



The bridge to possible

Case study
Cisco public

Best Practices for Establishing Hybrid Learning Environments

California Baptist University

Contents

| | |
|---|---|
| Customer summary | 3 |
| Best practices for embracing hybrid learning environments in higher education | 6 |
| Solutions | 8 |
| Next steps | 9 |

How one of the fastest growing colleges in the United States embraced resiliency with secure and scalable IT solutions

Customer summary

Customer name: California Baptist University

Industry: Higher Education

Location: Riverside, California

Number of students: 11,500+

Number of faculty/staff: 1,100+

| Business challenge summary | Network solution summary | Business results summary |
|---|--|---|
| <ul style="list-style-type: none">• Meet demands of continued growth, including regulatory compliance, despite limited IT staff.• Provide secure and innovative IT services and solutions that stand out in the marketplace.• Provide easy to use IT services and solutions that help attract and retain qualified faculty and staff. | <ul style="list-style-type: none">• Use of a FedRAMP Authorized unified platform for all voice, video, and data to simplify ongoing deployment and management.• Deployment of industry-leading network and endpoint security.• Use of a proven and reliable network infrastructure to ease integration and allow for scaling as future needs demand. | <ul style="list-style-type: none">• Rapidly and affordably delivered advanced communications tools that improve collaboration and information sharing.• Enhanced engagement and sense of community among distance learning users.• Secured network and end-devices with automated policy enforcement to ensure compliance and limit risk. |

Driven by and prepared for a purpose

For students, faculty, and staff at [California Baptist University \(CBU\)](#), the campus has always been more than just a collection of buildings. As a non-profit, faith based institution of higher education, CBU has been driven by a purpose – to help students understand and embrace their purpose in life by engaging them beyond academics by partnering to enhance their spiritual and social development as well. So when the COVID-19 pandemic began, this mid-sized California college was already prepared to expand beyond the traditional by providing learning and community through a secure and scalable hybrid learning environment.

The challenges of being an advocate for innovation

For leaders in today’s higher education market, there are several challenges shared by all: increasing numbers of students, increasing regulations, and increasing competition. And that competition often extends beyond recruitment of students to finding and retaining qualified faculty and staff. For Dr. Tran Hong, Associate Vice-President of Technology for Information Technology Services at CBU, these are well-thought out issues that have occupied much of his time.

As an advocate for the practical application of new and innovative technologies in education, Dr. Hong has sought to leverage secure and scalable IT solutions that help address those three core challenges, as well as increase resilience, while helping students and faculty embrace the new possibilities such technologies provide. But CBU also had additional challenges that were consuming their limited IT resources. This included addressing the daily expectations of over 11,500 students and 1,100+ faculty while meeting regulatory compliance and the data privacy concerns of all users.

“Effective technology leaders help people see new possibilities.”

Dr. Tran Hong

Associate Vice-President of Technology

Information Technology Services at California Baptist University



Dr. Tran Hong

Dr. Hong was also tasked with providing secure and innovative IT services and solutions that would help CBU stand out in the marketplace of higher education, making them more attractive to potential students and faculty. And with almost half (5,500) of the college’s students participating in online course work, it was also critical to build a sense of community and culture “anywhere, anytime” that extended beyond the physical campus of CBU.

There was also the added challenge of retaining quality faculty and staff so the university could stay focused on providing the highest quality instruction possible rather than using their limited resources to constantly onboard and train new hires. Lastly, an unexpected event would occur that would reinforce Dr. Hong’s belief in Dr. Tran Hong adopting and adapting innovative IT for greater resiliency in higher education.

Solutions “on and beyond”

With the arrival of COVID-19, Dr. Hong and his team at CBU were presented with a challenge: the massive and rapid transition to secure distance learning for much of the student body, as well as supporting the change in teaching methodology by faculty that would accompany it. Thankfully, the university had traditionally defined online education as encompassing both synchronous and asynchronous learning approaches. This hybrid approach to learning had been pivotal to the ongoing growth of the university. And with the arrival of COVID-19, it would become the new normal for delivering courses both “on and beyond” the physical campus of California Baptist University.

A hybrid learning environment

By previously implementing a hybrid learning environment, CBU was able to offer students and faculty much needed flexibility in how and when to securely teach and learn as the pandemic unfolded, and do so rapidly and affordably. A key benefit of using a hybrid model is the freedom it provides students, especially when faced with family emergencies, childcare issues, or the inability to reach campus due to pandemics, weather, or other unexpected events. For some students (and faculty) distance becomes a permanent obstacle; one that the hybrid approach can overcome thanks to the ability of real-time video solutions like Cisco Webex.

In-sync for higher engagement and community

With synchronous learning, CBU can engage numerous students simultaneously using Webex, the industry-leading real-time video communication solution for enhanced collaboration and information sharing. This approach enables integration of digital blackboards and other collaborative tools (like instant private messaging, group chat, and screen sharing) to create a more immersive approach that increases student engagement while learning, better details concepts and ideas visually, plus aids in building a sense of community among students and faculty. Real-time video collaboration also allows the viewing and sharing of traditional documents, recorded video, and archived documents. It can even be helpful in establishing simulated labs online.

Through their partnership with Cisco, CBU also deployed industry-leading security to provide deeper visibility into the network and endpoints while protecting users, their data, and apps. This included Cisco Identity Services Engine (ISE), Umbrella, and Cloudlock. These solutions were critical for CBU's move to secure distance learning.

On-demand flexible learning for flexible living

CBU's use of asynchronous learning adds additional flexibility to the hybrid model. By deploying Cisco Webex for real-time video collaboration and information sharing between students and faculty, CBU can record all instruction and offer it to students on demand. Plus, this feature can be used by faculty for continual learning within their disciplines, to document and review department and committee meetings, and by staff for ongoing training or certifications.

For CBU and many institutions, COVID-19 unexpectedly accelerated the use of Webex and other integrated Cisco solutions. This wider adoption of Webex and its secure real-time video collaboration and information sharing capabilities has empowered instructors with a wide variety of new teaching tools and opportunities to enhance their teaching methodologies.

“Cisco is the only company that provides a viable converged solution of voice, video, and data.”

Dr. Tran Hong

Best practices for embracing hybrid learning environments in higher education

Encourage your institution to adopt and adapt secure and scalable solutions. This will free your IT staff for other projects, reduce costs, and speed deployment as your needs change. It can also produce unexpected opportunities that benefit your institution as a whole.

Seek software based solutions that can integrate easily into your existing infrastructure. This will reduce your need for costly hardware upgrades, freeing budget for other needs. It also simplifies and speeds deployment.

Select technologies that can flex with your users, enabling them to shift easily from synchronous (realtime in-person or real-time virtual) to asynchronous (on-demand) learning. This will prove attractive to potential students and faculty, especially those with other careers and/or families. Plus, it will provide your institution great resiliency in times of unexpected stress.

Deploy solutions that can help build a sense of community and reflect the institution's culture across distances. This will prove attractive to potential students and faculty seeking to be part of a community despite distance. Plus, it can help spread your institution's mission objectives beyond the physical campus and enhance its reputation beyond the local community.

Adopt automation where possible, especially for security. This can free your IT staff and resources for other projects. Plus, it can provide deeper visibility into your network, greater insights into user behaviors, help recognize potential threats before they act, and speed remediation if a breach does occur.



At the same time, instructors have come to understand that a hybrid classroom will require some adjustments. This includes being more aware of foundational elements in presentations, such as font sizes and colors to maximize readability, and the need to be fully prepared (both technically and mentally) before entering the virtual classroom. CBU recognized this need early on and has developed a support program consisting of Instructional Designers to help faculty refit existing coursework as well as teach them how to leverage technology for additional learning opportunities.

A strategic and resilient result

This rapid shift in learning models due to the COVID-19 pandemic has been much smoother for CBU than other universities. This is because they took a long-term strategic approach. A major part of this strategy began ten years ago with the installation of a campus-wide fiber backbone designed to handle the converged infrastructure that Dr. Hong envisioned would someday become the norm.

Converged infrastructure enables greater flexibility to scale rapidly and affordably while embedding a much needed security and resiliency. It has enabled students and faculty to remain connected despite shutdowns and social distancing as the pandemic unfolded.

“With our small IT team, the Cisco solution gives CBU the ability to manage all the technologies under a singular integrated platform.”

Dr. Tran Hong

Associate Vice-President of Technology

Information Technology Services at California Baptist University

This foresight has allowed Dr. Hong’s IT team to move students and faculty seamlessly to a Webex environment as shutdowns and social distancing were enforced. In addition, students choosing to live on-campus at CBU now have the flexibility to attend classes virtually from the safety of their dorm if it makes them feel more comfortable. CBU expects about one-third of the university’s 12,000 students to reside on campus and potentially use this option. So access points and bandwidth capacities on campus and to dorms have been increased to meet student needs.

Going forward

As CBU continues to grow its student numbers, as well as its collaborative partnership with Cisco, Dr. Hong sees technology as the key driver in an increasingly dynamic industry. Through innovation, he sees higher education embracing the hybrid education approach and moving towards a more cost effective delivery model that can both increase margins and lower tuition.

This may be driven, in part, by the continued advancement of real-time video communications tools like Webex, and the increasing reliance on software and cloud-based services rather than hardware solutions when expanding network capabilities.

As new features and an embedded resiliency emerge, simplicity of use and integration increases, as does enhanced security. Dr. Hong also expects facilities themselves will reflect this shift in learning, resulting in physically smaller classrooms focused on video delivery. This will drive new efficiencies in how technology is deployed, reducing facilities costs in the long-term.

Dr. Hong also sees tremendous value in integrating emerging holographic technologies to create more immersive learning environments. This could create a whole new segment of higher education, driving the next generation of hybrid learning environments as well as spurring enhanced opportunities for safe and affordable science, medical, and engineering labs.

The right technology from the right partner

By partnering for long-term success with Cisco, California Baptist University embedded a resiliency that enabled them to rapidly and affordably expand their existing hybrid learning environment as the COVID-19 pandemic unfolded. All while leveraging Cisco's portfolio of secure and scalable solutions to empower students and faculty with advanced communications tools, enhanced engagement opportunities, and increased security.

Solutions

By deploying a Cisco converged infrastructure, CBU increased overall resiliency and was prepared to rapidly and securely scale in a time of unexpected stress.

Networking

- [Cisco switching and routing](#) (6513s, 3750s, 3850s, 2960s, 9200s, 4500s, 5Ks) [Learn more](#)
- [Adaptive Security Appliance](#) (ASA) 5555, 5525, 4120, NextGen firewall, Firepower Threat Defense (FTD)
- [Cisco Unified Computing System](#) (UCS)
- [Cisco Prime](#)

Telepresence

- [SX Series](#)
- [Webex Room Kits](#)
- [Video Communication Server](#) (VCS), VCS Expressway, VCS Control
- [TelePresence Management Suite](#) (TMS)

Webex

- [Webex Meetings](#)
- [Webex Training, Event](#), and [Support](#)
- [Webex Teams](#)

Security

- [Cisco Identity Services Engine](#) (ISE)
- [Cisco Umbrella](#)
- [Cisco CloudLock](#)

Customer service

- [Cisco CallManager](#) and [Unity](#)
- [Cisco Customer Experience](#) (CX)

Next steps

As your institution moves to a hybrid learning environment, be sure to get up to speed on the latest innovations in collaboration, cloud, and security for education.

Learn more at cisco.com/go/education.

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