Virtual Media

Optimizing the Efficiency and Security of Data Center Operations

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Executive Summary

To ensure non-stop delivery of essential business services to users across and beyond the enterprise, IT data centers require constant, diligent management. There are two reasons, however, why it is not wise to have technicians constantly going in and out of the data center to perform these daily management tasks. First, over-reliance on the physical presence of technicians in the data center is slow and inefficient. Every time someone gets up from his or her desk to install a patch or run some diagnostics, valuable time is lost—time that could be spent taking care of other important tasks. Second, foot traffic through the data center is never a good thing. When too many people spend too much time around critical systems, it greatly increases exposure to both malicious and inadvertent security risks.

Virtual Media addresses these twin issues of operational efficiency and security by allowing servers to access CD-ROMs and other storage media anywhere across the enterprise, just as if they were directly attached via the server's USB port. It thus empowers technicians to do their jobs more quickly and efficiently, without compromising the physical security of the data center.

Virtual Media

What Is Virtual Media?

Virtual Media allows a server to access storage media such as CD-ROMs, flash memory and external drives anywhere on the network—just as if they were directly attached to that server's USB port. This allows technicians to quickly and easily move and copy data between the storage media and the computer. They can install application and OS patches, download files and perform diagnostic testing on multiple servers without ever physically entering the data center or leaving their desks. They can even work from home or on the road. Everything they are able to do on-site, can be done securely from any remote location.

Virtual Media can be provisioned locally or remotely. With local Virtual Media, the server and the storage media are attached to the same KVM switch, so data transfers occur out-of-band through the switch. With remote Virtual Media, the storage media can be attached to any Virtual Media-enabled desktop anywhere on the network. In these cases, data moves over the network from the enabled desktop to the KVM switch and then via the USB port from the switch to the server.

Unlike conventional network attached storage (NAS), Virtual Media allows technicians to take advantage of the convenience of removable media to work wherever and whenever needed. As long as they have a CD with whatever files they need on
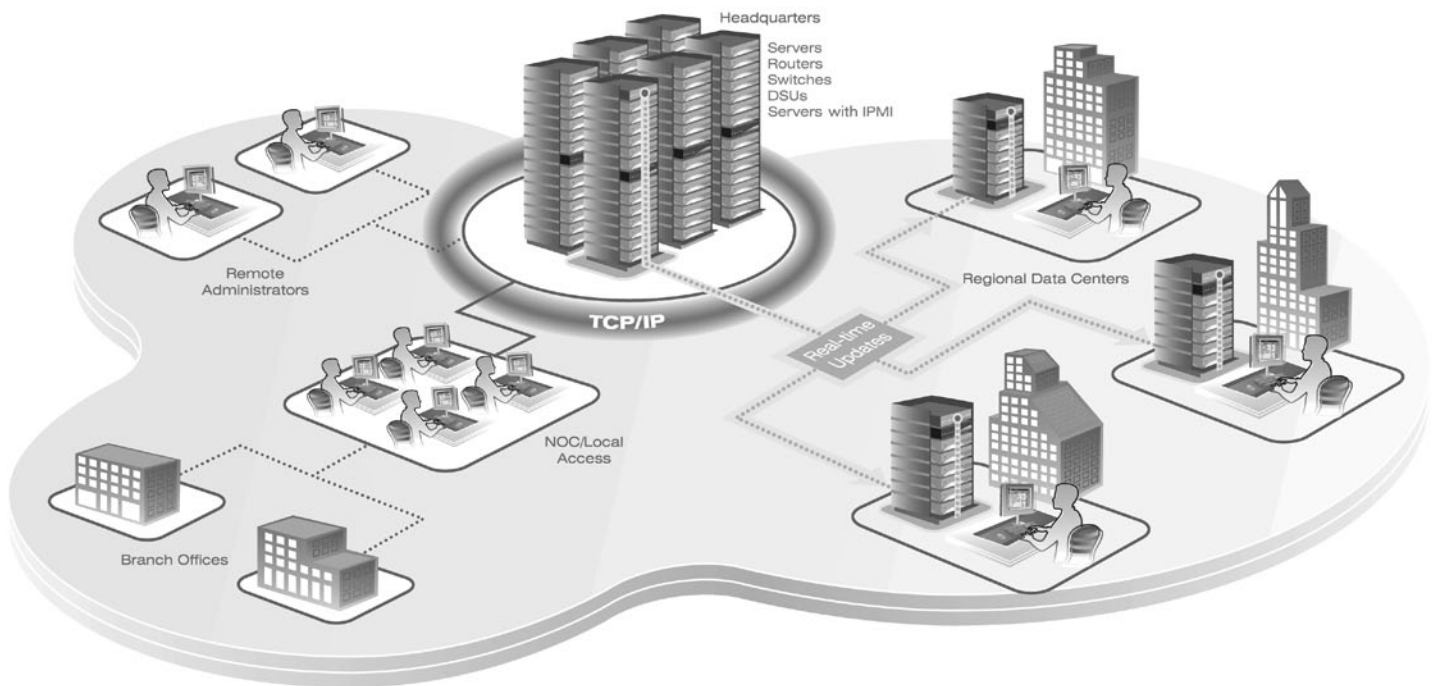

Figure 1. KVM over IP switches manage Virtual Media with the On-Board Web Interface (OBWI). Virtual Media support provides quick and easy remote loading of CDs, OS patches and/or specialized diagnostics.

hand—whether it's diagnostic tools, a clean system image or a set of current patches—they can manage any server with a USB connection to a KVM switch.

Practical Benefits for Today's Data Center

By allowing servers to access storage media anywhere on the network, as if it were directly connected to their USB ports, Virtual Media yields a variety of important, practical benefits. These include:

Improved Management

- Virtual Media improves business continuity and enhances service levels, because technicians can immediately solve problems wherever they are.

- With Virtual Media, IT skills and expertise can be more effectively leveraged across the entire enterprise.

- By streamlining remote management, Virtual Media reduces operational costs, improves administrator-to-server ratios and frees technicians to spend more of their time on higher-value tasks.

- The anywhere/anytime management enabled by Virtual Media eliminates "truck rolls"—reducing the costs and lost productivity associated with travel.

Improved Security

- Virtual Media reduces traffic in the server room, lowering the risk of intentional and accidental damage to servers.

- By eliminating the need to bring removable media into the server room, Virtual Media helps protect critical servers from unsafe and/or infected programs—while also reducing exposure to data theft.

- Tighter control over physical access to the server room facilitates compliance with security best practices mandated by regulatory requirements.

Improved Working Environment

- Virtual Media allows technicians to take care of routine maintenance and address server problems without getting up from their desks—so they can stay focused on strategic projects.

- With Virtual Media, technicians can easily work from home or the road, enabling them to avoid inconveniences such as late hours in the office or an extra commute on the weekends.

There are many remote systems management tools on the market. But, many of them still force technicians to physically access servers when they need to load CDs, patch the OS and run specialized diagnostics. The Virtual Media solution overcomes these limitations, bringing a new level of simplicity and security to data center management.

The Virtual Media Solution

KVM over IP switches provide both local and remote Virtual Media capabilities. To enable local Virtual Media, the storage device is simply attached to a USB port on the switch. This allows any server on that switch to access the device as if it were connected to its own USB port. To enable remote Virtual Media, the storage device must be attached to any networked PC. Using the switch's OBWI, an authorized technician at that PC can provide access to that device across the network to any server connected to any KVM over IP switch—just as if the device were directly connected to the server's USB port.

Unlike other vendors' offerings, the Virtual Media solution works across all platforms and operating systems. KVM over IP switches also provide multiple USB ports—allowing technicians to use different drives to support different sets of tasks. This flexibility uniquely enables IT departments to more efficiently and securely manage all their servers across the enterprise.