

Leading Towards a Learning Society

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Public Sector Business Transformation, Americas

Partnering with Leading Educationalists, Worldwide



NETWORKING ACADEMY HAS TRAINED
3 MILLION STUDENTS IN OVER **165 COUNTRIES**

GELP – ATC21S – GETideas.org – HEEE

Power of informal learning

Pervasive technology

Learning is changing

Living in a social network



A Learners' World

A world of free content

A lifelong learning journey

New world of research

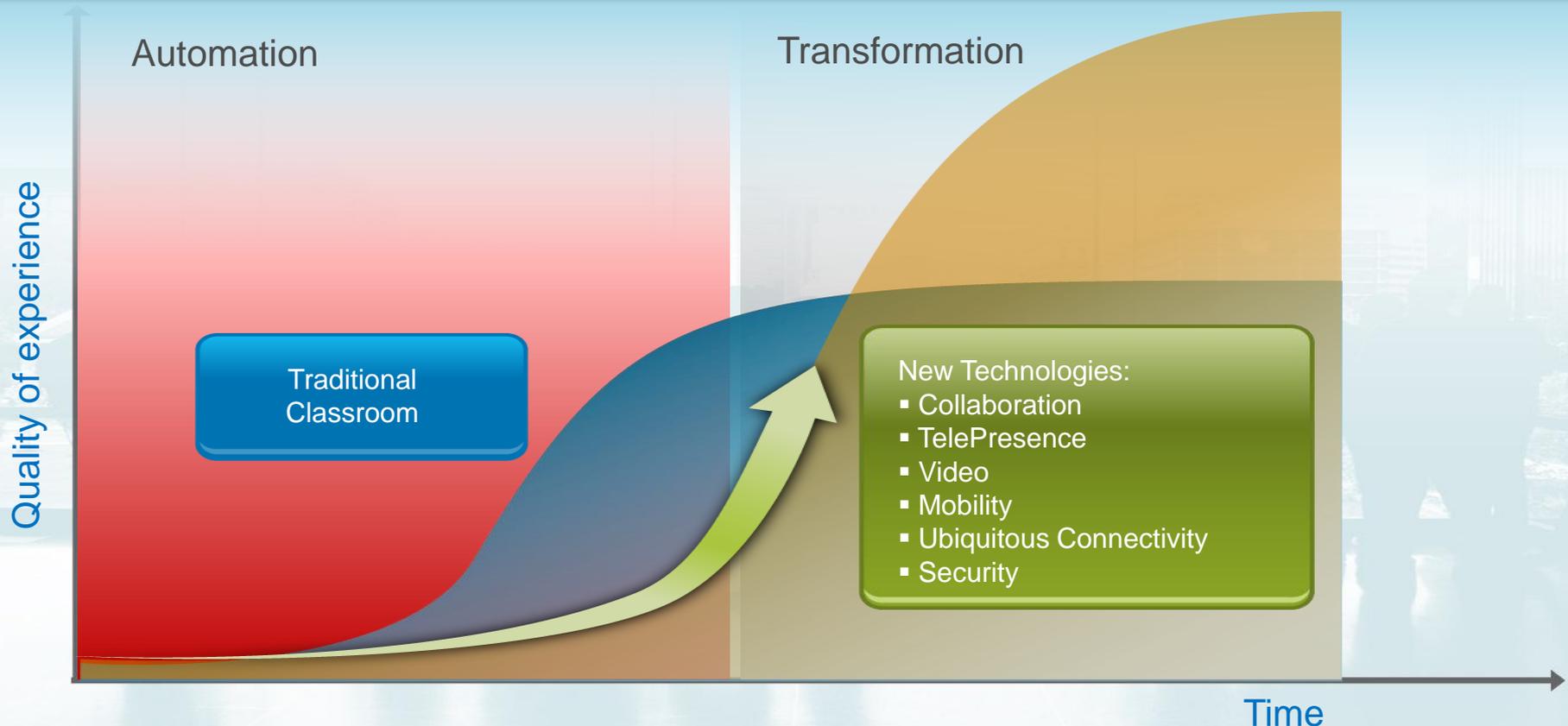
Leading Towards a Learning Society

A new model of learning that builds on existing education systems to:

- Meet endless demand for lifelong learning
- Provide anywhere, anytime access to the best learning experiences
- Engage learners for a lifetime
- Reach into excluded communities and remote areas



From Automation to Transformation



Streamlining the Business of Education



Save time and money with cloud computing



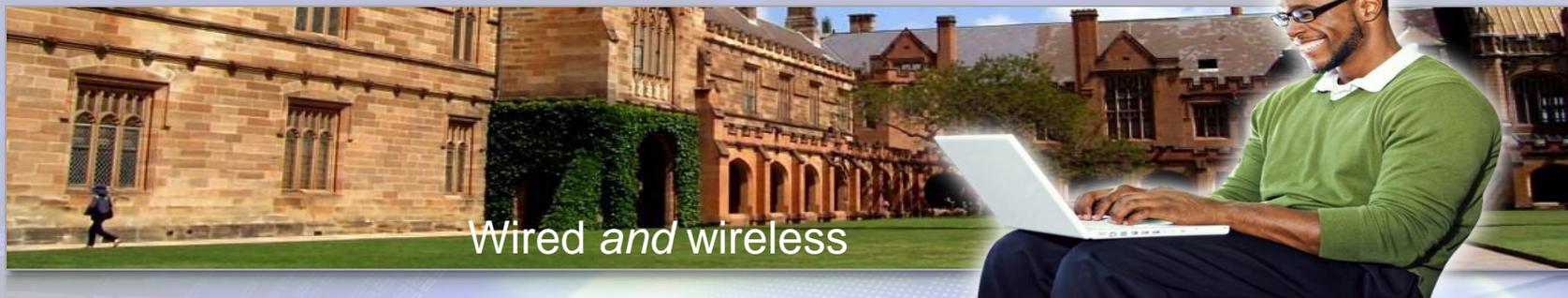
Streamline management of applications and devices



Improve energy and operational and administrative efficiency

The Connected Learning Experience

Clicks-and-mortar



Content-intensive



Video-intensive



Collaborative



Anywhere ...

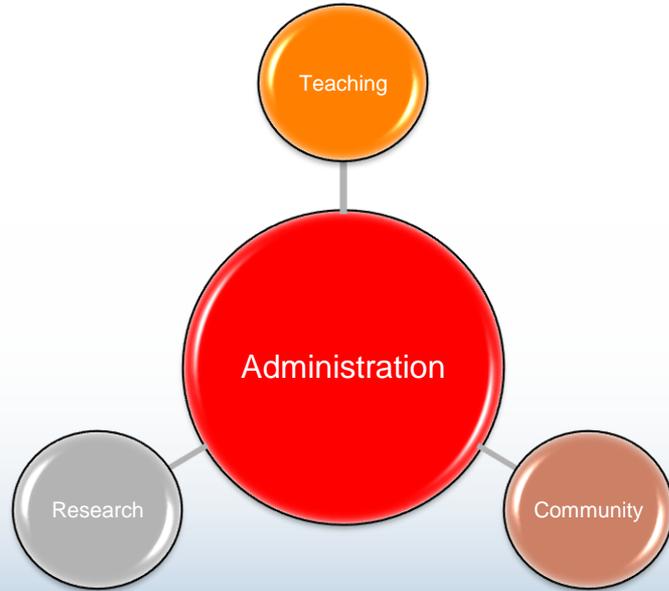


On any device...



***One teacher, many classrooms,
global delivery***

The Changing Role of Leaders...



- **Teaching:** Passing knowledge and skills to the next generation of researchers and the workforce of tomorrow
- **Research:** Driving forward the frontiers of knowledge
- **Community:** Responsibility to local community or to the world at large
- All three missions supported by a core **Administration** function

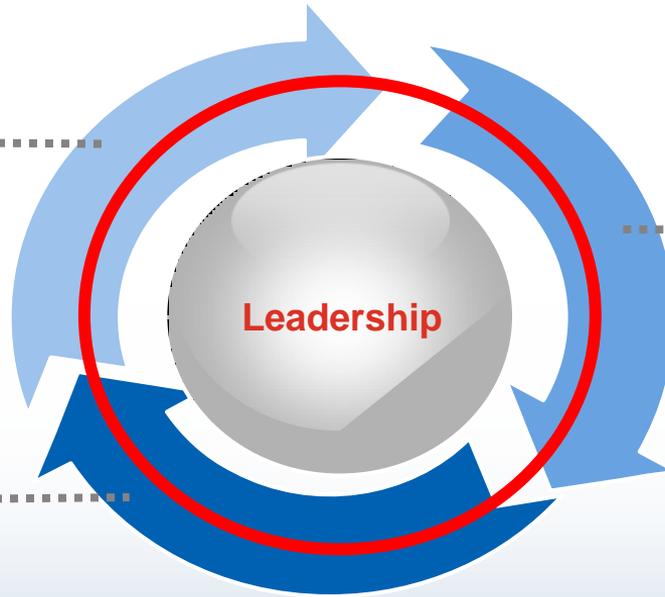
From Administration to Leadership

Teaching & Learning

- *Transforming the Student Experience*
- *Specialist Skills for All*
- *Lifelong Learning & Corporate Training*

Research & Innovation

Driving Forward the Frontiers of Knowledge, Commerce & Society



Community & Society

- Reaching Beyond the Campus*
- *Regional Leadership*
 - *Educating for Ethics*
 - *Shared Infrastructure*
 - *Connectivity*

Q&A



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West Texas A&M

Challenge

Offer technologically superior campus and learning environment

Create integrated classroom over distributed campuses and online

Solution

Implement cost-efficient, flexible, scalable network platform for new applications and anticipated user growth

Video solution including video conferencing, Cisco Show and Share and Cisco Media Experience Engine

Transition from physical servers to virtualized server network with cloud configuration

Integrate classrooms with smart podiums, wireless connectivity, interactive display boards, and networked-based audio visual presentation systems

Results

Advanced classroom environment - fully engages students and faculty

Distance learning program - includes video conferencing in 26 TX counties and online teaching programs that extend around the globe

Reconfiguration of IT resources into a virtualized server network reduces power consumption and improves network efficiency and flexibility, resulting in savings of approximately US\$1.2 million



“On any given day in one of my classes, you will find half of my students connected to the WTAMU infrastructure. They are fact checking, looking up stock information, using the online library website, chatting with friends, or just living life on their own terms, true multitasking the 21st century way.”
William Professor of Marketing,
West Texas A&M University



Duke University

▶ Challenge

Expand education beyond the classroom

Support high-bandwidth applications with high-speed wireless

▶ Solution

Cisco Unified Wireless Network

Cisco Unified CallManager and Cisco Wireless IP Phone 7921

Cisco Catalyst 3750G Gigabit Ethernet Switches and Cisco Catalyst 6500 Routers

▶ Results

Attract prospective students by providing technology that improves student life

Support for wide range of high-bandwidth, multimedia applications that students and faculty will use to enhance the learning environment

Reduced use of wired networking and expanded wireless network, lowering support and maintenance costs



“We do not deploy technology for technology’s sake. We examine where technology fits best into all pursuits—academic, research, administration, and student life. It is important that we continue to explore new ways to enhance our work in all of these areas.”
Associate Director of Communications Infrastructure,
Duke University

Duke
UNIVERSITY

University of Arizona

▶ Challenge

- Attract new students and engage existing ones with ubiquitous wireless network access, and ensure the network can support future plans, like wireless voice and public safety applications

▶ Solution

- Cisco Unified Wireless Network provides remote management of several thousand access points
- Separate Service Set Identifiers (SSIDs) help ensure secure network access

▶ Results

- Remote access to course-related information from anywhere
- Ubiquitous and secure wireless access enhances university reputation and enables new applications
- Future public safety network will let campus police spend more time patrolling the campus, less time filing reports

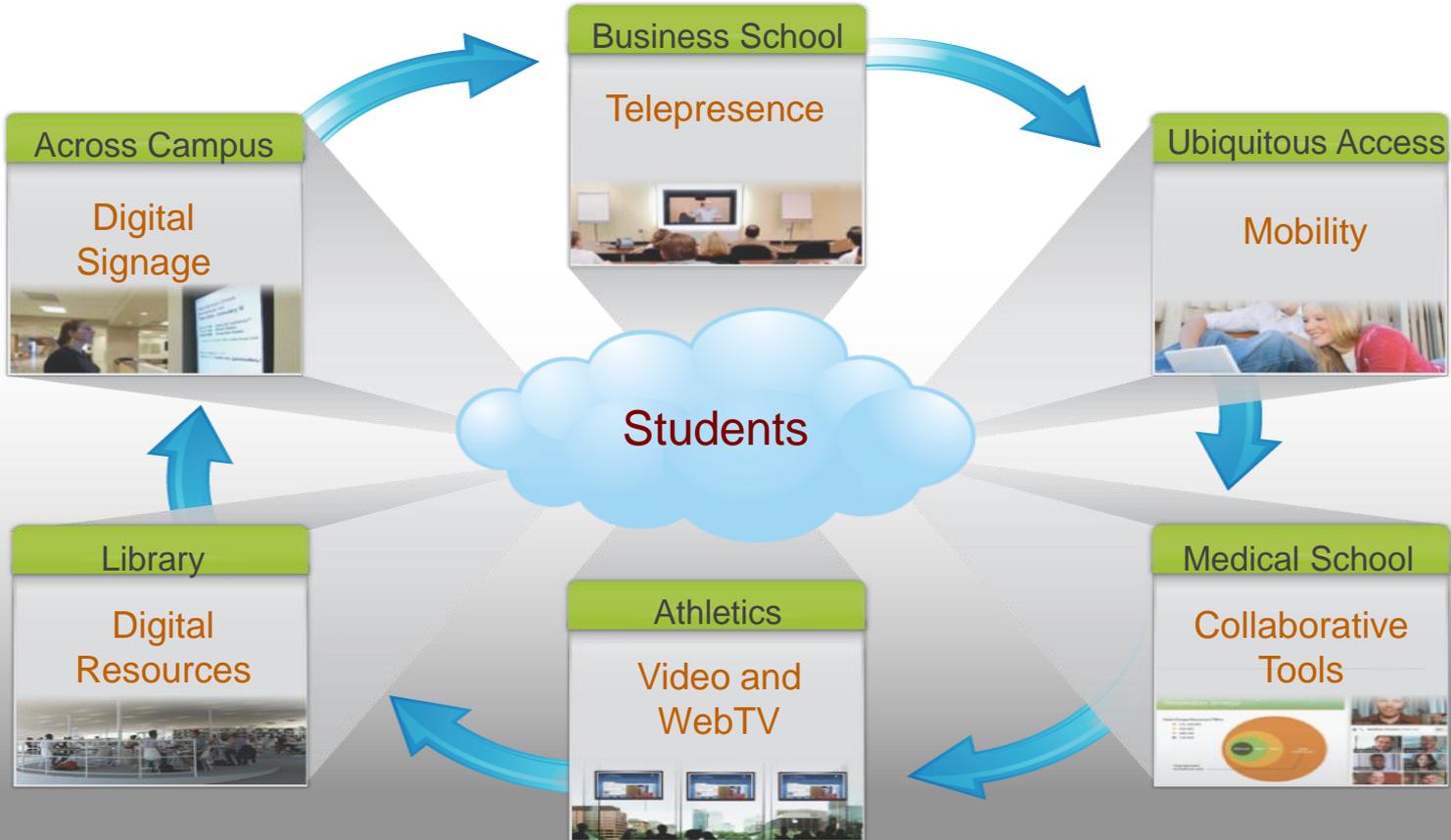


“The ability for students to move around but still get the information that they need, electronically, is very important. And the unified network addresses the earlier complaints about having too many systems ~~Michael~~ **Michael** ~~enough~~ **enough** coverage.”
Executive Director of Central IT
University of Arizona



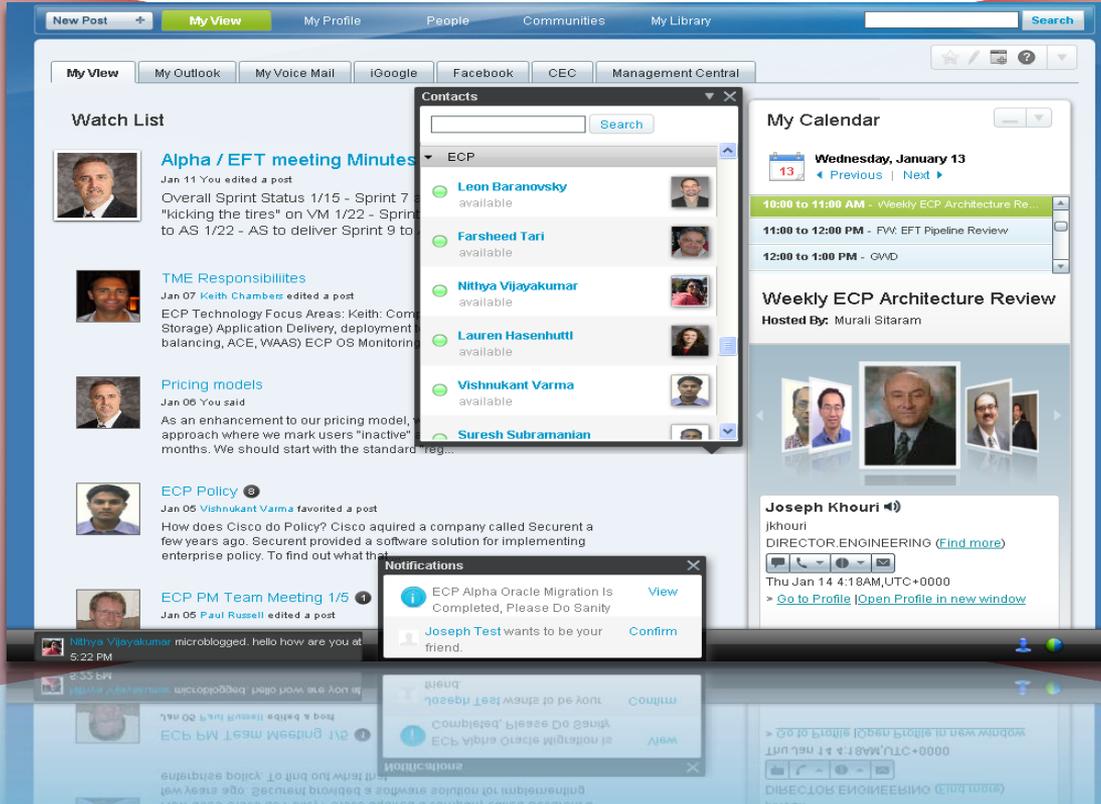
THE UNIVERSITY OF ARIZONA.

With a Student-Centric Approach



For Example, Imagine an Integrated Collaboration Platform

Personal Dashboard
Social Tagging
Click to: Call, IM, Meet
People, Communities, Information, Search
Content Management
Policy and Security



Directory Profile
Blogs, Wikis, Forums
Community Team Space
Video
UC-Enabled Browser
Micro-Blogging

Using Cisco Education Solution Portfolios



Teaching & Learning

Create collaborative experiences, improve learning outcomes, and support innovation and discovery of great scientific minds



Administration & Management

Maximize resources to invest in initiatives that advance knowledge while providing valuable service to the community



Safety & Security

Approach safety and security holistically to foster student trust in the campus environment and promote learning

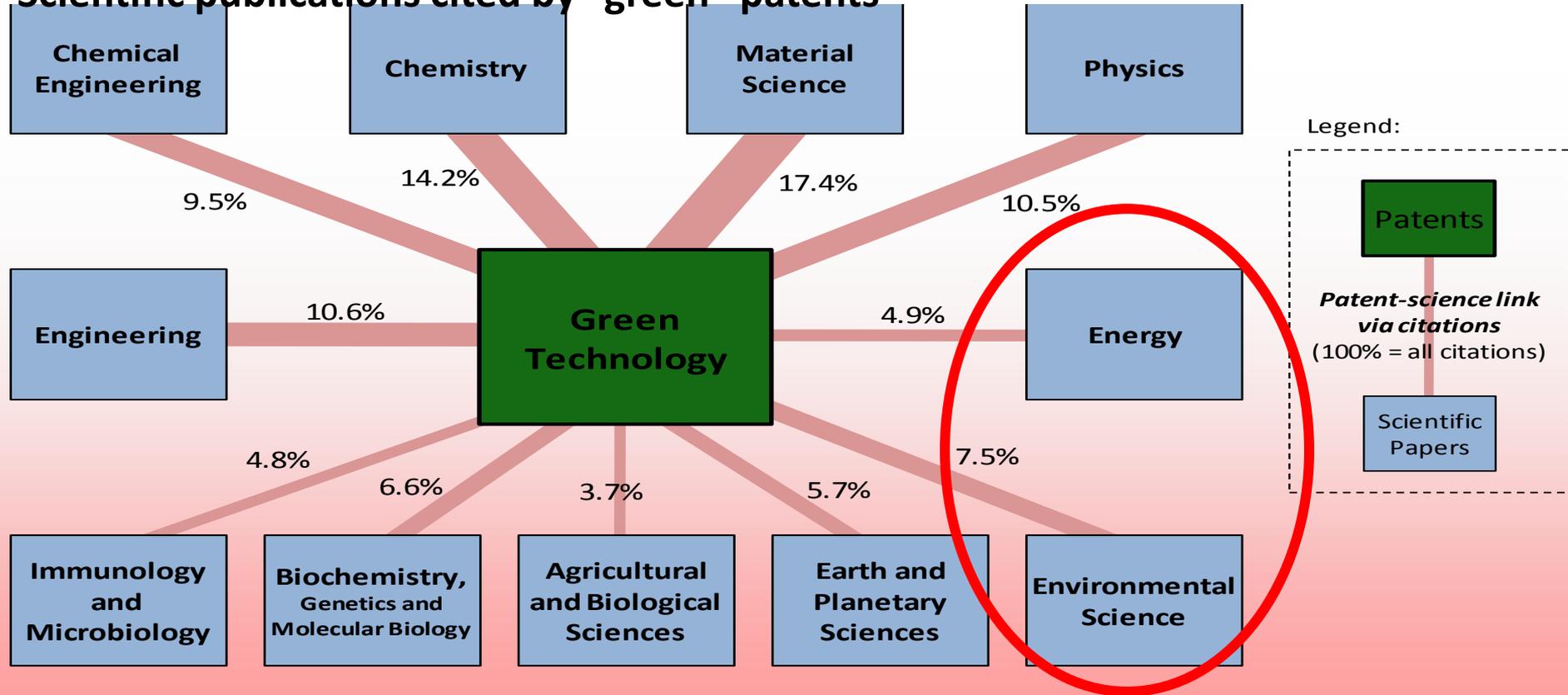


Research & Knowledge

Leverage data center technologies, developer networks, and third-party partnerships to expand the boundaries of research and knowledge

Challenges are Increasingly Multidisciplinary

Scientific publications cited by “green” patents



The Complexity of Research Institutions

To maximize innovation, connections must take place at all levels

Corporation

Corporate Functions

Divisions

Teams

Employees

Institution

Institutions

Schools

Disciplines

Researchers



Lone Star College System

Uses video to improve quality of education

Situation

- Drive and support exploding student enrollment
- Deliver quality education to increasingly diverse population
- Earn reputation as best community college in nation

Solution

- Cisco network as platform for key applications
- Video on multiple endpoints, from Digital Signs, to TelePresence, to WebEx
- Unified Communications applications for streamlined voice

Results

- Rich communication and learning environment for onsite and distance learners
- Improved communications within administration and student body
- **Reduced travel expenses by 33 percent**

*“By leveraging WebEx and TelePresence in administrative functions alone, we saved in six months, over \$200,000.”
It takes us about four months each year to cover the cost of WebEx for the next year, and then from there on out, we have pure savings.”*

Link /  LONE STAR COLLEGE SYSTEM
Associate Vice Chancellor of
Technology Services
Lone Star College System

Munich University, Germany

University reaches more students online

► Situation

- Deploy online communication sources to provide globe-spanning courses
- Meet new Bologna Process EU teaching requirements for Higher Education
- Allow international students and professors to attend lectures without travelling

► Solution

- WebEx technology with easy-to-use interface and interactive features
- Students view lectures in real time or play back recorded lectures later
- Chat function allows students to actively participate in virtual discussions and breakout sessions

► Results

- Improved student preparation before tests and exams
- Overcame complex logistics and expenses associated with mobility of professors
- **Achieved 20% student usage for web-based lectures**

“I believe that in the near future, web conferencing solutions like WebEx will be part of any [college] student’s basic knowledge...”

**Wolfgang Döhl, professor,
Department of Industrial
Engineering, Munich
University**

**TECHNISCHE
UNIVERSITÄT
MÜNCHEN**

Mississippi State University

Provides unfettered access with flexible network

► Situation

- Support free flow of information and ideas
- Protect against viruses and malware in open environment
- Manage rapidly growing wireless user base

► Solution

- Cisco Borderless Network powered by Cisco network platforms with integrated security and wireless modules

► Results

- Simplify management and segmentation of network security
- Enable flexible, resilient wireless connectivity
- Help ensure secure connectivity for users anywhere, anytime

“Using the firewall modules in transparent mode allows us to eliminate many separate physical security devices that we would otherwise have to maintain. We can handle everything right from the Catalyst 6500, and all of our security is managed directly on the backplane. It makes the solution easier to manage and more cost-effective.”


MISSISSIPPI STATE
UNIVERSITY
Greg Grimes,
Senior Network Analyst, Mississippi
State University

Manchester Metropolitan University, UK

Delivering better, greener education services

► Situation

- Deliver improved and more cost effective IT services
- Accelerate toward cloud and virtualization while protecting existing storage investment
- Self fund courses while absorbing 80% budget cuts on core educational programs such as math, science, engineering

► Solution

- Cisco Data Center Business Advantage vision, architecture and vision
- Cisco Unified Computing System

► Results

- Consolidation of 20 rooms and 300 servers for infrastructure, space, power and cooling savings
- Provisioning times reduced by a factor of 8
- 10% reduction in energy costs now with full project payback expected in year 1

“Time-to-service has been cut by a factor of 8. We no longer have to wait for hardware to turn up and spend weeks installing, configuring, and testing it. One person can now pre-provision a number of V/MS over the course of a day.”

Sean Harradine

**ICT In
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Saxion University

Dutch university enhances reputation, improves student services

► Situation

- Provide students easier access to online/collaborative learning services
- Little control over thousands of personal laptops accessing network
- Legacy systems unable to support sophisticated education apps

► Solution

- Cisco Self-Defending Network architecture
- Cisco Network Admission Control Appliance
- Cisco Unified Wireless LAN

► Results

- Simplify management and segmentation of network security
- Enable flexible, resilient wireless connectivity
- Help ensure secure connectivity for users anywhere, anytime

“Having the quality and calibre of the Cisco wireless network and Cisco’s network security facilities certainly makes Saxion a more attractive university for students. We know this is one factor why students choose Saxion and we know that other universities in the Netherlands are very interested in what we are doing at Saxion.”

Per
Sa:

SAXION
Universities
of Applied
Sciences

nager,

Cranfield University, UK

Improving collaboration for advanced research

▶ Situation

- 43% students study part-time – need flexible learning environment
- Students and partners in disparate locations around the world
- Require technology to deepen collaboration to further advanced research
- Reduce time demands, face-to-face meetings with industry partners

▶ Solution

- Web conferencing alternative to face to face meetings over long distances
- Comprehensive suite of real-time web services
- Integrate web conferencing with VoIP, telephony, video and existing IT infrastructure

▶ Results

- Strengthened relationships between Cranfield and industry partners
- Reduced carbon footprint and University travel costs
- Lecturers supervise student research projects anytime, anywhere

“WebEx has enabled us to broaden our collaboration with industry, allowing students from Nigeria and Bangalore to participate in the presentations and demonstrate to industry the importance of cross-border teamwork.”

Phill Stocking, Course Director,
MSc in Aerospace Vehicle Design
Cranfield University

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