Remote Manageability in Retail

Michael Millsap – Platform Solution Architect, Intel® Intelligent Systems Group

Saving thousands of dollars per year in maintenance and energy costs for point-of-sale terminals and other intelligent networked devices is a compelling proposition for retailers.

This is especially true since keeping networked devices running is becoming key to improving the competitiveness of bricks and mortar stores and creating a great shopping experience for consumers.

With the adoption of intelligent connected devices, such as point-of-sale (POS) terminals, interactive customer service kiosks, and smart digital signage based on Intel® Core™ vPro™ processors, remote manageability is gaining major traction with retail device OEMs and their customers.

Intel® Active Management Technology (Intel® AMT), a hardware-based manageability solution built into Intel® Core™ vPro™ processors, provides a suite of capabilities that greatly improve IT efficiency in retail enterprises.

The benefits of remote diagnosis and repair of networked systems, energy savings, and efficient remote asset management add up to solid return on investment for retailers.

Fewer truck rolls

Large retailers operate tens of thousands of point-of-sale terminals, and this can make the logistics of on-site diagnosis and maintenance extremely expensive in direct costs as well as downtime. Retailers need a way to resolve technical issues rapidly, without sending technicians on-site.

We've heard from OEMs that about 75 percent of all problems experienced in retail devices are non-hardware related, and the good news is just about all of these issues can be resolved remotely without a costly truck roll by using Intel® AMT. If a hard drive is corrupted or if a driver is malfunctioning, we can log into the machine remotely, using AMT's remote KVM feature, and fix it, regardless of whether the operating system is corrupted.

Intel® AMT remote remediation has another benefit. Faster remote resolution of issues can lead to increased uptime for in-store devices and the services they enable, and that in turn translates to a better customer satisfaction and a potential uplift in store revenue.

Saving energy

The second area for big cost savings is reduced energy consumption. In a large retail store, there may be 20, 40, or more checkout lanes with POS terminals, and new devices such as interactive kiosks are now being deployed.

EMBEDDED WITH INNOVATION

43%

Projected 6-year reduction in ATM downtime with embedded Intel® vPro™ technology.

(Source: Shinhan Bank ROI Study 2009)*

Although most retailers could power down systems at the close of their business day, many simply do not. Stores will leave their machines on 24 hours a day in order to send software patches down the wire, and to simply avoid the logistical challenge of turning all the machines off at night and having to reboot them all each morning.

Intel® AMT supports remote power management, and the ability to remotely turn machines on and off according to pre-set policies, such as an automatic shut-down at the close of business each day. Each machine can be powered on remotely as needed to install patches or for any other reason and then turned off again.

This feature, combined with the power-efficiency of Intel® processors, can generate considerable cost savings while helping protect the environment. If you consider that each machine may consume 200 - 300W of power, if you can save 50 percent of that power by remotely turning the machines off when the store is closed, you can save in the vicinity of $100 per year per machine.

Improving asset management

Intel® AMT includes persistent storage for data about each machine. This can include data about boards, CPUs, operating system, applications, and any other system parameters. You can access this information, even when a machine is powered down.

So if you are looking for which machines include a particular

driver that needs updating, you can go to your database and update the driver on the affected machines.

Remote IDE redirection allows a technician to boot the system off of any OS image chosen by a technician, such as a test and debug image with a set of diagnostic tools. I can diagnose the problem, or I can revert to a previous version of software.

Intelligent connected systems have a lot to offer retailers, and their continued adoption makes the money-saving benefits of Intel® AMT extremely compelling.

Intel has a case study that shows how a major bank achieved an ROI of 524 percent in just 6 years,[1] after deploying ATM machines with embedded Intel® vPro™ technology to support improved patching, OS reimaging, and remote problem resolution. You can read this and other retail remote manageability case studies here.

Disclaimer

[1]The Shinhan Bank* 2009 deployment of ATMs with Embedded Intel® Core™2 processor with vPro™ technology, conducted in 2009, at the bank's distributed sites in South Korea.

Intel® vPro™ technology is sophisticated and requires setup and activation. Availability of features and results will depend upon the setup and configuration of your hardware, software and IT environment. To learn more visit: /Link.aspx?id=5121

Intel® Active Management Technology requires activation and a system with a corporate network connection, an Intel® AMT-enabled chipset, network hardware and software. For notebooks, Intel AMT may be unavailable or limited over a host OS-based VPN, when connecting wirelessly, on battery power, sleeping, hibernating or powered off. Results dependent upon hardware, setup & configuration. For more information, visit http://www.intel.com/content/www/us/en/architecture-and-technology/intel-active-management-technology.html