



Connected Learning: Inspiring New Connections in Higher Education

Twenty-first century colleges and universities face new issues and opportunities:

- Maintaining or increasing services, including access to education given increasing demand, with constrained budgets
- Providing a safe and secure environment conducive to learning
- Attracting and engaging students who have grown up in a connected world and preparing them for the 21st-century workforce
- Offering distance-learning courses to students anywhere in the world
- Saving money, conserving natural resources, and reducing carbon footprint

At Cisco, we are creating a connected way of living and learning. Learn how colleges and universities around the world are using Cisco® Connected Learning solutions to meet their goals.

Increase Administrative Efficiency

Efficient administration and operations save time and money that can be invested in curriculum and services. Here are steps you can take today to increase administrative efficiency:

- **Provide wired and wireless access to campus applications:** Faculty and staff save time when they can securely access departmental applications from any location on campus. They save more time when students can submit online applications instead of paper forms that need to be entered and stored.
- **Enable collaboration:** At University of North Carolina at Charlotte, staff or faculty members who need an immediate answer to a question can look at experts' presence information to see who is available right now, saving the time to call multiple people and leave voicemail. If the expert is on the phone, the staff member can send an instant message. Adding video and web sharing to voice calls also enhances collaboration.
- **Provide video-based training:** Faculty and staff can visit a desktop video portal to receive training, such as emergency response or personnel policies, from office or home, whenever they have time. Cisco Digital Media System records who has taken the training.
- **Reduce building operational costs:** Building operational costs are second only to salaries in university budgets. Ave Maria University in Florida saves US\$600,000 annually by connecting all building systems to the IP network instead of using separate networks for heating, ventilation, and air conditioning; energy and power management systems; security and access control including video surveillance; interior and exterior lighting control; water chiller plants; campus fire and emergency systems; and voice, video, and data.
- **Lower environmental impact:** Intelligent buildings reduce energy consumption—for example, by lighting a room only when a person is present. And distance meeting solutions like Cisco TelePresence™ and Cisco WebEx™ can eliminate car and plane trips, lowering greenhouse gas emissions.

Enhance Safety and Security

High-profile incidents have prompted educational institutions to invest in technology to prepare for, prevent, detect, assess, and respond to physical safety threats. Another aspect of security is protecting the campus network and student information. Here are steps you can take today to enhance safety and security:

- **Integrate security systems:** Individual security systems are more effective when they are integrated on the same network. For example, a door being forced open can trigger a surveillance camera to send video to a central monitoring station and send an alert to an administrator's phone.
- **Protect the network from intrusion, attacks, and infection:** Cisco Network Admission Control technology authenticates users and gives them access to applications and information appropriate to their role. It also confirms that students' or faculty members' PCs are not infected and conform to security policies.
- **Provide mass notification during emergencies:** With the Cisco Digital Media System, colleges or universities can disseminate emergency alerts and instructions on digital signs connected throughout the campus.
- **Centrally monitor surveillance cameras:** Elon University in North Carolina monitors campus entrance points, walkways, and parking lots using Cisco Video Surveillance solutions. The campus security department and Town of Elon Police Department can access footage on demand to improve their response time and review evidence.
- **Centrally manage building access controls:** When all building access controls are connected to the campus' unified network, campus safety personnel can lock or unlock individual rooms and buildings remotely.
- **Collaborate with public safety agencies:** Campus police or safety organizations and local police departments typically use different radio systems that cannot communicate directly. Bryant University in Rhode Island uses Cisco IP Interoperability and Collaboration System (IPICS) so that campus officials and local fire and police departments can communicate directly using any type of radio or phone. The campus public safety director can even connect from home to talk directly to an officer at an incident scene.

Enable Next Generation Learning

Today's students have grown up using collaboration tools like video, social networking, and blogging. Now faculty members are using those same tools to make the curriculum come alive. Not only do next generation learning tools engage students, but they also help to impart 21st-century skills that students will need in the workplace, such as collaborative problem solving, innovation, and media literacy. Let Cisco solutions help you create next generation learning environments:

- **Enrich instruction with digital media:** Faculty can supplement lectures by assigning videos that students can view on the Cisco Video Portal, part of the Cisco Digital Media System. Groups of students or entire classes can watch together on Enterprise TV in classrooms and dorms, also part of the Cisco Digital Media System. Faculty can record lectures as podcasts or webcasts, which students can review as many times as needed to master the material.
- **Encourage student-produced multimedia content:** Students can use commercial video production tools to showcase their knowledge. Using the Cisco Media Experience Engine 3000, students and faculty can create multimedia content and easily distribute it in the right format for digital signs, the Cisco Video Portal, Enterprise TV, and mobile devices that connect to the Cisco Unified Wireless Network.
- **Add interactivity to the curriculum:** Even large lecture classes can become interactive when professors use Cisco WebEx or Cisco Unified MeetingPlace to administer instant polls and surveys that students can take using wireless laptops. Faculty can also add interactivity by using Web 2.0 tools such as blogs and wikis. Blogs encourage commentary, and students learn by processing, analyzing, and responding to information. Wikis enable students to pool their knowledge and learn by commenting on each other's contributions.
- **Collaborate with other colleges or universities:** Use Cisco TelePresence or Cisco Unified Videoconferencing to bring in guest lecturers from anywhere in the world, without the time and expense of travel. Students can use the same solutions to collaborate with their peers anywhere in the world.
- **Increase enrollment without building new classrooms:** Bapatla Engineering College in India uses Cisco Video Portal to deliver live and recorded lectures to students in any location. The college also streams live sessions conducted by visiting professors and subject matter experts to the classroom and simultaneously records them for later viewing.

Get Started

Colleges or universities typically start with one or two applications, such as Cisco Unified Communications and video surveillance, and can add more applications at any time. Each of these additions raises the return on investment. Table 1 shows a sample plan for becoming a 21st-century higher education institution.

Table 1 Five-Step Plan for Building a Next Generation Learning Environment

Step	Cisco Solutions and Services
Establish a vision of the future and obtain buy in from all stakeholders	Work with your Cisco Education Account Manager for ideas and resources
Converge all wired and wireless networks and connect all buildings to improve efficiency and reduce costs	<ul style="list-style-type: none"> Cisco Unified IP Network Cisco Unified Communications Cisco Unified Wireless Network Cisco Connected Real Estate
Implement solutions that improve communications and enable collaboration from anywhere on campus	<ul style="list-style-type: none"> Cisco IP telephony Cisco Unified Communications Cisco Unified Wireless Network Cisco WebEx Cisco Unity Cisco TelePresence Cisco Digital Media System
Ensure that the network and physical environments are safe and secure	<ul style="list-style-type: none"> Cisco Self-Defending Network technology, including Cisco Network Admission Control Cisco Physical Security solutions, including Cisco Video Surveillance and Cisco Physical Access Control Cisco IPICS Cisco Connected Real Estate Cisco Digital Media System
Create next generation learning environments that enhance the quality of education and engage learners from anywhere on campus	<ul style="list-style-type: none"> Cisco Digital Media System, including Cisco Video Portal and Enterprise TV Cisco WebEx Cisco Unified Videoconferencing Cisco Unified Wireless Network Cisco TelePresence



Why Cisco?

We work closely with colleges and universities to anticipate and respond to the demand for new approaches that promote employability and social equity. Cisco offers you our:

- **Strong understanding of and commitment to education:** Cisco recruits employees with education backgrounds to help guide product development for all sizes of colleges or universities. Cisco is a strategic partner in the Global Education Initiative, led by the World Economic Forum, as well as other worldwide education programs. Cisco Networking Academy® equips students with 21st-century IT and networking skills and is offered in more than 160 countries. And Cisco's University Research Board partners with academic researchers to solve specific technology problems.
- **Commitment to customer service and customer success:** Cisco provides a broad range of service offerings to help your campus achieve its goals for administrative efficiency, safety and security, and next generation learning.
- **Technical expertise:** Cisco and our partners help to make networks, applications, and people work better together. We make sure your Cisco products and network operate efficiently and benefit from up-to-date system and application software. Cisco Advanced Services integrates solutions from Cisco and our partners and helps you lower your operational costs, increase network availability, and optimize performance.
- **Industry-leading, interoperable, standards-based solutions:** Cisco's standards-based solutions interoperate with hardware and software from other vendors, enabling you to extend the value and life of your investment in Cisco networks.
- **Cisco CapitalSM finance programs:** Innovative financing enables colleges or universities to easily acquire, deploy, and optimize their solutions. Options include Tax-Exempt Lease Purchase, Fair Market Value Lease, and Cisco Technology Migration Program.

Conclusion

Connected learning inspires new connections: between students, with faculty, within the campus, and with the wider community. Colleges or universities can thrive by taking advantage of Cisco solutions to create connected, on-demand learning environments. The rewards are increased administrative efficiency, enhanced safety and security, and engaged students who are drawn by the interactivity and collaboration they have grown up to expect. We want to join in your vision for a connected campus that inspires students, faculty, and staff to engage in lifelong learning.

For More Information

To read more about the Cisco solutions for education, visit: www.cisco.com/go/education

To locate Cisco partners in your area that specialize in colleges or universities, visit: www.cisco.com/go/partnerlocator



Americas Headquarters
Cisco Systems, Inc.
San Jose, CA

Asia Pacific Headquarters
Cisco Systems (USA) Pte. Ltd.
Singapore

Europe Headquarters
Cisco Systems International BV
Amsterdam, The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at www.cisco.com/go/offices.

 CCDE, CCENT, Cisco Eos, Cisco HealthPresence, the Cisco logo, Cisco Lumin, Cisco Nexus, Cisco StadiumVision, Cisco TelePresence, Cisco WebEx, DCE, and Welcome to the Human Network are trademarks; Changing the Way We Work, Live, Play, and Learn and Cisco Store are service marks; and Access Registrar, Aironet, AsyncOS, Bringing the Meeting To You, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, CCSP, CCVP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Collaboration Without Limitation, EtherFast, EtherSwitch, Event Center, Fast Step, Follow Me Browsing, FormShare, GigaDrive, HomeLink, Internet Quotient, IOS, iPhone, iQuick Study, IronPort, the IronPort logo, LightStream, Linksys, MediaTone, MeetingPlace, MeetingPlace Chime Sound, MGX, Networkers, Networking Academy, Network Registrar, PCNow, PIX, PowerPanels, ProConnect, ScriptShare, SenderBase, SMARTnet, Spectrum Expert, StackWise, The Fastest Way to Increase Your Internet Quotient, TransPath, WebEx, and the WebEx logo are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0812R)