

Benefits of a Remote Monitoring and Security Solution

Remote monitoring offers simple troubleshooting to keep a kiosk running smoothly.

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Although kiosk and digital signage applications may be reshaping retail, there's one major difference between those applications and their human counterparts: the applications can't tell someone when they are having a problem.

As such, it could be hours or days before someone notices that a kiosk or a digital signage network is out of order. The result is that not only does the deployer lose out on the immediate revenue while the device is out of commission, but there also can be a long-term negative impact on sales due to customer turn-off.

"The customer will go to the kiosk once," said Bill Phelps, business development manager for retail with Lincolnshire, Ill.-based Zebra Technologies, a provider of technology solutions, including on-demand digital printing and automatic identification solutions for businesses.

"If it's down, they'll come back a second time," he said. "If it's down a second time, they won't come back again. Reliability is extremely important in a self-service device."



Kai Hendry

A digital sign that's not working properly can cost a deployer revenue and customer goodwill. A remote monitoring solution helps resolve issues quickly.

Although a kiosk deployer could have someone physically inspect a kiosk or digital signage network to ensure it's operating correctly, that's an inefficient solution that can become a low priority for a busy retailer. And for remote locations, a problem that may require a simple reboot can involve a costly and time-consuming trip.

That's where a remote mentoring solution comes in.

Kiosks and digital signage share similar elements

Software bugs and hardware failures aren't the only issues of concern to kiosk and digital signage deployers.

A quick Internet search shows the ease with which hackers can disrupt technology.

A video on the site YouTube shows a hacker walking up to a ticket-dispensing kiosk located in the lobby of a major movie theater chain. In less than 30 seconds, the kiosk's Internet Service Provider (ISP) information is revealed, including the client's IP address.

And a February 2010 news report details how police in the Russian city of Novorossiisk arrested a man who hacked into a video billboard in Moscow and showed a pornographic movie that spawned a traffic jam as drivers slowed to catch the show.

To address problems both technological and man-made, many software companies have developed remote monitoring solutions for kiosks and digital signage.

Unfortunately, many of those solutions stemmed from software developed for home computers and are geared mainly toward kiosk applications. Others focus primarily on digital signage; those programs, however, can allow for the resolution of software issues without detecting hardware issues, such as whether or not the screen is working properly.

That's not always the best way to approach the solution, said Paul Mayer, sales and



Dan Harrelson

In-taxi digital signage also serves as a payment screen, making the technology a mixture of both digital signage and kiosks.

marketing manager with Leicester, U.K.-based Working Solutions.

Working Solutions, founded in 1997, is a supplier of software for the interactive multimedia and digital signage industry. Among the company's products are Kiosk Monitor, a remote access, monitoring and maintenance solution specifically designed for self-service kiosks, and the Acquire Premier Editor Suite, a comprehensive package of software applications capable of managing and controlling thousands of digital signage players and/or self-service kiosks.

"Despite people wanting to separate the two markets, each contains elements of the other," Mayer said.

"There are digital signage applications which are also interactive, and there are kiosks that incorporate elements of digital

signage,” he said. “Consider in-taxi digital signage, which is usually done on a small touch screen that also functions as the payment screen. That’s not much different than a kiosk.”

Converging applications

Working Solutions was founded as a supplier of remote monitoring and security solutions for the kiosk industry. In recent years, the company has expanded into the digital signage industry.

As a result, its remote monitoring solutions span both technologies, Mayer said.

“We had customers who came to us and said they wanted remote monitoring software that was able to do things like find out whether or not the LCD screen is actually on or not,” he said. “As a result of that, we began offering various plug-ins and pieces of hardware that can do that sort of thing.”

Working Solutions’ Kiosk Monitor software includes a protective Watchdog application which prevents users from accessing and damaging the kiosk application. The operating system is locked down to prevent access to data, programs and potential security risks.

With Kiosk Monitor, if a problem occurs, the issue is logged and whenever possible, the Watchdog will take remedial action to make the kiosk operational again. Programs and key services which fail are automatically restarted or the kiosk itself is restarted.

Interaction with hardware watchdog devices and other support hardware is performed by the use of plug-ins allowing

Kiosk Monitor applications

Functions that can be monitored with Working Solutions’ Kiosk Monitor software and plug-ins include:

- Hard drive temperature and space
- Status of cash acceptors/dispensers
- What applications are running
- Hardware and software installed
- Third-party devices such as card readers, printers or scanners
- Whether screens are powered

specific devices to be managed. In some circumstances, the kiosk also can be configured to automatically repair itself to a prior known working state.

Everything which occurs on the kiosk is logged and sent back to the central Kiosk Monitor servers. The system also can automatically contact support staff via remote services management software (called Site Manager), via email or via text message.

If a support engineer is needed on-site, the kiosk’s lockdown and security applications can be quickly unlocked simply by typing a configurable secure key sequence. No password box appears on the screen.

In February 2010, Working Solutions introduced Signage Monitor, a remote monitoring and security solution designed for digital signage networks.

No matter how advanced a remote monitoring solution becomes, however, there will still be issues that require a service engineer to visit the device itself.

Although such cases have typically called for a handwritten out-of-order sign, a solution such as Kiosk Monitor provides an alternative that may soften the impact to customers.

“Instead of displaying the ‘blue screen of death,’ why not display something on the screen like an advertisement instead of a sign that says this machine is broken?” Mayer said. “Or something that says, ‘This machine is undergoing maintenance

and will be back up soon,’ just to give the customer some feedback.”

***About the sponsor:** Established in 1997 in the United Kingdom, Working Solutions has grown to become a market leader within the interactive multimedia and digital signage industry across the world with a variety of clients. The company’s client list — available on its website — includes blue-chip companies, start-ups and entrepreneurs, all of whom have come to expect high levels of technical sophistication and service from the Working Solutions team.*