



Maintaining a Secure—and Open—Campus

Punahou School connects its security team with the tools it needs to increase campus safety.

“Although our security officers are the cornerstone of campus security, Cisco Connected Security solutions are an important tool in their security toolset. Cameras and a human presence across campus assure students, parents, and staff that safety and security are of the utmost importance at Punahou School.”

– Wendi Kamiya, Chief Information Officer

Challenges

- Continue to extend and enhance safety
- Expand deployment of IP video security cameras while improving coverage and image quality
- Continue public use of the campus without compromising safety

Punahou School is the largest coeducational, independent K-12 school on a single campus in the United States. Located in Honolulu, the campus covers a lush 77 acres with 60 buildings, and ongoing renovation and renewal. Rigorous academics, robust programs in athletics and the arts, and an array of cocurricular opportunities offer an integrated, 21st-century education.

Unlike school campuses in other U.S. states, Punahou’s classroom buildings typically lack interior hallways, and most doors open to the outdoors to take advantage of the mild climate. In addition, much of the student experience spans multiple buildings, and the school has intentionally remained open to the community. That fact has important implications for campus security. Many entry points must be monitored. Video security equipment must be designed for outdoor conditions. And, as across the United States, safety concerns have increased.

Case Study | Punahou School

Size: 3,750 Students

Location: Honolulu, Hawaii USA

Industry: Education



“Without technology, we would have to add people and physical structures to increase security,” says Wendi Kamiya, chief information officer at Punahou School. “We don’t want the campus to feel restrictive or locked down, yet we need visibility in places that might not be patrolled frequently.”

The cornerstone of Punahou’s security program is human presence. A combination of full-time and part-time security officers patrol the campus with assistance during the day from two law enforcement officers. Although a video security system was deployed in 2006 at the same time as a Cisco® Wireless network, coverage was inadequate and image quality was poor, making it difficult to positively identify a person or vehicle if necessary.

“We needed to add cameras to cover more locations,” says Billy Luat, director of campus security for Punahou School. “However, the vendor was not responsive, so we were left without support for our existing cameras and couldn’t expand.”

Everything is connected as we evolve.
We don’t even debate about it. It’s part of future-proofing our campus.

Solutions

- Deployed Cisco® Connected Safety and Security solutions and integrated them with the existing InformaCast system
- Virtualized video security with Cisco virtualized video surveillance software on Cisco Unified Computing Systems™ (Cisco UCS®) platforms
- Built on the existing Cisco switched and wireless networks to connect more processes and systems

Better Cameras Yield Better Evidence

Punahou School turned to Cisco Video Surveillance IP Cameras for its security expansion. The new cameras provide everything Punahou wanted in cameras: high-definition (HD) imagery with pan, tilt, rotate, and zoom features and a wide range of flexible resolution and frame rates. The cameras also are ruggedized to resist vandalism and extreme outdoor conditions.

“The image quality is amazing,” says Luat. “We can see the entire campus and target specific areas. Even mounted 75 feet from the main gate, we get license plate quality. Now we can easily produce high-definition factual evidence, which is important when situations arise.”

Making Video Security Actionable

With Cisco Video Surveillance Media Server Software on its Cisco UCS platforms, Punahou has a powerful solution for maximizing situational awareness and real-time response. No matter how many IP cameras are deployed on campus, the security team has instant access to video frames. Luat can quickly view and play back specific frames from his smartphone and work with campus administrators to take appropriate action.





Connecting Systems with the Internet of Everything

The new solutions in place at Punahou School connect people, processes, data, and things better than ever. This is the Internet of Everything (IoE). The original Cisco Wireless network has grown to more than 300 access points. Cisco Unified Communications solutions, including Cisco Unity® voicemail and Cisco Unified IP phones are also connected, giving the school complete visibility to a common platform. Wireless door locks and the accompanying software are connected to the network, helping the school manage operations more efficiently. The school can access and manage its photovoltaic sensors, which generate solar power for the school from the network. Campus lighting and heating, ventilating, and air conditioning (HVAC) systems connect through a VPN and Cisco firewalls for secure remote controllability.

“As Punahou continues to create an engaging, relevant, inspiring learning environment, everything is connected,” says David Parrish, chief architect for Punahou School. “We don’t even debate about it. We just keep leveraging our switch infrastructure as part of future-proofing our campus.”

Results

- Improved communication, safety, and emergency response
- Improved processes, operational efficiency, and access to data through the IoE
- Retained the accessibility and openness of the campus while simultaneously enhancing breadth and depth of security measures

Enhancing Emergency Response

InformaCast is the heart of Punahou School’s on-campus emergency response system. It’s integrated with the Cisco network and Cisco Connected Security solutions to deliver full-featured emergency notification capabilities everywhere the network reaches. The security team can reach an unlimited number of Cisco IP phones, speakers, selected cell phones, and other devices through InformaCast in the event of an emergency.

“We can deliver text messages on classroom phone displays to teachers and staff instantly,” says Luat. “The system streamlines and supports our processes in real time and lets us automate delivery of messages. We couldn’t lock down the campus without it.”

Peace of Mind...

“Although our security officers are the cornerstone of campus security, Cisco Connected Security solutions are an important tool in their security toolset,” says Kamiya. “Cameras and a human presence across campus assure students, parents, and staff that safety and security are of the utmost importance at Punahou School.”



...With Practicality

When the security team needs to depend on the cameras, they can. Even if officers don't frequently patrol an area, it's still covered. Cameras help deter nighttime activity by their presence.

What's Next?

Punahou School continues to add cameras as buildings are replaced and new buildings are constructed. Originally starting with 30 cameras, today there are 85 cameras, and the school plans to deploy more than 100 by the end of 2015.

"We expect to build on our InformaCast system, adding the ability to activate alarms from a smartphone or anywhere on campus by an authorized security team member," says Parrish. "We also see the potential for adding digital-signage solutions to our network. In addition to providing daily information, they can be turned instantly into vehicles for emergency instructions and notifications if needed. We view Cisco IoE solutions as long-term investments in our ability to connect everything."

Products & Services

Data Center

- Cisco Unified Computing Systems™ (Cisco UCS®)

Routing and Switching

- Cisco Catalyst 3750 Series Switches
- Cisco Catalyst 3560 Series Switches
- Cisco Catalyst 2940 Series Switches
- Cisco 3800 Series Integrated Services Routers

Fabric Interconnects

Network Management

- Cisco Security Monitoring, Analysis and Response
- CiscoWorks LAN Management Solution
- Cisco Catalyst 6500 Series Network Analysis Module

Virtualization

Applications

- Cisco Video Surveillance 6000 Series IP Cameras

Voice and IP Communications

- Cisco Unified Enterprise Attendant Console
- Cisco IP Interoperability and Collaboration System
- Cisco Unified Communications Manager
- Catalyst 6500 Series Wireless Services Module
- Cisco Wireless Control System
- Cisco Aironet Series wireless access points

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