

Overview

HPE KVM Server Console Switch G2 with Virtual Media & CAC

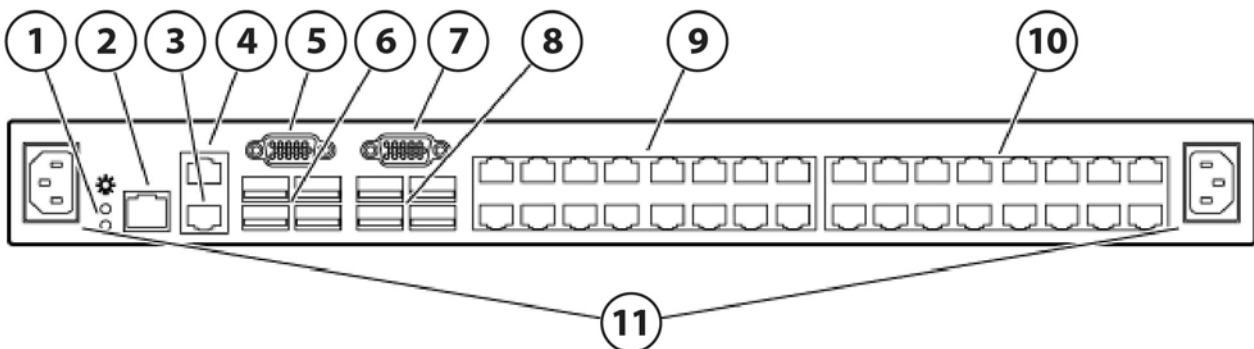
The HPE Server Console Switch with Virtual Media is a key component in managing the data center. Connections for two local consoles (a console represents one keyboard, monitor and mouse) allow access to multiple servers running various operating systems. Virtual Media capability allows a USB drive attached directly to the server console switch to be mapped to an attached server for installations and upgrades. The local console user interface provides menus for configuration, virtual media, display, and even security and upgrades.

In cascaded environments the Server Console Switch with Virtual Media can allow an administrator to manage up to 1024 servers across two tiers from a single console. When tiered with additional HPE Console Switches with Virtual Media application installations and upgrades can be pushed through to any server on any of the two tiers from a single console.

The HPE Server Console Switch with Virtual Media is backwards compatible with all HPE Cat5 based Server Console Switches and interface adapters.

Standard rack mounting of the HPE Server Console Switches will take up 1U (1.75") of front panel rack space. However, the Switches can also be mounted behind the HPE LCD8500 KVM Console Kit or in a "zero U" profile by mounting in the side rails of the rack.

0x2x16 or 0x2x32 HPE Server Console Switch G2 with Virtual Media & CAC



- | | |
|---------------------------------------|---------------------------------|
| 1. Power supply status indicator LEDs | 7. Console B VGA connector |
| 2. LAN connector | 8. Console B USB ports |
| 3. Tiering chain port | 9. Target device ports (1-16) |
| 4. RJ-45 serial setup port | 10. Target device ports (17-32) |
| 5. Console A VGA connector | 11. Power connectors A & B |
| 6. Console A USB ports | |

Models

HPE Server Console G2 Switch	HP 0x2x16 KVM Server Console Switch G2 with Virtual Media CAC Software	AF618A
	HP 0x2x32 KVM Server Console Switch G2 with Virtual Media CAC Software	AF619A

Overview

At A Glance

- Increased target server counts:
 - More target server per switch increases flexibility
- Improved video support:
 - Increases cable distances at higher resolutions
- Improved security:
 - CAC support to the server
 - Dual-stack IPv6 with stateless auto configuration
- LDAP included:
 - Microsoft Active Directory integration using LDAP is standard
 - Local security database on switch is also available for non LDAP implementations
- Local virtual media:
 - Administrators can map local media to a target server in the data center to easily perform application installations or upgrades
 - A USB CD-ROM, USB DVD, USB floppy drive, or USB key can be attached directly to the HPE Server Console Switch G2 with Virtual Media & CAC and mapped to an attached server
 - When used locally with the HPE 1U Rackmount Keyboard with USB or the HPE TFT7600 RKM USB drives can be connected to the front USB port on the keyboard for increased ease of use
 - Virtual media support requires the use of Virtual Media Interface Adapters
- Virtual media interface adapter with CAC:
 - Interface adapters support virtual media and provide CAC on ProLiant servers
 - Virtual Media Interface Adapters with CAC support are USB 1.1 full speed.
- Tiering support:
 - Two levels of cascading are available to support up to 1024 servers. When all tiers are comprised of virtual media compatible console switches and interface adapters, virtual media can be mapped to a server on any tier
- IP Console Viewer 4.1.2 Software:
 - Supports HPE Server Console Switches with Virtual Media for remote switch management which can be used in the lights-out datacenter
 - HPE Serial Console Servers, and legacy Cat5 based HPE IP Console Switches
 - Compatible with Windows and Linux clients
 - No software to install on target servers

Standard Features

Target Applications and Markets

Network Administrators, System Administrators, Engineering Managers, Chief Information Officers, and Managers of Information Systems are all among the users who will see benefits from using the HPE family of server console switches.

- Easy access to multiple servers (any server with PS2 or USB I/O connection port)
- Multi-platform management from one console (Microsoft® Windows®, Novell, UNIX®, Linux etc)
- Non-intrusive control and management of servers HPE Server Console Switches are "out-of-band," allowing server activity to be viewed on multiple systems without interfering in any way

Features

New Features:

- Common Access Card (CAC) support
- True Serial
- DVD Support
- Video resolution supporting up to 1600 x 1200 on the local port
 - Widescreen video support modes include; 1680 x 1050, 1440 x 900, 1280 x 800, 1024 x 640, 800 x 500
- Two local ports; these local ports are defined differently between the digital and analog appliances.
 - For the digital appliances, the local ports will be represented by one ACI connection and one local KVM connection. The two ports will be independent of one another (i.e. not pre-emptive or shared).
 - For the analog appliance, the local ports are represented by an ACI connection and two sets of local KVM connections. One of the KVM connections is tied to the ACI connection, so that KVM connection cannot be used if the ACI is connected. The second KVM connection is independent of the ACI and first KVM connections/paths.
- Supports Virtual Media (VM), Tiering (or cascading) up to 2 levels (base plus one lower level) through the ACI port.
- Supports existing ITFC server modules, backward compatible.
- Dual-stack IPv6 with stateless auto configuration
- Support for DVD-ROM data over virtual media
- Syslog support
- BladeSystem c-Class KVM Interface Adapter for supporting BladeSystem c-Class servers

Standard Features:

- **Local console user interface** - same as remote On Board Web Interface (OBWI) which displays system-related information on the console monitor such as selected server name, status, power-up test data, configuration menus and virtual media.
- **Programmable Scanning** - An evaluation of system performance can be made by sequentially scanning any or all of the computers in the system. Programmable scanning allows you to determine which computers to include as well as the duration of the connection.
- **Configuration NVRAM** - NVRAM (non-volatile RAM) makes it easy to set configuration information using commands entered from the keyboard. The NVRAM stores the resulting configuration until a user decision is made to change the information, even if the unit loses power.
- **Password Protection** - For protection against unauthorized users, the switch box provides a password option for security purposes.
- **Switch Firmware Update** - The application code of the switch can be quickly and easily updated via FLASH ROM. Updates can be accomplished over the LAN eliminating the need to carry a notebook into the data center to perform firmware upgrades.
- **Multiple Space Saving OU Installation Methods**
 - **Side Mount** - Rails are provided for mounting the unit to the side of rack cabinets with side mounting capability.

Standard Features

- **Rear Rack Mount** - HPE Console Switches may be mounted behind a HPE LCD8500 KVM Console Kit with slide rails provided with the switch.
- **PS2 Virtual Media Interface Adapter support servers with PS2 mouse and keyboard connection and a USB port for virtual media (recommended for ProLiant servers).**
- **USB Virtual Media Interface Adapter supports servers without PS2 mouse and keyboard connections such as Integrity servers running Microsoft Windows.**
 - USB 2.0 protocol and speed supported on both Virtual Media Interface Adapters.
- **Virtual Media Interface Adapters provide Common Access Card (CAC). Virtual Media speed with the CAC Interface Adapters is USB 1.1 Full Speed.**
- **Support for a variety of server connections with Interface Adapters where virtual media is not needed.**
 - PS/2
 - USB mouse and keyboard
 - VT100 serial console support
 - BladeSystems p-Class support via front diagnostics connector
- **The following input devices provide a convenient front USB pass through port for connecting USB media to the Server Console Switch with Virtual Media**
 - HPE 1U Rackmount Keyboard with USB
 - HPE LCD8500 KVM Console Kit

NOTE: For more information please visit: <http://www.hp.com/go/kvm>.

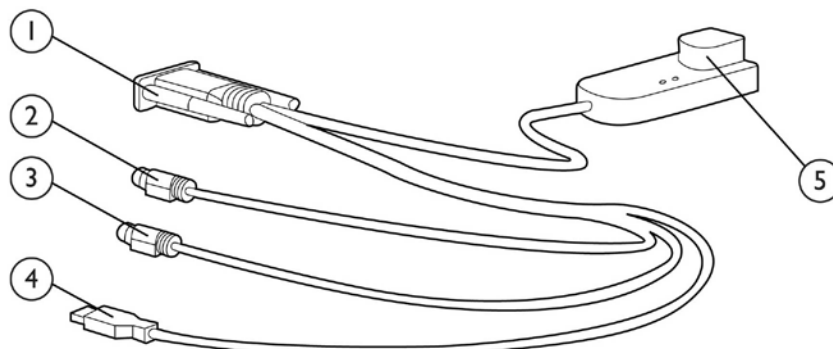
Cascaded Configurations

Cascading, also called tiering, is the ability to connect one or more switches under a single switch at the top as in a pyramid. Cascading allows an administrator to access larger numbers of servers from a single local or remote console. The HPE IP Console Switch G2 with Virtual Media & CAC will support up to 2 levels of tiering under certain conditions

- HPE IP Console Switches can be supported at the top or at the second tier of a cascaded configuration.
- HPE IP Console Switches with Virtual Media may be cascaded to HPE Server Console Switches with Virtual Media or any Cat5 based HPE Server Console Switches by connecting a Cat5 cable from a server port on the top switch to the dedicated tiering port on the switch below. Interface adapters are not needed to cascade HPE Server Console Switches.
- Virtual media can be mapped to servers on any tier but only if the server is connected to a HPE Server Console Switch with Virtual Media using a Virtual Media Interface Adapter. Virtual media operation requires a Virtual Media Interface Adapter connected to a HPE Console Switch with Virtual Media.
- To perform a firmware upgrade for a cascaded HPE Server Console Switch and all attached Interface Adapters; you must connect to the cascaded HPE KVM Server Console Switch OBWI.

NOTE: For more information on cascading HPE Server Console Switches please visit: <http://www.hp.com/go/kvm>.

PS2/USB Virtual Media, CAC Interface Adapter (PN: AF624A)



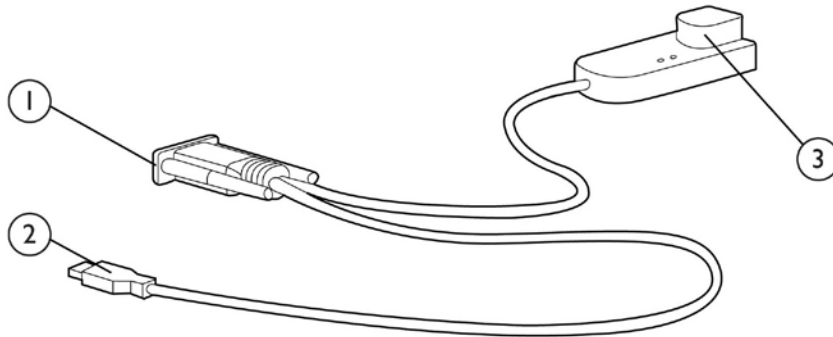
1. Video connector
2. Mouse connector

4. USB connector (for Virtual Media only)
5. RJ-45 connector

Standard Features

- 3. Keyboard connector

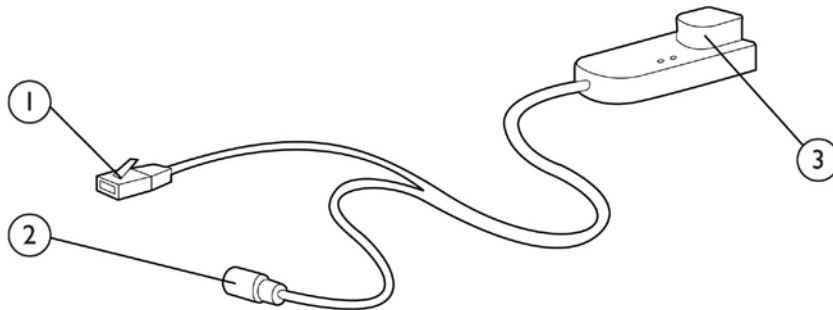
USB Virtual Media, CAC Interface Adapter (PN: AF629A)



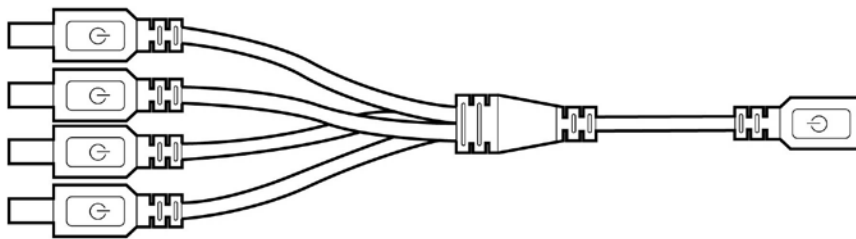
- 1. Video connector
- 2. USB connector

- 3. RJ-45 connector

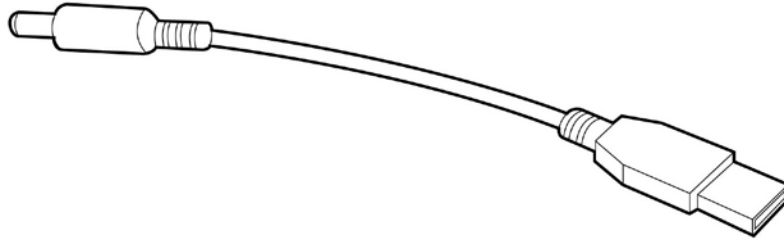
HPE KVM CNSL SRL/PWR G2 ITFC ADPTR (PN: AF625A)



USB Coax Power Connector Cable which replaces AC Power Adapter



Standard Features



1. RJ-45 serial connector (to RJ-45/DB9 adapter or to a Cisco appliance)
2. Power connector (mate to USB power connector or power supply)
3. RJ-45 connector (for CAT5 to switch)

HPE Server Support

KVM Support

HPE ProLiant Server Support

All HPE ProLiant servers running any operating system are supported on all HPE Server Console Switches.

HPE Integrity Server Support

Integrity Server support is dependent on operating system and hardware configurations. For systems capable of displaying VGA graphics the USB Interface Adapter (PN 336047-B21) may be used. Some Integrity Servers may require an optional graphics adapter.

With some operating systems the Serial Interface G2 Adapter (PN: AF625A) may be connected to the RS-232 management port to provide serial connection through the HPE Server Console Switch and the HPE IP Console Switch.

HPE Unix Server Support

HP9000 Servers can be managed using the Serial Interface G2 Adapter (PN: AF625A) connected to the RS-232 management port providing serial connection through the HPE Server Console Switch and the HPE IP Console Switch.

NOTE: For additional information on supported options for the HPE Integrity and HP9000 Servers please consult the HP9000, Integrity and carrier-grade servers Configuration Guide.

HPE Serial Console Servers may also be used to support serially managed servers and devices.

KVM Support with virtual media (requires Virtual Media Interface Adapter)

HPE ProLiant Server Support for virtual media

All HPE ProLiant servers capable of supporting USB storage devices and USB drive keys and running Microsoft Windows 2003 or later, RedHat 4 or later, or SLES 10 or later are supported. Requires Virtual Media Interface Adapter connected to a HPE Console Switch with Virtual Media.

HPE Integrity Server Support for virtual media

For systems running Microsoft Windows 2003 or later capable of displaying VGA graphics the USB Interface Adapters with Virtual Media may be used. Some Integrity Servers may require an optional graphics adapter.

NOTE: Some hardware configurations and/or operating systems may only transfer virtual media at USB 1.1 speeds.

Service and Support

Three-year limited warranty, including hardware diagnostic support, pre-failure warranty (coverage of hard drives, memory and processors). The warranty is fully supported by HPE Services and a worldwide network of resellers and service providers. In addition 90-day's getting started software telephone support may be covered under the warranty or available for an additional fee. Enhancements to warranty services are available through HPE Pointnext operational services.

NOTE: Limited warranty is 3 year parts only.

Care Pack services provide a range of life cycle support options that let you choose the service levels that meet your business requirements, from basic to mission-critical.

A full range of HPE Care Pack hardware and software services are available including:

- Installation and start up
- Education courses
- Extended onsite hardware coverage hours from same business day 13 hours, 5 day to 24 hours, 7 days call window with options including 4-hour response or 6-hour Call To Repair
- Comprehensive range of software technical support for Microsoft, Linux, ProLiant Essentials and VMWare-based IT solutions helping to deliver high level of application availability. Response times range from 30 mins for critical problems to 2 hours.
- System Management, Performance Services and Mission Critical Support Solution

HPE Pointnext operational services include Hewlett Packard Enterprise branded hardware options qualified for the server, purchased at the same time or afterwards, internal to the enclosure, as well as 22" and smaller external monitors and tower UPS options up to 3KVA. 22" and smaller external monitors will be covered at the same service level and coverage period as the server. For servers or storage systems installed within a rack, service also covers all HPE qualified rack options installed within the same rack.

NOTE: For more information on HPE Pointnext operational services, contact any of our worldwide sales offices or resellers or visit our worldwide Web site on the internet at: <http://www.hp.com/hps/carepack>

NOTE: For more complete information on HPE Services offerings, customers and resellers, please visit us at: <http://www.hp.com/hps>

NOTE: Additional information regarding worldwide limited warranty and technical support is available at: <http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html>

Hewlett Packard Enterprise will provide HPE-supported replacement parts and materials necessary to maintain the covered hardware product in operating condition, including parts and materials for available and recommended engineering improvements.

Parts and Materials

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction.

Related Options

Interface Adapters for Virtual Media and CAC (USB 1.1 Full-Speed)	HP KVM Console USB 2.0 Virtual Media CAC Interface Adapter	AF629A
Interface Adapters for Serial Connectivity	HP KVM Console Serial/Power G2 Interface Adapter NOTE: Includes Interface Adapter, splitter, USB power cable, and power supply. NOTE: VT100 True Serial.	AF625A
Interface Adapters (support KVM functionality only)	HP KVM Console USB Interface Adapter HP BladeSystem c-Class KVM Interface Adapter HPE KVM Console USB/Display Port Interface Adapter NOTE: Supports HPE BladeSystems c-Class products only.	AF628A AF605A AF654A
CAT5e Cables	HP 3ft Qty 4 KVM CAT5 Cable HP 6ft Qty 8 KVM CAT5 Cable HP 12ft Qty 8 KVM CAT5 Cable HP 20ft Qty 4 KVM CAT5 Cable HP 40ft Qty 1 KVM CAT5 Cable	263474-B21 263474-B22 263474-B23 263474-B24 263474-B25
HPE Foundation Care	HPE Install Rack and Rack Options Service	U2871E

Technical Specifications

HPE Server Console Switch with Virtual Media	Dimensions	Height	1.72 in (4.36 cm)
		Width	17 in (43.8 cm)
		Depth	9.2 in (23.68 cm)
	Power Requirements	Weight	7.0 lb (3.2 kg) 8 & 16 Port, 7.6 lb (3.4 kg) 32 Port
		Rated Voltage	100 to 240V AC
		Rated Frequency	50 to 60 Hz
		Rated Input Current	0.5 to 0.25A
		Input Power	60W (max)
		Heat	200 BTU/hr (max)
		Temperature Range	Maximum Ambient
	Operating Temperature		68° to 158° F (20° to 70° C)
	Ambient Storage and Shipping Temperature		68° to 158° F (20° to 70° C)
	Temperature	Operating	50° to 122° F (10° to 50° C)
		Transit	-22° to 158° F (-20° to 70° C)
		Storage	-4° to 158° F (-20° to 70° C)
	Relative Humidity (non-condensing)	Operating	20% to 80%
		Non-operating	5% to 95%
Video Modes Supported	VGA, SVGA, XGA		

CAT 5 Cable lengths and Video Resolution Restrictions

Standard 4x3				
Total Cable Length	1600X1200 @85Hz	1280x1024 @85Hz	1024x768 @85Hz	800x600 @85Hz
10'	X	X	X	X
50'	X	X	X	X
100'				X

Wide Screen 16x9 / 16x10					
Total Cable Length	1680x1050 @60Hz	1440x900 @60Hz	1280x800 @60Hz	1024x640 @60Hz	800x500 @60Hz
10'	X	X	X	X	X
50'	X	X	X	X	X
100'					X

Environment-friendly Products and Approach **End-of-life Management and Recycling** Hewlett Packard Enterprise offers end-of-life Hewlett Packard Enterprise product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: <http://www.hp.com/go/green>. To recycle your product, please go to: <http://www.hp.com/go/green> or contact your nearest Hewlett Packard Enterprise sales office. Products returned to Hewlett Packard Enterprise will be recycled, recovered or disposed of in a responsible manner.

Technical Specifications

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard Enterprise web site at: <http://www.hp.com/go/green>. These instructions may be used by recyclers and other WEEE treatment facilities as well as Hewlett Packard Enterprise OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.

Summary of Changes

Date	Version History	Action	Description of Change
23-Oct-2017	Version 11	Changed	Care Pack naming and Service and Support- Parts and Materials updated.
31-Mar-2016	From Version 9 to 10	Changed	Related Options section was revised.
02-Oct-2015	From Version 8 to 9	Changed	Overview, Standard Features, and Related Options were revised.
31-Mar-2014	From Version 7 to 8	Changed	HPE KVM Console USB Virtual Media CAC Interface Adapter and HPE KVM CAT5 1-pack USB Interface Adapter part numbers were revised.
20-Nov-2013	From Version 6 to 7	Changed	The title has changed.
08-Jun-2013	From Version 5 to 6	Changed	Overview was revised and Interface Adapters for Virtual Media (USB 2.0 High-Speed) was added.
27-Jan-2012	From Version 4 to 5	Removed	Removed a NOTE.
20-Jun-2011	From Version 3 to 4	Changed	Model and Related Options product descriptions were revised. Product Features was changed to Standard Features. HPE Care Pack, and Warranty Information was removed from Service and Support.
06-Apr-2011	From Version 2 to 3	Changed	Corrected a part number on one of the Images.
16-Feb-2011	From Version 1 to 2	Removed	BladeSystem p-Class KVM Interface Adapter - 1 pack and Serial Interface adapter - 1 Pack with power supply was removed from Interface Adapters.



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