

### Overview

HP Server Console Switches are key components for rack mount implementations (a console represents one keyboard, video monitor, and mouse (KVM) attached to a server). The family of HP Server Console Switches allows multiple servers in a rack to be accessed and managed by one keyboard, monitor, and mouse. By using a console switch, as many as 256 computers running different operating systems can be managed. The 8-Port and 16-port Server Console Switches feature an On-Screen Display (OSD) interface, which has intuitive menus for accessing each attached computer or serial attached device. Equipment can be identified by a user-defined name or sequentially by number, enabling easy access.

HP Server Console Switches can be connected in a tiered fashion, to increase server access from eight servers to as many as 256 servers. Switching between computers is accomplished by typing a switching command at the keyboard, or by using the mouse to interact with the graphic interface of the selected computer via the OSD.

The HP Server Console Switch family of products is available in 8- and 16-Port versions. Both versions offers dual console support, allowing the flexibility of controlling switch configurations from more than one location, or by more than one user. Standard rack mounting of the HP Server Console Switches will take up 1U (1.75") of front panel rack space. However, the Switches can also be mounted in a "zero U" profile by mounting in the side rails of the rack, or behind the HP 1U Keyboard Drawer or the 1U TFT7600 Keyboard/monitor drawer.

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### Models

<b>HP Server Console Switches</b>	HP Server console switch 0x2x8	AF616A
	HP Server console switch 0x2x16	AF617A
	HP TAA Server console switch 0x2x16	AF626A

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### Related Options

<b>CAT5e Cables</b>	3 Foot (1 m) – 4 pack	263474-B21
	6 Foot (2 m) – 8 pack	263474-B22
	12 Foot (4 m) – 8 pack	263474-B23
	20 Foot (6 m) – 4 pack	263474-B24
	40 Foot (12 m) – 1 pack	263474-B25
<b>Interface Adapters</b>	BladeSystem c-Class KVM Interface Adapter – 1 pack	AF605A
	PS/2 Interface Adapter – 1 pack	262588-B21
	PS/2 Interface Adapter – 8 pack	262587-B21
	USB Interface Adapter – 1 pack	336047-B21

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### 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 HP family of server console switches.

- Easy access to multiple servers (any server with PS/2 or USB I/O connection port)
- Multi-platform management from one console (Microsoft® Windows®, Novell, UNIX®, Linux etc)
- Local control and management of servers HP Server Console



### Overview

### Features

- **On-Screen Display (OSD)** – Displays system-related information on the console monitor, such as selected server name, status, power-up test data and configuration menus.
- **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. The port communications settings are automatically configured to allow direct downloading from the connected computer.
- **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.
  - Rear Rack Mount - HP Console Switches may be mounted behind a HP Integrated Keyboard and Drawer (257054-XXX), the TFT5600 or the TFT7600 rack mounted keyboard and monitor with slide rails provided with the switch.
- **Support for variety of server connections with Interface Adapters**
  - PS/2
  - USB
  - VT 100 serial console support
  - BladeSystems support via front diagnostics connector



### *Which Model is Best?*

#### Multi-user console switches

The multi-user server console switch has two user ports for multiple user consoles, and multiple system ports as well (many-to-many). The multi-user console offer expanded flexibility, such as the following scenarios:

- Simultaneous control of servers in both the data center and in other remote locations.
- If there are multiple network administrators, a multiple console switch allows each of them to access all of the servers in their data center to diagnose problems, all from separate locations.

Console Switch	HP Server console switch 0x2x16	AF617A
	HP Server console switch 0x2x8	AF616A



### HP Server Support

#### HP ProLiant Server Support

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

#### HP 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 Adapter (PN: 373035-B21) may be connected to the RS-232 management port to provide VT100 terminal emulation through the HP Server Console Switch.

#### HP Unix Server Support

HP9000 Servers can be managed using the Serial Interface Adapter (PN: 373035-B21) connected to the RS-232 management port to provide VT100 terminal emulation through the HP Server Console Switch.

**NOTE:** For additional information on supported options for the HP Integrity and HP9000 Servers please consult the [HP9000, Integrity and carrier-grade servers Configuration Guide](#).

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

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**CAUTION:** Do not use Interface Adapters to cascade HP KVM Server Console Switches with HP KVM Server Console Switches. If Interface Adapters are used to cascade these products, undesirable operations might occur.

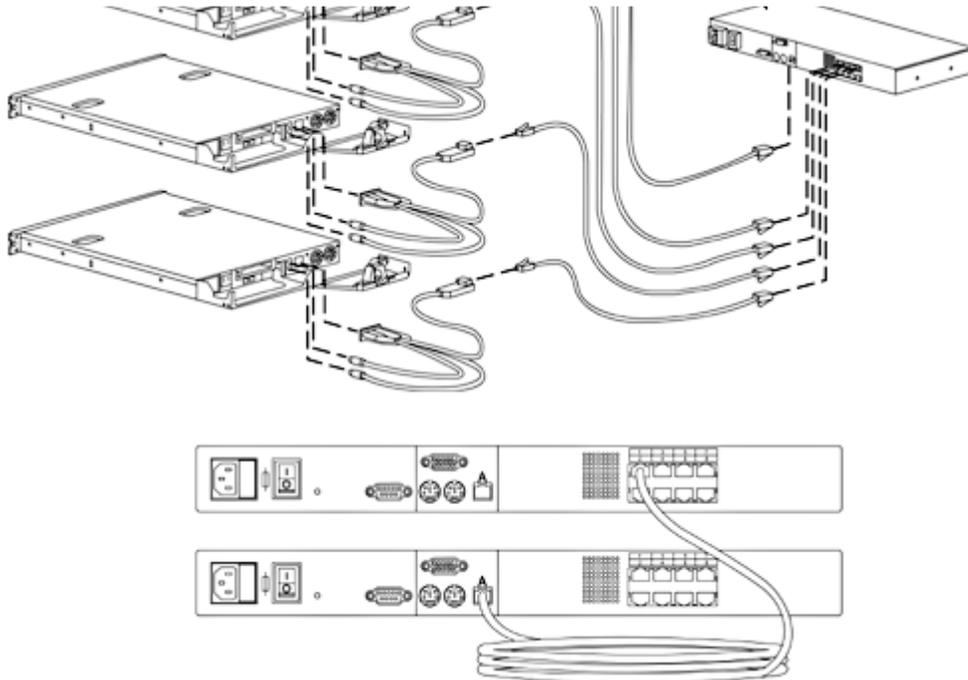
**NOTE:** An optional Expansion Module can be added to the HP KVM Server Console Switch system, increasing the total number of accessible servers, only one level of tiering is allowed and implementing an Expansion Module is considered one level.

**NOTE:** To perform a firmware upgrade for a cascaded HP KVM Server Console Switch and all attached Interface Adapters; you must locally connect the keyboard, monitor, and mouse to the cascaded HP KVM Server Console Switch to access the local OSD.

**NOTE:** The HP KVM Server Console Switch does not support Compaq KVM PCI Cards or HP legacy console switches.

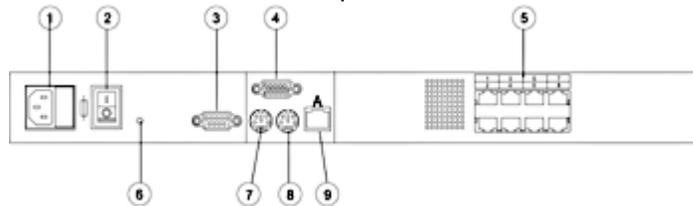
#### Example of an HP KVM Server Console Switch Cascade Configuration



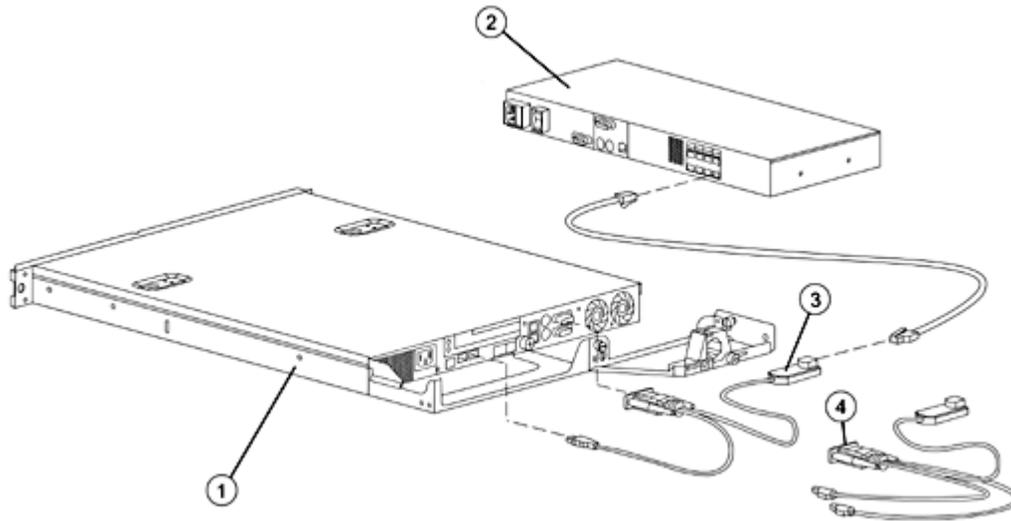


- 1. Server
  - 2. Main HP KVM Server Console Switch
  - 3. PS/2 Interface Adapter or USB Interface Adapter\*
  - 4. UTP CAT5 cable
  - 5. UTP CAT5 cable
  - 6. KVM cable
  - 7. Local port
  - 8. Cascaded HP KVM Server Console Switch
- \* USB IA not shown

### Components



- 1. Power connector
- 2. Power switch
- 3. Serial download connector
- 4. Monitor connector
- 5. Server connection ports
- 6. Activity indicator light
- 7. Keyboard connector
- 8. Mouse connector
- 9. RJ-45 Interface port (designated by the letter A)



1. Server
2. HP KVM Server Console Switch
3. USB Interface Adapter
4. PS/2 Interface Adapter

### Service and Support, HP Care Pack, and Warranty Information

#### HP Care Packs

Hardware Installation (Electronic)

U2871E

Three-year limited warranty, including hardware diagnostic support, pre-failure warranty (coverage of hard drives, memory and processors). The warranty is fully supported by HP 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 HP Care Pack 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 HP 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

HP Care Pack Services include HP 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 HP qualified rack options installed within the same rack.

**NOTE:** For more information on HP Care Pack 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 HP 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>



### Technical Specifications

HP Server Console Switch 0x2x8 and HP Server Console Switch 0x2x16	Dimensions	Height	1.72 in (4.36 cm)
		Width	17 in (43.8 cm)
		Depth	6 ½ in (16.51 cm)
		Weight	4.6 lb (2.04 kg)
	Power Requirements	Rated Voltage	100 to 240V AC
		Rated Frequency	50 to 60 Hz
		Rated Input Current	0.5A
		Output Power	40W (max)
	Temperature	Heat	137 BTU/hr (max)
		Operating	32° to 122° F (0° to 50° C)
Transit		-22° to 140° F (-30° to 60° C)	
Relative Humidity (non-condensing)	Storage	-4° to 140° F (-20° to 60° C)	
	Operating	20% to 80%	
Video Modes Supported	Non-operating	5% to 95%	
		VGA, SVGA, XGA	

### CAT 5 Cable lengths and Video Resolution Restrictions

	1280 x 1024	1024 x 768	800 x 600
50 ft (15m) cable length	Y	Y	Y
75 ft (22m) cable length	-	Y	Y
100 ft (30m) cable length	-	-	Y

**Environment-friendly Products and Approach**      **End-of-life Management and Recycling**      Hewlett-Packard offers end-of-life HP 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 HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

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 web site at: <http://www.hp.com/go/green>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

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