



The bridge to possible



# Best practices for establishing secure distance learning in higher education





# Table of contents

- Introduction ..... 3
- The colleges ..... 4
- Top 5 secure distance learning best practices ..... 5
- Conclusion ..... 10

As higher education institutions transition to hybrid and distance learning, they're facing a variety of unexpected challenges. Rapid changes force these institutions to accelerate and adapt their plans to better fit the immediate and long-term needs of faculty and students.

From investing in rapid scalability and reliable real-time video collaboration to enabling more responsive endpoint security and customer support, IT leaders in higher education must act strategically when planning for this new future. This process starts by learning from and adapting the approaches of peers who have successfully overcome these challenges.

That's why we've reached out to two of our long-term partners in higher education. Both have successfully established secure distance learning environments and understand the value of strategic planning for long-term growth. Over the course of our discussions with them, we've seen a core of best practices common to both institutions emerge.



## Introduction



## The colleges

### Babson College

Est. 1919

Wellesley, Massachusetts

Private business school founded with an emphasis on entrepreneurship

Administrators at Babson College sought to maintain academic continuity and ensure that students, faculty, and staff could access the school's services and resources. They rapidly transitioned 650 traditional classes to an online environment, and when we asked what made their shift a smooth one, they said:

- Previous experience managing flexible learning options
- A cloud-focused infrastructure
- The ability to leverage tools they had already invested in

### Lone Star College System

Est. 1973

Houston, Texas

Lone Star College System encompasses seven campuses with over 115,000 students across metropolitan, urban, and rural areas. Despite the size and spread, the college was able to quickly transition each campus to support a secure distance learning environment. Administrators credit the speed and ease of their implementation to:

- Previous e-learning experience gained from converting one campus to online status after a hurricane
- The strategic deployment of a unified communications platform
- A holistic and multilayered approach to security



## Top 5 secure distance learning best practices

1. Prepare in advance.
2. Go beyond video conferencing.
3. Choose scalable technologies.
4. Stay safe and secure.
5. Implement peer-to-peer coaching.

## 1. Prepare in advance: Resiliency of infrastructure and processes.

Being prepared for the unexpected is always good practice. And for higher education institutions, building in resiliency is a necessity in the transition to distance learning. Yet this critical step can often be overlooked in day-to-day operations.

### Lone Star College System

For Lone Star College, resiliency was born from a prior experience when their Houston area campuses suffered closures due to extreme weather events. This pushed them to develop well thought-out systems and processes to maintain continuity if unexpected events impacted campus operations again. So when the COVID-19 pandemic unfolded, they had a strategic plan in place with the flexibility to address the situation.

### Babson College

At Babson College, leadership had committed to modernization just a few years before the pandemic. Their strategy emphasized moving to the cloud to meet growing demands on IT. By having a relatively new network infrastructure in place and a cloud-first mentality on the team, they were readily able to shift resources rapidly, scale as needed, and secure a growing number of endpoints.

“ The preparation was within our control; the timing for when COVID hit was not. So while the pandemic wasn’t exactly the future we thought we were preparing for, we were very lucky to have the infrastructure ready before it struck. ”

—Phil Knutel, CIO, Babson College

Both colleges experienced an urgent and unexpected need to move massive numbers of users online, revealing the value of building resiliency into processes. Leveraging innovative technologies that streamline integration and deployment frees staff to tackle other critical duties, and having a viable plan for continuity of operations preserves the continuity of the community at large.



## 2. Go beyond video conferencing: Unified communications for connecting culture.

Today's campuses were already moving beyond traditional classrooms before the COVID-19 pandemic struck. Fortunately, this enabled many institutions to address the challenge. However, even for those that were somewhat prepared, services were often compromised due to organizations having selected less robust collaboration tools that quickly revealed their limitations.

For Babson College and Lone Star College, the outcome was very different. Both strategically leveraged a mature and robust communications platform that could enhance student, faculty, and administrative collaboration and information sharing using real-time video and other features. This unified communications platform, Cisco Webex®, allowed rapid deployment and ease of integration for their IT teams. More importantly, it offered industry-leading security.

### Babson College

Babson appreciated the value of having a unified platform that supports both synchronous learning (by bringing classes together virtually) and asynchronous learning (through recorded lectures and class discussions). This allowed faculty and students to learn securely in a team environment and supported remote students in other campus activities (clubs, social events, extracurricular activities). It also helped the college maintain business continuity behind the scenes so that learning could continue.

### Lone Star College System

Lone Star also leveraged a unified communications platform to power continuity of business operations and key services for administrators, as well as secure distance learning between faculty and students. Additionally, they came to understand an additional, or "soft," benefit: These tools endowed stakeholders with a sense of community by helping them to maintain social connections beyond the campus.



Keeping learning going isn't just about keeping classes going. It's about keeping the culture alive. Having a campus-wide communications platform kept us connected as a campus. It kept us connected as people. ”

—Link Alander,  
CIO and vice chancellor,  
college services,  
Lone Star College



### 3. Choose scalable technology: Enterprise licensing agreements and converged solutions.

Procuring new technologies during tumultuous times can be frustrating. From funding to deployment and ensuring integration with your existing network infrastructure, it can be difficult to build successful and scalable systems without the right tools in place.

Fortunately, both Babson College and Lone Star College understood the need to scale as their needs changed and put processes in place to simplify scaling. As a result, both institutions secured a Cisco Webex Enterprise Licensing Agreement (ELA) for their collaboration solutions prior to expanding their distance learning programs. This allowed them to quickly and affordably ramp up their capacity. It will also allow much needed flexibility to scale up or down as their hybrid learning environments stabilize.

The colleges also planned their scalability strategically by utilizing converged solutions that were designed to work easily together. Converged infrastructure can offer preconfigured validated platforms that speed deployment, enhance operational agility, and reduce risk, thanks to strategic guidance, expert advice, and innovative tools from Cisco® Services. Naturally, this also helps to reduce costs.

“ When Babson’s president asked me what the technology costs would be to pivot all our on-campus classes to fully online and I replied essentially nothing, he was both dumbstruck and thrilled. ”

—Phil Knutel, CIO, Babson College

## 4. Stay safe and secure: Holistic defense.

Network and endpoint security is a top priority for distance and hybrid learning environments. Every day, the news is filled with stories of networks taken offline, ransoms paid, and private data stolen. The result? A loss of public trust in our institutions.

### Lone Star College System

As they moved toward a distance learning model, Lone Star accurately identified security as a top priority, one needing advanced solutions capable of providing deeper visibility into their networks and the thousands of endpoints attaching to them daily. They also worked to eliminate unnecessary risk up front, like limiting access to certain areas of their network or specific applications to only those who required it.

The college deployed a holistic and multilayered defense featuring industry-leading solutions. This included the award-winning Cisco Stealthwatch® solution, which uses advanced machine learning and behavioral modeling. Lone Star also built a proactive defense using the Cisco Umbrella® platform to constantly gather intelligence to uncover current and emerging threats. Umbrella provides deeper visibility across all devices, ports, and cloud services. This lets admins see threats faster, including suspicious user behaviors. It also includes a layer of defense to help prevent phishing, malware, and ransomware attacks.

“ We knew cyberattackers would become even more active when we switched to all online due to COVID-19, so it was great knowing we already had the systems we needed in place. ”

—Link Alander, CIO and vice chancellor, college services,  
Lone Star College

As the pandemic evolved, this multilayered approach proved highly effective, giving Lone Star multiple defensive capabilities that could be adapted as needed to accommodate the transition to distance learning without compromising their overall security or access. This helped secure their campus beyond the traditional network limits, with the added benefit of peace of mind for all users.







“

The Blended Fellows were lifesavers. They had specialized training and experience teaching online students—this faculty peer-to-peer coaching was incredibly helpful in getting the rest of our faculty up to speed quickly. ”

—Phil Knutel, CIO,  
Babson College

## 5. Implement peer-to-peer coaching: Hybrid learning environments.

It’s true—practice does make perfect.

### Babson College

Babson College attributes much of their successful transition to replicating experiences in developing smaller, more localized hybrid learning environments for use by their graduate school. This included WebFlex, a flexible hybrid course delivery program that lets graduate students attend classes physically on campus or virtually from another location. This experience helped Babson pilot a blended environment that was adaptable enough to guide distance learning efforts during the COVID-19 pandemic. The program was also adapted to coach faculty on the benefits of and methodologies surrounding hybrid and distance learning.

But such a massive shift in workplace culture did require a learning curve. Questions including how to run an online meeting beginning to end, record events, or simply mute a mic were common as faculty learned how to shift their teaching methods. So IT leaders set up a 24/7 service desk and leveraged the college’s existing Academic Technology Innovation Center to help faculty better understand the foundations of hybrid classrooms. This resulted in a core group of instructors, called Blended Fellows, who were experienced in hybrid teaching and enabled Babson to speed the cultural shift to distance learning.

By developing a culture of innovation that includes peer-to-peer coaching and practicing at scale before full implementation, Babson can more easily innovate for the future. They are already doing so with their Lorber Classroom, which blends advanced virtual collaboration tools with a physical classroom.

# Summary of the top 5 secure distance learning best practices

1. Prepare distance learning infrastructure and processes in advance to maximize resiliency.
2. Look beyond video conferencing alone and anticipate future needs of your students, faculty, and staff.
3. Seek enterprise-level agreements and converged solutions to speed and simplify scalability.
4. Establish a holistic and multilayered security approach as a core component rather than an afterthought.
5. Practice makes perfect, so establish programs to continually experiment with emerging technologies and promote peer-to-peer coaching.

## Conclusion

Classrooms of the future will not be bound by space or time. Instead, they'll traverse a hybrid environment.

The COVID-19 pandemic has dramatically sped the transition to distance and hybrid learning models. Standardizing best practices for secure distance learning in higher education benefits everyone. And by embracing a culture of innovation powered by strategic planning and the adoption of solutions that enhance collaboration, security, and support, IT leaders in higher education can better equip their community of stakeholders for the future of work and a lifelong love of learning.

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Conclusion