

# QuickSpecs

## HP IP Console Switches

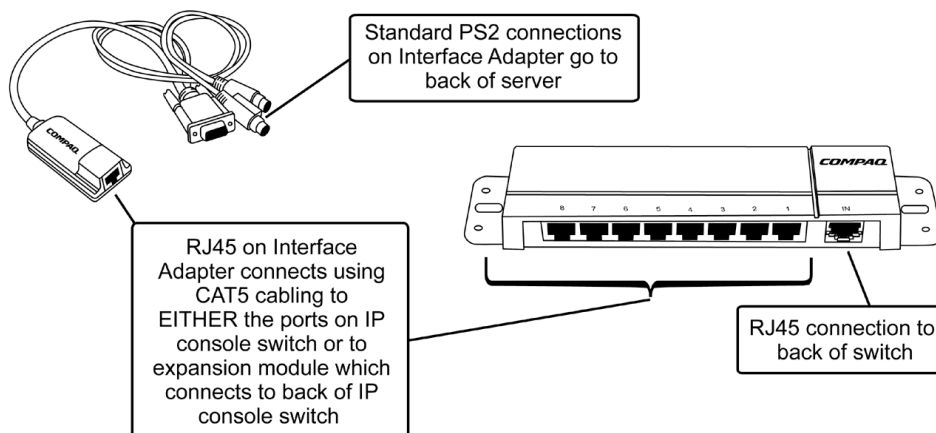
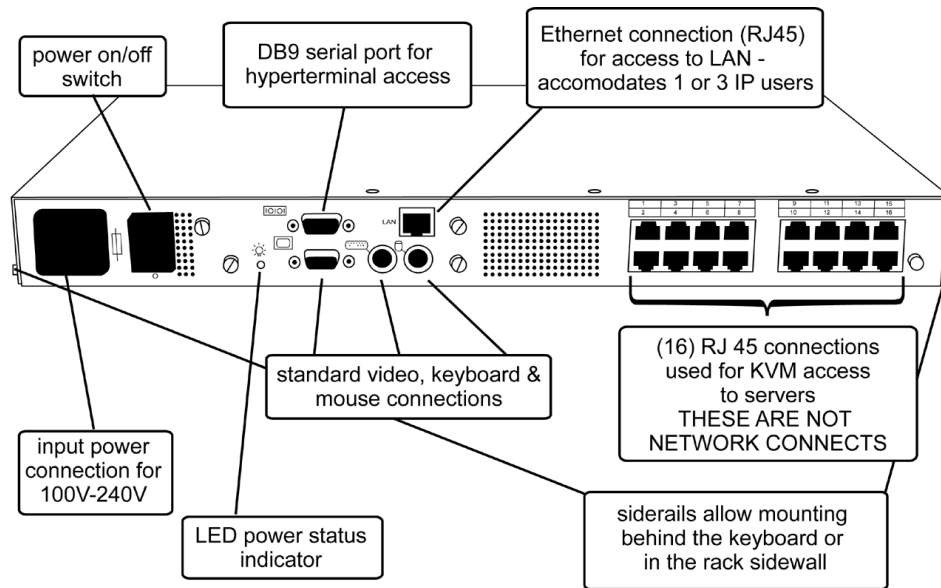
### Overview

The HP IP console switch provides keyboard, video and mouse (KVM) connections to up to 16 direct attached servers. Users can tier this switch with HP Server Console Switches, 8-Port CAT5 KVM Expansion Modules or legacy Compaq server console switches to a maximum of 256 attached servers. The HP IP consoling solution utilizes CAT5 UTP cables between the switch and server, facilitating cable routing and allowing for field termination of cable lengths. An interface adapter is used to convert the server's PS/2 or USB connection to RJ45.

The HP IP consoling solution provides KVM access to any server with standard PS/2 or USB keyboard, video and mouse connection, BladeSystems, or serial devices allowing a single switch to support a variety of device brands from one local console or over a LAN. The IP console switching solution does not require the installation of any software on the attached servers, allowing users to connect a single switch to servers running a variety of operating systems.

HP IP console switches are available in two models to support either 1 or 3 network users accessing KVM functions using the IP console viewer software application that can be installed on Windows® or Linux workstations. Users can access the attached servers through their LAN/WAN connection as if they were standing right in front of the rack.

Security for servers is controlled by either by user names and passwords configured and stored in non volatile memory in the switch, or with the new Directory Services Integration option the user-ids, passwords and access rights can be integrated within Microsoft Active Directory for enterprise-wide authentication and security.



### Overview

### What's New

- BladeSystem support
  - Using the BladeSystem CAT5 KVM Interface Adapter connected to the HP IP Console Switch allows an administrator to connect locally or remotely to a Blade Server for maintenance or out of band management. Compatible with BL20G2 and newer BladeSystems
- Serial console support with the Serial Interface Adapter
  - Using the Serial Interface Adapter connected to the HP Server Console Switch allows an administrator to view a serial console from a Unix or Linux server or a network device such as a switch or router to be viewed as if it were a KVM console. Note that only viewing of serial consoles is supported, file transfers and detecting strings in the serial data stream are not supported.
- Support for LDAP Authentication to Microsoft Active Directory

### Models

#### HP IP Console Switches and Accessories

3x1x16 port KVM/IP switch (3 remote users and 1 local user) (worldwide)	262586-B21
1x1x16 port KVM/IP switch (1 remote user and 1 local user) (worldwide)	262585-B21
BladeSystem CAT5 KVM Interface Adapter - (1-pack)	AF100A
PS/2 Interface adapter - (8-pack)	262587-B21
PS/2 Interface adapter - (1-pack)	262588-B21
USB Interface adapter - (1-pack)	336047-B21
Serial Interface adapter - 1 Pack with power supply	373035-B21
8-Port CAT5 KVM Expansion module	262589-B21

#### Directory Services Integration License Kits

Single License for one switch	370585-B21
Flexible Quantity License Kit	370586-B21
License only - for use with Activation Key Agreement	370587-B21

#### CAT5 UTP Cable Kits - Unshielded Category 5 cables with RJ45 connectors

3 Foot 4-pack	263474-B21
6 Foot 8-pack	263474-B22
12 Foot 8-pack	263474-B23
20 Foot 4-pack	263474-B24
40 Foot single pack	263474-B25

### Target Applications and Markets

**24/7 data centers** – The IP console switch enables staffed data centers to move people out of computer rooms while still maintaining server accessibility. Technicians can load the IP console viewer on their local workstation at a desk or cubicle and access the servers in the computer room through a LAN/WAN connection.

**Staffed remote sites** – The IP console switch provides users with access to local KVM functions over their LAN or WAN. Remote users can access servers and perform actions as if they are standing at a local console.

**Heterogeneous environments** – The IP console switch connects to any type of server that has a standard PS/2 or USB KVM connection and will also connect to BladeSystems and serial devices.

### Overview

### Problems/Requirements

- Easy access to multiple servers
- Want to move people out of the computer rooms due to cold temperatures and noise, but still need access
- Require increased density of servers per switch
- Somewhat price sensitive to cost per port
- Multi-platform management from one console (Microsoft® Windows, Novell, UNIX®, Serial Devices (etc)
- Non-intrusive control and management of servers HP Server Console Switches are "out-of-band," allowing server activity to be viewed on multiple systems without interfering in any way
- Centralized user management needed

### Features

- High performance mouse/cursor speed. From outside the data center, IT administrators can manage servers from a centralized console as if standing in front of them.
- Optional Directory Services Integration for Microsoft Active Directory to allow KVM User management within Active Directory
- 16 ports in Zero-U's of rack space. 16, hot-pluggable ports on each IP Console Switchbox mounts either behind keyboard or in rack sidewalls saving valuable rack enclosure real estate
- Based on standards and backward compatible. Ready to install with your current Compaq legacy console switching solutions and works over a 100 Mbps IP-based network
- Improved cable management. Standard CAT5 UTP network cables can be field terminated to custom lengths eliminating the rolls of KVM cables often found in the back of racks and the smaller form factor facilitates cable routing
- Single screen management. The IP Console Viewer supports Windows and Linux consoles and does not require additional software to be installed on the server in order to monitor your KVM solution
- Secure SSL, DES, or 3DES data transfer across network. The IP console switch uses with multiple security levels for customizing user access to attached servers and operates across firewalls and VPNs
- Localized On-Screen Display and IP console viewer software. Firmware and software are available in several languages to facilitate usage in different world regions (English, French, Italian, German, Spanish, Dutch and Japanese).
- SNMP-Manageable. Pre-defined alert messaging can be sent to Insight Manager, Open View and other SNMP management software programs
- Multiple Space Saving OU Installation Methods.
  - Side Mount – Rails are provided for mounting the unit to the side of the rack cabinet.
  - Rear Rack Mount – In conjunction with a HP Integrated Keyboard and Drawer (257054-xxx) slide rails are provided for mounting the unit behind the keyboard drawer.
- Serial Console Support with Serial Interface Adapter
  - Using the Serial Interface Adapter connected to the HP Server Console Switch allows an administrator to view a serial console from a Unix or Linux server or a network device such as a switch or router to be viewed as if it were a KVM console. Note that only viewing of serial consoles is supported, file transfers and detecting strings in the serial datastream are not supported.
- BladeSystem support
  - Using the BladeSystem CAT5 KVM Interface Adapter connected to the HP IP Console Switch allows an administrator to connect locally or remotely to a Blade Server for maintenance or out of band management. Supports direct attachment of USB devices and is compatible with BL20G2 and newer BladeSystems

### HP Server Support

#### Care Pack Installation

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>

### HP ProLiant Server Support

All ProLiant Servers running any operating system is supported on both the 0x1x8 and 0x2x16 HP Server Console Switches.

### HP Integrity Server Support

Server	HP-UX	Windows	Linux	Interface Adapter
HP Integrity rx1600	HP-UX 11i v2	Windows Server 2003	Red Hat, SUSE	USB
HP Integrity rx1620	HP-UX 11i v2	Windows Server 2003	Red Hat, SUSE	USB
HP Integrity rx2600	HP-UX 11i v2	Windows Server 2003	Red Hat, SUSE	USB
HP Integrity rx2620	HP-UX 11i v2	Windows Server 2003	Red Hat, SUSE	USB
HP Integrity rx4640	HP-UX 11i v2	Windows Server 2003	Red Hat, SUSE	USB
HP Integrity rx5670 <sup>1</sup>	HP-UX 11i v2	Windows Server 2003	Not Supported	USB
HP Integrity rx7620 <sup>1</sup>	Not Supported	Windows Server 2003	Not Supported	USB
HP Integrity rx8620 <sup>1</sup>	Not Supported	Windows Server 2003	Not Supported	USB
HP Integrity Superdome Servers	Not Supported	Use HP IP console 262585-B21 or 262586-B21	Not Supported	N/A

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### HP Server Support

#### HP 9000 Server Support

HP server rp2430 <sup>2</sup>	HP-UX 11i v1	N/A	N/A	PS/2
HP server rp2470 <sup>2</sup>	HP-UX 11i v1	N/A	N/A	PS/2
HP server rp3440 <sup>2</sup>	HP-UX 11i v1	N/A	N/A	PS/2
HP server rp3410 <sup>2</sup>	HP-UX 11i v1	N/A	N/A	PS/2
HP server rp5430 <sup>2</sup>	HP-UX 11i v1	N/A	N/A	PS/2
HP server rp5470 <sup>2</sup>	HP-UX 11i v1	N/A	N/A	PS/2
HP server rp4440 <sup>2</sup>	HP-UX 11i v1	N/A	N/A	N/A
HP server rp4410 <sup>2</sup>	HP-UX 11i v1	N/A	N/A	N/A
HP server rp7400	Not Supported	N/A	N/A	N/A
HP server rp7410	Not Supported	N/A	N/A	N/A
HP server rp7420	Not Supported	N/A	N/A	N/A
HP server rp8400	Not Supported	N/A	N/A	N/A
HP server rp8420	Not Supported	N/A	N/A	N/A
HP Superdome PA RISC	Not Supported	N/A	N/A	N/A

NOTE: <sup>1</sup> = Requires A6869A Graphics Card

NOTE: <sup>2</sup> = Requires A6150B Graphics Card

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## HP IP Console Switches

### Technical Specifications

HP IP Console Switch 3x1x16 port and 1x1x16 port	Dimensions	Height	1.72 in (4.37 cm)
		Width	7 in (17.8 cm)
		Depth	11 in (29.94 cm)
		Weight	3 lb (1.36 kg)
	Shipping Dimensions	Width x Depth x Height	22.63 x 16.13 x 10.75 in (60.1 x 40.97 x 27.3 cm)
		Weight	22 lb (9.98 kg)
	Input Power Requirements	Rated Voltage	100 to 240V AC
		Rated Frequency	50 to 60 Hz
		Rated Input Current	0.5 to 0.25A
		Rated Frequency	50 to 60 Hz
		Power Output	100W (max)
		Heat Output	342 BTU/hr (max)
		Power Cables	Low Voltage IEC C13/Nema 5-15P and High Voltage IEC C13/14
	Temperature Range	Maximum Ambient Operating Temperature	50° to 104° F (0° to 40° C)
Ambient Storage and Shipping Temperature		-40° to 185° F (-40° to 85° C)	
Maximum Internal Rack Temperature for the Switch Box		122° F (50° C)	
Features	Relative Humidity (non-condensing)	Operating 20% to 80% Non-operating 5% to 90%	
	Number of users	3 (3x1x16) or 1 remote users (1x1x16) 1 local user	
	Number of servers	16 direct attach Maximum 256 tiered	
	Form Factor	1U Also mounts 0U (behind keyboard or in rack sidewall)	
Interface Adapter	Network requirements	100 Mbps TCP/IP 1 IP address required	
	Data Transfer Security	Secure Socket Layer (SSL) 64/128-bit	
	Connections	Server to PS2 IA	Standard PS/2 mini-DIN keyboard and mouse, VGA DB15
		Server -USB IA	1 x USB 1.0 Type A, VGA DB15
		Server to serial IA	1 x DB9 Female
	Power Requirements	Interface adapter to switch	RJ45 to Category 5 UTP
		PS/2 IA	250 milliamp from PS/2 port
USB IA		250 milliamp from USB port	
Serial IA PSU		Input Voltage 100-240VAC, 50-60 Hz Maximum Input Current 0.5A @ 115VAC and 0.3A @ 230VAC Output Voltage 6.0VDC Current 200 milliamp	

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### Technical Specifications

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

IP Console Viewer Software	Operating System Support	Windows	Microsoft Windows® 2000 Workstation Microsoft Windows Server 2000 Microsoft Windows XP (Professional) Microsoft Windows Server 2003
		Linux	Red Hat Enterprise Linux 2.1 (x86) Red Hat Enterprise Linux 3.0 (x86) Red Hat 7 and 8 SUSE Linux 8 and 9.1 SUSE Enterprise Linux SLES 7 UnitedLinux 1.0/SUSE Enterprise Linux Server 8 (x86) SUSE Enterprise Linux Server 9
Tiering Support	Required Disk Space	Windows 13MB	Linux 26MB
	Expansion Module	8 servers per port - direct connect	262589-B21
	HP Server Console Switch	1x8 port - direct connect	336044-B21
		2 x 16 port - direct connect	226045-B21
	Legacy Compaq Switches	1x4port*	400336-001, -B31, -291
1x8 port*		400337-001, -B31, -291	
2x8 port*		400338-001, -B31, -291	
<b>*NOTE: Requires PS/2 Interface Adapter, 1 pack (P/N 262588-B21)</b>			
<b>Not compatible with Compaq PCI KVM cards or legacy Hewlett-Packard console switches</b>			
Category 5 UTP Cables	Available lengths	3 ft, 6ft, 12 ft, 20ft and 40ft	May also be field terminated to custom lengths.
	Connections	RJ45 on both ends	

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