Server IP Address and Firmware File to load.
If you select FTP or HTTP, enter the Server IP Address and Firmware File to load, as well as the User Name and User Password.
5. Click **Upgrade**.

Saving and restoring configurations and user databases

The switch configuration and local user database can be saved to files. Once saved, the configuration file or local user database can be restored to the switch.

Saving a managed switch configuration or user database

To save a KVM Console Switch configuration or the local user database of a KVM Console Switch:

1. Click **Unit View>Appliance>Overview**.
2. Click **Save Appliance Configuration** or **Save Appliance User Database**.
3. Select the file save method:
 - Filesystem
 - TFTP
 - FTP
 - HTTP PUT
4. If you select TFTP, enter the server IP address and firmware filename to load.
If you select FTP or HTTP, enter the server IP address, username, password, and firmware filename to load.
5. (Optional) Enter an encryption password to encrypt the data before download.

6. Click **Download**. The file downloads.
7. Click **Close**.

Restoring a managed switch configuration or user database

To restore a KVM Console Switch configuration or local user database of a KVM Console Switch:

1. Click **Unit View>Appliance>Overview**.
2. Click **Restore Appliance Configuration** or **Restore Appliance User Database**.
3. Select the file save method:
 - Filesystem
 - TFTP
 - FTP
 - HTTP
4. If you select Filesystem, click **Browse** to specify the location of the firmware upgrade file.
If you select TFTP, enter the server IP address and firmware filename to load.
If you select FTP or HTTP, enter the server IP address, username, password, and firmware filename to load.
5. Click **Browse**.
6. Navigate to the location of the file, select the file, and then click **Upload**.
If the file is encrypted, enter the password.
7. After the success screen appears, reboot the KVM Console Switch to enable the restored configuration.

Identity and location information

The KVM Console Switch reports most device properties directly through the KVM Console Switch web browser.

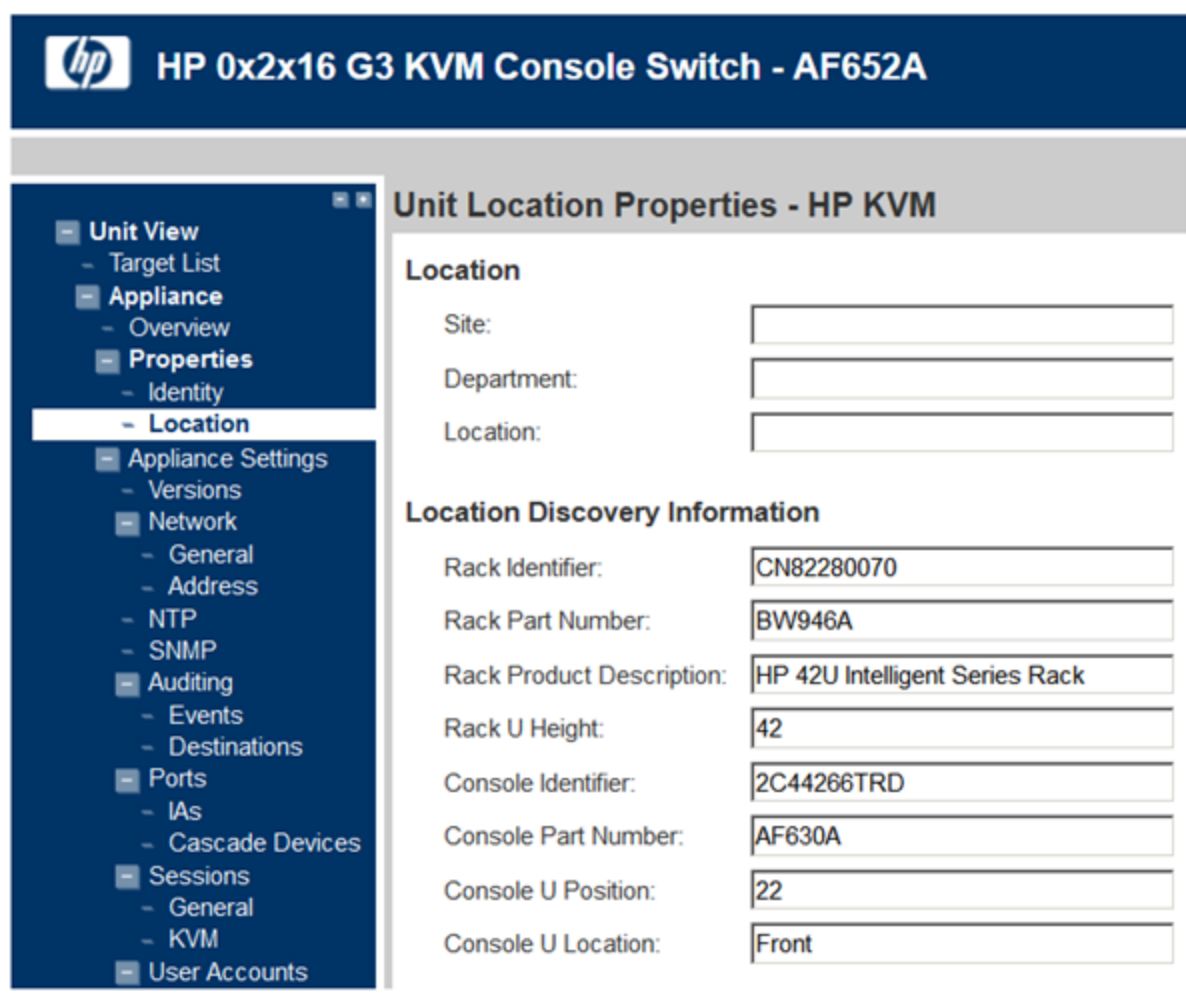
Clicking **Unit View>Appliance>Properties>Identity** lists the part number, serial number, EID, and status of the RAK.

Clicking **Unit View>Appliance>Properties>Location** displays the site, department, and location. This screen also displays the location discovery information, which is auto-populated when using a rackmount console with HPE Location Discovery Services.

LDS and PDS

The KVM Console Switch supports PDS. When plugged into an iPDU using a PDS power cord, the iPDU dynamically discovers the KVM Console Switch appliance.

When connected to a rack mount console that supports LDS, the KVM Console Switch receives the rack ID, console ID and part number, the rack U position, and location information. This information appears in the KVM Console Switch OBWI under **Unit View>Appliance>Properties>Location**.



When location information is available, the KVM Console Switch uses the rack ID and console U position as its own when queried by the iPDU and reports its location to be in the back of the rack. This information is only accurate when viewed in the iPDU OBWI if the KVM Console Switch is mounted directly behind the console in the shared U position.

The LDS/PDS information query and update time intervals vary between the iPDU and the KVM Console Switch, as well as the time intervals for query and update between the KVM Console Switch and the console. As such, the time that it takes for the information to show up in the KVM Console Switch and iPDU varies.

Viewing version information

The Appliance Version Information screen displays version information of the current application, boot, build, hardware, UART, and the video ASIC versions. The screen is read-only.

Network settings

Only administrators can change the Network dialog box settings. Other users have read-only access to the settings.

General settings

To configure general network settings:

1. Click **Unit View>Appliance>Appliance Settings>Network>General** to display the Appliance General Network Settings screen.
2. Select one of the following options from the LAN speed menu:
 - Auto-Detect
 - 10 Mbps Half Duplex
 - 10 Mbps Full Duplex
 - 100 Mbps Half Duplex
 - 100 Mbps Full Duplex
3. Verify or modify the HTTP port and HTTPS port settings. The default values are HTTP 80 and HTTPS 443.
4. Click **Save**.

Address settings

To configure IPv4 network settings:

1. Click **Unit View>Appliance>Appliance Settings>Network>Address** to display the Appliance Network Address screen.
2. Select **IPv4**.
3. Enter information in the address, subnet, and gateway fields. Enter IPv4 addresses in the nnn . nnn . nnn . nnn format.
4. Select **Enabled** or **Disabled** from the BOOTP menu.
Enabling BOOTP ignores information entered in the address, subnet, and gateway fields.
5. Click **Save**.

To configure IPv6 network settings:

1. Click **Unit View>Appliance>Appliance Settings>Network>Address** to display the Appliance Network Address screen.
2. Select **IPv6**.
3. Enter information in the address, subnet, and prefix length fields. Enter IPv6 addresses in the FD00:172:12:0:0:0:0:33 or the abbreviated FD00:172:12::33 hex format.
4. Select **Enabled** or **Disabled** from the DHCP menu.
Enabling DHCPv6 ignores information entered in the address, subnet, and prefix length fields.
5. Click **Save**.

SNMP

SNMP is a protocol for communicating management information between network management applications and console switches. Other SNMP managers can communicate with the console switches by accessing MIB-II. When you select the SNMP category, the OBWI retrieves the SNMP information from the console switch.

In the SNMP category, enter system information and community strings, assign stations to manage console switches, and receive SNMP traps from console switches.

If you enable SNMP, console switches respond to SNMP requests over UDP port 161.

Configuring SNMP parameters

To configure SNMP:

1. Click **Unit View>Appliance>Appliance Settings>SNMP**.
2. Select **Enable SNMP**.

In the Name box, enter the fully qualified domain name of the system.

3. In the Contact box, enter the name of a contact person.
4. Enter the names of the Read, Write, and Trap communities.

These names (using from 1 to 64 characters) specify the community strings that must be used in SNMP actions. The Read and Write strings act as passwords that protect access to the console switches and apply only to SNMP over UDP port 161.

5. In the Allowable Managers boxes, enter the addresses of up to four management workstations that have the rights to manage this console switch. To allow any station to manage the console switch, leave the boxes empty.

Auditing event settings

An event is a notification the KVM Console Switch sends to a management station indicating something occurred that might require further attention.

To enable individual events:

1. Click **Unit View>Appliance>Appliance Settings>Auditing>Events**. The Events screen appears.
2. Select events from the list to generate notifications.
Select or clear the Event Name checkbox to select or clear the entire list.
3. Click **Save**.

Setting event destinations

Configure audit events to be sent to SNMP trap destinations and Syslog devices. Events enabled on the Events screen are sent to all devices listed on the Event Destination screen.

To set event destinations:

1. Click **Unit View>Appliance>Appliance Settings>Auditing>Destinations**. The Event Destinations screen appears.
2. In the SNMP Trap Destinations boxes, enter the addresses of up to four management workstations to which this console switch sends traps.
3. Click **Save**.

Configuring an IA

The switch displays a list of the attached IAs and the following information about each IA:

- EID
- Port
- Status
- Application version
- Interface type

Click an IA to view the following additional information:

- Switch type
- Boot version
- Application version
- Hardware version
- FPGA version
- Version available
- Upgrade status

Delete an offline IA and upgrade IA firmware.

Deleting an IA

To delete an offline IA:

1. Click **Unit View>Appliance>Appliance Settings>Ports>IAs**. The Appliance IAs screen appears.
2. Select the checkbox of the IA to delete.
3. Click **Delete Offline**.

Upgrading an IA

The IA upgrade feature enables IA updates with the latest firmware available. Perform this update using the KVM Console Switch user interface or management software.

After upgrading the firmware, the KVM Console Switch performs a soft reset, which ends all IA sessions. A device experiencing an IA firmware update might show as disconnected. The device appears normally when the update completes.

If the KVM Console Switch is configured to auto-upgrade IAs, the IAs automatically update when the switch is updated. To update the switch firmware, see "Upgrading the console switch firmware (on page 48)." IAs can be force-upgraded when necessary if issues occur during the normal upgrade process.

To change the IA Auto-Upgrade feature:

1. Click **Unit View>Appliance>Appliance Settings>Ports>IAs**. The Appliance IAs screen appears.
2. Select the checkboxes of the IAs to upgrade.
3. Click **Enable Auto-Upgrade**.

To upgrade the IA firmware:

1. Click **Unit View>Appliance>Appliance Settings>Ports>IAs**. The Appliance IAs screen appears.
2. Select the checkboxes of the IAs to modify.
3. Click **Operations** and select **Upgrade**.
4. Verify the settings, and then click **Upgrade**.

To set the USB speed (for USB 2.0 IAs):

1. Click **Unit View>Appliance>Appliance Settings>Ports>IAs**. The Appliance IAs screen appears.
2. Select the checkboxes of the IAs to modify.
3. Click **Operations** and select the USB speed.

Launching a session

Java 1.6.0_11 or later is required to launch a session.

To launch a session:

1. Click **Unit View>Target List**. A list of available devices appears.
KVM Session appears in the Action column. If more than one action is available for a given target device, an arrow appears.
2. Click **KVM Session** to launch a session.
If the target device is currently in use and your preemption level is equal to or higher than the current user of the target device, you gain access to the target device by forcing a connection.

To change to the active session from the local UI (local users only):

1. Click **Unit View>Appliance>Appliance Settings>Sessions>Local Session**.
2. Select **Resume Active Session**. The Video Viewer window appears.

View a list of active sessions from the Active Sessions screen. The screen lists the following information for each session:

- Target device
- Owner
- Remote host
- Duration
- Type

The RAK is required for remote KVM access.

General session settings

To configure general session settings:

1. Click **Unit View>Appliance>Appliance Settings>Sessions>General**. The Appliance General Session Settings window appears.
2. Select or clear the Enable Inactivity Timeout checkbox.
3. When selecting the Enable Inactivity Timeout checkbox, enter the amount of inactive time to pass before closing the session from 1 to 90 minutes.
4. In the Login Timeout field, enter the amount of inactive time to pass before logging in again from 21 to 120 seconds.
5. Click **Save**.

Active sessions

View a list of active sessions and the following information about each session from the Active Sessions screen.

- Target device
- Owner
- Remote host
- Duration
- Type

Local user account settings

User Account settings are supported with the RAK installed.

The OBWI provides local and login security through administrator-defined user accounts. Administrators can add and delete users, define user preemption, add access levels, and change passwords through the Appliance Local User Accounts screen.

Access levels

Multiple access levels are supported when the RAK is installed.

When adding a user account, assign the user to either of the following access levels:

- Appliance Administrator
- User

Operation	Appliance Administrator	User
Configure interface system-level settings	Yes	No
Configure access rights	Yes	No
Add, change, and delete user accounts	Yes, for all access levels	No
Change your own password	Yes	Yes
Access server	Yes, all servers	Yes, if allowed

To add a new user account (Appliance Administrator only):

1. Click **Unit View>Appliance>Appliance Settings>User Accounts>Local**. The Appliance Local User Accounts screen appears.
2. Click **Add**. The Add Appliance Local User Account screen appears.
3. Enter the username and the password in the fields provided. Confirm the password in the field provided.
4. Select the access level of the new user.
Multiple access levels are supported when the RAK is installed.
5. Select any of the available devices to assign to the user account.
Appliance Administrators can access all devices.
6. Click **Add**.
7. Click **Save**.

To delete a user account (Appliance Administrator only):

1. Click **Unit View>Appliance>Appliance Settings>User Accounts>Local**. The Appliance Local User Accounts screen appears.
2. Select the checkbox of each account to delete.
3. Click **Delete**.

To edit a user account (Administrator or active user only):

1. Click **Unit View>Appliance>Appliance Settings>User Accounts>Local**. The Appliance Local User Accounts screen appears.
2. Click the name of the user to edit. The user profile appears.
3. Enter the user information.
4. Click **Save**.

DSView software settings

User account settings are supported when the RAK is installed.

Contact and register an unmanaged switch with a DSView management software device by specifying the IP address of the management software device.

To configure the device IP address:

1. Click **Unit View>Appliance>Appliance Settings>User Accounts>DSView**. The Appliance DSView Settings screen appears.
2. Enter up to four device IP addresses to contact.
3. To disassociate the switch registered with the device, click **Disassociate**.
4. Click **Save**.

Closing a KVM session

To close a session:

1. Click **Active Sessions**. The Active Sessions screen appears.
2. Select the checkbox of the target device.
3. Click **Disconnect**.

To close a session (local users only):

1. Click **Local Session**.
2. Select **Disconnect Active Session**.

Managing remote servers through the Video Session Viewer

About the Video Session Viewer

Use the Video Viewer to conduct a KVM session with the target devices attached to a switch using the OBWI. With the RAK installed, the OBWI displays the KVM Session links on the Target List page (also referred to as the home page). In addition to the list of devices, additional options and pages associated with remote KVM access are available. When you connect to a device using the Video Viewer, the target device desktop appears in a separate window that contains both the local and target device cursors.

To use the remote access feature, install the RAK, and then configure the network setting using the OSD or by establishing a terminal session through the DIAG port.

The switch OBWI software uses a Java-based program to display the Video Viewer window. The switch OBWI automatically downloads and installs the Video Viewer the first time it is opened.

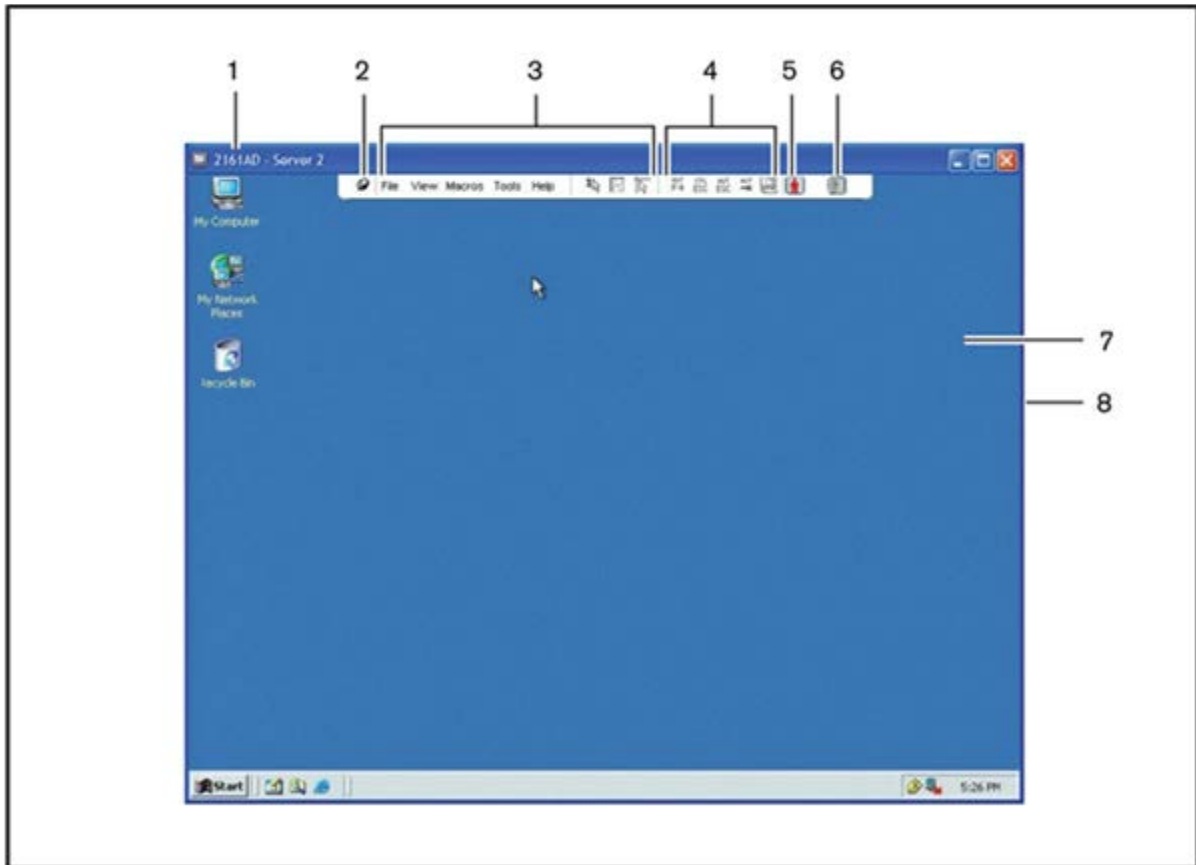
Java 1.6.0_11 or later is required to launch a video session.

The switch OBWI does not install the Java Resource Engine, which is available as a free download from Sun (<http://www.sun.com>).

The switch OBWI uses system memory to store and display images within Video Viewer windows. Each opened Video Viewer window requires additional system memory. An 8-bit color setting on the client device requires 1.4 MB of memory per Video Viewer window. A 16-bit color setting requires 2.4 MB of memory, and a 32-bit color setting requires 6.8 MB of memory. If you attempt to open more Video Viewer windows than your system memory allows (typically four windows), you receive an out-of-memory error and the requested Video Viewer window does not open.

If you attempt to access a device that is currently being viewed by another user and your preemption level is equal to or greater than the preemption level of the other user, you are prompted to preempt the other user. Also, the Appliance Administrator can disconnect an active user through the Active Session screen.

Video Session Viewer window



Item	Description
1	Title bar—Displays the name of the server you are viewing. When in Full Screen mode, the title bar disappears and the target device name appears between the menu and toolbar.
2	Thumbtack icon—Locks the display of the menu and toolbar so they are always visible.
3	Menu and toolbar—Enables you to access many of the features in the Video Viewer window. The menu and toolbar are in a show/hide state if the thumbtack is not used. Place the cursor over the toolbar to display the menu and toolbar. Display up to ten commands and/or macro group buttons on the toolbar. By default, the Single Cursor Mode, Refresh, Automatic Video Adjust, and Align Local Cursor buttons appear on the toolbar.
4	Macro buttons—Commonly used keyboard sequences sent to the target device.
5	Connection Status indicator—Indicates the status of the user connected to the switch for this device. The modes are exclusive, basic active connection, primary active sharing, secondary active sharing, passive sharing, stealth, and scanning.
6	Smart Card Status indicator—Indicates whether or not a smart card is in the smart card reader. A grayed-out Video Viewer screen smart card icon indicates the smart card option is unavailable or disabled.

Item	Description
7	Display area—Accesses the device desktop.
8	Frame—Resizes the Video Viewer window by clicking and holding on the frame.

Changing the toolbar

Select the amount of elapsed time before the toolbar hides in the Video Viewer window when it is in the show/hide state.

To specify a toolbar hide time:

1. Select **Tools>Session Options** from the Video Viewer window menu.
The Session Options dialog box appears.
2. Click the Toolbar tab.
3. Use the arrow keys to specify the number of elapsed seconds prior to hiding the toolbar.
4. Click **OK** to save changes and close the dialog box.

Adjusting the window size

When using the switch OBWI for the first time, any open Video Viewer windows have a display resolution of 1024 x 768. Each Video Viewer window can have a different resolution.

The switch OBWI automatically adjusts the display if the window size changes during a session when auto-scaling is enabled. If the target device resolution changes during a session, the display adjusts automatically.

To change the Video Viewer window resolution:

1. Click **View>Scaling**.
2. Select a resolution.

The **View>Scaling** command is not available if the Video Viewer window is in Full Screen mode.

Adjusting the view

Using menus or task buttons in the Video Viewer window, do the following:

- Align mouse cursors.
- Refresh the screen.
- Enable or disable Full Screen mode.
- Enable automatic, full, or manual scaling of the session image.
- Change the color depth of the session image.

To align mouse cursors, click the Align Local Cursor button in the Video Viewer window toolbar. The local cursor aligns with the cursor on the remote device.

If the cursors drift out of alignment, turn off mouse acceleration on the attached device.

To refresh the screen, click the **Refresh Image** button in the Video Viewer window or select **View>Refresh** from the Video Viewer window menu. The digitized video image regenerates.

To enable Full Screen mode, click the **Maximize** button or select **View>Full Screen** from the Video Viewer window menu. The desktop window disappears and only the accessed device desktop is visible.

The default resolution is 1024 x 768. The screen resizes up to a maximum of 1600 x 1200 (standard) or 1680 x 1050 (widescreen). If the desktop has a higher resolution, then a black background surrounds the full-screen image. The floating toolbar appears. The menu and toolbar are locked to be always visible.

To disable Full Screen mode, click the **Full Screen Mode** button on the floating toolbar to return to the desktop window.

To enable full scaling:

1. Select **View>Scaling** from the Video Viewer window menu.
2. Select **Full Scale**. The device image automatically scales to the resolution of the target device being viewed.

To enable manual scaling:

1. Select **View>Scaling** from the Video Viewer window menu.
2. Select the dimension to scale the window. The available manual scaling sizes depend on your system.

Refreshing the image

Refreshing the image regenerates the digitized video image.

To refresh the image, click the **Refresh Image** button in the Manual Video Adjust dialog box, or select **View>Refresh** from the Video Viewer window menu.

Manually adjusting the video settings

The Video Viewer window automatic adjustment features typically optimize the video for the best possible view; however, you can fine tune the video. Video adjustment is a per-device setting.

Verify the level of packets per second required to support a static screen by observing the packet rate located in the lower corner of the dialog box.

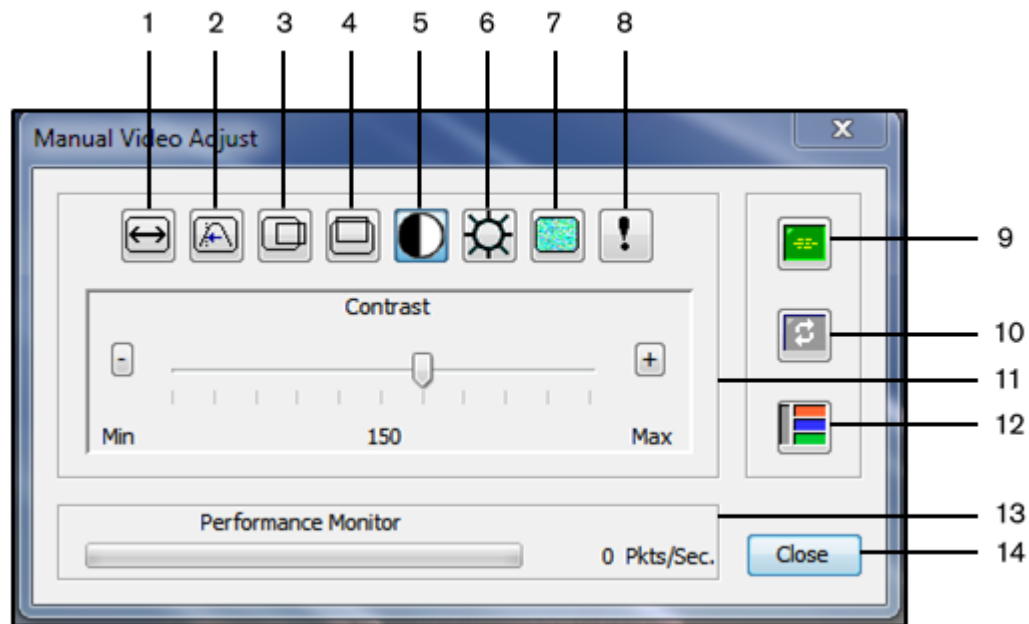
To manually adjust the video quality of the window:



IMPORTANT: Make the following video adjustments only with the help of technical support.

1. Select **Tools>Manual Video Adjust** from the Video Viewer window menu.
- or-
- Click the **Manual Video Adjust** button.

The Manual Video Adjust dialog box appears.



Number	Description
1	Image Capture Width
2	Pixel Sampling/Fine Adjust
3	Image Capture Horizontal Position
4	Image Capture Vertical Position
5	Contrast
6	Brightness
7	Noise Threshold
8	Priority Threshold
9	Automatic Video Adjustment
10	Refresh Image
11	Adjustment Bar
12	Video Test Pattern
13	Performance Monitor
14	Close Button

2. Click the icon corresponding to the feature to adjust.
3. To move the contrast slider bar and then fine tune the setting, click the **Min (-)** or **Max (+)** buttons to adjust the parameter for each icon clicked. The adjustments display immediately in the Video Viewer window.
4. When finished, click **Close** to exit the Manual Video Adjust dialog box.

Target video settings

The Image Capture Width, Pixel Sampling/Fine Adjust, Image Capture Horizontal Position, and Image Capture Vertical Position adjustments affect how the device video is captured and digitized. They are rarely changed.

The Automatic Adjustment function changes the image capture parameters automatically. A special image is required on the device in order to make independent adjustments accurately.

Automatic video adjustment

Typically you do not need to alter the Video Settings from the default settings. The system automatically adjusts and uses the optimal video parameters. The switch OBWI performs best when the video parameters are set that no video packets are transmitted for a static screen.

To automatically adjust the video parameters, click the **Auto Adjust Video** button in the Manual Video Adjust dialog box, select **Tools>Automatic Video Adjust** from the Video Viewer window menu, or click the Automatic Video Adjust toolbar icon.

Video test pattern

To toggle the video test pattern, click the **Video Test Pattern** button in the Manual Video Adjust dialog box. Click the button again to toggle back to a normal video image.

Color settings

The Dambrackas Video Compression algorithm enables adjustments to the number of viewable colors in a remote session window. Choose to display more colors for better fidelity or fewer colors to reduce the volume of data transferred on the network.

Video Viewer windows can be viewed using the Best Color Available (slowest updates), Best Compression (fastest updates), a combination of Best Color and Best Compression, or Grayscale.

To specify the color depths of individual ports and channels, select the **View Color** command in a remote session window.

Settings are saved individually per channel.

Contrast and brightness

To adjust the image in the Video Viewer window if it is too dark or too light, click the **Auto Adjust Video** button in the Manual Video Adjust dialog box, or select **Tools>Automatic Video Adjust** from the Video Viewer window menu.

Automatically adjusting the video typically corrects video issues.

When clicking Auto Adjust several times does not set the contrast and brightness to the levels you want, adjust the contrast and brightness manually.

Increase the brightness before increasing the contrast. Do not adjust the brightness more than 10 increments before moving the contrast. Typically the contrast should be moved very little.

Noise settings

Sometimes noise in the video transmission increases the packets/sec count, which is indicated by small dots changing near the cursor when it is moving. Changing the threshold values might result in less noisy screens and improve cursor tracking.

Modify Noise Threshold and Priority Threshold values when using standard video compression. Restore default threshold values by clicking **Auto Adjust Video**.

Leaving the noise threshold at zero triggers constant video refresh, resulting in high network usage and a flickering video. Hewlett Packard Enterprise recommends setting the noise threshold at the highest level that allows efficient system performance while still recovering pixel colors over which the mouse cursor travels.

When adjusting the noise threshold, use the slider bar for large adjustments and the plus (+) and minus (-) buttons at the ends of the slider bar for fine tuning.

Mouse settings

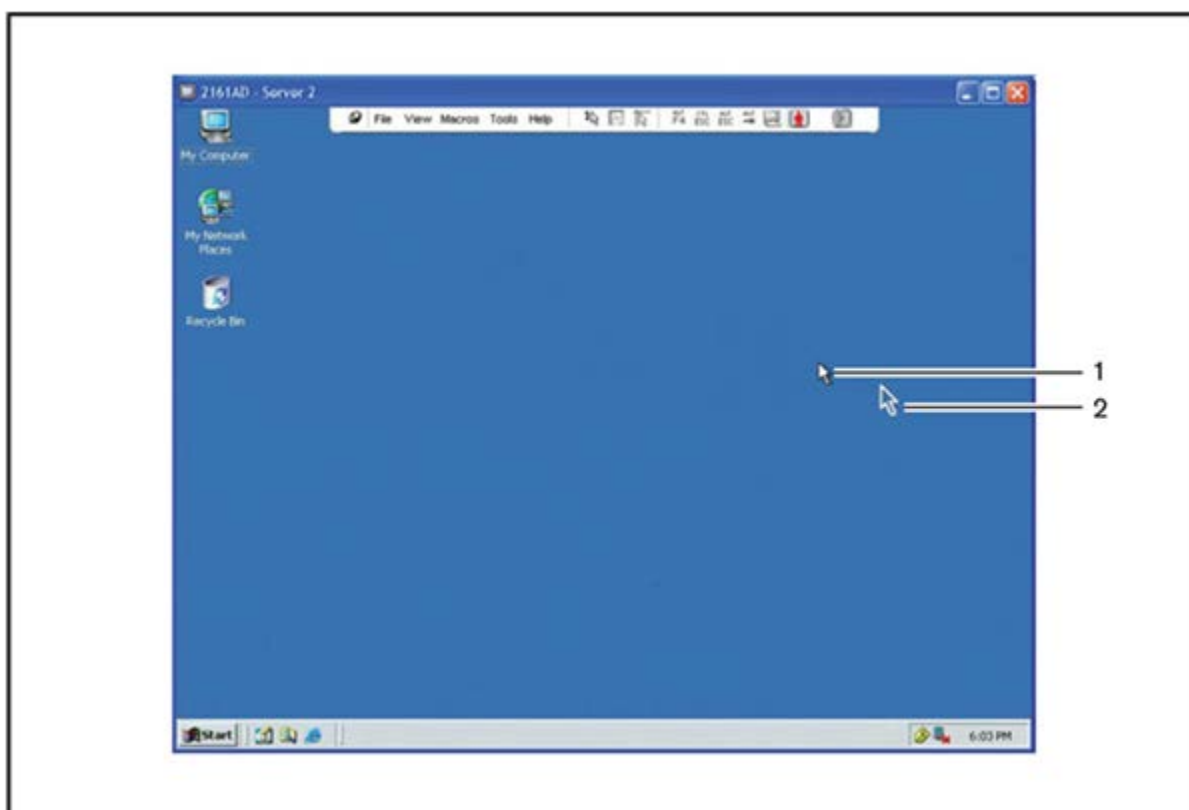
The Video Viewer window mouse options affect cursor type, cursor mode, scaling, alignment, and resetting. Mouse settings are per-device settings.

If the device does not support the ability to disconnect and reconnect the mouse, then the mouse is disabled and the device must be rebooted.

Cursor type

The Video Viewer window offers different appearance choices for the local mouse cursor, including no cursor or the default cursor.

In Single Cursor mode, the local (second) cursor display in the Video Viewer window is not shown; only the target device mouse pointer is visible. The mouse movements that appear are the target device remote cursor movements. Use Single Cursor mode when you do not need the local cursor.



Number	Description
1	Remote cursor
2	Local cursor

The cursor mode status of the Video Viewer window appears in the title bar, including the keystroke that exits Single Cursor mode. Define the keystroke that exits Single Cursor mode in the Session Options dialog box.

When using a device that captures keystrokes before they reach the client device, avoid using those keys to restore the mouse pointer.

To enter Single Cursor mode, select **Tools>Single Cursor Mode** from the Video Viewer window menu, or click the **Single Cursor Mode** button.

The local cursor does not appear and all movements are relative to the target device.

To select a key for exiting Single Cursor mode:

1. Select **Tools>Session Options** from the Video Viewer window menu.
The Session Options dialog box appears.
2. Click the **Mouse** tab.
3. Select a terminating keystroke from the menu in the Single Cursor mode area.
4. Click **Save** to save the settings.

When enabling Single Cursor mode, press the specified key to return to Regular Desktop mode.

To exit Single Cursor mode, press the key on the keyboard identified in the title bar.

To change the mouse cursor setting:

1. Select **Tools>Session Options** from the Video Viewer window menu.
The Session Options dialog box appears.
2. Click the **Mouse** tab.
3. Select a mouse cursor type in the Local Cursor panel.
4. Click **OK** to save the settings.

Mouse scaling

Some earlier versions of Linux did not support adjustable mouse acceleration. For installations that must support these earlier versions, choose among three preconfigured mouse scaling options or set a custom scaling. The preconfigured settings are Default (1:1), High (2:1), or Low (1:2).

In a 1:1 scaling ratio, every mouse movement in the desktop window sends an equivalent mouse movement to the target device.

In a 2:1 scaling ratio, the same mouse movement sends a 2x mouse movement.

In a 1:2 scaling ratio, the value is 1/2x.

To set mouse scaling:

1. Select **Tools>Session Options** from the Video Viewer window menu.
The Session Options dialog box appears.
2. Click the **Mouse** tab.
3. To use a preconfigured setting, select the appropriate radio button.
4. To set a custom scaling:
 - a. Select the **Custom** radio button to enable the X and Y fields.
 - b. Enter a scaling value in the X and Y fields. For every mouse input, the mouse movements are multiplied by the respective X and Y scaling factor. The valid input range is 0.25 to 3.00.

Mouse alignment and synchronization

Because the switch OBWI cannot receive constant feedback from the mouse, sometimes the mouse on the switch might become out of sync with the mouse on the host system. If the mouse or keyboard no longer responds properly, align the mouse to re-establish proper tracking.

Alignment causes the local cursor to align with the remote target device cursor. Resetting causes a simulation of a mouse and keyboard reconnect, as if you had disconnected and reconnected the mouse and keyboard.

To realign the mouse, click the **Align Local Cursor** button in the Video Viewer window toolbar.

Keyboard pass-through

Keystrokes entered when using a Video Viewer window might be interpreted in two ways, depending on the Screen mode of the Video Viewer window.

- If a Video Viewer window is in Full Screen mode, all keystrokes and keyboard combinations except **Ctrl-Alt-Del** are sent to the viewed remote target device.
- If a Video Viewer window is in Regular Desktop mode, use Keyboard Pass-through mode to control whether the remote target device or local computer recognizes certain keystrokes or keystroke combinations.

Specify keyboard pass-through in the Session Options dialog box. When enabled, keyboard pass-through sends all keystrokes and keystroke combinations except **Ctrl-Alt-Del** to the viewed remote target device when the Video Viewer window is active. When the local desktop is active, keystrokes and keystroke combinations entered by the user affect the local computer.

The keyboard combination **Ctrl-Alt-Del** can be sent only to a remote target device by using a macro.

The Japanese keyboard **Alt-Han/Zen** keystroke combination is always sent to a remote target device regardless of the Screen mode or keyboard pass-through setting.

To specify keyboard pass-through:

1. Select **Tools>Session Options** from the Video Viewer window menu.
The Session Options dialog box appears.
2. Click the **General** tab.
3. Select **Pass-through all keystrokes in regular window mode**.
4. Click **OK** to save the settings.

Macros

The switch OBWI comes preconfigured with macros for Windows, Linux, and Sun platforms.

To send a macro, select **Macros> [selected macro]** from the Video Viewer window menu, or click the selected macro button on the Video Viewer toolbar.

Saving the view

Save the Video Viewer display either to a file or to the clipboard for pasting into a word processing program or other program.

To capture the Video Viewer window to a file:

1. Select **File>Capture to File** from the Video Viewer window menu.
-or-
Click the **Capture to File** button.

The Save As dialog box appears.

2. Enter a filename and choose a location to save the file.
3. Click **Save** to save the display image to a file.

To capture the Video Viewer window to the clipboard, select **File>Capture to Clipboard** from the Video Viewer window menu, or click the **Capture to Clipboard** button. The image data is saved to the clipboard.

Closing a Video Viewer session

To close a Video Viewer session window, select **File>Exit** from the Video Viewer window.

Terminal operation

Terminal operation overview

Each switch can be configured at the switch level through the Terminal Console menu interface, which is accessed by establishing a terminal session through the DIAG port. All terminal commands are accessed through a terminal screen or a PC running terminal emulation software.

Hewlett Packard Enterprise recommends making configuration updates in the OSD or OBWL.

To connect a terminal to the switch:

1. Using a DB9 M/F serial adapter, connect a terminal or a PC that is running terminal emulation software, such as HyperTerminal software, to the DIAG port on the back panel of the switch. The terminal settings are 9600 bps, 8 bits, 1 stop bit, no parity, and no flow control.
2. Power up the switch and each target device. When the switch completes initialization, the Console menu displays the following message: `Press any key to continue.`

Network configuration

To configure network settings using the Console menu:

1. When powering on the switch, the switch initiates for approximately one minute. After completing initialization, press any key on the terminal or on the computer running the terminal emulation software to access the Console menu interface.
Connect the terminal at any time, even when the switch is already powered on.
2. When the Console Main menu appears, press the number key corresponding to Network Configuration, and then press the **Enter** key.
3. Press the **1** key, and then press the **Enter** key to set the network speed. For best performance, set the switch at the same speed as the Ethernet switch to which it is attached. Press the **Enter** key to return to the Console Network Configuration menu.
4. Press the **2** key, and then press the **Enter** key to specify whether the switch uses a static or BOOTP address.

A static IP configuration might be used to provide a user-defined IP address, netmask or prefix length, and default gateway for the switch.

BOOTP is a protocol that automates the configuration of TCP/IP-enabled computers. When selecting BOOTP, the IP address, netmask or prefix length, and default gateway settings are automatically assigned to the switch and cannot be modified by a switch user.

If using the BOOTP option, configure the BOOTP device to provide an IP address to the switch, and then go to step 6.

5. Select the remaining options from the Network Configuration menu to finish the configuration of the switch with an IP address, netmask or prefix length, and default gateway.
6. Press the **0** key, and then press the **Enter** key to return to the Console Main menu.

Console Main Menu options

In addition to the Network Configuration option, the Console Main menu of the switch feature the following menu items:

- Firmware Management (on page [68](#))

- Enable Debug Messages (on page 68)
- Set/Change Password (on page 68)
- Restore Factory Defaults (on page 68)
- Reset Switch (on page 68)
- Set Web Interface Ports (on page 68)
- Exit (on page 68)

Firmware Management

The Firmware Management menu contains the Flash Download selection.

Enable Debug Messages

The Enable Debug Messages option enables console status messages. Because enabling status messages can reduce performance, enable the status messages only when instructed to do so by Hewlett Packard Enterprise Technical Support. Press any key to exit the mode.

Set/Change Password

The Set/Change Password menu option enables and disables DIAG port security, which locks the DIAG port with a user-defined password.

Restore Factory Defaults

The Restore Factory Defaults menu option restores all switch options to the default settings.

Reset Switch

The Reset Switch menu option executes a soft reset of the switch.

Set Web Interface Ports

The switch uses port 80 for HTTP and 443 for HTTPS. The Set Web Interface Ports menu option enables modification or specification of alternate ports.

Reboot the switch to use new port numbers.

Exit

The Exit menu option returns to the ready prompt. If the Console menu interface password is enabled, exit the Console Main menu so the next user is prompted for a password.

Troubleshooting

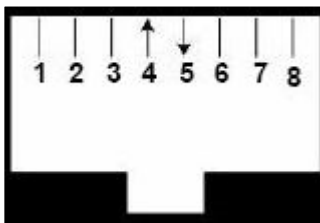
Connection length requirements

The KVM Console Switch offers optimum video performance when the distance between the server and console switch is 15 m (50 ft) or less (1280 x 1024 at 75 Hz). The system is capable of operation at distances up to 30 m (100 ft) at reduced video resolutions (800 x 640 at 60 Hz, worst case).

Distance	1280 x 1024	1024 x 768	800 x 640
15.24 m (50 ft)	X	X	X
22.86 m (75 ft)	—	—	X
30.48 m (100 ft)	—	—	X

DIAG port pinout

The DIAG port has the following pinout:



Pin	Description
1	No Connection (N/C)
2	No Connection (N/C)
3	No Connection (N/C)
4	Receive Data (RXD)
5	Transmit Data (TXD)
6	Signal Ground (SG)
7	No Connection (N/C)
8	No Connection (N/C)

Troubleshooting table

Problem	Solution
The local user cannot view the OSD copyright notice. The OSD copyright notice is distorted.	• Be sure that the power source is valid. • Be sure that the cables are connected properly. • Be sure that the monitor is valid.
The local user cannot view the OSD flag.	Preview the preferences in the OSD to determine if the local port display has been disabled or set to time out. If the preferences are set to not display the OSD flag or to have the flag time out, then the OSD flag does not appear.
The local user cannot activate or view the OSD, and the OSD flag disappears.	Be sure that the local port keyboard is connected properly and that the keyboard is valid.

Problem	Solution
The OSD is distorted or not readable on the local port video display.	Be sure that the monitor supports the refresh rate to which target server is set.
The activity indicator light (" Console switch components " on page 14) does not display when the KVM Console Switch is powered on.	• Be sure that the KVM Console Switch is powered on and that the power source is valid. • Be sure that the cables are connected properly
The system does not recognize the IP Console Switch.	All IP Console Switches must be upgraded with firmware version 3.0.0 or later.
The KVM Console Switch system is inaccessible because the password is lost.	Call the Hewlett Packard Enterprise Customer Support Center (" Accessing Hewlett Packard Enterprise Support " on page 74).
Video displays are all green or red.	• Check the UTP CAT5 cable for breaks or bad crimps. • Check the VGA connection for bent pins.
The screen saver does not turn on.	Be sure to click OK to confirm the screen saver selection. Click X or press the Esc key to cancel the command.
When connecting a serial interface adapter to a server running Linux Red Hat or SLES, the numeric keypad keys on a PC keyboard do not map to VT100 emulation under the Linux shell. Using the numeric keypad with the vi text editor causes function characters to appear instead of numbers.	• Use the "printenv" command to show the TERM assigned under Linux. It can be matched appropriately with other termcap entries by editing the profile or setting the TERM = "ansi". For PC keyboards, ANSI is the most compatible emulation. • Edit you /etc/inittab as: s0:2345:respawn:sbin/agetty -h ttyS0 115200,9600 ansi Where ttyS0 is the serial device name where the serial interface adapter is connected. Then as a shell prompt, enter init q, or reboot the system.
The video resolution is distorted.	For more information, see the Connection Length Table (" Connection length requirements " on page 69).

Warranty and regulatory information

Warranty information

HPE ProLiant and x86 Servers and Options (<http://www.hpe.com/support/ProLiantServers-Warranties>)

HPE Enterprise Servers (<http://www.hpe.com/support/EnterpriseServers-Warranties>)

HPE Storage Products

([https://support.hpe.com/hpesc/public/km/product/5316271/Product#t=Documents&sort=relevancy&layout=table&f:@kmdoclanguagecode=\[cv1871440\]&hpe=1](https://support.hpe.com/hpesc/public/km/product/5316271/Product#t=Documents&sort=relevancy&layout=table&f:@kmdoclanguagecode=[cv1871440]&hpe=1))

HPE Networking Products (<http://www.hpe.com/support/Networking-Warranties>)

Regulatory information

Safety and regulatory compliance

For important safety, environmental, and regulatory information, see *Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products*, available at the Hewlett Packard Enterprise website (<http://www.hpe.com/support/Safety-Compliance-EnterpriseProducts>).

Belarus Kazakhstan Russia marking



Manufacturer and Local Representative Information

Manufacturer information:

Hewlett Packard Enterprise Company, 3000 Hanover Street, Palo Alto, CA 94304 U.S.

Local representative information Russian:

- **Russia:**

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- **Belarus:**

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- **Russia:**

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Бостандық ауданы, Әл-Фараби даңғылы, 77/7, Телефон/факс: +7 727 355 35 52

Manufacturing date:

The manufacturing date is defined by the serial number.

CCSYWWZZZZ (serial number format for this product)

Valid date formats include:

- YWW, where Y indicates the year counting from within each new decade, with 2000 as the starting point; for example, 238: 2 for 2002 and 38 for the week of September 9. In addition, 2010 is indicated by 0, 2011 by 1, 2012 by 2, 2013 by 3, and so forth.
- YYWW, where YY indicates the year, using a base year of 2000; for example, 0238: 02 for 2002 and 38 for the week of September 9.

Turkey RoHS material content declaration

Türkiye Cumhuriyeti: EEE Yönetmeliğine Uygundur

Ukraine RoHS material content declaration

Обладнання відповідає вимогам Технічного регламенту щодо
обмеження використання деяких небезпечних речовин в
електричному та електронному обладнанні, затвердженого
постановою Кабінету Міністрів України від 3 грудня 2008 № 1057

Korean notice

Class A equipment

A급 기기 (업무용 방송통신기기)	이 기기는 업무용(A급)으로 전자파적합등록을 한 기기이오니 판매자 또는 사용자는 이 점을 주의하시기 바라며, 가정 외의 지역에서 사용하는 것을 목적으로 합니다.
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Class B equipment

B급 기기 (가정용 방송통신기기)	이 기기는 가정용(B급)으로 전자파적합등록을 한 기기로서 주 로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사 용할 수 있습니다.
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아보센트 코어퍼레이션

Support and other resources

Accessing Hewlett Packard Enterprise Support

- For live assistance, go to the Contact Hewlett Packard Enterprise Worldwide website (<http://www.hpe.com/assistance>).
- To access documentation and support services, go to the Hewlett Packard Enterprise Support Center website (<http://www.hpe.com/support/hpesc>).

Information to collect

- Technical support registration number (if applicable)
- Product name, model or version, and serial number
- Operating system name and version
- Firmware version
- Error messages
- Product-specific reports and logs
- Add-on products or components
- Third-party products or components

Accessing updates

- Some software products provide a mechanism for accessing software updates through the product interface. Review your product documentation to identify the recommended software update method.
- To download product updates, go to either of the following:
 - Hewlett Packard Enterprise Support Center **Get connected with updates** page (<http://www.hpe.com/support/e-updates>)
 - Software Depot website (<http://www.hpe.com/support/softwaredepot>)
- To view and update your entitlements, and to link your contracts and warranties with your profile, go to the Hewlett Packard Enterprise Support Center **More Information on Access to Support Materials** page (<http://www.hpe.com/support/AccessToSupportMaterials>).



IMPORTANT: Access to some updates might require product entitlement when accessed through the Hewlett Packard Enterprise Support Center. You must have an HPE Passport set up with relevant entitlements.

Websites

- Hewlett Packard Enterprise Information Library (<http://www.hpe.com/info/enterprise/docs>)
- Hewlett Packard Enterprise Support Center (<http://www.hpe.com/support/hpesc>)
- Contact Hewlett Packard Enterprise Worldwide (<http://www.hpe.com/assistance>)

- Subscription Service/Support Alerts (<http://www.hpe.com/support/e-updates>)
- Software Depot (<http://www.hpe.com/support/softwaredepot>)
- Customer Self Repair (<http://www.hpe.com/support/selfrepair>)
- Insight Remote Support (<http://www.hpe.com/info/insightremotesupport/docs>)
- Serviceguard Solutions for HP-UX (<http://www.hpe.com/info/hpux-serviceguard-docs>)
- Single Point of Connectivity Knowledge (SPOCK) Storage compatibility matrix (<http://www.hpe.com/storage/spock>)
- Storage white papers and analyst reports (<http://www.hpe.com/storage/whitepapers>)

Remote support

Remote support is available with supported devices as part of your warranty or contractual support agreement. It provides intelligent event diagnosis, and automatic, secure submission of hardware event notifications to Hewlett Packard Enterprise, which will initiate a fast and accurate resolution based on your product's service level. Hewlett Packard Enterprise strongly recommends that you register your device for remote support.

For more information and device support details, go to the Insight Remote Support website (<http://www.hpe.com/info/insightremotesupport/docs>).

Acronyms and abbreviations

AES

Advanced Encryption Standard

BOOTP

Bootstrap Protocol

CAC

Common Access Card

CRC

cyclic redundant checks

DES

Data Encryption Standard

DHCP

Dynamic Host Configuration Protocol

EID

electronic identification number

HTTPS

hypertext transfer protocol secure sockets

IA

interface adapter

iPDU

Intelligent Power Distribution Unit

ISO

International Organization for Standardization

KVM

keyboard, video, and mouse

LDS

Location Discovery Services

MIB

management information base

NTP

network time protocol

OBWI

on-board Web interface

OSD

on-screen display

PDS

Power Discovery Services

PEM

Privacy Enhanced Mail

RAK

remote access key

SLES

SUSE Linux Enterprise Server

SSL

Secure Sockets Layer

TFTP

Trivial File Transfer Protocol

UDP

User Datagram Protocol

USB

universal serial bus

UTP

unshielded twisted pair

VDC

voltage direct-current

VM

Virtual Machine

Documentation feedback

Hewlett Packard Enterprise is committed to providing documentation that meets your needs. To help us improve the documentation, send any errors, suggestions, or comments to Documentation Feedback (<mailto:docsfeedback@hpe.com>). When submitting your feedback, include the document title, part number, edition, and publication date located on the front cover of the document. For online help content, include the product name, product version, help edition, and publication date located on the legal notices page.

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