Cisco Mobility Solutions for the 21st Century University: Higher Education in Motion

Challenge

Today's college and university students are dynamic, mobile, and technology-savvy. They arrive on campus with an array of mobility-enabled devices including PDAs, gaming devices, cameras, phones, and laptops. At home they roam wirelessly—downloading music, chatting, texting, and sharing videos on YouTube. This connected generation is untethered from wires. On campus, they expect, and sometimes even demand, wireless LAN access. For this student generation in motion, the air is the Internet.

The mobility solutions implemented by higher education institutions must meet the needs of this mobile generation while cost-effectively addressing the requirements of their faculty, staff, administrators, and visitors:

- Students use the wireless LAN to access social networking sites such as Facebook and download course materials. Student also use the wireless LAN to perform administrative tasks (including dealing with registration, grades, parking), and to access the Internet.
- Faculty is exploring mobility solutions that enhance the learning experience (in-class polling, sharing media, online resources) and that assist with research (for instance, field data collection). Faculty members also use wireless networks to streamline administrative tasks, support easy access to websites, alert students about class cancellations or grades, and improve class collaboration.
- Administrators and staff see wireless networking as a means to improve campus operations and enhance productivity with mobile access to communication planning tools, such as email, instant messaging and calendars. Administrators also see the wireless network as a way to reduce operational costs and increase campus safety and security.
- Visitors such as prospective students, alumni, parents, visiting lecturers, and conference attendees need secure wireless access to engage collaboratively and access off-campus resources.

The challenge for colleges and universities is to create a robust, end-to-end, mobility-enabled network that supports their unique needs and requirements, and to do so within their budgets. Colleges and universities need a wireless network that supports the following:

- Easy maintenance and security for local and remote campus sites
- Scalable architecture to support new campus buildings and remodeling
- Built-in support for bandwidth-intensive, high-speed applications such as video streaming, video-on-demand, and multimedia
- Simplified tools to support the wave of new mobile devices arriving on campus, some of which are 100 percent wireless, with no wired port

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In addition, each institution must stay competitive and differentiate itself from its peer institutions to attract and retain the best students and faculty. Students want to attend quality institutions that provide and use relevant technologies. Students want their college or university to facilitate their success while they are attending school as well as their post-graduation placement.

A higher education institution with a pervasive, high-speed wireless network demonstrates technology leadership and innovation. This institution can deliver mobility solutions that keep it competitive and help it meet the ongoing demands of its technology-savvy students, faculty, staff, and administrators.

Solution Overview

Cisco® Motion builds on the Cisco Unified Wireless Network to empower higher education institutions to move beyond wireless networking to deliver true mobility to all areas of the institution. Cisco Motion is a strategy and a vision to deliver industry relevant mobility solutions while simplifying deployment and reducing the burden on IT resources. Cisco Motion offers a holistic approach to mobility that combines applications, devices, and the network as the platform.

Putting higher education institutions in motion, the Cisco Unified Wireless Network gives institutions the flexibility they need to achieve more within their existing budgets. This award-winning architecture provides a range of proven mobility solutions that deliver cost savings to institutions. The Cisco Unified Wireless Network provides higher education institutions with the ability to:

- Meet and exceed campus mobility demands by putting students, faculty, staff, administrators, and even campus assets in motion.
- Deliver integrated mobility applications through an open, extensible wireless networking platform.
- Provide ubiquitous network access anytime, anywhere, indoors and outdoors, without the need for cabling.
- Make managing the network, including adds, moves, and changes, easier and more cost-effective.

The Cisco Unified Wireless Network combines the best elements of wireless and wired networking to provide institutions with a secure, scalable wireless network with a low total cost of ownership. It supports flexible network access that delivers the right applications, using the right policies, to the right user at the right time. This cost-effective solution allows higher education institutions to deliver high-speed wireless connectivity that enables the deployment of innovative applications that improve learning, streamline operations, enhance collaboration, and improve productivity.

Why Cisco?

Cisco is the market leader and vendor of choice for empowering colleges and universities to meet and exceed their mobility requirements. Cisco has an extensive portfolio of mobility products to cover all areas of the campus from parking lots and classrooms, to dorms, stadiums, administration offices, student centers, outdoor areas, and research facilities. An end-to-end Cisco wireless solution delivers numerous advantages:

- Cisco is the only wireless vendor to deliver integrated mobility applications through an open, extensible platform that supports Wi-Fi, Ethernet, cellular, and WiMAX.

- Cisco offers the industry's broadest array of business-grade mobility services, including voice over WLAN, context-aware mobility, location services, mobile intelligent roaming, adaptive wireless IPS, secure client manager, and secure guest access.

- Cisco is the established leader in next-generation, 802.11n technology with the Cisco Aironet® 1250 Series Access Point, serving as the platform against which all other manufacturers' access points are tested for compatibility by the worldwide Wi-Fi Alliance.

- Cisco performs stringent platform, client, and application interoperability testing through the Cisco Compatible Extensions program, the Cisco AssureWave program, Intel, and our collaboration with third-party application providers to deliver significant power, performance, and security benefits for higher education institutions operating with mixed-client environments.

- Cisco's scalable solution includes built-in system planning and configuration tools with reliable, dynamic RF management that is self-configuring, self-healing, and self-optimizing. These features significantly minimize the operations and capital costs associated with managing and deploying local and remote campus wireless networks.

- Cisco is the only wireless vendor to deliver true enterprise-class security from Layer 1 to Layer 7 that includes a powerful intrusion prevention system (IPS), world-class firewall, threat assimilation, threat mitigation and Network Access Control (NAC).

Features

Cisco Motion empowers colleges and universities to meet and exceed their mobility demands through three primary mobility solutions: Safety and Security Mobility Solutions, Administration and Operations Mobility Solutions, and 21st Century Teaching and Learning Mobility Solutions (Figure 1). Each solution set builds on the Cisco Unified Wireless Network to deliver innovative, cost-effective solutions that meet and exceed the unique mobility requirements of colleges and universities.

Figure 1.   Cisco Motion: Mobility Solutions for Higher Education Institutions

Safety and Security Mobility Solutions

Maintaining safe buildings and grounds while keeping the network secure is critical for today's higher education institutions. Cisco Unified Wireless Network: Safety and Security Mobility Solutions enhance physical campus security, track assets, protect the network, and prevent unauthorized network access (Figure 2).

Figure 2.   Safety and Security Mobility Solutions

Campus Physical Safety and Security
Is the physical campus protected and safe?

The Cisco Unified Wireless Network helps higher education institutions maintain safe buildings and grounds by supporting the monitoring of unauthorized behavior and delivering alerts about detected events. Real-time monitoring helps campus security staff to prevent, deter, detect, and respond more quickly to incidents. Quick communication to students, faculty, administrators, and the surrounding community during a safety incident can be facilitated. Real-time tie-in to wired and wireless video surveillance cameras as well as portable security devices and third-party campus safety systems are supported to help institutions realize cost reductions and savings through improved operational efficiencies.

> **"We have more than 28,000 students, and some of them can get pretty creative. We monitor for unauthorized access points deployed by students or intruders and other potential security problems."**
> **— Texas State University**

Network and Data Security
Is the wireless network secure?

The Cisco Unified Wireless Network protects confidential data and transmissions, helping to ensure that wireless transmissions remain secure and protected. It includes a robust [adaptive wireless intrusion prevention system (wIPS)](#) to detect unauthorized devices, protect against wireless threats, and mitigate unauthorized access and wireless attacks. This solution helps prevent malicious intruders and students from hacking into restricted university sites or issuing attacks against the wireless network. It also helps quickly locate rogue access points anywhere on campus. This solution helps facilitate PCI compliance for secure wireless credit card transactions in bookstores and cafes, as well as Heath Information Portability and Accountability Act (HIPAA) compliance for on-campus health services.

Context-Aware Mobility

Where is an asset located on campus and what is its status?

The Cisco Unified Wireless Network, in conjunction with Cisco Context-Aware Mobility solutions, supports the ability to capture and integrate into business processes, detailed contextual information about an asset such as its location, movement, status, state, and applications in use. This solution helps institutions automatically collect information about mobile assets, analyze it, and use it to reduce errors, prevent delays, improve scalability beyond manual processes, and enhance business and learning functions.

Any asset that is emitting a Wi-Fi signal can be monitored, tracked, and found with this solution. A Wi-Fi signal can be generated from a built-in wireless card or an attached Wi-Fi tag from third-party vendors like AeroScout, WhereNet, and PanGo. Expensive items—such as projectors, televisions, portable plants, lab equipment, tools, laptops, or any asset that moves—can be easily tracked. Alerts can be issued about the movement of a device in or out of an area. Costs for misplaced items, loss, and theft can be reduced.

Faculty and staff can use context-aware mobility in conjunction with third-party applications to automatically send announcements, assignments, room change notifications, campus event updates, and emergency alerts to students as they roam on campus. Security personnel can use this solution to receive silent alerts and notifications about asset movement and rogue devices, track the areas of the campus they have inspected or secured, and gain access to security video based on their current location or the location of an emergency-triggered event. Administrators can use this solution to quickly locate students, faculty, or staff anywhere on campus.

Hospitals associated with higher education institutions can use context-aware mobility for locating, monitoring, and managing assets, including smartphones, Wi-Fi tagged wheelchairs, infusion pumps, X-ray machines, electric thermometers, and other mobile medical devices.

Administration and Operations Mobility Solutions

Delivering quick and cost-effective broadband access anywhere on campus extends learning beyond the classroom and improves campus operations, collaboration, and productivity. Cisco Unified Wireless Network: Administration and Operations Mobility Solutions are the wireless foundation that supports secure, easy network access to voice, video, and data applications for students, administrators, faculty, staff, and visitors as they roam anywhere on campus (Figure 3).

Figure 3.   Administration and Operations Mobility Solutions

Pervasive Wireless on Campus, Indoors and Outdoors
Is the WLAN available ubiquitously indoors and outdoors?

The Cisco Unified Wireless Network delivers broadband access quickly and cost-effectively to any indoor or outdoor location. When wireless access is available pervasively on campus, users do not need to hunt for wired ports because they can gain access to network resources using their wireless connection. Users can stay connected to their applications as they roam, without having to re-log onto the network while they are in motion. As long as an area is covered by the wireless infrastructure, professors and students can work, share resources, collaborate, and communicate.

With a pervasive wireless network, instruction is no longer limited to the classroom. Faculty can teach inside or outside the classroom, accessing the Internet and applications while on the move. Access to resources is improved because faculty and administrators do not have to return to their desk to perform online administration tasks, access research information, or check email. Student satisfaction is increased and trouble calls are decreased because wireless access is predictable and consistent from anywhere on campus.

With a pervasive Cisco WLAN, institutions can also deliver network access to locations where hardwiring would be too expensive, too difficult, or implausible, such as new or refurbished buildings; older buildings with environmental concerns such as asbestos remediation; or sites with protected-building restrictions such as historical landmarks. Costs for cabling temporary spaces or for providing network access to new faculty or staff can be reduced or eliminated. In fact, many institutions have found that it is more cost-effective to provide wireless network access pervasively on campus than it is to install individual wired ports over the same geographic area.

To further aide with efficient and effective client device management, the Cisco Secure Client Manager (SCM) can help IT managers centrally provision, monitor, update, and assist with troubleshooting mobile devices. This service facilitates harmonization of user access profiles for optimal security and automates the secured connection of end users across the wired and wireless network. With Cisco SCM, IT organizations can administer the connectivity of mobile devices and make them secure, throughout their lifecycles, from initial provisioning to final decommissioning.

Outdoor locations can be easily supported through external antennas from in-building access points or by using outdoor wireless mesh technology. Outdoor wireless mesh allows multiple buildings to share a single high-speed connection to the Internet without cabling or dedicated lines. It supports local network access, point-to-point, or point-to-multipoint backhaul bridging functionality to connect remote campuses, field research sites, and connections to a community-wide network. Outdoor wireless mesh can produce significant financial benefits by reducing or eliminating the costs associated with recurring leased lines between buildings or remote sites, securely extending the network over long distances beyond the campus.

High-Speed Wireless Access with 802.11n
Are bandwidth-intensive applications supported on the WLAN?

The Cisco Unified Wireless Network facilitates the creation of a multimedia and video-ready network that accelerates the delivery of bandwidth-intensive applications and provides a better end-user experience. Cisco's high-speed wireless network, based on the 802.11n standard, delivers up to 600 Mbps combined data rates with unprecedented reliability, greater performance, and extended reach for pervasive wireless connectivity. It excels at supporting bandwidth-intensive applications such as video streaming, video-on-demand, gaming, and multimedia that are used for research, learning, virtual environments, and social networking. This solution also delivers

predictable and continuous WLAN coverage for areas with dense wireless usage such as lecture halls, auditoriums, open spaces, and social areas.

Institutions that deploy 802.11n are demonstrating a commitment to technology innovation and leadership. They are building a solid technology foundation to attract new students and remain competitive in the ever- evolving global market of higher education.

> **"The network must evolve to address our users' needs, and 802.11n is an obvious choice to support the growth in high-bandwidth applications."**
> **— Duke University**

Secure Wireless Guest Access
Can visitors and alumni easily access the network?

The Cisco Unified Wireless Network supports secure wireless guest access that cost-effectively simplifies the process of providing temporary Internet access to visitors such as prospective students, alumni, parents, visiting lecturers, and temporary personnel. Wireless guest access eliminates the frustration that visitors experience when they are limited to wired-only ports in small areas on campus. It also eliminates the costs that institutions incur from wiring and maintaining wired ports to accommodate visitors. With Cisco's secure guest access solution, institutions can:

- Enhance the college experience for prospective students
- Provide Internet access to parents attending campus events
- Keep in touch with visiting alumni
- Easily support network access for conference attendees and guest lectures

Cisco's secure guest access solution is built-in to the unified architecture. It seamlessly separates guest user traffic from university traffic, helping to keep university traffic secure.

Guest usernames and temporary passwords can be created quickly and easily by any authorized user on campus. A captive portal automatically redirects all guests to an authorization login page. Roaming areas for each guest can be limited to selected buildings or locations on campus. Wired guest access can be configured from the wireless portal as well, if needed.

Mobile Unified Communications
Are mobile voice services on campus cost-effective?

The Cisco Unified Wireless Network delivers cost-effective, on-campus mobile voice services using Cisco's mobile unified communications solution. This solution helps educational institutions reduce, and in some instances eliminate, cellular phone charges by supporting on-campus phone calls using Wi-Fi single- or dual-mode phones.

With this solution, institutions can use the Wi-Fi network as the primary vehicle to deliver mobile communications on campus. Security walkie-talkies can be replaced with push-to-talk Wi-Fi phones. Simultaneous incoming call notification at both the desk and Wi-Fi phone can be facilitated. Flexible mobile communication services for staff and administrators are easily supported.

To recoup operating expenses or gain communications revenue, universities can offer Wi-Fi voice services to students. For a small fee, the university can provide Wi-Fi voice services on campus for users with dual-mode phones. Assuming that the majority of calls made by students while they are on campus are to other students on campus, this service is a potential win-win for both the university and the students. Students save money on cell phone charges, and universities have a source of revenue to offset losses from dwindling usage of dorm room and residence wired phones.

Mobile unified communications can be further enhanced by implementing Cisco mobile intelligent roaming to support seamless, enterprise-quality handoff for transparent roaming between cellular and Wi-Fi networks while on campus. By implementing this solution, institutions can provide a seamless mobile experience that eliminates call, login, or authentication disruption when roaming. User satisfaction is increased, resulting in improved productivity and efficiency through ubiquitous access to applications from a single device with a single phone number.

Campus Automation

Is managing and tracking campus resources automated?

The Cisco Unified Wireless Network can help institutions reduce costs by supporting Wi-Fi-enabled services that automatically manage, track, and maintain campus resources and assets. The wireless network can assist with better management of real estate components to support green initiatives, improve energy efficiency, and create smart buildings. Alarms, bells, and clocks can be wirelessly enabled to reduce the labor costs associated with managing them. Wi-Fi tags can be placed on assets to automatically track their movement and help reduce costs for misplaced items, loss, and theft. Response times and efficiencies in emergency situations can be enhanced and automated through tie-ins to third-party e-911 solutions.

21st Century Teaching and Learning Solutions

Students and professors need the right tools at the right time to facilitate productive, effective, and collaborative teaching and learning. Cisco Unified Wireless Network: 21st Century Teaching and Learning Mobility Solutions provide a solid, robust foundation for next-generation mobile teaching and learning using web-enabled tools, Web 2.0 applications, and context-based applications (Figure 4).

Figure 4.   21st Century Teaching and Learning Solutions

Learning and Collaboration Tools

How can mobile learning and collaboration be enhanced?

The Cisco Unified Wireless Network enhances mobile learning and collaboration anywhere, with anyone, at any time through web-based applications like WebEx and Web 2.0 solutions such as webcasts, podcasts, videocasts, wikis, and RSS feeds. Cisco's wireless solution supports the delivery of mobile eLearning, online training, webinars, online events, and access to shared assets from remote locations. It also supports applications that professors can use to poll students during

class. As learning expands beyond the classroom, students and faculty will seek out new opportunities and creative tools to connect. These connections will be enabled by new learning and collaboration tools that are supported by the unified architecture.

Social Networking

Is it easy to communicate, share, and interact with others while in motion?

The Cisco Unified Wireless Network supports easy, real-time access to social networking sites and tools from anywhere on campus. Social networking allows individuals with the same interests to interact, share, explore, and communicate about areas and activities that they have in common. MySpace and Facebook are examples of social networking services. Members interact using email, instant messaging, and blogging, or by joining chat sessions and discussion groups. Many services support posting videos and voice files.

Students are using social networking sites like CollegeExplorer.com during their college search to find the right college for themselves and to seek feedback from current and former students. Colleges are actively recruiting students on sites such as Zinch.com. Support groups for incoming freshmen can be found on Facebook for the majority of U.S. colleges and universities. Some universities are going even further by creating exclusive social networking sites for admitted students that allow them to connect with the university community before they even arrive on campus.

Social networking is breaking down the barriers between inside and outside the classroom. Social networking tools are merging into the learning environment. Students are connecting with other students, while they are in motion, to organize study groups and share experiences. Mobile professors are using these services to upload assignments to a centralized location and to share course-related links.

For example, students in photography classes are sharing their photographs on sites such as Flickr.com, where they can receive feedback from their professors, peers, and the broader Flickr community of budding photographers and experts.

Open discussions between students and professors are being facilitated and then posted online to the entire class. Professors are finding that it is easier to connect with a student over Facebook or MySpace messages rather than through email because students spend so much of their time on these social networking websites.

Micro-blogging through Twitter.com is being embraced by professors to publish short (140 characters) messages to students in their classes. This service allows users to share their immediate thoughts from wherever they are. Campus security departments are exploring micro-blogging as an effective method to communicate urgent information to the campus population during an emergency.

Social networking continues to play a role in student's lives as they transition into the workforce. Many companies have embraced social networking websites to assist with recruiting activities. LinkedIn.com is now used quite extensively to facilitate professional and business contacts. Members of this site can post their resumes online and recommend other members.

By embracing social networking, colleges and universities can help their students be more successful while at college and prepare them for successful entry into the workforce. The Cisco Unified Wireless Network helps institutions achieve this goal by supporting mobile access to these services from anywhere on campus, while students are on the move.

> ## "Blending mobile and virtual worlds technologies has unmatched potential for producing effective technology-based learning."
> **— Coventry University**

Context-Based Learning

Is the right information being given to the right user at the right time?

The Cisco Unified Wireless Network supports context-based learning environments that enrich and broaden the learning experience in real or virtual world environments. Context-based learning facilitates the automatic delivery of services, applications, and information to each user based on a variety of criteria, including the current time, user, device, content, and location. Information is pushed to the user's wireless device (for instance, to a PDA, laptop, or dual-mode phone) as they roam in a specified area.

Learning is enhanced with context-based solutions because the user receives the right information, at the right time, based on their location and current learning needs. Pertinent alerts and updates can be sent to each user as they move on campus. For example, professors can interactively manage student access to course materials, applications, and the Internet based on time criteria and user profiles.

University museums are incorporating context-based learning into smart museum guides that use artificial intelligence and allow visitors to customize their museum visit according to their personal preferences. User consoles support active engagement with tools and applications as users move throughout the museum. Multimedia-enabled devices give visitors video, audio, text, graphics, and animation through a "curator-on- demand" console that automatically updates based on each user's location.

Innovative, context-based offerings are also being developed that work in conjunction with virtual environments. In November 2007, Coventry University's Serious Games Institute (SGI) announced their highly innovative, context-based learning environment that blends mobile learning and virtual learning world technologies. In this offering, a student's movements in a real building and its virtual reconstruction trigger location-based access to learning content.

Higher education institutions will continue to explore future applications for context-based learning. The Cisco Unified Wireless Network, with Cisco Context-Aware Mobility solutions, is fully equipped to support these efforts.

Benefits

The Cisco Unified Wireless Network and its mobility solutions for higher education institutions deliver the following benefits:

- **Safety and security**
  - Campus physical safety and security: Maintain safe buildings and grounds by using the wireless network to assist with monitoring of behavior and receiving alerts about unauthorized activity or events.

- Network and data security: Protect confidential data and keep wireless transmissions secure from wireless attacks, unauthorized access, rogue devices, and malicious intruders.
- Context-aware mobility: Reduce costs for misplaced, lost, and stolen assets. Quickly locate students, faculty, and administrators anywhere on campus. Reduce errors, prevent delays, and enhance business and learning functions by capturing and integrating contextual information about an asset into the business or learning processes.

- **Administration and operations**
  - Pervasive wireless on campus, indoors and outdoors: Expand learning, campus administration and campus communication beyond limited indoor building wired access.
    - Increase student satisfaction and decrease trouble calls with wireless access that is predictable and consistent from anywhere on campus.
    - Put computer resources wherever they are needed without wired connections for every computer.
    - Reduce or eliminate costs for facility reconfigurations that can put a strain on wired network resources.
    - Improve faculty and administrator access to resources such as administration and learning tools, research information, and email.
    - Easily keep mobile devices secure, throughout their lifecycles, from initial provisioning to final decommissioning.
    - Gain significant financial benefits by reducing or eliminating the recurring costs associated with leased lines between buildings or remote sites.
  - High-speed wireless access with 802.11n: Support bandwidth-intensive applications such as video streaming, video-on-demand, gaming, and multimedia for use in research, learning, virtual environments and social networking. Deliver a better end-user experience in areas with dense wireless usage such as lecture halls, auditoriums, open spaces, and social areas.
  - Secure wireless guest access: Enhance the college experience for prospective students, provide Internet access to parents attending campus events, keep in touch with visiting alumni, and easily and cost-effectively support network access for conference attendees and guest lectures.
  - Mobile unified communications: Reduce, and in some instances eliminate, cellular phone charges by supporting on-campus phone calls using Wi-Fi single- or dual-mode cellular and Wi-Fi phones.
  - Campus automation: Save money with Wi-Fi-enabled services that automatically manage campus resources and assets. Support green initiatives, improve energy efficiency, and create smart buildings through improved real estate management.

- **21st century teaching and learning**
  - Learning and collaboration tools: Educators can immediately share course materials and teaching aids, and collaborate with colleagues wherever they are on campus, even while in motion. Enhance learning and collaboration anywhere on campus through web-based applications, support of eLearning, online training, webinars, online events, and access to shared assets from remote locations.

- Social networking: Support students and faculty as they interact, explore, and communicate with each other and a broader community of individuals who share common interests and activities. Improve learning, enhance the campus experience, expand education and social contacts, and better prepare students for entry into the workforce.

- Context-based learning: Enhance learning by receiving the right information, at the right time and at the right location, in a real or virtual-world environment. Enrich learning by incorporating advanced technologies such as artificial intelligence and virtual worlds that broaden the learning experience.

Solution Components

Cisco Motion introduces a practical approach to managing complex mobility networks. The Cisco Unified Wireless Network delivers an integrated, end-to-end architecture that addresses all layers of the WLAN to deliver the industry's best wireless LAN security, innovation, and investment protection. Components of this solution include:

- Cisco Aironet Access Points including the Cisco Aironet 1250 Series Access Point
- Cisco Wireless LAN Controllers
- Cisco Wireless Control System (WCS)
- Cisco Mobility Services Engine (MSE)
- Cisco Context-Aware Mobility
- Cisco Mobile Intelligent Roaming
- Cisco Secure Client Manager
- Cisco Adaptive Wireless Intrusion Prevention System (wIPS)
- Cisco Compatible Extensions

Summary

With Cisco Motion, colleges and universities are empowered to move beyond basic wireless networking into the next generation of business mobility. They can effectively and efficiently deliver proven solutions that address safety and security, administration and operations, and 21st century teaching and learning. They can support new bandwidth-intensive applications, centrally manage wireless devices, and enhance campus safety. They can improve network security, easily manage assets, and reduce operational costs—all while improving learning, collaboration, and productivity on campus. Cisco Motion builds on the Cisco Unified Wireless Network to deliver services that provide higher education institutions with the tools that they need to cost-effectively meet and exceed the needs of their students, faculty, staff, and administrators.

For More Information

Contact your local account representative or visit the following locations for more information.

For more information about Cisco Motion, visit: http://www.cisco.com/go/motion

For more information about the Cisco Unified Wireless Network, visit: http://www.cisco.com/go/unifiedwireless

For more information about Cisco wireless products, visit: http://www.cisco.com/go/wireless

For more information about Cisco solutions for higher education, visit:
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