

Reducing Travel Costs with Remote Server Access

By Kenneth Dukofsky, Marketing Communications Manager of [Minicom Advanced Systems](#)

Thursday, August 07, 2008

In the current recession and with the recent steep climb in oil prices, companies are looking for ways to reduce their travel expenses. Travel also causes damage to the environment. A single passenger flying business class from New York to London will cause the emission of 3.5 tons of CO₂ increasing the amount of greenhouse gasses responsible for global warming.

Due to the high cost of travel, many IT professionals are forced to limit both maintenance and repair efforts to a few scheduled onsite visits. Important work may be left undone for days or weeks. If the problem requires specialized hardware or software, work can be delayed even further – whether the visit is across the city or across the world.

There is however a way to keep IT assets running smoothly by remotely maintaining your computers via remote access. Instead of hopping into a car or plane to maintain or fix remote computers, IT staff can access the computers and work on them from the comfort of their own office, saving their company thousands of dollars in the process.

Taking it to the next level, using a [KVM IP](#) hardware solution allows accessing your servers at the deeper BIOS level, something software solutions are unable to accomplish. Remote access uses digital access to (keyboard, video, mouse) KVM switches via the TCP/IP (internet) protocol in order to allow administrators to manage systems from anywhere in the world.

This KVM access enables a number of unique missions to be performed of which remote software solutions are incapable, such as: booting from another hard disk if the main hard disk is broken; bypassing faulty hardware components; entering the Windows recovery console; entering 'safe mode' without networking; reconfiguring low level drivers; remotely booting to another operating system (dual boot); recovering and restoring the hard drive from a previous image etc.

According to an Intel Corporation study on trouble tickets and spending¹, approximately 5 percent of technical desktop computer-related support incidents represent slightly over 50 percent of total support costs, largely due to the costs of labor and travel. Certainly, any way to cut the cost of remote diagnosis/service—even just one of every four or five incidents—can mean significant budget savings, as well as returning users to business as usual.

Supportindustry.com reports that most IT help desk managers surveyed said that having instant access to accurate diagnostic information would make it faster (66 percent) and easier (62 percent) to resolve problems².

Due to spiraling travel costs, remote IT access has evolved from a luxury into a necessity. IT managers can simply no longer afford to be without it. Using remote access solutions, your computers and intelligent devices can be monitored and maintained from anywhere in the world. Problems can thereby be diagnosed more accurately and fixed in less time and at lower cost. **Please visit our website for free informative resources such as [white papers](#), [case studies](#), [podcasts](#) and [webinars](#) on the subjects of KVM and Digital Signage.**

The writer Kenneth Dukofsky is the Marketing Communications Manager of Minicom Advanced Systems. Minicom manufactures KVM server and computer management solutions that facilitate the control of the enterprise and corporate IT environments. Additionally, Minicom is an innovative manufacturer of distribution and extension solutions that provide the Digital Signage Last Mile™ player-to-screens stage of connectivity for Digital Signage systems. Minicom is an Intel Capital portfolio company and was named a Deloitte Technology Fast 500 company. Founded in 1988 Minicom has an international presence in over 70 countries, with headquarters in Israel and regional offices in North America and Europe.

¹ [Intel IT Trouble Tickets & Spending, Intel Corp., 2003](#)

² [66% of IT Help Desk Managers Not Completely Satisfied with Help Desk Technology Investment, Reports SupportSoft](#)

KVM IP Management for Today's IT Budget

Add-On Technology that Maximizes Your IT Installed Base

By Kenneth Dukofsky, Marketing Communications Manager of Minicom Advanced Systems

Thursday, September 04, 2008

The numerous benefits of remote KVM IP access and management have made them the new must have technologies for IT managers. With KVM IP, companies can perform remote maintenance, increase response times, reduce downtime, slash travel costs and increase security. Unfortunately many remote access and management solutions are too costly for SMB's. Much of their high costs derive from the contemporary "Rip and Replace" approach.

With over 60% of KVM switches in server rooms analog-based, IT administrators have a heavy investment in their current KVM systems. But when it comes to adding KVM IP access, most KVM manufacturers advocate replacing everything. In order to add KVM IP access to your server environment these companies make you completely remove your perfectly functioning analog KVM switches and replace them with their KVM switches with built-in IP technology. This makes their solutions very costly as you are paying for the KVM switch component twice, once for the analog KVM switch that you are throwing away and once for the new one.

An alternative approach allows companies to upgrade their existing analog switches; transforming them into IP enabled KVM switches. This is achieved by simply adding a technology layer on top of the legacy KVM systems, safeguarding the company investment. This cost effective solution, where you buy only what you need, costs less than half the price of competing systems. This approach saves time and money without sacrificing functionality providing a cost effective solution to KVM IP access. Minicom Advanced Systems calls this the ***Real Needs***™ approach.

The ***Real Needs*** approach is an affordable way to add KVM IP access that makes more sense for the end user. All companies really need to remotely control IT devices is a KVM IP gateway and a management system that is third party KVM switch compatible. There is simply no need to replace analog KVM switches. With the ***Real Needs*** approach companies upgrade to IP access and management for half the price of conventional methods saving tens of thousands of dollars in the process.

The ***Real Needs*** approach also slashes installation costs. IT managers have spent months building the perfect server racks and years laying wires all over their building. The thought of ripping up thousands of meters/feet of wire and laying brand new ones is a nightmare. Instead of destroying everything

they have built up over the years and starting all over from zero, they can keep everything in place. With the *Real Needs* approach they simply add an additional technology layer on top of the existing systems. Not only do IT managers save themselves many hours of work, they also eliminate critical downtime for their company in the process.

Click here to read more about add-on technology that maximizes your IT installed base in Minicom's new white paper ["KVM IP Management for Today's IT Budget"](#).

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Player Placement in Digital Signage Networks



Maximizing Return On Investment (ROI) from digital signage networks necessitates optimizing screen placement to ensure the largest number of people are exposed to the greatest amount of content. Less understood is the importance of media player positioning. Media players are susceptible to hazards which affect their Total Cost of Ownership (TCO). Situating your players near the screen, in public, makes them difficult to service and exposes them to multiple environmental hazards, thus lowering their "Mean Time Between Failures" (MTBF). Using extension technology to safely store your media players in an environmentally controlled back room protects as well as makes them easily serviced and maintained thereby increasing their MTBF.

Display devices and Media Players in Digital Signage Networks

Display device Placement

A major factor in the design of any digital signage network is display device placement. According to Dale Smith of Peerless Industries, "All the well intentioned design work, beautiful display devices and high powered content that money can buy are rendered ineffective if placed in a poor location." A screen which can not be properly seen by the public renders the entire investment useless. To properly place screens in a digital signage network a long list of requirements must first be met.

Media players have their own set of placement requirements that are at least as rigorous as those governing screens. While screen placement mainly affects the effectiveness of your message delivery, player placement, in contrast, is mainly a Total Cost of Ownership (TCO) consideration.

Modern digital signage networks primarily follow two types of installations regarding the placement of the media player - at the screen or in a back room used for storing the company's IT related devices.

Player at Screen Technology

In "Player at Screen" systems the media player is mounted directly onto the screen. The media players receive their content from a central content server via a standard IP based network and then transmit the content directly to the display device. This method places your IT equipment in the unprotected public areas exposing them to heat, cold, people and dust. All these have repercussions on the TCO of your media players and digital signage network.

Player in Back Room Technology

Multimedia hardware extension systems use broadcaster/transmitter and receiver units to transmit video, audio and control (serial) signals from a remote media player to single or multiple screens over dedicated CAT5 cable. Using this technology, media players can be removed from the screens, up to 600m/2000ft if necessary, and placed in a protected back room environment.

Benefits of Player at Screen

Player at screen topology is suitable for applications where screens are easily accessible, with or without an existing network infrastructure. This infrastructure can be used to transmit content from the central player to the players at screen. Player at screen applications also uses less hardware than the other options. Both these benefits help reduce hardware and installation costs and simplify set up. The initial outlay in a player at screen application is therefore lower than the competing options. However, as will be seen, as time progresses the TCO of a player at screen application becomes more costly than player in back room applications.

Work Environment for Player at Screen



Maintaining, Servicing and Upgrading

When you need to maintain, service or upgrade your media players, be prepared for an ordeal. Since the players are attached to the screens they are usually located either high up in the air or sandwiched between the screen and a wall. To reach a ceiling mounted player you will typically need a ladder. To work on the player you will first have to remove the mounts and brackets and then the players themselves. Then you will have to take the players to a table and attach them to a screen, mouse and keyboard. After you have reprogrammed the player you will need to reattach the players to the screens with their brackets and mounts. If you replace the players with newer ones, you may very well have to change the mounts and brackets as well.

High Service Costs

Publicly servicing players at screen is problematic during store hours, you can not simply close nor is it recommended to publicly have a repairman climb a ladder for an hour or two to fix it. The only option is to have a repairman fix it after store hours when service costs are more expensive and can reach double or triple regular rates.

Work Environment Comparison

Player at Screen



Player in Back Room



Benefits of Back Room Placement

Media players using content extension technology can be extended from the screens and placed in a secure and environmentally controlled back room with 24 hour accessibility. These factors help maintain the player and keep it from breaking down.

The racks are specially designed for easy access - making maintenance, service and upgrading simple. If you need to upgrade or service multiple players at once, the task takes minutes instead of hours, because all the players are situated in the same location. A single 1x1m server rack can hold 10 media players.

Low Service Costs

Service costs with extension technology are kept low as the players can be easily accessed during regular working hours. If a problem crops up you can fix it immediately. You do not need to wait until after store hours when service costs are double or triple to service your players as you would with player at screen.

Work Environment for Player in Back Room



Maintenance Comparison

Maintenance with Player at Screen



Maintenance with Player in Back Room



About us:

Minicom Advanced Systems Ltd. Is a manufacture of KVM server and computer management solutions that facilitate the control of corporate IT environments. Additionally, Minicom is an innovative manufacturer of distribution and extension solutions that provide the Digital Signage Last Mile™ player-to-screens stage of connectivity for Digital Signage systems. Minicom is an Intel Capital portfolio company and was named a Deloitte Technology Fast 500 company.