



KVM over IP Solutions

Access your KVM switch wherever you need it

To minimize the number of input devices and monitors necessary to control multiple servers, most IT organizations, regardless of size, use a keyboard/video/mouse (KVM) switch. Although KVM switch features vary, the underlying technology and fundamental operation is consistent—you share one locally connected keyboard, mouse, and monitor between as many systems as the switch will support.

One glaring shortcoming of traditional hardwired KVM solutions is their inability to give administrators KVM access wherever they need it. A traditional KVM switch requires that the operator have physical access to the switch. While administrators are inside the data center, they can access any system, but when they can't reach the KVM solution, they don't have access. The vendors and products in this Buyer's Guide offer KVM access to administrators wherever they need it by transmitting KVM information over IP.

KVM Over IP vs. Remote Control Software

You might assume that such functionality is available in remote control software. But keep in mind that remote control software runs on the server, so when the server is experiencing major problems—when you need remote access the most—a good chance exists that the remote control software won't be running. The KVM over IP connectivity and interface use specialized hardware and don't require a working, stable OS in order to function.

Hardware Support

Consider the number and types of servers you want to use the KVM switch to control. Vendors offer varying degrees of support for hardware other than typical Intel platforms. You must also decide whether you need a scalable solution or whether you want to buy up front the number of ports you need to last for the product's lifetime. If you're looking for expandability,

choose a KVM over IP solution that interoperates with other vendors' traditional KVM products.

Security

Security is another important factor to consider, especially if you plan to make the switch accessible through the Internet. Look for support for security standards such as Data Encryption Standard (DES), Secure Sockets Layer (SSL), and public key certificates, and verify that you can apply multiple levels of security

Find out whether the KVM over IP solution interoperates with other vendors' traditional KVM products.

EDITOR'S NOTE

The Buyer's Guide summarizes vendor-submitted information. To find out about future Buyer's Guide topics or to learn how to include your product in an upcoming Buyer's Guide, go to <http://www.winnetmag.com/buyersguide>. To view previous Buyer's Guides on the Web, go to <http://www.winnetmag.com/articles/index.cfm?departmentid=118>.

and encryption to your KVM connections. You don't want an intruder to have access to the console of your enterprise's backbone systems. Depending on your organization's security policies, you might want to verify that you can integrate the product's security with your Windows security model. Other cracker-defeating features such as Digital V6's Kaveman's stealth and turtle mode might prove worthwhile in defending your infrastructure. Stealth mode, like a firewall, keeps Kaveman from responding to port scans or pings. Turtle mode slows down each time a user enters the wrong password. After too many bad logon attempts, turtle mode prohibits the user from logging on and sends the administrator an alert.

KVM Communication

Some solutions use client-side software to communicate with the KVM switch, whereas others use an Internet browser. Pros and cons exist for both approaches; you should make your decision based on your specific implementation. If you want to limit

access to the KVM switch to just a few people, the client software makes sense. But if you need to enable access to any administrator regardless of where that person is located, a browser-based client will better achieve your goal.

Performance is largely dependent on how the product handles the video signal. Check to see what type of video compression and other bandwidth-conserving strategies the switch or client software

features. Ask vendors whether you can log on to a demo switch to evaluate the speed and functionality for yourself. Make sure that when you compare the performance of different solutions, you factor in the speed of the link to the demo switch.

Further Considerations

You also need to consider the number of simultaneous sessions that the switch

can handle, the form factor of the hardware, the type of cabling required for server connections, and what effects the distance between the switch and servers produces. If it makes sense for your environment, you might also want to look at bonus features such as rudimentary monitoring and notification and the ability to remotely reset a system's power.

—Ed Roth

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Contact Information	Product Name	Price	Description
Avocent 256-430-4000 866-286-2368 http://www.avocent.com	AutoView 2000R	\$4495	Combines analog and IP-based KVM switching for local access from anywhere in the data center; provides IP-based access for extended or remote users; features 16-ports; provides local and simultaneous access for dual-IP-layer-based users
	DS1800	\$7995	Eight-port digital KVM switch provides access to an unlimited number of servers or devices in the network from any location; uses existing networking infrastructure to transmit KVM signals over TCP/IP; features unlimited scalability and security features
	DSR2161	\$4495	Dual-user 16-port system combines digital and analog technology in one KVM switch; features multiuser, multilocation capability and local and IP access for PC-based servers; contains one local port for rack access and two digital ports for IP access
Digital V6 905-513-3107 http://www.digitalv6.com	Kaveman	\$2500	Provides complete KVM control through a Web browser; can manipulate BIOS to let you perform a computer reset through the server's resident software; lets you control power and monitor crucial server functions; connects directly to the server or KVM switch through VGA and PS/2; features single-channel KVM over IP
	Kaveman 8	\$3500	Features complete KVM control through a Web browser; can manipulate BIOS to let you perform a computer reset through the server's resident software; lets you control power and monitor crucial server functions; connects directly to server or KVM switch through VGA and PS/2; features eight-channel KVM over IP
Raritan Computer 732-764-8886 800-724-8090 http://www.raritan.com	TeleReach	\$2795	Enables secure Web-based remote access to any analog KVM switch; complements Raritan's Paragon KVM solutions; provides simultaneous, multiplatform, BIOS-level KVM console access to multiple servers; features 128-bit security, an integrated modem, and realtime performance adaptation to bandwidth constraints; available in 1-port and 2-port configurations
StarTech.com 519-455-9675 800-265-1844 http://www.startech.com	SV1100KVMIP	\$3334	Lets you control and monitor server functions from anywhere in the world through TCP/IP; lets you remotely control a target computer over a TCP/IP network from a client computer; compatible with most existing KVM switches; features full cross-platform and multiple-OS support; doesn't require proprietary client software, saving you money in user licensing fees