



Solution Brief

SyAM Software
Desktop Monitor*
Intel® vPro™ Technology

SyAM Software Desktop Monitor* and PCs with Intel® vPro™ Technology

SyAM Software™

Company	SyAM Software, Inc, founded in 2003, is a leading enabler of management technology for global system, appliance, information technology (IT) service and solution providers.
Business Challenge	Extend the benefits of improved remote management to the small- and medium-size business (SMB) market.
Technology Solution	SyAM Software Desktop Monitor*
Enhanced By	Intel® vPro™ technology ¹

Reducing on-site visits and decreasing IT costs with improved remote diagnostics, problem resolution, and remote power-up for PCs

SyAM Software is working with Intel to simplify manageability for managed service providers (MSPs), and reduce service costs in the small- and medium-size business market. The combination of SyAM Software Desktop Monitor* and Intel® vPro™ technology provides service technicians with increased visibility and manageability, even if a PC is powered off or its operating system (OS) is unresponsive. This new service level is delivered through powerful hardware capabilities built into PCs with Intel vPro technology. The capabilities include “always-available” remote communication and event logs, remote power-up, remote boot, redirected boot, and console redirection. MSPs can now use Desktop Monitor to remotely power up PCs, boot systems from an image stored at the service center, and verify hardware and software events through a persistent event log – regardless of the PC power state or the state of the OS.

With Desktop Monitor and Intel vPro technology, MSPs can significantly reduce on-site visits for problem resolution and improve the efficiencies of technicians. In turn, this will allow MSPs to perform more work off-hours, improve remote problem resolution for both hardware and software problems, and reduce service costs in SMB environments.



Today's challenge

Most MSPs today have a reactive approach to service: when the PC has a problem, they fix it. Typically, unresponsive PCs require that a technician be dispatched to the site to troubleshoot, diagnose, and repair the machine. For customers, this can result in significant user downtime. And, in the SMB market, the fix-and-repair approach is a costly service model. There is a critical need for tools that support improved services from the remote service center for PCs that are powered off or unresponsive.

The solution: SyAM Software Desktop Monitor* and Intel® vPro™ technology

SyAM Software is taking advantage of new remote manageability capabilities that are built into PCs with Intel vPro technology. These hardware-based capabilities allow SyAM Software Desktop Monitor an even greater level of visibility and improved management control from the service center. In addition, because the new capabilities are designed into the hardware, they are OS-agnostic, and available for both Windows* and Linux* environments. With SyAM software and Intel vPro technology, service technicians can now remotely power up these PCs, resolve more software problems, and improve the accuracy of hardware problem diagnostics – without leaving the service center.

MSPs can now reduce on-site visits traditionally required to troubleshoot and diagnose problems, perform repairs or new software installations, and power up PCs on-site to ready them for maintenance and other services. In turn, customers should see improved service, minimized interruptions to business, and increased user productivity.

Remote capabilities — always available

One of the key benefits of Desktop Monitor and Intel vPro technology is that communication with – and remote management of – PCs is now possible anytime. The communication channel in PCs with Intel vPro technology is hardware-based and runs outside the OS. Because the channel uses the TCP/IP firmware stack instead of the software stack in the OS, communication with the PC is independent of the PC's power state or the state of the OS. As long as the PC is connected to a power source and plugged into the network, the channel is available for authorized Desktop Monitor communications.

Improved problem resolution — even if the OS is unresponsive

One of the biggest challenges to MSPs – and one of the most costly services to provide – is remote software problem resolution. Service technicians often can't remotely diagnose or repair PCs that won't boot to a functional state. Instead, the MSP must dispatch a technician to the customer site to troubleshoot and fix the problem.

Desktop Monitor used on PCs with Intel vPro technology now gives service technicians new capabilities to bring inoperative systems back online. For example, some of the reasons a PC might not boot include corrupted registry, missing .DLL files, a USB device accidentally left in a drive (preventing the system from booting properly), and so on. When such a system becomes inoperative, Desktop Monitor can notify a technician of the "missing" PC – the system is not responding to the constant polling and monitoring process.

When managing PCs with Intel vPro technology, the technician can now send a remote-boot command to the system to see if the boot problem can be quickly fixed by booting the OS to a clean state. Remote boot is performed through integrated device electronics redirection (IDE-R), which is more secure than traditional preexecution environment (PXE).

If a reboot doesn't resolve the problem, the technician can redirect the boot device for the PC to a clean image at the service center. This could be an image on a CD, a remediation server, or another device. Once the PC has been booted remotely, the technician can use console redirection through serial-over-LAN (SOL), to watch as the BIOS, drivers, and OS attempt to load. The technician can then guide the PC through a diagnostics session, using diagnostic tools from the technician's own CD-ROM or floppy drive. If the problem is a software or OS issue, the technician can push replacements for missing files, repair corrupted registries, and perform other repair tasks without leaving the service center. This can significantly reduce on-site visits, improve response times for SMB customers, and help minimize MSP service costs.

Verifying hardware events through persistent information

One of the challenges in hardware problem resolution is knowing what is wrong before making an on-site visit. Remote diagnostics are limited to last known event information, which does not always include final failure sequences or events. The technician, when dispatched to the site for repairs, takes an educated guess at the types of replacement parts that may be needed, and often makes a second visit to return with the right part. In some cases, technicians make a third visit after a hardware repair to check on the PC and make sure the system is now fully functional.

Desktop Monitor now improves this process by offering validation of failure sequences and final events through the Intel vPro technology event log. This event log is stored in tamper-resistant nonvolatile memory. It persists even if the OS is unresponsive, and even if hardware (such as a hard drive) has failed. Technicians can now access the Desktop Monitor event log to identify a problem, then validate the final failure events through the persistent event log on the PC.

With more accurate information, technicians can know exactly which part(s) to replace in the PC. This can eliminate as many as 50% of the on-site visits traditionally required for hardware problem resolution, including eliminating much of the need for on-site checks after repairs.²

Remotely power up PCs for updates, upgrades, and maintenance

One of the main challenges in performing updates, upgrades, and maintenance tasks is dealing with PCs that are powered off during the update cycle. PCs with Intel vPro technology provide a built-in remote power-up capability that allows an authorized technician to power up, power down, and reset PCs from the service center. This capability is more secure and more efficient than wake on LAN (WOL), and is available anytime – a key benefit in environments that may not have been configured for WOL.

Desktop Monitor can now dynamically discover PCs with Intel vPro technology and remotely power them on from the service center. This allows technicians to install updates and perform upgrades, backups, and other maintenance after-hours and on weekends when it won't interfere with user productivity. MSPs can save considerable time, labor, and travel costs, yet still provide enhanced services to customers.

SOLUTION BENEFITS

- **Reduced on-site visits and improved service efficiencies**
- **Increased accuracy of remote hardware diagnostics**
- **Improved software problem resolution, even if PC power is off or the OS is not responding**
- **Enhanced software updates through remote power-up**

Summary

SyAM Software recognizes the importance of Intel vPro technology in the service environment, and is taking advantage of new hardware-based capabilities to enhance visibility and manageability for MSPs. SyAM Software Desktop Monitor can now deliver critical new capabilities for remotely powering up, diagnosing, repairing, and maintaining systems from the central service center.

SyAM Software expects that the combination of Desktop Monitor and Intel vPro technology will help change the way MSPs manage their systems, shifting from a reactive stance to a more managed service model. This will help MSPs improve efficiencies and reduce service costs. In turn, this will help reduce the total cost of ownership of technology for small- and medium-sized customers.

In the future, SyAM Software plans to integrate additional capabilities of Intel vPro technology – such as “circuit breaker” and agent presence checking – into their managed solution. This will help SyAM Software deliver even more enterprise-level services to MSPs, and help improve service models and further reduce MSP costs.

For more information

PCs with Intel vPro technology provide IT administrators with critical, hardware-based security and manageability capabilities not available in software-only solutions. When provisioned with third-party software, these PCs can be managed directly from the management console, regardless of their power state or the state of their OS.¹

For more information about how the capabilities of Intel vPro technology improve remote management for desktop PCs, refer to the white paper, "A New Level of Remote Managed Services for PCs in Small-Business Environments," May 2006, Intel.

For more information about Intel vPro technology, visit

www.intel.com/vpro

For more information about SyAM Software Desktop Monitor, visit

www.syamsoftware.com

¹PCs with Intel® vPro™ technology include Intel® Active Management Technology (Intel® AMT). Intel AMT requires the computer to have an Intel AMT-enabled chipset, network hardware and software, connection with a power source, and a network connection.

²Source: SyAM Software knowledge base and the 2006 SyAM Software Technology Evaluation of Intel vPro technology, conducted at the SyAM Software evaluation lab.

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