

University Learns How to Handle Huge Student Growth



University of San Sebastián uses Cisco wireless LAN technology to help students and faculty connect and collaborate

EXECUTIVE SUMMARY

Customer Name: University of San Sebastián

Industry: Education

Location: Chile

Number of Employees: 2500

Challenge

- Support massive growth in student numbers
- Deliver educational excellence
- Provide cost effective mobility across campuses

Solution

- Cisco wireless LAN secured against unauthorized intrusion

Results

- Supported five-fold increase in Internet traffic
- Enhanced ability to deliver e-learning and video
- Reduced total cost of ownership

Challenge

Founded in 1989, the private University of San Sebastián in Chile has experienced rapid growth, and currently offers services for about 26,000 students across five campuses. For the university's IT department, however, booming enrolment and a growing faculty made it increasingly difficult to deliver reliable and pervasive network connectivity. A growing number of bring-your-own-device (BYOD) endpoints on campus added to the problem.

Solution

Due to replace its existing telephony estate, the university worked with systems integrator Dimension Data to compare its existing vendor with Cisco. The university opted to replace its entire network infrastructure with Cisco equipment. At the same time, it introduced Cisco® wireless networking across its campuses, starting with a green field deployment in a new university building and then gradually extending the infrastructure.

Today the university boasts a wireless LAN managed by Cisco 5500 Series Wireless Controllers with Cisco Aironet® 2600 Series Access Points for high-density networking and Aironet 1130 Series Access Points elsewhere. The wireless infrastructure sits on a network comprising a core of Cisco Catalyst® 4500 Series Switches, a distribution layer with Catalyst 3750 Series Switches, and an access layer with Catalyst 2960 Series Switches offering Power over Ethernet to local devices.

Telephony is provided through a Cisco Unified Communications Manager 8.1 call processing system, with Cisco 7921G and 7911G Series Unified IP Phones. The university infrastructure is secured from outside network threats using Cisco ASA 5540 Series Adaptive Security Appliance with Intrusion Prevention System technology. It has also purchased a Cisco WebEx® license to enhance collaboration.



“The savings are a major benefit. We see them in terms of marginal cost of the equipment, the way it is licensed, its compatibility with standard protocols, and its lower energy consumption.”

Jorge Romero Arancibia
Director of Networks and Quality of Service
University of San Sebastián

Results

The WLAN infrastructure is helping the University of San Sebastián deal with growing student numbers without having to invest continually in wired network connections. Internet access numbers on campus have grown fivefold since 2008, without any degradation in quality. This achievement was made despite a rapidly growing level of bandwidth-intensive traffic. The network is routinely used for e-learning applications, media streaming, video on demand, and videoconferencing.

“Currently most of what passes through our network is video,” says Jorge Romero Arancibia, director of networks and quality of service at the University of San Sebastián.

The university also no longer needs to maintain costly private branch exchanges. Further savings arise from the technology’s open standards design. This design not only lets the University of San Sebastián support a wide range of BYOD endpoints, which are allowed open access, but also allows the university to choose from a wider array of technology vendors and negotiate better rates when incorporating equipment into its systems.

“The savings are a major benefit,” says Romero. “We see them in terms of marginal cost of the equipment, the way it is licensed, its compatibility with standard protocols, and its lower energy consumption.”

For More Information

To learn more about the Cisco architectures and solutions featured in this case study, go to: www.cisco.com/go/wireless

Product List

Wireless

- Cisco Aironet 2600 Series Access Points
- Cisco Aironet 1130 Series Access Points
- Cisco 5500 Series Wireless Controllers

Routing and switching

- Cisco Catalyst® 4500 Series Switches
- Cisco Catalyst 3750 Series Switches
- Cisco Catalyst 2960 Series Switches

Collaboration

- Cisco Unified Communications Manager 8.1
- Cisco Unified IP Phone 7921G
- Cisco Unified IP Phone 7911G
- Cisco WebEx

Security

- Cisco ASA 5540 Series Adaptive Security Appliance



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