



## Case Study

Intel® vPro™ Processor  
Technology

SyAM Software

Integrated Financial  
Systems, Inc.

**SyAM Software™**

**ifs** *Integrated Financial Systems, Inc.*

# School District Improves PC Management and Security without Increasing Resources

## Management Solution Based on SyAM Software and Intel® vPro™ Processor Technology Improves Service Levels and Lowers Cost

**“SyAM Software’s tools and Intel’s vPro processor technology have radically advanced what’s possible with simplified system management.”**

Michael Mazzariello,  
Director of Alliances, IFS

### Getting More Done with Existing Resources

Like most IT managers at small- and medium-sized organizations, Joe Martino, technology director for Shepaug Valley Regional School District 12 in Connecticut, manages a diverse IT infrastructure with limited resources. Their systems receive fairly hard usage in lab, classroom, and administrative environments. Furthermore, the machines are left on for long periods of time, resulting in wasted energy, a build-up of temporary files, and inefficient use of cache and swap space.

“Originally, we were looking for a way to cut our power costs and ensure that our machines are performing optimally,” says Martino. With 300 PCs spread across five campuses, the district felt that they could save a considerable amount of money if they found a solution that could remotely power down the systems after hours. “But in the evaluation process,” he notes, “we discovered a new way to manage our infrastructure that not only cuts power costs and optimizes performance, but also extends our management capabilities and increases the effectiveness of technology across the district.”

District 12’s PC lifecycle is longer than most larger organizations – generally five years – so the desktop fleet experiences a higher-than-usual number of age-related failures. Martino’s staff of three technicians is kept very busy with hardware and software installations, regular maintenance, break-fix repairs, software management, and security. Covering all these needs with finite people and dollars is a constant challenge. “We see two or three PC failures per week, for any number of reasons – hardware failure, misconfigured software, inappropriate downloads, you name it,” observes Martino. “Simple problems like these can take two hours to fix, including travel time.” Unexpected events, such as a virus infection across the network, can quickly complicate things and tie up staff for days. Asset management is also a challenge: simply knowing what systems are deployed, where they are located, and how they are configured.





## An Advanced Solution Tuned to a Medium-Sized Infrastructure

Martino turned to Integrated Financial Systems (IFS), a North Haven, Connecticut solution provider focused on multiple vertical markets including banking, finance, and education. As an experienced integrator of system management solutions and a leading distributor/reseller of SyAM Software tools, IFS had the background to analyze District 12's infrastructure and recommend tools that could help. "District 12 wanted to reduce their energy costs, but we immediately saw a bigger opportunity for them," says Michael Mazzariello, director of alliances for IFS. "Their situation is not unusual – a diverse infrastructure with multiple usage models, being managed with limited resources. The latest management solutions, particularly SyAM Software's tools and Intel's vPro processor technology, have radically advanced what's possible with simplified system management. We knew we could deliver the power savings they were looking for...and so much more."

**"[The] proactive capabilities will make a huge difference in our efficiency as we prevent problems or catch them while remediation is simple."**

Joe Martino,  
Technology Director, Shepaug Valley  
Regional School District 12

SyAM Software's solution provides advanced PC and server management with unprecedented remote capabilities that cut management costs significantly and reduce downtime. To do so, SyAM's software takes advantage of the hardware-based capabilities of PCs with Intel® vPro™ processor technology. "We knew the combination of SyAM Software and vPro-based desktops would bring proactive capabilities to prevent problems; enhanced remote management to lower the cost of management and reduce power consumption; and better asset management capabilities to lower total costs over time," notes Mazzariello.

## Simple but Powerful

SyAM Software's solution is simple to install and to learn, and was therefore well-matched to a medium-sized deployment like District 12's. It consists of two functional components:

- **System Area Manager:** A web-based management console that provides a single interface to manage all systems and RAID storage across the infrastructure, as well as real-time status.
- **System Client:** An intelligent agent that dynamically discovers and monitors IT assets, hardware and software configurations, and operational sensors on a single computer.

SyAM Software's solution leverages the unique capabilities of PCs with Intel vPro processor technology. This advanced technology lets administrators manage PCs more effectively than they could in the past:

- **Hardware-assisted remote management technology:** Reduces the need for costly, time-consuming deskside visits by remotely configuring, diagnosing, and repairing PCs, even if the system is off or down.
- **Remote inventory management:** Reduces time-consuming manual inventory of hardware and software, more securely and capably than software-only solutions – even if the system is off or the OS down!
- **Proven hardware-assisted security technology:** Enables proactive protection that helps guard against data loss and disruption, including the ability to isolate infected PCs from the network, repair them, and reconnect them remotely, even if the PC is off or down! The solution also identifies missing security software or updates and then installs the appropriate patches to resolve the issue.

With these potential benefits available, Martino agreed to launch a pilot of the SyAM Software and Intel vPro processor technology solution within District 12's existing infrastructure.

## Increasing Productivity, Lowering Cost

After IFS installed the System Area Manager on District 12's administrative server, they deployed three HP dc7700\* Ultrastim Desktop PCs with Intel vPro processor technology and loaded the System Client intelligent agent on each of the PCs. "Installation was very smooth, and training from IFS was straightforward," says Martino. "The SyAM Software interface is simple and easy to use. All in all, this is a very easy solution to deploy."

Very quickly, the significant benefits of the solution and the resulting productivity increases became apparent to Martino and his team:

**Simplified asset management.** Beginning at installation, the SyAM Software Deployment Utility discovered systems across the network. From there, hardware and software changes are tracked automatically and vulnerability queries can be made. For the PCs with Intel vPro processor technology, this asset tracking is done regardless of power state or operating system health. As a result, District 12 can maintain a full picture of system configurations, health states, and utilization levels.

**Proactive monitoring and extensive reporting.** One of the greatest impacts of the solution is the ability to *proactively* monitor systems and usage and therefore *prevent* problems before they occur. Martino's staff can now monitor PCs for temperature variations, memory utilization and errors, disk health and pending failure, CPU utilization, network connection problems, and the presence of power redundancy. "These proactive capabilities will make a huge difference in our efficiency as we prevent problems or catch them while remediation is simple," says Martino. In addition, the solution's extensive reporting capabilities help the IT staff to track usage, see trends, and identify bottlenecks – making planning for upgrades much more accurate.

**Remote system management.** The SyAM Software and Intel vPro processor technology solution lets the IT staff do more from their desks – and do it more quickly. For example, Martino recently did a software installation on an administrator's PC without interrupting the user, as opposed to a standard remote desktop session where he would have had to bump the user in and out repeatedly during the process. "With the vPro PC, it took 5 minutes; normally it would take an hour," he notes. His staff also does a fair amount of OS "ghosting" – booting a system from an external device. Now, they can ghost from a remote server, rather than having to physically carry a CD out to the PC, saving a substantial amount of time.

**Remote problem resolution.** These same remote capabilities deliver unprecedented diagnosis and repair abilities that speed resolution and lower the cost of remediation. The remote console gives full Kernel-based Virtual Machine (KVM) control of any managed system through the web browser, allowing the technician to

remotely take over the machine at the keyboard, video, and mouse level. Intel vPro processor technology adds the ability to do this regardless of the system's power state or OS health. "The ability to work on systems that are powered off or have a broken OS will be huge for us," says Martino. He estimates the remote capabilities will eliminate at least half of their deskside visits, as well as shorten the time-to-repair and improve uptime for end users. "The positive impact on our service levels will be significant," he notes. And when a deskside visit is necessary, the technician can bring the right parts and get the repair done without repeat visits.

**Advanced hardware-based defenses against viruses and malware.** Intel vPro processor technology includes hardware-based filters that can prevent viruses and trojans from reaching the OS. In conjunction with the SyAM Software solution, it can automatically isolate a problem PC and allow remote remediation using an "out-of-band" channel underneath the OS if necessary, so that a hung system can still be fixed. "This is so much more effective and efficient than the usual drill," says Martino, "a mad scramble to get the infected PC off the network, then an onsite visit to diagnose and patch it. A spreading virus can bring us to our knees on multiple campuses in minutes."

**"We discovered a new way to manage our infrastructure [that] increases the effectiveness of technology across the District."**

Joe Martino,  
Technology Director, Shepaug Valley  
Regional School District 12

**Significant power savings and power-related rebates.** PCs with Intel vPro processor technology include the Intel® Core™2 Duo processor, which delivers up to 40% performance improvement and greater energy efficiency.<sup>2</sup> So whenever the PCs are on, District 12 is saving power versus older PCs. However, the SyAM Software solution includes the Power Management Utility that allows IT administrators to easily create power policies and schedules that automatically and gracefully power PCs down after hours. The resulting energy-cost savings can be considerable. "For a single high school, we could easily have 70 systems left on all night," explains Martino. "Now, we can automatically shut them down between 5 PM and 7 AM. Over a 40-week school year, that saves the district \$10,000 per year." In addition to this significant savings, IFS worked with District 12's local power utility to evaluate the SyAM Software and Intel vPro processor technology solution and eventually got it certified for rebate incentives from the Connecticut Energy Efficiency Fund (CEEF). "This will help fund the future growth of our solution and increase our ROI," says Martino. "IFS did an awesome job on this!"

## IT Services Improved with No Increase in Resources

The SyAM Software and Intel vPro processor technology solution is allowing Martino's team to deliver a higher level of service and get more done with the existing staff. The increased level of productivity enabled by the solution lets them reduce the time to complete IT support calls and handle more calls in a day. At the same time, it helps to identify potential problems and prevent them from blossoming. "This solution gives us powerful new tools to manage our hardware and software environment," observes Martino. "It allows us to adopt a call center and help desk model, with faster response times and lower cost." And in terms of the future? "The SyAM software is affordable and scalable, so we'll continue to deploy it across our environment," he says. "And as our PCs make it to end-of-life, we'll eventually be adopting vPro technology across the board."

### For More Information

For more information on SyAM Software solutions, visit the web site at [www.syamssoftware.com/edu](http://www.syamssoftware.com/edu) or contact SyAM Software at [edu@syamssoftware.com](mailto:edu@syamssoftware.com).

To discover how much money you can save using SyAM Software, see the SyAM Software Savings Calculator at [www.syamssoftware.com/calculator](http://www.syamssoftware.com/calculator).

For more information on Integrated Financial Systems, visit the web site at [www.i-f-s.com](http://www.i-f-s.com).

For more information on Intel vPro processor technology, see [www.intel.com/vpro](http://www.intel.com/vpro).

---

Solution provided by:



**SyAM Software™**

**ifs** *Integrated Financial Systems, Inc.*

<sup>1</sup>Intel® Active Management Technology requires the computer system to have an Intel® AMT-enabled chipset, network hardware and software, as well as connection with a power source and a corporate network connection. With regard to notebooks, Intel AMT may not be available or certain capabilities may be limited over a host OS-based VPN or when connecting wirelessly, on battery power, sleeping, hibernating or powered off. For more information, see <http://www.intel.com/technology/manage/iamt/>.

<sup>2</sup>Performance measured Intel® Core™2 Duo desktop processors compared to Intel® Pentium® D Processor 805 on SPECint\_base2000 and SPECint\_rate\_base2000 (2 copies.) Actual performance may vary. See <http://www.intel.com/performance> for more information. SPECxx are trademarks of the Standard Performance Evaluation Corporation. See <http://www.spec.org> for more information.

This document is for informational purposes only. Intel makes no warranties, express or implied, in this document.

Copyright © 2007 Intel Corporation. All rights reserved.

Intel, the Intel logo, Intel. Leap ahead., Intel. Leap ahead. logo, Intel vPro, and Intel Core are trademarks of Intel Corporation in the U.S. and other countries.

\*Other names and brands may be claimed as the property of others.

Printed in USA

0807/ET/OCG/HP/350

Please Recycle

317910-001US