**GEARHEAD
INSIDE THE
NETWORK
MACHINE**
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Reach for the remote

This week we wanted to look at a server-automation package, but as we started to work with it we quickly decided the computer room was way too hot and claustrophobic. Obviously, remote access would be better than sweating. Now a few months ago we discussed a system called VNC that operates rather like pcAnywhere but is free. Well, as good as VNC is, its response time is a little slow for extended use.

Here at the secret subterranean Gearhead laboratories, we get a fair amount of products to test, and the problem is we only can get through a limited amount in the time we have available. So stuff sometimes gets shelved for far longer than we'd like. We often think "such-and-such would be really cool to fool with . . . er, test," but time slips away and suddenly we're feeling guilty. (Public relations people, please note that we only feel a little guilty.)

Anyway, a product we've had around for far too long turned out to be the answer to avoiding our computer-room sauna. The product is IP Reach M-Series from Raritan Computer, the latest version of the company's hardware-based remote access tool.

IP Reach is a hardware-accelerated and highly manageable alternative to remote-access software packages such as VNC and pcAnywhere. The device connects the keyboard, video and mouse of up to four PCs or KVM switches (the number of ports depends on the model) and one serial port to a remote

PC using Secure Sockets Layer over IP on a LAN, WAN, Internet or dial-up connection.

The product can be used to access Wintel- or Sun-based devices. In fact, because IP Reach is handling raw KVM connections, you even can access BIOS and boot-up services. Combine this with remote power management and you have complete control of all modes of PC operation.

If you use IP Reach to access a KVM switch, you can gain control over every server to which the switch is attached. IP Reach ports can be assigned as private, shareable only by administrators or shared by any authorized user. Moreover, the ports can be accessed independently — that is, remote users can access separate ports.

Users can be restricted to Web access and/or modem and serial console access, and allowed to have full control of the mouse and keyboard or see only screen updates. Users also can be restricted so that they can connect only from a specific range of IP addresses.

Handling keyboard and mouse traffic is a relatively straightforward process that IP Reach handles as well as any other remote access system — this service requires a relatively low data rate.

Where things start to get difficult is video — trying to transfer screen data for graphical user interface-based operating systems requires lots of bandwidth. The IP Reach hardware includes a high-speed frame-grabber that digitizes and compresses the video. Over a LAN or other high-speed link this essentially provides a real-time response for remote-access clients.

The IP Reach compression subsystem also is smart enough to modify the color depth

and compression to optimize the data rate for the bandwidth of the delivery medium.

Installation is simple. You attach a monitor and keyboard to the Admin Console connections, fire up IP Reach and work through the configuration menus or use the configuration wizard. You also can directly connect to IP Reach from a PC using a crossover Ethernet cable and a Web browser.

You can assign IP Reach a static IP address or tell it to use DHCP. You can set up user accounts on IP Reach or configure it to authenticate using a RADIUS server.

The remote client software called Raritan Remote Client (RRC) is an ActiveX component that is downloaded from IP Reach over HTTP. Once installed, RRC switches to HTTPS, asks you to authenticate and then lets you see all the Raritan devices on the local network. Then you can make a connection to a specific IP Reach port (KVM or serial) or to the administration interface.

The RRC can autosense video settings and calibrate color rendition. There's also support for keyboard macros. You can connect simultaneously to as many IP Reach ports as you please, and each port connection can be saved as a profile.

The M-Series IP Reach system costs $2,800 for the two-port model and $3,800 for the four-port version.

Being hardware-based, the IP Reach system costs a lot more than a software-only solution, but the upside is raw performance. On a LAN, IP Reach is the next-best thing to being directly connected!

Access Gearhead remotely at gearhead@gibbs.com.

Raritan®

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