DOCUMENTED LABOR SAVINGS

The processes highlight the value of a remote management system. The nearly 700 kiosks that were fixed remotely were updated literally in seconds through the combination of the central MC^2 console and remote Athena agents. For the remaining 152 kiosks, OPI's technical support teams spent 160 hours over two and a half weeks manually removing flash drives and installing new ones, for an average of more than an hour per kiosk, not counting travel time. At that rate, OPI would have spent another 737 hours of labor if it had needed to manually replace each drive instead of using remote troubleshooting.

"We'd still be out there fixing kiosks if we had to do them all manually," Scarsciotti said weeks later. "Athena's remote management capabilities saved this project, and saved us a customer."

Now the kiosks are up and running, and the embedded support capabilities help prevent potential problems. A central system administrator can monitor all kiosks without visiting the stores. When problems do occur, help desk employees can use the management solution to see exactly what is happening, take control of devices remotely, change configurations and perform other troubleshooting.

"MC^2 with Athena is a tremendous resource for diagnosing problems," said Scarsciotti. "The help desk can see everything that's going on with the device. There have been many times where they could resolve the problem remotely. That saves the customer from having to ship the device to the manufacturer for evaluation and repair. That saves a lot of time and money, especially since the problems are often the result of user error rather than something with the device itself."

Now the supermarket chain is in compliance, has highly functional kiosks in its stores so customers can check prices – and has a robust remote management system that helps keep hackers out while letting administrators in to keep the kiosks running efficiently.

ODYSSEY SOFTWARE is a leading provider of enterprise-class device management software products for Microsoft Windows Mobile, Windows Embedded and other Windows-based platforms. Their mission is to provide industry-leading software technologies, making it efficient and cost effective for IT organizations to manage and support the complexity of mobile enterprise deployments.

Optical Phusion, Inc. (OPI)

Optical Phusion, Inc. (OPI) is a wireless enterprise mobility focused integration company. They offer application based solutions for a range of markets specializing in retail, supply chain and field sales organizations. OPI's Mobile Device Management (MDM) solution manages and supports a broad range of Enterprise Mobile Assets, while their RFID-based system is a successful solution for loss prevention, mobile device security and Mobility Asset Management. OPI teams with customers to manage the entire lifecycle of Enterprise Mobility Projects.

Optical Phusion, Inc. (OPI)
305 Foster Street Littleton, MA 01460
Phone **978.393.5900** · **www.opticalphusion.com**

CASE STUDY

Remote Kiosk Management

Mobility Communications Console (MC^2)

Industry: Retail/supermarket
Implementation: OPI's MC^2 mobile device management (MDM) system with Athena OEM component used to control 850 price check kiosks for a seven-state supermarket chain.
Devices managed: Wireless multimedia kiosks running Microsoft Windows CE .NET.
Advantages: When kiosk security issues surfaced soon after deployment, remote management saved hundreds of man hours for updating security and troubleshooting the kiosks, and eased the supermarket's PCI compliance concerns.

QUICK DIAGNOSTICS, REMOTE MANAGEMENT FIXED FLAWED DRIVERS TO KEEP KIOSKS IN COMPLIANCE

What started out as a customer service initiative by a multi-state supermarket chain quickly became a customer service nightmare. Soon after the chain installed 850 self-service wireless price check kiosks in 276 stores, a preteen hacker posted a YouTube video showing how to access similar kiosks and take control of the messages that appeared on the screen. The supermarket chain, fearful of a PCI compliance liability, turned to Optical Phusion Inc. (OPI) to create and install a security patch as fast as possible.

"Companies in the retail world live in fear of being out of compliance with PCI and SOX (Sarbanes-Oxley)," said an Executive of the chain's IT organization. "I don't see how an enterprise in a PCI environment can manage its devices without robust remote management capabilities."

Optical Phusion, Inc. (OPI)
305 Foster Street Littleton, MA 01460
Phone **978.393.5900** · **www.opticalphusion.com**

Fortunately, no PCI breach occurred. But while assessing the kiosks, OPI discovered a different problem: the manufacturer had not updated drivers for the flash drives on an unknown number of the kiosks, rendering them unable to create some essential directories and file systems. Therefore, the kiosks couldn't be managed and patched remotely. The supermarket chain would soon see firsthand the differences between remote and manual device management.

ROGUE VIDEO STARTS SCARE

Neither the supermarket chain nor OPI expected to do much troubleshooting so soon after kiosks were installed. The state-of-the-art units feature 802.11-standard wireless networking capability and security, the Microsoft Windows CE .NET operating system, an Intel processor, integrated barcode reader, touch-screen interface, built-in speakers, optional loyalty card reader, and the capability to display multimedia content.

Then the infamous hacker video began attracting attention on YouTube. It featured a different brand of kiosk at a different retailer, but had startling implications for all Windows-based kiosks. Using the kiosk touch screen, the hacker navigated Windows menus to access a soft keyboard – all in just a few minutes and documented on camera. Other hackers could use the vulnerability highlighted in the video to reprogram different kiosks.

"Our customer contacted us and was very concerned," said Bill Scarsciotti, OPI's VP of Technology. "At that point they didn't know if they were in violation of PCI security policies. They wanted it assessed, and if out of compliance, fixed as quickly as possible."

FAST FIX

Using standard software development tools compatible with the Windows CE .NET kiosks, two people at OPI wrote, tested and validated a patch to block access to the software keyboard—all in just 10 man hours. The next step was to deploy the patch to the kiosks, which had been installed in seven states.

As part of the initial implementation, OPI provided the customer with its MC^2 remote management system. MC^2 combines an administrator console that OPI developed with Odyssey Software's Athena remote device management software. Athena is built on open standards including XML and .NET, which helped OPI quickly integrate it with MC^2 and maintain a consistent, seamless user interface. Help desk, system administrators and other staff can use the integrated solution to apply more than 140 filters to view and manage remote devices, while the MC^2 console provides the platform to scale and extend management to thousands of devices.

It took just seconds for OPI to load the security patch it developed into the MC^2 console and distribute it to the kiosks, where embedded Athena agents completed the installation. Approximately 550 of the 850 kiosks updated in the first hour – but others did not respond to the communication from the management system.

"Because we have a console, we can accurately track the progress of an update in real time," said Scarsciotti. "We were immediately aware that there was something wrong with many of the kiosks because we knew they were out there and had been enabled for remote management. So, when they didn't appear on our console, we knew there was a hardware problem."

OPI consulted with its customer and quickly dispatched tech support teams to a limited set of stores to check on non-responsive kiosks. That is when it learned the kiosk manufacturer had not applied a critical update to the flash drives on many devices, which prevented the affected kiosks from accepting the security patch. They also learned some flash drives were so corrupted they could not be recovered remotely. OPI then followed up with the kiosk manufacturer, which committed to fixing the kiosks and put OPI on point for the effort.

But before the corrupt kiosks could be fixed, they had to be identified. Plus, there was a chance the 550 kiosks that accepted the initial security fix could experience the same drive problem, so they needed to be evaluated as well.

"We could have shut everything down until PCI questions and the other problems were resolved, but that wasn't a good option," said Scarsciotti. "What we really needed was to isolate the kiosks with corrupt drives."

Once again, centralized device management and Athena's powerful capabilities helped lead to a fast resolution of the problems. OPI used MC^2 to check the status and configurations on all 850 installed kiosks. The Athena agents and console software rapidly identified which kiosks had the driver problem, and which of those could be repaired remotely.

"We were able to isolate the problem units, which helped us resolve the situation much quicker than if we had to put our hands on each kiosk to check it out," Scarsciotti said.

OPI determined that almost 700 kiosks could have their flash drives updated remotely, but identified 152 that would need their drives to be manually replaced. Coordinating among the kiosk manufacturer, the customer and its own staff, OPI dispatched four two-person field teams to replace drives on kiosks that could not be fixed remotely.

opi
WIRELESS INTEGRATION • SOLUTIONS

Optical Phusion, Inc. (OPI)
305 Foster Street Littleton, MA 01460
Phone **978.393.5900** · **www.opticalphusion.com**

MOTOROLA SOLUTIONS
PLATINUM CHANNEL PARTNER