Department of Land Administration adopts
ATEN Multi-Console Matrix KVM Solution

Highly secure and scalable server room management helps Department of Land Administration introduce next-generation services

Challenges

- Increase in number of servers and administrative complexity
- Remote desktop control software is limited and negatively impacts on productivity
- Multiple operators to manage multiple servers simultaneously
- Enhanced security for confidential Land registry data
- Reduce server room chaos resulting from the maze of cable clutter
- Multiplatform support for server administration

ATEN Solution

KM0932

The 9-Console 32-Port KM0932 Matrix KVM Switch

- Up to 9 consoles can independently and simultaneously control multiple servers
- Independent and isolated architecture to ensure secure administration
- High scalability – can manage up to 8000 servers
- Dual Root function allows up to 18 console configuration
- Used in conjunction with power management device for improved efficiency
- Extends the control range up to 300m
- Dual power supply and virtual media function
- Real-time audio-video signal transmission
- Graphical User Interface

Background

The Department of Land Administration (DOL) of the Ministry of the Interior has long been committed to providing the people of Taiwan with convenient, responsive and accessible e-services as part of the island's "e-government through government ICT infrastructure" strategy. In recent years, the DOL has been promoting initiatives such as blue homeland rights, national land planning, organizational reforms and high-technology operations to deliver more efficient land administration.

Challenges and Requirements

DOL servers have continued to increase as the volume of land registration data and service requests have continued to grow – resulting in a corresponding increase in the complexity of equipment management. In order to manage and control up to double the number of its existing servers in a systematic manner, the DOL has recently completed a major upgrade of its data center.

According to IT administrators at the DOL, the data center used to contain numerous servers running a number of different operating systems, with a complex maze of cables cluttering the workspace. Administrators also used desktop control software to remotely control servers and reduce the need for personnel to physically access the server room. Productivity was hampered by unstable connections, Windows-only software, and having to manage each server individually.

Since land registry data must be kept very secure, a major challenge in the server room upgrade was establishing an independent,

isolated and secure architecture for server management.

The DOL requirements called for a KVM solution with an independent, reliable and highly secure management architecture – one that had to be highly scalable and provide multiplatform support, as well. Using a centralized and hierarchical management model, the KVM solution had to allow network administrators to simultaneously control multiple servers running on a number of different operating systems. Productivity would be significantly enhanced by simplifying the previously complex server administration procedures.

Evaluation and Selection:

Data Center Management made Simple – the ATEN Multi-Console Matrix KVM Solution

After carefully evaluating the several KVM solutions on the market, the DOL eventually settled on the Multi-Console Matrix KVM solution offered by ATEN for its data center upgrade project. Their decision was based on the benefits offered in terms of its security, scalability, flexibility and convenience.

In choosing the ATEN KVM switch, the DOL is not only counting on ATEN's more than thirty years of KVM experience, but on the company's ability to fully meet their server administration challenges, as well, through ATEN's tailored upgrade planning and fast-replacement service. To provide an extremely high degree of platform and interface integration for their data center upgrade project, the DOL chose ATEN's new enterprise-level matrix KVM switch, the KM0932, as well as its associated console modules and KVM adapter cables.

Benefits:

Controlling Multiple Servers through Multiple Consoles Offers the Best Solution for Data Center Expansion

The KM0932 is designed for modern data centers that require reliable, high security access and control of multiple servers. This top-of-the-line Matrix KVM solution from ATEN allows nine operators to simultaneously and independently control up to 32 directly connected servers. Non-blocked access means that up to nine operators can monitor all of the servers connected to the KM0932. An advanced Dual Root feature makes it possible to link two KM0932 switches to achieve an 18 console configu-

ration – allowing enterprises to flexibly increase the number of consoles they deploy to match their growth requirements.

The KM0932 can also be daisy chained, cascaded, or both, providing flexible expansion configurations that allow up to 9 consoles to control thousands of servers – offering an extremely high level of flexibility and scalability for private and public sector IT departments to continually expand their data centers.

Dual Power Supply, Power Association, and Virtual Media Deliver More Reliable Server Administration

For utmost reliability, the KM0932 is designed with a dual power supply to provide backup redundancy - ensuring that down-time is kept to a minimum. To reduce maintenance time and increase management efficiency, servers can be power controlled remotely from the KM0932's UI, when it is used in conjunction with ALTUSEN's PN0108 Power Over the NET™ power management device.

The KM0932 also features a Virtual Media function that allows USB storage devices to be shared among all the servers. This feature can be used for file transfers, application and OS patch installations, etc., across all selected servers from a single console – reducing down-time and saving maintenance costs.

Extended Range to Reduces Server Room Chaos

Before the server upgrade project, the DOL server room was cluttered with servers and haphazard cabling. With the KM0932's use of Cat 5e cabling, however, cable clutter is eliminated, providing a neat and tidy work environment. In addition, administrators no longer have to be in close proximity to the servers. With Cat 5e cabling they can be up to 300m away. IT administrators no longer have to constantly move around to manage different servers either. With the KM0932, they can access any server in the server room from their console. This, together with the benefits of Cat 5e cabling, significantly reduces server room chaos, allows administrators to work more easily and efficiently, and saves significant management expenditures in costs and time.

User-Friendly Design and Real-Time High-Quality Audio-Video Signals Take Server Administration to New Levels

The KM0932 offers an intuitive, full screen Graphic User Interface (GUI) for both console and browser-based sessions. The composite integrated tree view of all ports offers convenient navigation and access.
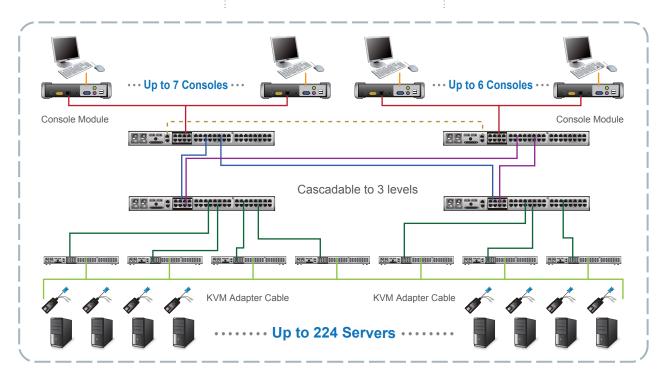
With automatic skew compensation and Auto Signal Compensation (ASC), the KM0932 ensures real-time and true video quality via Cat 5e cabling - 1280x1024 @60Hz over distances of up to 300 meters.

In addition, since the KM0932 includes RS232 port support, it can even send configuration commands between the consoles and servers. All of these value-added and user-friendly features provide the DOL with added flexibility and convenience to take server administration to a new level.

ATEN Solution Supports e-Government Initiatives

The future expansion of land registration data and launching of improved services at the DOL will inevitably require more server upgrades. For IT administrators, the challenge will be improving their efficiency and setting up a more diversified IT infrastructure. With limited resources, the introduction of the best server room equipment becomes all the more critical. Here ATEN's data center management solutions which offer high C/P value, high flexibility and high scalability will continue to support the DOL's push to introduce new and expanded e-government services.

Up to 7 Consoles

Up to 6 Consoles

Console Module

Console Module

Cascadable to 3 levels

KVM Adapter Cable

KVM Adapter Cable

Up to 224 Servers