Managed solutions

for higher education

Elevate your campus experience, better support
your IT team and budget for the future

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Enable the future of learning with managed solutions

Today's campus experience relies on IT infrastructure that can adapt as higher education evolves. Ubiquitous connectivity is essential. Digital transformation must support an institution's ability to make the most of hybrid learning and classroom technology. With that comes greater cybersecurity risks. Meanwhile, limited IT resources call for scalable, customizable solutions that free tech staff from day-to-day network operations to focus on creating a more dynamic learning environment.

Facing uncertain budgets and enrollment trends, colleges need to optimize their spending. Managed solutions offer a flexible approach to maximizing budgets while modernizing IT for the future of learning. This e-book explores use cases across campus where managed solutions can deliver powerful upgrades to legacy systems and increase efficiency by bringing multiple technologies into a single platform and service provider relationship.

Developing an IT strategy for your institution starts with evaluating the technology needs across your campus. Spark inspiration by exploring the solutions that can modernize key college environments to create the smart campus you envision.

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Cloud Security with Cisco+ Secure Connect

Secure Access with Cisco Duo

Faculty, staff and students expect pervasive connectivity and on-demand access to coursework and resources. Consider that 53% of students at a four-year institution have taken a class with the option to attend in person or online.[1] Managed solutions for higher education help optimize shrinking IT resources by installing, servicing and supporting WiFi that spans classrooms and common areas. Streaming capabilities deliver programming directly to personal devices — with preferred access for faculty and staff.

Enabling new learning modalities requires interoperability and the integration of cloud systems. As part of that upgrade, managed solutions can simplify the process of designing a local area network (LAN) and wide area network (WAN) to meet your new requirements. They can also assist in the transition to a hybrid network architecture built around advanced software-defined wide area network (SD-WAN) technologies.

With network modernization comes new cybersecurity threats. Managed solutions can deliver secure access, making it easier to deliver defense in depth while creating a unified security policy. You benefit from improved visibility into your network from a single portal, providing control across the institution. You can also incorporate secure remote access to support hybrid learning.

In addition, managed solutions may encompass physical security for public spaces, helping protect property and systems. Smart cameras and environmental sensors provide a comprehensive view of the campus. Enhanced security and automated alerts about environmental events enable you to respond to issues more quickly.

62%
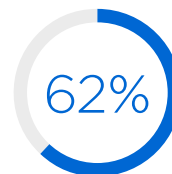
of students would like to see improvements to campus WiFi.[2]

20%
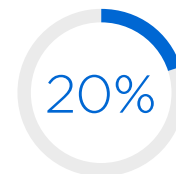
of students say campus WiFi is very reliable in all or most areas.[3]

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Residence halls

Supporting solutions

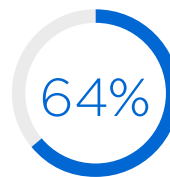| Managed WiFi | Managed Network Edge | Enterprise Network Edge | Cloud Security with Cisco+ Secure Connect | Secure Access with Cisco Duo | SpectrumU TV |

In a 2023 survey of higher education IT leaders, 78% said their institutions are focusing on using digital transformation to support student success.[4] Students expect easy, safe, reliable WiFi connectivity in their dorm rooms and across campus. This includes course materials, as well as their favorite games and entertainment, all of which should be available anytime, anywhere on personal devices. Reliable, secure internet connectivity must include everything from WiFi in public spaces to spaces to point-of-sale (POS) devices in dining facilities.

As institutions adapt, lean IT teams struggle to ensure bandwidth. The massive growth in mobile devices and demand for bandwidth-hungry content only adds to the challenge. A managed solutions approach can deliver secure, simplified access to your network from everywhere on campus.

Security remains a persistent concern. Managed cloud security protects school devices, users and locations through trusted, cloud-based solutions. Safeguards can include zero trust network access (ZTNA), unified threat management (UTM) and advanced firewalls. A managed solutions strategy boasts the added benefit of helping secure physical housing and assets. Smart, connected cameras and sensors monitor public areas, offering a single web-based dashboard.

Also important, managed services can enable you to offer a home-like TV experience to students, allowing them to stream live or on-demand content to personal devices across campus.

64%

of surveyed college undergraduate students have experienced unstable internet connections.[5]

66%
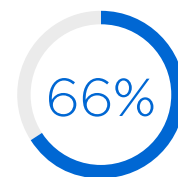
of top higher education decision-makers felt that threats to physical and network security were among their top priorities for the near future.[6]

Campus administration

Supporting solutions

Fiber Internet Access

Managed Network Edge

Enterprise Network Edge

DDoS Protection

Cloud Security with Cisco+ Secure Connect

Secure Access with Cisco Duo

Unified Communications

Expectations for emerging technology are not limited to students. Faculty and staff also desire an enhanced campus experience. They are eager for reliable anywhere, anytime connectivity that enables improved communication and collaboration. IT teams want scalable, all-in-one networking platforms that reduce workloads, boost security and allow them to focus on larger initiatives. For example, more than 90% of campus IT leaders report updating their software within the last year to help with cybersecurity practices.[7]

Managed solutions for higher education offer flexible, scalable options. Unified communications capabilities help improve teamwork where and when it is needed. Personnel can seamlessly connect and collaborate by accessing capabilities like calling, videoconferencing and messaging in a single application. You also receive support for multi-device classrooms and reliable campus-wide access to online and digital content with symmetrical, dedicated fiber internet connectivity.

Faculty and staff require advanced cybersecurity solutions as well to help protect sensitive data and ensure regulatory compliance. Managed cloud security for higher education can deliver comprehensive cybersecurity, including safeguards such as multi-factor authentication (MFA) and ZTNA. UTM adds more layers of network security while scalable distributed denial of service (DDoS) protection can thwart malicious traffic before it reaches your network.

Nearly 1/2

of college leaders plan to invest in automation over the next two years to address ongoing staffing concerns and create new revenue streams for their institutions.[8]

"The service we get from Spectrum Enterprise® has been extraordinarily good. We just don't have issues. Uptime and reliability have been fantastic to the point where I really don't worry about it."

Anne Rocco Pacione
Chief Information Officer, St. John's University

Case Study

ST. JOHN'S UNIVERSITY

St. John's University transforms campus experience with robust connectivity upgrade

St. John's University needed to expand its IT infrastructure to meet students' connectivity needs. Spectrum Enterprise installed two fiber circuits for reliable internet connectivity and expanded bandwidth at the main campus. Also added were Ethernet circuits to service other locations in the city, on-campus SpectrumU video streaming and Managed Network Edge for enhanced security and network access.

Read case study

Charter® COMMUNICATIONS | Spectrum ENTERPRISE®

Athletic stadiums and esports venues
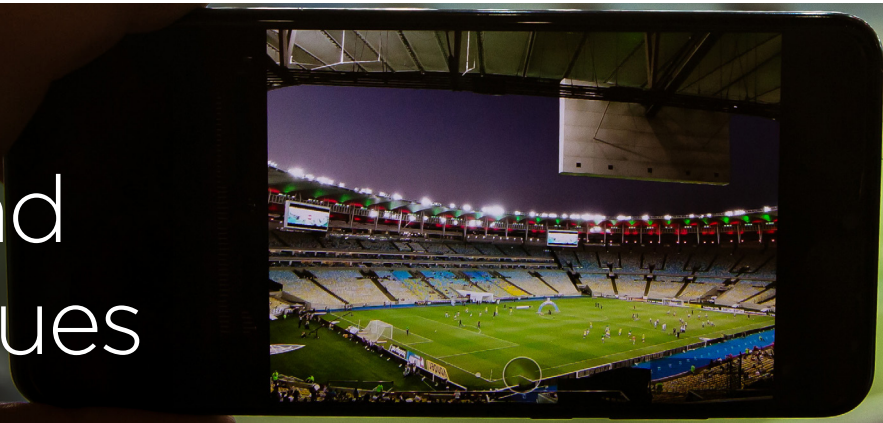
Supporting solutions

Fiber Internet Access	Managed WiFi	Managed Network Edge	Cloud Security with Cisco+ Secure Connect	Secure Access with Cisco Duo	SpectrumU TV

College sporting events increasingly use technology to support audience interactivity. Venues invite fans to connect to each other, view live content and access amenities such as ordering food from their seats. For example, at a University of Florida football game in 2022, over 56,000 unique devices connected to the WiFi network, transferring 13.6 terabytes of data.[9] To accommodate such connectivity demands, schools must have reliable, scalable WiFi and dedicated, scalable internet to deliver a connected fan experience.

Managed solutions offer consistent high-speed, low-latency connectivity via a private, high-performing fiber network. Fast symmetrical internet service can scale up to 100 Gbps as needs change to provide strong, high-capacity, high-performance WiFi connectivity throughout stadiums and secure mobile POS connectivity for vendors. Streaming TV capabilities enable access to live and on-demand content on personal devices anytime and anywhere on campus. With management and support included, IT staff can focus on other responsibilities.

More than 1/3

of college undergrads believe students should have a significant amount of input on the technology investments their institutions make.[10]

"Customer service is huge for us. Spectrum Enterprise is extremely easy for us to get hold of. Anytime we've needed help of any kind, whether on the IT or business side, someone has an answer for us."

Nat Keebler
Assistant Director of Infrastructure and Technology, Laurus College

Case Study

LAURUS COLLEGE

Connectivity drives programming at Laurus College with remote learning
Laurus College sought to expand its degree programming around remote learning while improving communications for educators and staff at six campus locations. Spectrum Enterprise installed a Fiber Internet Access circuit at their main network hub. Ethernet circuits connect locations and give remote and on-campus students access to live and recorded courses. Unified Communications with RingCentral keeps college staff connected.

Read case study

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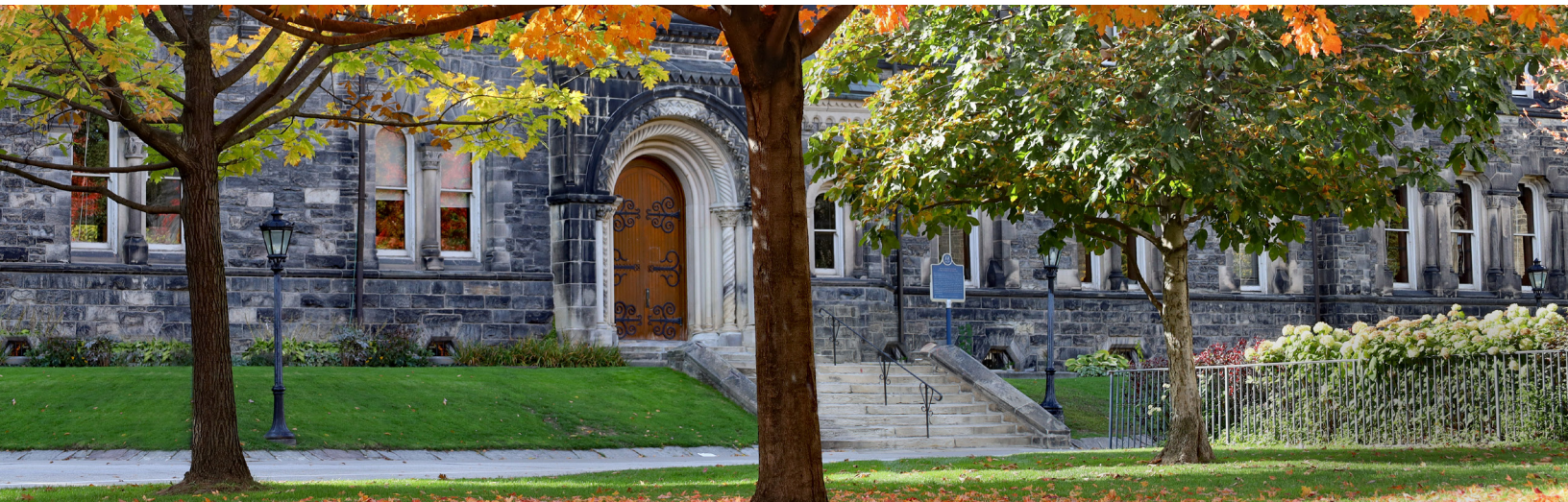
Create a smarter, safer campus

Wherever you choose to begin, enhancing your technology has the potential to improve the learning experience and better support your faculty, staff and students. As your institution plans to transform its network, consider the following:

✓ **Assess your current infrastructure:**
When legacy hardware like switches and routers reach end of life, replacements can be expensive or difficult to find. Likewise, many institutions with distributed locations rely on multiprotocol label switching (MPLS) for WAN connectivity and could reduce spending by switching to easily scalable SD-WAN over much more affordable internet connections. Inventory your networking equipment and vendor contracts. What needs replacement or is up for renewal? Can you minimize capital expenses with managed services that include installation, equipment and maintenance for a monthly cost? Look for opportunities to replace or consolidate network components with solutions engineered to work together.

✓ **Forecast your needs:**
Evaluate internet and network traffic for gaps between anticipated usage and the bandwidth available to your institution. Investments in connectivity and networking should also account for future research initiatives, expansion of residence halls, sports arena construction and other long-term plans with the potential to strain your network. Scalable fiber capacity can help remove some uncertainty from this process.

✓ **Identify digital security gaps:**
Cybersecurity for higher education grows more complex every year. Provide defense in depth with UTM and automated updates to anti-malware protection, firewalls and potential vulnerabilities that might otherwise require IT intervention. Beyond the network, the frequency of DDoS attacks makes it essential to work with an internet provider that can automatically identify and redirect traffic from volumetric attacks.

✓ **Choose the right provider:**
A partner that will help you lead the digital transformation of your institution needs to provide a full complement of enterprise solutions and connectivity infrastructure, a comprehensive service-level agreement (SLA) and ongoing 24/7/365 local support. Partner with an experienced education provider that understands your specific needs and challenges to create a custom solution that helps your institution stay competitive.

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Graduate to a next-generation campus experience

For more than 20 years, Spectrum Enterprise has partnered with colleges and universities nationwide to provide education technology and managed services tailored to campus needs and goals. Spectrum Enterprise helps campuses keep up with current trends and prepare for — and protect — the future.

Our experts identify the connectivity and managed services that align with your specific needs and objectives for cost savings. All-in-one managed solutions for higher education can be fully or co-managed based on your requirements and desire to free resource-constrained IT teams to focus on improving the experience for faculty, staff and students. We offer a wide portfolio of solutions, including managed network solutions for higher education and security services, all backed by 100%, 24/7/365 U.S.-based support.

Managed network

Designed for institutions of any size, **Managed Network Edge** helps protect your network perimeter using Cisco Meraki's cloud-managed multidimensional threat protection technology. This managed solution keeps your network running efficiently and protects your network all the way to the switch with easy performance monitoring and consistent security capabilities across campus.

Enterprise Network Edge provides advanced security, edge networking, remote access, WiFi and managed switches configurable to meet a wide range of high-capacity, special routing and security requirements. Easily integrated into existing legacy WAN networks, Enterprise Network Edge can also deliver a secure SD-WAN and includes hardware that scales to meet the capacity of evolving needs of your school.

Let us design, implement and manage your college's WiFi with our **Managed WiFi** service. When high volumes of users and traffic must be supported, our service delivers the performance you need to appease users and guests. Our experts will assess, design, install and support your entire WiFi network while providing access point support and handling any network change requests.

Voice and collaboration

For institutions looking for simplified deployment and fast installations, **Unified Communications** from Spectrum Enterprise delivers a seamless communications experience, bringing together a variety of technologies from multiple platforms. Streamline communication, simplify collaboration and boost productivity with calling, videoconferencing, messaging and more in a single application. Customize your communications technology to self-manage your school's preferences for calls and configurations. You can keep work and personal information separate, even with a single number for all your devices. Our voice products are designed to reliably connect your school and scale to support your needs as they change and grow, all backed by an SLA guaranteeing 100% uptime over our fiber network.*

Managed security

Strengthen your network's defense with **Secure Access with Cisco Duo.** This easy-to-use identity verification and zero trust service allows authorized users to access your network, data and applications based on the user profile, their location and the device used. MFA technology and our integration services also make access management easier for your IT operations.

Enhance your protection with a comprehensive array of cloud-based security solutions for higher education. **Cloud Security with Cisco+ Secure Connect** enables your campus, locations and users to directly access public clouds and private data centers while helping reduce the risks of cyberthreats and network traffic delays.

Protect your network with 24/7/365 threat detection and mitigation. Our **DDoS Protection** solution applies adaptive intelligence to quickly evaluate your expected network activity and identify threats attacking your service.

Internet

From dorms to labs and everywhere else on campus, students, faculty and staff demand always-on connectivity. To deliver exceptional experiences critical to recruitment and retention efforts, you need a digital infrastructure that is flexible, scalable and secure. Get consistent, high-speed and low-latency connectivity with **Fiber Internet Access**. Delivered over our private fiber network, this dedicated internet service delivers up to 100 Gbps and is backed by our powerful SLA that includes a 100% uptime guarantee.

TV

For today's digitally native students, streaming TV is more than just entertainment — it's a must-have. **SpectrumU TV** enables colleges to meet this expectation with more than 200 channels and up to 40,000 movies and shows that can be streamed directly to personal devices, enabling students to watch programming anytime and anywhere on campus.

*100% uptime SLA guarantee applies only to Fiber Internet Access, Ethernet Services, Cloud Connect and Enterprise Trunking.

Streamline your modernization with managed solutions

Accelerate student success and transform your school with a trusted education technology partner. Count on Spectrum Enterprise to advance your digital initiatives and enrich your campus with purpose-built education solutions.

Learn more

1. Nancy Mann Jackson, "Where the Tech Troubles Are," Inside Higher Ed, October 31, 2022.
2. Ibid.
3. Ibid.
4. Lauren Coffey, "Few Campus IT Leaders See AI as a Top Priority," Inside Higher Ed, October 9, 2023.
5. Jenay Robert, "2022 Students and Technology Report: Rebalancing the Student Experience," Educause, October 3, 2022.
6. "Study: Higher Education Leaders See Security as Top Priority in Effort to Create a Connected Campus," CBORD, August 2, 2023.
7. Lauren Coffey, "Few Campus IT Leaders See AI as a Top Priority," Inside Higher Ed, October 9, 2023.
8. "Study: Higher Education Leaders See Security as Top Priority in Effort to Create a Connected Campus," CBORD, August 2, 2023.
9. Amanda Mellens, "Upgrading Stadium Wi-Fi Connects Fans to Their Universities," EdTech, May 30, 2023.
10. Nancy Mann Jackson, "Where the Tech Troubles Are," Inside Higher Ed, October 31, 2022.

About Spectrum Enterprise

Spectrum Enterprise, a part of Charter Communications, Inc., is a national provider of scalable, fiber technology solutions serving many of America's largest businesses and communications service providers. The broad Spectrum Enterprise portfolio includes networking and managed services solutions: Internet access, Ethernet access and networks, Voice and TV solutions. The Spectrum Enterprise team of experts works closely with clients to achieve greater business success by providing solutions designed to meet their evolving needs. For more information, visit enterprise.spectrum.com.