Data Centers Demand Advanced KMM/KVM Equipment

Convenience, flexibility and efficiency are hallmarks of next-generation server management tools.

In the age of virtualization, cloud and big data technologies, the data center has never been more important. Consequently, IT professionals are under pressure to achieve high levels of efficiency, even as they deploy server racks of ever-increasing densities. To keep up, data center managers are seeking every available edge, including the most efficient KMM (keyboard, monitor and mouse) and KVM (keyboard, video and mouse) equipment.

KMM Consoles, KVM Switches

The KVM switch is an indispensable piece of the IT department server management process. By enabling data center professionals to manage multiple servers from a single console, it helps to conserve rack and floor space.

Although some smaller data centers may require only an analog KVM switch, a digital KVM-over-IP switch adds the ability to manage the servers of multiple vendors, and to manage servers remotely. These are important capabilities as data centers increase in size, either through organic growth or the acquisition of another company.

A KVM-over-IP switch can handle operating system and firmware upgrades as well as security patches through virtual media, whether a CD-ROM or USB drive, which can further increase efficiency by enabling these operations on multiple servers from a single location. With virtual media support, a technician may quickly and easily load CDs, push out OS patches and/or run specialized diagnostics.

The ability to perform tasks remotely is important for three main reasons. First, relying on technicians to physically move from their desks to various server racks to perform management tasks is slow and inefficient. Second, excessive foot traffic in the data center can make it difficult to track the goings and comings of personnel, which could lead to security risks. And third, technicians gain the flexibility to work from home, on the road or whenever they are out of the office for any reason, such as training or even vacation.

KVM/KMM Combination

The effectiveness of an Advanced Digital KVM is increased through the addition of an Advanced KMM display, complete with touchpad mouse and keyboard. Working together in a rack, the Advanced KMM/KVM combination can eliminate the need for the traditional crash cart. That can be a significant gain for data centers with limited floor space where it would be awkward to roll around a cart, for data centers with narrow aisles that cannot accommodate a cart, or for data centers that are so large that it is impractical to wheel a cart around.

Dell KMM/KVM

The Dell KMM display works in complementary fashion with a Dell KVM switch to provide features that deliver the flexibility to manage these server configurations:

- **Single server:** Connect directly to keyboard, video and mouse ports of a single rack-mounted server for a one-to-one interface.
- **Multiple servers:** Attach to a rack-mounted Analog or Digital KVM. The KVM console switch maintains a connection to each server as the KMM rack console is switched by the KVM among connected systems.
- **Remote servers:** Utilizing a USB 3.0 port on the KMM console and virtual media via KVM-over-IP capabilities, an operator can manage servers anywhere on the network.

Advanced Dell KMM/KVM Features

- **The Dell ReadyRails™ mounting kits** enable a data center operations manager to quickly and easily snap both KMM and KVM units into a 19-inch rack.
- **Warranty protection.** The Dell KMM/KVM includes a three-year warranty with Advanced Replacement — Next-business-day RMA2. Should a unit require replacement, an entire unit will be shipped out prior to receipt of the unit being replaced.
- **Integration.** The Dell KMM and KVM are designed to work together, so the features are complementary.
- **User Interface.** For customers utilizing Avocent's DSView Management Software, it gives users a single console for centralized management. It enables secure, automated real-time tracking and control of heterogeneous physical servers, virtual servers and embedded technologies.
- **Space savings.** The ability to mount the KMM and either analog or digital KVMs together in a single rack unit conserves rack space — savings that can add up as a data center grows. It also simplifies cable management, ensuring the fewest impediments to airflow.
- **The 18.5-inch widescreen LED monitor** works with new operating systems as well as legacy environments. The LED monitor's TFT screen delivers outstanding image clarity.
- **Multiple USB ports.** Two USB 3.0 ports on the KMM offer a convenient way to install operating system and firmware upgrades as well as software patches, which are delivered to servers via the KVM switch, whether analog or digital.

The Dell KMM/KVM solution delivers advanced features for a high level of management convenience, flexibility and efficiency.

Dell 1U Rackmount LED KMM Console

- **Virtual media management.** The On-Board Web Interface (OBWI) enables management of KVM-over-IP switches.
- **Manage multiple racks.** Both analog and digital Dell KVMs can attach to servers up to 150 feet away, a significant space-saving capability.
- **Energy efficient.** The Dell KMM and KVM are Energy Star certified for low power consumption.

A Data Center Edge

More function server management is required as server racks are populated with more powerful and high-density equipment servers. The Dell KMM/KVM solution delivers advanced features for a high level of management convenience, flexibility and efficiency. Thanks to the remote management capabilities of the Dell KMM/KVM solution, a data center manager gains full control over a large number of servers across multiple locations.

Taken together, these features are important in maximizing the efficiency of data center personnel and the servers they manage. By enabling data centers to run at an optimal level, IT resources are freed up and may be dedicated to the implementation of new technologies.