# The Cisco
# Networking Academy Program

### Education in the Internet Economy

**CISCO SYSTEMS**

## The Cisco Commitment to Education

At Cisco Systems, the worldwide leader in networking for the Internet, education is our heritage as well as our future. Cisco is committed to working with educational institutions around the globe to ensure that today's students master the necessary skills for success in the Internet Economy. Increasingly, all businesses will rely on a highly trained, technology-literate workforce in order to thrive in the coming years. Toward that end, the Cisco comprehensive e-learning system, known as the Cisco Networking Academy Program, fosters student development and exposure to information technology through its networking curriculum.

Cisco Networking

Over 70 million people are receiving an education on the Internet this year.

**Seven out of ten students on the Web say they're getting better grades.**

## Preparing Students for Life in the 21st Century

The Internet is emerging as a revolutionary force in our lives, redefining the way we communicate, work, shop, and play. Just as significant is its influence on the way we teach and learn. It is not only changing the type and amount of information available, but also the way ideas are delivered.

Today, education systems worldwide are having a difficult time keeping pace with the rapid evolution of information technology. Even in large industrialized nations, many classrooms lack Internet connections, leaving students ill-prepared for the opportunities and jobs generated by today's information-driven economy. And those educational institutions that have computers and Internet access often struggle to maintain and grow their information resources, hampered by limited budgets and a shortage of technical expertise.

The Cisco Networking Academy Program is a timely response to these challenges. It is a highly successful alliance between Cisco Systems, education, business, government, and community organizations around the world. The program has seen phenomenal growth since its launch in the fall of 1997 and now spans the entire United States and more than 40 countries.

The program centers on teaching students to design, build, and maintain computer networks. But the significance goes well beyond the central lesson plan. Using Web technologies, the Cisco Networking Academy Program prepares students for the 21st century workplace and simultaneously serves as a valuable model for successful e-learning. For educators and administrators, the program management tools provide built-in accountability, a theme of growing importance for educational institutions around the world.

**1**

*"Some of our students will get jobs right out of school using these skills. Some will use their knowledge in getting a higher degree. The program is designed to be equally effective in creating opportunity for all geographic areas, urban and rural."*

Tom Tomporowski
Local Academy Instructor
Perham High School, Perham, Minnesota

**One day, training for every job on earth will be available on the Internet.**

## Global Impact

The Internet and education will be the great equalizers of the next century, creating enormous opportunities for people and countries that succeed in harnessing the power of information and knowledge. But the lack of Internet-supported education and shortage of technology-savvy workers are global dilemmas, threatening to place nations that fall behind at a permanent disadvantage in the new economy. Countries around the globe now have the chance to accelerate the development process by embracing information technology and committing themselves to match technological advancement with investment in human skills.

Educational institutions and governments in more than 40 countries around the world have confronted this challenge by adopting the Cisco Networking Academy Program. Cisco expects the number of participating countries to reach 65 before 2001 and is continuing to team up with governments and institutions that are committed to economic progress through investment in education and workforce development.

The program offers a solution to address the need for greater technology literacy. In developing and emerging market countries, the content and learning methodologies provide a significant step forward in education and opportunity for participating students. The key promise: a way to spur growth in a global economy that places high value on technology leaders.

*"The Cisco Networking Academy Program allows our students to get hands-on experience with state-of-the-art networking equipment. Through this alliance with Cisco Systems, we aim to provide innovative, flexible, high-quality vocational education, applied research, and technology programs that maximize opportunities for our communities."*

Neil Workman, Regional Academy Coordinator
University of Central England

## Putting E-Learning into Practice

The Cisco Networking Academy Management System (CNAMS)—the foundation of the Academy program—is an innovative model for e-learning. Web-based delivery of educational content is supplemented by numerous online tools that empower Academies to manage all aspects of the program. In addition to the networking curriculum, CNAMS provides online testing, student-performance tracking, and a Quality Assurance Plan.

CNAMS uses network-based applications to provide students and instructors with a hands-on approach to technology education—which is not only the subject of the class, but also the means to administer the program. The management system permits students to access content from inside or outside the classroom, proceed through each lesson at their own pace, view video and other visual explanations of the technology, and take frequent tests online to assess comprehension and retention. The system also enables Academy Instructors and Cisco to assess, in concrete terms, whether learning is taking place and to make program refinements.

The core elements of CNAMS, which make up the e-learning system, form a comprehensive solution for expanding students' opportunities in technology-based education:

• **Web-based curriculum encourages new ways of learning**—Developed in concert with leading educators to ensure sound pedagogy, the Cisco Networking Academy curriculum is Web-based and delivered over each Academy's network to students' desktop computers. Semesters 1 to 4 of the program cover networking fundamentals and are taught at the secondary and post-secondary levels. Semesters 5 to 7 focus on more advanced networking topics and will be taught primarily in post-secondary
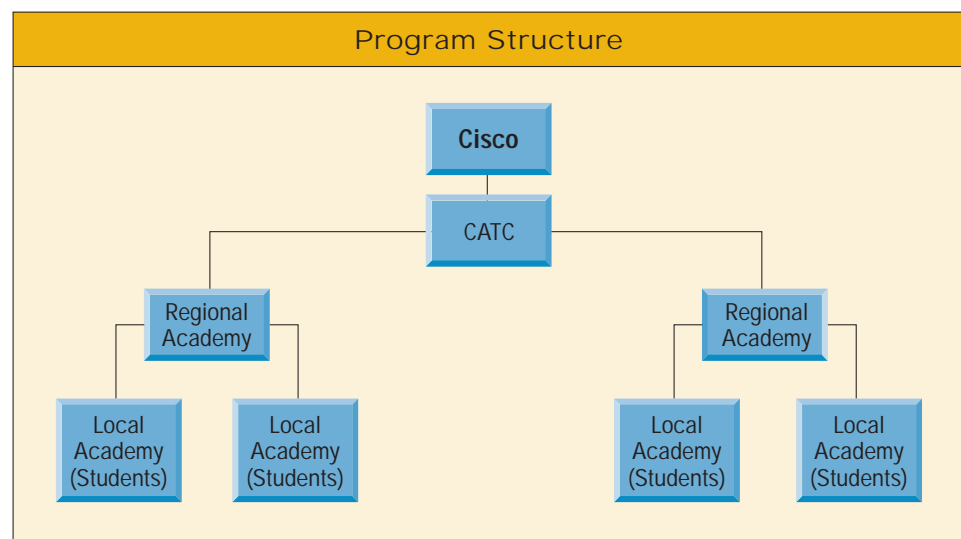
institutions starting in early 2000. The program prepares students for industry-standard career certifications and lifelong learning opportunities. Among these certifications are the Cisco Certified Networking Associate (CCNA) and Cisco Certified Networking Professional (CCNP).

- **The online Instructor's Guide is a comprehensive teaching resource**—This electronic handbook provides a detailed blueprint for teaching the Academy curriculum, including lesson plans, explanations of lab exercises, and teaching best practices. Instructors also receive 24-hour online technical support from customer service engineers at the Cisco Technical Assistance Center (TAC).
- **Online assessment monitors progress and aids accountability**—This tool enables globally standardized online testing and provides immediate feedback to students and instructors. Through continuous tracking of performance and frequent program refinement, the assessment process ensures Academy accountability for results.
- **The Internet-based Community Server provides a forum for shared intelligence**—All Academies enjoy access to an online community with the downloadable curriculum and software, threaded discussion forums, articles on education technology, and announcements about the Academy program.
- **The Account Maintenance System simplifies general program management**—It is a convenient, electronic resource that allows Academies to manage student information, program contacts, Academy applications, equipment listings, and training schedules and registration.

3

## Tiered Program Structure Supports Worldwide Growth

The Cisco Networking Academy Program is designed to be scalable and self-sustaining. Cisco Academy Training Centers (CATCs) train instructors at Regional Academies, which in turn recruit, train, and support up to 10 Local Academies. There are more than 2000 Networking Academies worldwide.

Figure 1   Cisco Networking Academy Program Structure

# Benefits

## Benefits of the Cisco Networking Academy Program

**More than a curriculum…It is an e-learning system that allows educational institutions to answer the growing need for accountability.** The Cisco Networking Academy Program is an implementation of e-learning on a scale that local education systems can easily manage. Leveraging the Internet and Web technologies at the heart of its curriculum, the Cisco Networking Academy Management System also supports prescriptive learning, providing an individualized plan for each student.

**Includes significant hands-on learning** and skill-set development. Laboratory exercises provide opportunity for hands-on experimentation to hone network trouble-shooting skills as well as critical-thinking and problem-solving abilities.

**Connects Academy Administrators and Instructors to 24 x 7 technical support.** Academies receive the same technical support from Cisco that major corporations worldwide trust for their own networks. SMARTnet™ offers 24-hour-a-day access to engineers at the Cisco Technical Assistance Center who are specially trained in the Academy program and its laboratory exercises.

**Enhances opportunities for students through coordinated sponsorship and internship programs.** Businesses, local communities, and foundations have joined in support of the Academy mission. Sponsorship comes in many forms, including funds or equipment for Academies, instructor training, and internships. The internship program enables students who have completed a minimum of two semesters of study to gain experience in real-world IT environments.

**Offers scholarships to encourage Academy graduates to pursue higher education** in math, science, and other technical fields.

**Accommodates different learning styles** by employing multiple media to deliver content—text, audio, extensive graphics, and movies.

**Provides a direct route to industry-standard certification.** The Cisco Networking Academy Program qualifies students to pursue a number of industry-standard certifications, including the Cisco Certified Networking Associate (CCNA) and Computing Technology Industry Association (CompTIA) Network+™ certifications. CCNA is the first step in Cisco Career Certifications, which culminates with the Cisco Certified Internetworking Expert (CCIE) certification, the industry's most respected certification for networking professionals.

*"It's almost a doctrine in education that you have high expectations without providing the resources to realize them. The fact that Cisco supplied the training has been a big help. You can't overemphasize the importance of preparation with an initiative like this."*

Greg Marshall
Manager of IT Support
Ottawa Carleton District School Board, Ottawa, Canada

*"The Cisco Networking Academy Program is a major step in the country's thrust to equip our young with the right information technology tools for them to be more competitive and responsible working adults."*

William Padolina
Former Secretary
Department of Science and Technology, the Philippines

*"We decided to work with Cisco on this initiative after careful consideration, and we believe it is the best way to quickly build up facilities for networking technology training for our students."*

Professor Zhang Shiyong
Assistant Vice President and Director of the Networking and Information Engineering Center
Fudan University, China

## To Learn More

The Cisco Networking Academy Program is at work in educational institutions all over the world, expanding students' opportunities, enriching their educational experience, preparing them to succeed in the Internet Economy, and facilitating increased accountability.

For more information on this powerful solution for preparing students to live, work and learn in the 21st century, please visit www.cisco.com/edu/academies.



*"The students get not only the cerebral part but also a lot of hands-on training. The Web-based format gives you the ability to link illustrations, examples, and demonstrations directly to lessons. You can't do that in a text book."*

Don Bourassa
Regional Academy Coordinator
University of Hawaii-Honolulu Community College

In the next decade over a billion jobs will require Internet skills.

# Opportunities

# CISCO SYSTEMS



**Corporate Headquarters**
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
http://www.cisco.com
Tel:  408 526-4000
        800 553-NETS (6387)
Fax: 408 526-4100

**European Headquarters**
Cisco Systems Europe s.a.r.l.
Parc Evolic, Batiment L1/L2
16 Avenue du Quebec
Villebon, BP 706
91961 Courtaboeuf Cedex
France
http://www-europe.cisco.com
Tel:  33 1 69 18 61 00
Fax: 33 1 69 28 83 26

**Americas
Headquarters**
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
http://www.cisco.com
Tel:  408 526-7660
Fax: 408 527-0883

**Asia Headquarters**
Nihon Cisco Systems K.K.
Fuji Building, 9th Floor
3-2-3 Marunouchi
Chiyoda-ku, Tokyo 100
Japan
http://www.cisco.com
Tel:  81 3 5219 6250
Fax: 81 3 5219 6001

**Cisco Systems has more than 200 offices in the following countries. Addresses, phone numbers, and fax numbers are listed on the
Cisco Connection Online Web site at http://www.cisco.com/offices.**

Argentina • Australia • Austria • Belgium • Brazil • Canada • Chile • China • Colombia • Costa Rica • Croatia • Czech Republic • Denmark • Dubai, UAE
Finland • France • Germany • Greece • Hong Kong • Hungary • India • Indonesia • Ireland • Israel • Italy • Japan • Korea • Luxembourg • Malaysia
Mexico • The Netherlands • New Zealand • Norway • Peru • Philippines • Poland • Portugal • Puerto Rico • Romania • Russia • Saudi Arabia • Singapore
Slovakia • Slovenia • South Africa • Spain • Sweden • Switzerland • Taiwan • Thailand • Turkey • Ukraine • United Kingdom • United States • Venezuela