



#### PROFILE

The second largest school district in the state of Utah

#### INDUSTRY

Education

#### NETWORK

- 32,000 Windows PCs
- 3,000 Macs
- 200 VMware and Hyper-V servers
- 90 locations

#### SOLUTIONS

- Ivanti Management Suite
- Ivanti Security Suite

#### KEY BENEFITS

- Images reduced from 2,000 to three
- Patching time reduced from 900 hours per week to 10 per month
- Software distribution servers reduced from 90 to four
- Peer-to-peer sharing keeps bandwidth available
- Remote support nearly eliminates drive time, increases support time
- Power management feature triggers \$207,000 rebate, saves on electricity each year

## Granite School District

### Automating Network Tasks Saves Time, Money and Keeps High-Tech Classrooms Operational

#### Overview

Granite School District is spread across 257 square miles in central Salt Lake County, Utah. With 67,600 students enrolled in programs ranging from kindergarten to 12th grade, it is the second largest school district in the state with a 2014-15 school year budget of \$588.8 million. The district employs 8,766 faculty and staff, and operates eight high schools, 16 junior high schools, 62 elementary schools, and four specialty schools.

#### Challenge: Ensure Technology in Classrooms Is Always Available

To say that teaching cannot take place without technology is a given in today's schools. According to the latest U.S. Department of Education statistics, 97 percent of teachers in the country have one or more computers in their classrooms, and a large percentage have access to interactive whiteboards and other high-tech teaching tools.<sup>1</sup> "Over the last five years," said Mark Carpenter, Desktop Management Engineer for Granite School District, "nearly every key teaching system in our district has become computer-based. And most of the teaching in our math and science classes is done over the Internet, so if a computer is not functioning or if the Internet is down, no teaching takes place. It's my job to keep all systems up and running so the core mission of the district, teaching students, is accomplished."

Keeping those systems up and running was once difficult and time consuming. "Before, we used an automated tool to reimage the PCs," said Carpenter. "But we had to maintain 2,000 separate images, and the tool required that we store information at each site. As a result, we had to assign 10 network engineers to manage our reimaging services."

#### Worm Shuts Down a High School 10 Times in One Month

For patching, the district used the Windows automatic update feature and installed non-Windows patches manually. "Each site was responsible for patching," explained Carpenter. "But on too many machines, the Windows update feature wasn't even turned on. And non-Windows applications rarely got patched because it was just too time consuming. We were always at risk, and once, the Sasser worm closed down one of our high schools 10 times in a single month. In addition, each of our 90 sites would spend up to 10 hours a week on patching, but only update 20 to 30 percent of their machines. That's 900 hours a week with little to show for it."

#### Technicians Spend More Time Driving than Doing Repairs

The district had similar problems distributing software. "We had an automated tool to help install software," noted Carpenter, "but it required a server at each of our 90 locations, and 10 engineers to manage the system. We spent a lot of money on hardware and technician time to do a relatively simple task." When it came to supporting end users, everything was done by hand. "We did not do remote support," said Carpenter. "If an employee had an issue, a technician would drive out to make the repair. They would spend 30 minutes traveling to a school and five minutes on the fix. We were wasting a lot of time and money. For all of these reasons, we decided to implement a comprehensive network management system."

1 <http://nces.ed.gov/fastfacts/display.asp?id=46>



### **Solution: Automated Network Management Suite Keeps Classes Up and Running**

It was a big decision, so the district took its time researching the various systems in the market. “We put together a team that did a proof of concept on the top management products,” said Carpenter. “We chose Ivanti® Management Suite and Security Suite for two big reasons: from a technology standpoint, they had everything we needed, and the price was right.”

#### **Three Images Instead of 2,000**

The new solution reduced the number of images that Carpenter’s team had to maintain from 2,000 down to three. “Imaging is now centralized and done from a single location,” stated Carpenter. “And with only three hardware-independent images, two technicians can manage the entire service instead of 10. That’s a huge savings, and allows those eight other technicians to focus on more important network issues. Patching is also centralized now, and two engineers spend about 10 hours a month managing patches for all the sites, versus 900 hours a week before. That’s an astronomical time savings. And we’re achieving nearly 100 percent coverage for both Windows and non-Windows applications.”

#### **Peer-to-Peer Sharing Keeps Bandwidth Open**

Software distribution has also been simplified. “We were able to reduce the number of servers for installing software from 90 down to four,” explained Carpenter. “And two people now manage the system instead of 10. And while many classes require a great deal of video streaming, Ivanti’s peer-to-peer sharing ensures plenty of bandwidth to allow streaming and software installations to take place at the same time.”

The solution’s remote support tool has nearly eliminated travel time. “We have one network engineer who supports 20 schools, and he now does 90 percent of his work from his desk,” continued Carpenter. “Before, that person could spend up to 90 percent of his time traveling and 10 percent doing the actual repair. That’s a dramatic change in the amount of time we can now devote to supporting our end users.”

#### **Power Management Feature Generates \$207,000 Rebate**

The solution is also saving the district on overhead costs. “One of the biggest capital losses that we can now control is our energy bill,” said Carpenter. “Just for turning on Ivanti’s power management feature, we received a \$207,000 rebate from the local electric company. We have 13,000 PCs in our labs and many of those were often left on overnight. Not any more. Over a year’s time, those savings really add up. Ivanti has clearly paid for itself, and continues to save us time and money. But the biggest benefit is that our students and faculty have ready access to technology when they need it.”

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**— Mark Carpenter**  
Desktop Management  
Engineer  
Granite School District