

# Network Refresh Keeps Silicon Valley University on Cutting Edge



Santa Clara University's core network infrastructure update lays a foundation for its long-term strategic goals.

## Executive Summary

### Santa Clara University

- **Industry:** Higher education
- **Location:** Santa Clara, California
- **Number of Employees:** 9000 students

### CHALLENGE

- Want to provide students and faculty the highest-quality learning and research experience
- Desire to remain on the forefront of educational technology
- Need to improve technological underpinning to achieve long-term strategic goals

### SOLUTION

- Refreshed core and data center network infrastructure to lay a strong foundation for current and future services and create accelerated access to information
- Upgraded wireless solutions to improve access and mobility for students, faculty, and administration
- Improved security solutions to increase stability and safety

### RESULTS

- Increased speed and reliability of current network
- Built solid foundation for future technological deployments and improvements
- Provided channel through which to better work towards mission, vision, and long-term strategic goals

## Challenge

Santa Clara University (SCU) is private nonprofit Jesuit university located in Santa Clara, California. Founded in 1851, SCU is the oldest operating institution of higher learning in California. It offers bachelor's, master's, and doctoral degrees through its six colleges, and has produced many notable and successful alumni.

Due to its location in Silicon Valley, SCU has always been interested in staying current with the latest education technology, wanting to provide the best possible experience for its 9000-plus graduate and undergraduate students and faculty. More specifically, SCU recently developed a long-term strategic plan known as Santa Clara 2020. The plan's goals include fostering innovation and entrepreneurship among students; increasing diversity, access, and affordability of its education; and enhancing SCU's reputation and national visibility.

Bob Owen, vice provost and chief information officer (CIO) at SCU, views technology as "an enabler" for the school both to reach its goals for Santa Clara 2020 and to continuously work towards aligning with its larger mission and vision. "For an educational institution like Santa Clara that wants to be at the forefront, you need the right technological foundation," he explains.

Building off of that philosophy, SCU decided that it needed to refresh its core IT architecture to provide the technological foundation it was looking for. A more advanced architecture would better support the kinds of collaboration and learning technologies it wanted to take advantage of to help reach its Santa Clara 2020 goals. So SCU set out to find a trusted IT provider to help it implement and migrate its core network and data center infrastructure.

## Solution

To find the right partner to implement this foundational network refresh, SCU went through a rigorous evaluation process. It researched the leading vendors that can provide an end-to-end solution and developed its own set of network criteria based on student and faculty acceleration. The school narrowed the field of potential vendors down based on that criteria and invited those vendors to share how they would meet the benchmarks SCU had set. Ultimately, SCU decided to work with Cisco based on both its response to the request and its long-standing reputation in the technology industry.

"At the end of the day, we wanted a partner who had a vision for what the future of networking would be, that was able to deliver on that vision, and maybe even most importantly, a partner that would be able to be there with us and support us and help us on that journey," says Owen.

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"Information is the lifeblood of any university. Our ability to advance our mission has its underpinning in the ability to share information, understand information, and drive that conversation. To me, the network refresh is basically a refresh of the very foundation that provides the conduit to achieve our mission."

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## Bob Owen

Vice Provost and CIO  
Santa Clara University

The Cisco® team helped SCU refresh its routing and switching core, access, and distribution infrastructures; its data center connectivity; its wireless access, Cisco Prime® Infrastructure management and Mobility Services Engine; and its Internet and data center security infrastructures in a two-phase deployment under an aggressively compressed timeframe. The constant communication and collaboration between the Cisco and SCU team was key for a successful roll out of the technology without interrupting current services.

## Results

Now, SCU has an advanced network infrastructure and foundation that sets itself up for current and future success. "We wanted this refresh to give us a foundation that allows us to be nimble and agile and ready for whatever technology looks like two or three years from now," said Owen, "and we got it."

"After the new network was installed, we partnered with Cisco to do some performance tuning, which was very successful. Since then, we've heard from both students and faculty that they've seen a noticeable improvement in the network's reliability and in speed," says Owen. The improved IT foundation is also opening up new possibilities for future technology deployments.

The refresh helps support the use of collaboration technology on campus and ensures that both faculty and students have a better experience with those tools. Now, instructors have the power to engage with whichever technologies they prefer without worrying about whether the network will support them. This gives professors the opportunity to use the collaboration tools that best suit their needs and allow them to be more successful, providing a better educational experience for students and a competitive advantage for the university.

Above all, the new infrastructure allows SCU to continue to operate as a world-class university, stay on the forefront of educational technology, serve the communities it is a part of in Silicon Valley, and pursue its vision of creating an academic community that educates the whole person in the Catholic Jesuit tradition. "We view the network refresh as enabling us to achieve our mission. It's a foundational piece," says Owen.

## Next Steps

SCU is now looking at deploying new technology, such as cloud-based solutions and new collaboration tools, since they have a network that can support them on this journey. Additionally, SCU plans to build a new science, technology, engineering and math (STEM) complex with the goal of putting the school at the forefront of Jesuit education nationally and internationally. The new network infrastructure will set the foundation for the state-of-the-art complex.

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## For More Information

To find out more about Cisco enterprise network solutions, visit  
<http://www.cisco.com/c/en/us/solutions/enterprise-networks/index.html>.

To find out more about Cisco data center solutions, visit  
<http://www.cisco.com/c/en/us/solutions/data-center-virtualization/index.html>.

To find out more about Cisco security solutions, visit  
<http://www.cisco.com/c/en/us/products/security/index.html>.

### Product List

#### ROUTING AND SWITCHING

- Cisco Catalyst® 3850-X switch
- Cisco Catalyst 4500-X Series Switches
- Cisco Nexus® 7706 switch
- Cisco Nexus 9503 switch
- Cisco Nexus 9396 switch

#### SECURITY AND VPN

- Cisco ASA 5585 Adaptive Security Appliance
- Cisco Firepower™ 9300 Security Appliance

#### WIRELESS

- Cisco 8510 Wireless LAN Controller