

College Preparatory School Enriches Curricula with Cisco Prime LMS



The Harker School delivers consistent network performance to help provide innovative educational experiences.

EXECUTIVE SUMMARY

Customer Name: The Harker School
Industry: K-12 Education
Location: San Jose, CA
Number of Students: 1,800

BUSINESS CHALLENGE

- Enriching learning environment with easy access to online resources
- Supporting Bring Your Own Device
- Conserving energy and resources

NETWORK SOLUTION

- Using Cisco Prime LMS to manage the network for optimal reliability, despite increases in demand for bandwidth

BUSINESS RESULTS

- Improved network performance and reliability
- Enabled rapid updates and additions to eliminate system downtime
- Helped deliver innovative educational experiences and resources for more contextual learning

Business Challenge

Tomorrow's leaders may still be in school, but they already have their own ideas about how things should work. Students today know that education can come from many sources, including teachers, textbooks, and increasingly, a vast online universe that is accessible from virtually any device. They are also learning more about environmental sustainability, with many believing that individuals and organizations have a responsibility to save energy and minimize their carbon footprint wherever possible.

At least, that's the view of many students at The Harker School, one of the largest and most respected independent schools in the United States, with an enrollment of 1,800 K-12 students. Living in the heart of Silicon Valley, these young people are early adopters of the latest technologies and ardent environmentalists, who recently presented their own green initiatives at the White House.

To achieve the high expectations set by Harker administrators, students, and parents, the school has been increasing its use of online resources for teaching, tapping into top-quality digital material to enhance learning across disciplines.

It also recently decided to implement a full Bring Your Own Device (BYOD) policy to supplement its longstanding Bring Your Own Laptop program and enable students to connect to its networks with smartphones, tablets, and any other devices they wanted.

“With the greater reliance on network-based resources and expected growth in traffic from BYOD, we needed to increase bandwidth and availability,” says Daniel Hudkins, director of information technology service and support at Harker. “Teachers plan out their lessons so that they fit within the sequence of the curriculum. If they’re planning a video-based lesson one day, they need to be confident we can deliver the bandwidth. If we let them down even a couple times, they’re going to stop using these resources.”

“Cisco Prime LMS helped us transition from putting out fires to proactive network management.”

— Daniel Hudkins, Director of Information Technology Service and Support, The Harker School

The Harker network team knew that they needed to monitor networks actively to deliver solid performance. They could no longer afford to wait until someone reported a problem and wanted to quickly get a top-level view of status for each part of the network. The network managers also needed to consolidate switch and router infrastructure and make sure all systems were in compliance with current Cisco IOS® software revisions.

After evaluating technology options, the team identified the ideal solution: Cisco® Prime LAN Management Solution (LMS), now offered as part of Cisco Prime Infrastructure. Cisco Prime LMS delivers powerful network lifecycle management by simplifying the configuration, compliance, monitoring, troubleshooting, and administration of Cisco networks. Also important for the school was Cisco Prime LMS support for Cisco value-added technologies, including Cisco EnergyWise™, which could manage the energy consumption of Cisco infrastructure devices.

“In addition to helping us deliver consistently high-performance network connections, Cisco Prime LMS could enable us to control how much power we use,” says Hudkins. “At Harker, we’re eager to maximize the energy efficiency of our IT systems whenever possible.”

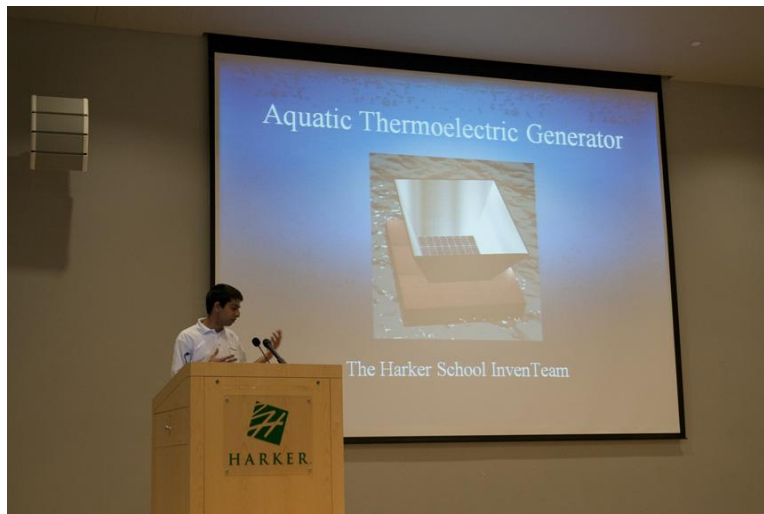


Network Solution

Harker has three campuses within five miles of each other in San Jose, California. Redundant Internet connections include a cable modem of 50 MBs and another circuit of 100 MBs coming into its main high school campus, and a 100 MB connection to the other two schools. AT&T OPT-E-MAN switched Ethernet serves the other two campuses, each of which has a 50 MB connection. All three campuses have Cisco Catalyst® 4500 Series switches at their core.

The school is making a transition to using software as a service because of the efficiency, so it now hosts only some of its core applications. Its student information system, for example, still runs in the local data center, but its advancement system is now hosted in the cloud. High-performance network connections help ensure that administrators and students can access any cloud-based applications with little to no latency.

Several initiatives are under way that are increasing the school's network traffic. Harker is implementing Cisco Digital Media Manager with the Cisco Show and Share® application, which will enable teachers and students to do more webcasting and video sharing. Starting next year, Harker plans to allow students to use digital alternatives to text. The school is also planning to take advantage of applications that synchronize multimedia content in the cloud for students to use on any device.



A five-person team provides technology services to the school, and three of those staff focus on its networks. They rely on Cisco Prime LMS for monitoring and troubleshooting, configuration management, comprehensive reporting, and management of Cisco EnergyWise.

Business Results

Better performance for students and faculty

Despite significant increases in daily traffic, primarily due to an influx of devices such as tablets, e-readers, and smartphones, Cisco Prime LMS is able to provide real-time quantitative data on network flows and functions to permit Harker to better address issues before they can be perceived by end-users. This continuity in service is crucial in offering both students and staff immediate, cohesive access to cloud-based applications and Internet resources.

Hudkins recalls that the network team used to deal with problems when people reported them, and upgraded systems only when the current software level would no longer be supported. “With the number of devices we were supporting spread out over three campuses, that was the best we could do,” says Hudkins. “Cisco Prime LMS helped us transition from putting out fires to proactive network management.”

Consistency increases staff efficiency

Before Cisco Prime LMS, even identical switches often ran different system software, because applying new images was time consuming: staff had to login to each device to identify what version it was running, download the updated version, and manually install it. Cisco Prime LMS simplifies the process, clearly displaying what system software levels each device is on and offering the team a template to help them select and apply the correct images to devices throughout the network at one time. Running the right versions consistently across the network clears the way for the school to implement Cisco EnergyWise, and any other new functionality.

Even though Cisco Prime LMS has only recently been implemented, Mark Locascio, network manager at Harker, knows they’ve already realized time-savings. “Cisco Prime LMS helps to ensure all parts of the network are consistent. Running updates is no longer manual and is now so easy that we can run them automatically in the evening, so we don’t need to schedule down time during the day. I can say with certainty that so far Cisco Prime LMS saves several weeks of staff time just by simplifying the update process.”

Cisco Prime LMS also increases efficiency by enabling one person to manage all elements of the network. Previously, different staff members would specialize in managing a particular device family given their familiarity with its characteristics and management functionality.

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The enhanced GUI available with Cisco Prime LMS provides staff a portal for viewing and controlling the network through a central interface. “We appreciate that the menus use intuitive terminology, and the fact that TAC technical support is now integrated into Cisco Prime LMS, so support is only a few clicks away,” says Locascio. “Cisco Prime LMS saves a lot of time. For example, now, when we put new routers on the system, we can just imprint configuration on the machines and bring switches online hours faster.”

Growth and sustainability

The Cisco solution has also helped Hudkins to manage inventory more effectively. “Cisco Prime LMS gives us a complete, real-time view of network devices, which saves aggravation and helps ensure we’re building the network we need. Plus, it saves time,” says Hudkins. The improved insights have, in turn, accelerated budget discussions. Hudkins noted that such conversations used to take several hours, but now take less than 10 minutes because of the clear and compelling case that can be presented using data captured by Cisco Prime LMS.

With the savings in staff time and effort, the school has been able to proceed with other important projects, such as moving the student information system to the cloud and establishing a baseline of energy use to support its Cisco EnergyWise implementation. EnergyWise promises to help Harker power down completely after hours, saving electricity and reducing wear on equipment for greater longevity.

"We now have more time to work on our longer-term plans, and time, like money, is always in short supply at a school," says Hudkins. "I welcome a tool that reduces my need for man-hours, because that means more time and money to devote to supporting the education of our students."

PRODUCT LIST

Network Management

- Cisco Prime LAN Management Solution (LMS)

Routing and Switching

- Cisco Catalyst 4500 Series Switch

For More Information

To find out more about the Cisco Prime LAN Management Solution, go to: <http://www.cisco.com/go/lms>.

To find out more about Cisco Prime Infrastructure, go to: <http://www.cisco.com/go/primeinfrastructure>.

To find out more about The Harker School, go to <http://www.harker.org>.



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