

School District Enhances Collaboration While Reducing Costs

Los Gatos-Saratoga Joint Union High School District implemented Unified Communications Manager Express and voice over Wi-Fi.

EXECUTIVE SUMMARY
<p>LOS GATOS-SARATOGA HIGH SCHOOL DISTRICT</p> <ul style="list-style-type: none"> • Education • Los Gatos, California • Approximately 3,200 Students; 300 Teachers and Staff
<p>CHALLENGE</p> <ul style="list-style-type: none"> • Increase administrative efficiency • Reduce voice system costs • Support campus safety
<p>SOLUTION</p> <ul style="list-style-type: none"> • Implemented Cisco Unified Communications Manager Express and Cisco Unity Express in both high schools and district office • Enabled campuswide wireless access with Cisco Unified Wireless Network • Provided Cisco Unified Wireless IP Phones to mobile teachers
<p>RESULTS</p> <ul style="list-style-type: none"> • Eliminated US\$8,000 to \$10,000 in annual fees for telephone extension changes • Simplified collaboration with mobile staff and students • Accelerated awareness of 9-1-1 emergency calls

Challenge

Located in California’s Silicon Valley, the Los Gatos-Saratoga Joint Union High School District consists of two high schools and a district office. Approximately 3200 students attend the high schools, which offer rich academic and extracurricular opportunities through a partnership between staff, students, parents, and the wider community.

When Saratoga High School’s aging phone system began to fail, the school looked for a replacement that would reduce costs, increase administrative efficiency, and support campus safety. A major goal was to eliminate the \$8,000 to \$10,000 that the district spent annually for telephone extension moves, adds, and changes. “Paying a third party whenever a teacher gets a new classroom or changes names wastes technology funds we could use for learning programs or administrative efficiency,” says Julie Grenier, information systems manager for Saratoga High.

The district also wanted to simplify collaboration within and between the three sites, each of which had its own phone and voicemail system. Previously, reaching someone at another campus required looking up the person in the directory and then dialing the school’s full seven-digit phone number plus the individual’s three-digit extension.

Finally, the district wanted to give mobile teachers, students, and administrators the ability to use the voice system and computer network from any location on campus, not just from desktop phones and PCs. Anytime, anywhere network access would help to create a 21st century learning environment and support district safety initiatives.

“Not only can we respond more quickly to change requests, we are also saving money for technology projects supporting classroom learning and administrative efficiency.”

—Julie Grenier, Manager of Information Systems, Saratoga High School

Solution

After speaking to 10 communications vendors, the Los Gatos-Saratoga High School District selected a Cisco® Unified Communications solution. “We have confidence in Cisco technology, because we already use a Cisco network for our administrative systems and Internet access, and the county Office of Education uses Cisco Unified Communications,” Grenier says. “Also, we knew it would be easy to find support because Cisco skills are widely available.”

Voice and Voicemail

The district implemented Cisco Unified Communications Manager Express for call processing and Cisco Unity[®] Express, both built into the Cisco router at each site. “For our district, Cisco Unified Communications Manager Express was more cost-effective than a centralized server for all three sites,” Grenier says. “And if one of the three sites loses network connectivity during a storm, the other sites will still have phone service.” The district also liked the fact that the three sites could each transition to Cisco Unified Communications Manager Express according to their own timeframe, an important consideration because one high school needed to wait until it finished a building project.

Every classroom and office has a Cisco Unified IP Phone, enabling convenient collaboration among staff and between teachers and parents.

Mobility

Both high schools and the district office implemented a Cisco Unified Wireless Network covering most of the campus (see “Technical Implementation”). Students, teachers, and administrators can connect using the school’s laptops or their personal laptops and smartphones, simply by entering their network username and password. Saratoga High also uses several Cisco Unified Wireless IP Phones for special purposes:

- **Special Education:** A special education teacher, who team-teaches in a variety of classrooms throughout the day, carries a Cisco Unified Wireless IP Phone to quickly dial the principal or return messages from parents anytime, from any location on campus. The school is also considering providing the phones to certain special-needs students so that they can request help when needed.
- **Media Arts Program:** Students in this program often work outside of the classroom to film videos, and are given Cisco Unified Wireless IP Phones during class time, so that teachers can quickly reach them if needed.
- **Wood Shop:** The teacher carries a phone, because a ringing desk phone cannot be heard from across the room when noisy equipment is operating.
- **Information Systems:** The school’s IT managers work throughout the campus during the day, and can now be reached at their office number no matter where they are.

The Cisco Unified Wireless Network supports next-generation learning strategies, according to Grenier. “Our students can use their laptops and smartphones to connect from wherever they happen to be on campus instead of going to a special lab,” she says. “And teachers like the ability to project presentations from any location in the classroom instead of being restricted to their desks.”

Results

Increased Administrative Efficiency

The Saratoga-Los Gatos Union School District is saving time and money with Cisco Unified Communications:

- IT personnel at each site can move, add, or change telephone extensions in just minutes. The district is saving \$8,000 to \$10,000 in fees, and is investing the money in technology projects that support learning and administrative efficiency.
- The district plans to replace its 30 analog telephone lines with three private rate interface (PRI) lines, one at each site. Fewer lines, along with the new carrier’s bulk-rate pricing, will reduce costs by an additional 40 percent annually.
- School IT personnel can quickly change calling privileges for teachers or guidance counselors from an easy-to-use web interface. “If a counselor needs to call a parent in Japan, I can change privileges from local to international in just a few seconds instead of waiting for a vendor to come out and then paying a fee,” Grenier

says. "Not only can we respond more quickly to change requests, we are also saving money for technology projects supporting classroom learning and administrative efficiency."

- Teachers and staff can now reach colleagues in either school or the district office simply by selecting their name from the built-in directory on their Cisco Unified IP Phone.
- Using the Auto Attendant feature in Cisco Unified Communications Manager Express, parents and other callers can press a button to reach the correct department without waiting for a staff member to answer and transfer the call. Some of the options include reporting an absence, requesting a transcript, and getting directions.

Teachers and administrators needed less than an hour to learn to use Cisco Unified Communications tools such as the directory, call forwarding, three-way conferencing, and voicemail. Students, who grew up in a connected world, needed no training to connect to the Wi-Fi network. Their smartphones and laptops sense the wireless network and ask them if they'd like to connect to the network. When they click yes, they are prompted to enter their school username and password to connect.

More Convenient Communications with Parents and Staff

An indicator light on the Cisco Unified IP Phone in each classroom and office shows when messages are waiting, and teachers and administrators can play back messages by simply touching a button. Cisco Unity Express also makes it much easier for teachers to check voicemail messages from home. "The easier we make technology, the more likely people are to use it," says Grenier.

All administrators and about half of the teachers use Cisco Unity Express unified messaging, which lets them see a list of voicemail messages in their Microsoft Outlook inboxes, play back the audio files in any order, and easily forward them. Grenier appreciates unified messaging, because she can find out about emergencies over the weekend without having to periodically dial into her voicemail. For example, when a projection system malfunctioned during a Saturday night school event, Grenier received the voicemail as an email attachment on her smartphone, and was able to respond promptly with instructions for how to fix the problem.

More Efficient Emergency Notification and Response

With the district's previous phone system, dispatchers who received 9-1-1 emergency calls only saw the main school address, not the location of the phone used to make the call. This limitation led to unnecessary visits from the sheriff if someone hung up after realizing they had intended to dial another number, for example.

The district wrote a simple custom script for Cisco Unified Communications Manager Express so that whenever someone dials 9-1-1, administrators receive a text message on their phones and in their email box that shows the extension used to make the call. An administrator can call the extension or walk to that location to confirm the emergency. If someone needs cardiopulmonary resuscitation (CPR), for example, the administrator can begin providing help before the sheriff arrives. In the event of a false alarm, the administrator can call back the sheriff's department to save the department a trip. Some of the dedicated systems that the district evaluated provided the same capability but cost \$100,000 or more for three locations.

Administrators who think there might be a problem in a classroom can press a button on their Cisco Unified IP Phone to speak through the built-in, high-definition speaker on a classroom phone. No response is cause to investigate.

PRODUCT LIST

Switches and Routers

- Cisco Catalyst 3750G Switch, with Integrated Wireless LAN Controller
- Cisco Catalyst Switch 2950
- Cisco Integrated Services Routers 3845, 3825, and 2851Broadband Cable

Collaboration

- Cisco Unified Communications Manager Express with Cisco Unity Express
- Cisco Unity Express
- Cisco Unified IP Phones 7960 (administration offices) and 7940 (classrooms)
- Cisco Unified Wireless IP Phones 7925G and 7921G

Wireless

- Cisco Aironet 1140 and 1240 Series Lightweight Wireless Access Points
- Cisco Catalyst 3750G Wireless LAN Controller

Technical Implementation

Each school provides campuswide wireless coverage using about 30 Cisco Aironet® 1140 and 1240 Series Lightweight Wireless Access Points. When users at any of the three sites attempt to connect, their request is handled by the Cisco Wireless LAN Controller integrated into the Cisco Catalyst® 3750G Switch at Saratoga High School. The controller communicates with the district's Microsoft Active Directory to authenticate users. Adding a new wireless access point takes only a few minutes, because the network discovers and configures it automatically.

"Wireless connectivity is faster and more reliable since we implemented the Cisco Unified Wireless Network," Grenier says. "Before, individual departments bought their own wireless access points from consumer electronics stores, and they weren't always configured optimally. Now we can centrally control the configuration and security settings."

For More Information

To find out more about Cisco Unified Communications, visit <http://www.cisco.com/go/unifiedcommunications>

To find out more about Cisco Unified Wireless Networks, visit <http://www.cisco.com/go/wireless>

To join conversations and share best practices about collaboration, visit <http://www.cisco.com/go/joinconversation>



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