Hewlett Packard Enterprise

HPE IT Access and Control Buying Guide

Table of Contents

What is HPE IT Access and Control?

HPE IT Access and Control consolidates remote and/or local access across your entire IT network rack—from small server rooms to enterprise data centers with locations across the globe—into a single point of management. That means simplified, reliable control and troubleshooting of your mission-critical servers, networking, and storage systems.

Three products comprise HPE IT Access and Control: KVM switches, KVM LCD consoles, and serial console servers. Here, we look at each product, why you would need them, and the best environments for each so that you can select the best products for your needs.

KVM switches

A KVM (keyboard, video, and mouse) switch connects multiple servers and computers to one or more console stations for consolidated management.

Traditional analog KVM switches provide direct access to local servers via interface adapters and CAT-5 or special KVM cables that convey the KVM signals electrically from the server to the switch. Digital (or IP) KVM switches provide both centralized local access (via a directly connected management console) and remote access to servers and other IT devices anywhere across the network. Digital KVM switches also support advanced functions such as virtual media and Common Access Card (CAC) security. Remote access via a digital/IP KVM switch is established by converting the KVM signals from a server into network traffic that is sent across the LAN and accessed by a remote console using a web browser.

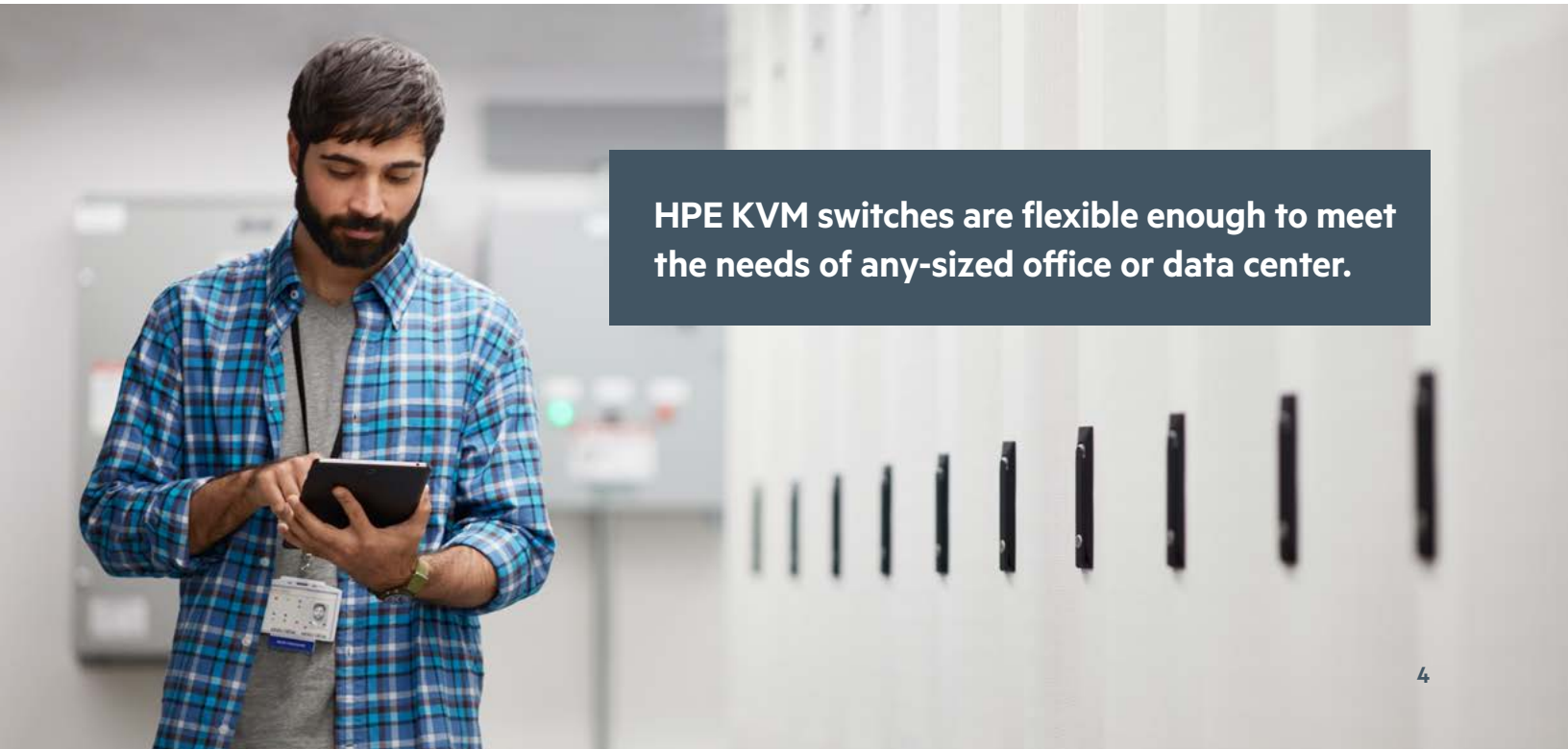
Most HPE KVM switches—analog and IP—allow you to manage either 8, 16, or 32 servers from a single management console.

Most HPE KVM switches—analog and IP—allow you to manage either 8, 16, or 32 servers from a single management console.

Additionally, many KVM switches can also be tiered together to create a larger matrix of servers controlled from a single access point.

What are the best environments for HPE KVM switches?

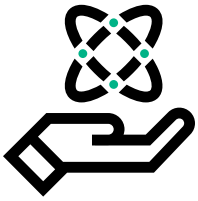
Because they're designed to save space, HPE KVM switches are flexible enough to meet the needs of any-sized office or data center. Anywhere a single person uses more than one computer, or in server rooms where an IT administrator needs periodic access to servers one at a time, a business can save money and space with an HPE KVM switch rather than buying a keyboard, monitor, and mouse for each computer or server.



HPE KVM switches for your environment

The best HPE KVM console switch for your needs depends on your IT size and setup. Below are the main options:

For:	Best HPE KVM option:	
• Mid-range to small enterprise data centers • KVM entry point for configure to order (CTO) rack builds • Combining analog and IP tiered access configurations	HPE Advanced Series Analog KVM Switches 	Learn more
	HPE Advanced Series IP KVM Switches 	Learn more
• Enterprise data centers that require 24x7 access to all servers • High-density CTO rack configurations	HPE Enterprise IP KVM Console Switch 	Learn more



Enterprise LCD consoles integrate directly into your rack structure and connect to the local management console switch.

LCD consoles

Enterprise LCD consoles integrate directly into your rack structure and connect to the local management console switch to provide a high-performance display (video) panel, keyboard, and touchpad (mouse). The 1U rackmount form factor allows for a KVM console switch to be mounted directly behind the LCD console. HPE enterprise LCD consoles include two front side USB pass-through ports to support local use of virtual media and common access card (CAC) support with KVM console switches that support those features.

What are the best environments for HPE LCD consoles?

HPE enterprise LCD consoles provide local access in both non-tiered and multi-tiered KVM switch environments, as well as convenient console-style access for 1:1 crash cart KVM configurations.

HPE LCD console kit

The HPE LCD console kit features an 18.5-inch WXGA TFT LCD Brightview display that supports most common video resolutions. Active Matrix TFT LCD display guarantees a flicker-free picture that is sharper in focus than a CRT monitor.

Learn more

Serial console servers

Serial console servers give you access to and control of serial devices—both local and remote—via serial communications transmitted over the network through the console: servers, firewalls, IP KVM switches, private branch exchange (PBX) systems, uninterruptible power supply (UPS) systems, power distribution units (PDUs), remote power control units, routers, storage systems, and switches.

Using CAT-5 cables and an adapter that converts the serial signal for a RJ45 connector, serial console servers provide the same aggregated access and control for those serially managed devices that KVM switches do for traditional servers. HPE Enterprise Serial Console Servers can be mounted in 1U of rack space to provide remote access to 16 or 48 direct-attached devices. HPE Enterprise Serial Console Servers will reconfigure, reboot, and re-image remotely even if the primary data network is down, minimizing disruption and downtime from a single console.

HPE Enterprise Serial Console Servers can be mounted in 1U of rack space to provide remote access to 16 or 48 direct-attached devices.

What are the best environments for HPE Enterprise Serial Console Servers?

Serial console servers fit into environments with “headless” devices—such as those running UNIX® or Linux®—and serial-managed devices from any workstation on the network or a local terminal.

HPE Enterprise Serial Console Servers for 16 or 48 device connections

HPE 16-port WW Serial Console Server

Learn more

HPE 48-port WW Serial Console Server

Learn more

Key features to consider in HPE IT Access and Control solutions

When choosing an HPE IT Access and Control solution, first determine:

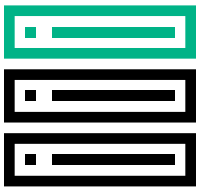
- **How many devices do you need to access?**
- **Do you need the capacity to expand your network in the future?**
- **Do you need to include virtual media?**
- **Do you need support for serial devices?**
- **What are you using your IT applications for—large-scale enterprise with limited local support? Large-scale-enterprise with lots of local support? Small business with basic local access?**

Answering these questions will help you decide which HPE IT Access and Control model is best for your environment. Below is a comparison to help you select the best equipment:

Which HPE IT Access and Control model is best for your environment?

Target Customer Use Case/Application	HPE KVM Series	Ports	Tiering	Virtual Media and/or CAC Support	Redundancy Support	Serial Interface Support	Local HPE Console Support
Medium to Small Enterprise Local IT Support Factory Integration	Advanced Analog	8, 16	256	None	None	Limited	LCD8500
Medium to Small Enterprise Limited Local IT Support Factory Integration	Advanced Digital/IP	8, 16	256	Both	None	Limited	
Large Scale Enterprise “Lights-Out” Support Heterogeneous IT	Enterprise Digital/IP	8, 16, 32	1024	Both	Dual Power Supply Dual LAN	True Serial	

Should you use a KVM switch or serial console server for serial device access?



HPE IT Access and Control products are ideal for IT environments that consist of multiple brands and generations of servers.

KVM switches, primarily, provide access to traditional Windows®-based servers or devices that support keyboard, video, and mouse inputs and outputs. As discussed previously, you may require access to a device that does not support this type of input/output, but rather communicates through serial communication.
Depending on the number of serial devices and the complexity of serial communication management required, you may need to add a serial console server to your environment. However, there is another option to consider.
HPE KVM switches (where supported) have an option to convert one or more ports to serial communication via a serial interface adapter. While each interface adapter requires an additional power source and access will be limited to basic serial communication, this may be the most cost-effective solution when access to a few devices is needed for maintenance purposes only.

However, if you need 24x7 access, monitoring, and communication for serial devices in the data center, a serial console server is the recommended option.

Why would I want to use a KVM console switch when I already use HPE iLO?

HPE iLO provides the simplest and most cost-effective solution for managing HPE servers that support iLO. HPE IT Access and Control products expand on and complement that management by providing reliable consolidated access to *everything* in your rack or data center. By layering an HPE KVM console with iLO, you get additional levels of security and management for the ultimate in IT access and control.

- Access all your servers and IT devices anytime you want via KVM or serial communication, in-band or out-of-band
- They're ideal for IT environments that consist of multiple brands and generations of servers; because HPE KVMs provide agnostic IT management, there's no need to manage multiple apps to maintain access to all your hardware
- Multiple simultaneous users can be logged in at the same time, so issues across multiple servers or devices can be addressed, locally and remotely, at the same time and through a single switch

KVM switches address each of these issues by providing:

- Multiple simultaneous users—Issues across multiple servers or devices can be addressed, locally and remotely, at the same time and through a single switch
- Access to all your servers and IT devices anytime you want—Via KVM or serial communication, in-band or out-of-band
- "Agnostic" access to all servers and other types of equipment—No need to manage multiple apps to maintain access to all your hardware

Learn more about HPE Foundation Care

Adding value with HPE Foundation Care

HPE Foundation Care Service provides comprehensive hardware and software services to increase the availability of your IT infrastructure. HPE technical resources work with your IT team to resolve hardware and software problems with HPE and selected third-party products. For hardware products, that includes remote diagnosis and support and onsite hardware repair if required. This service may also include basic software support and collaborative call management for selected non-HPE software. Additionally, the service and warranty extensions purchased with each HPE server are extended at no additional charge when you purchase HPE IT Access and Control products at the same time.

Conclusion

Learn more about HPE IT Access and Control in our white paper, "Managing the IT environment using HPE IT Access and Control."

DOWNLOAD THE WHITE PAPER

About Hewlett Packard Enterprise

Hewlett Packard Enterprise is a global technology leader focused on developing intelligent solutions that allow customers to capture, analyze, and act upon data seamlessly from edge to core to cloud. HPE enables customers to accelerate business outcomes by driving new business models, creating new customer and employee experiences, and increasing operational efficiency today and into the future.

a50000010ENW, June 2019