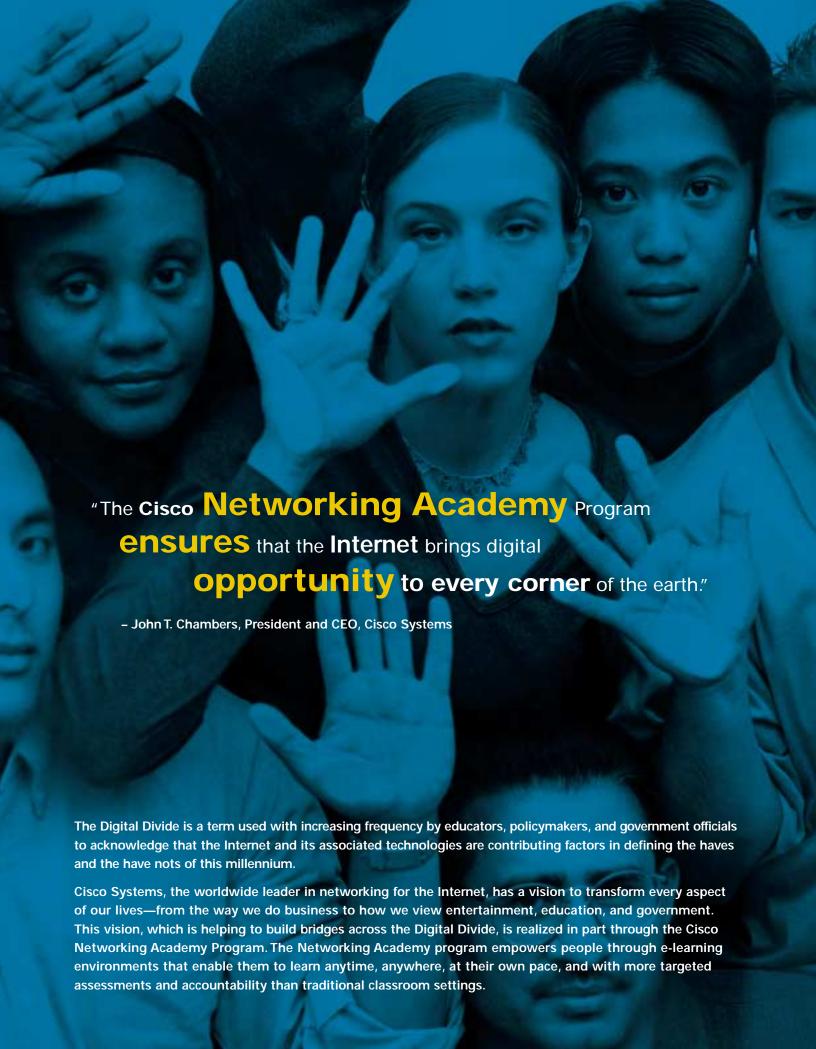




# **Cisco Education Solutions**



Cisco
Networking Academy
Program



"There is no greater challenge or opportunity for the new millennium than trying to harness the benefits of the Information Revolution for the world's poor. That is why UNDP is very proud to be working with Cisco in the pioneering effort to build new Networking Academies for many of the world's least developed countries. The Academies mark a far-sighted response to a very real problem. By building capacity, growing demand and encouraging innovation and enthusiasm for IT, they can make an important contribution to helping bridge the Digital Divide between rich and poor."

-Mark Malloch Brown, Administrator, United Nations Development Program

# An **E-Learning** Pioneer

Cisco was an early adopter of e-learning when, in 1993, the company initiated a program to design practical, cost-effective networks for schools. Schools needed, however, resident know-how for maintaining and evolving their networks. Cisco responded with training for teachers and staff, which inspired a seminar program across the United States. The success of these seminars prompted schools to request a curriculum from Cisco that could be integrated as an elective course and taught in a semester format. The result was the Cisco Networking Academy Program, which as of year-end 2000, has grown to more than 5,700 Networking Academies in 50 U.S. states and more than 100 countries.

The Networking Academy program is an e-learning model that delivers Web-based educational content, online testing, student performance tracking, and instructor training and support, as well as hands-on labs. With a curriculum developed by education and networking experts, the Networking Academy program is offered by high schools, technical schools, colleges and universities, community-based organizations, and other educational programs worldwide. It demonstrates a highly successful alliance among Cisco Systems, educators, governments, international organizations, leading technology companies, and nonprofit organizations that prepares graduates for the demands and opportunities of the new global economy.



# "I wanted to contribute toward the development of IT in South Africa and bridge the gap between Africa and other countries. The Cisco Networking Academy Program will enable me to achieve these aims."

-Charmaine Dube, Cisco Networking Academy Student

#### **Education for the Real World**

Formally launched in 1997, the Networking Academy program is a comprehensive eight-semester/560-hour course that teaches students and in-transition workers to design, build, and maintain computer networks. Students are also prepared for industry standard certifications, including Cisco Certified Network Associate (CCNA<sup>TM</sup>), Cisco Certified Network Professional (CCNP<sup>TM</sup>), and Network+.

The Networking Academy program combines lectures and online learning with hands-on laboratory exercises in which students apply what they learn in class while working on actual networks. From basic to advanced networking skills, the Networking Academy curriculum prepares students for lifelong opportunities in the real world.

CCNA certification exam eligibility is available upon successful completion of the Networking Academy program's 280-hour curriculum taught in Semesters 1 through 4. CCNA certification is the first step in Cisco career certifications leading to the Cisco Certified

Internetwork Expert (CCIE<sup>TM</sup>) certification, the industry's most respected certification for network professionals. Semesters 1 through 4 are taught at the secondary and post-secondary levels.

CCNP certification exam eligibility is available upon successful completion of the Networking Academy program's 280-hour curriculum taught in Semesters 5 through 8. Students learn about complex network configurations and how to diagnose and troubleshoot network problems. Semesters 5 through 8 are taught primarily at the post-secondary level.

Network+ certification is available through a partnership between Cisco and CompTIA (Computing Technology Industry Association), in which the Networking Academy program curriculum is mapped to the CompTIA Network+ certification requirements. Network+ certification provides students with an industry neutral certification in basic networking skills. Students who have completed course work in preparation for CCNA certification are prepared for the Network+ certification exam.





# The Internet and Education are the Great Equalizers

The convergence of the Internet and education create Internet-enabled learning—e-learning. E-learning eliminates barriers of time, distance, and socioeconomic status, allowing people to take charge of their own lifelong learning. The Networking Academy curriculum, distributed to Academies over the Internet, serves more than 155,000 students and 12,000 instructors worldwide.

E-learning is also a highly effective tool for reaching disadvantaged and at-risk constituencies worldwide. Cisco brings technology and technology education to underserved communities across the United States by partnering with educational institutions in U.S. Empowerment Zones—economically disadvantaged regions of the United States that receive targeted financial assistance from the U.S. government. Through these partnerships, Cisco provides additional resources to non-profit institutions and community-based organizations that establish a Networking Academy in an Empowerment Zone. From Los Angeles to Boston, there are more than 95 Networking Academies in 26 out of 34 U.S. Empowerment Zones.

Cisco partners with international organizations to bring digital opportunities to developing countries. One example is the Least Developed Countries (LDCs) Initiative announced during the G-8 Summit in July, 2000. In an unprecedented partnership with the United Nations Development Program, USAID/Leland Initiative, and United Nations Volunteers/UNITeS, Cisco announced a \$3.5 million commitment to establish Networking Academies in 24 of the world's 48 LDCs by the end of 2001. Through the Networking Academy program, students in LDCs will have similar educational opportunities as students taking the class elsewhere in the world.

Cisco Learning Institute (CLI) also promotes e-learning models. Established with an initial grant from Cisco, CLI is a public charitable organization supporting public charities that promote or provide technology education to secondary schools, colleges, and universities. Networking Academy students are given opportunities for corporate sponsorships, internships, and college scholarships. CLI is actively targeting women as well. In 2000, CLI and Cisco launched the Gender Initiative to recruit and retain women in the Cisco Networking Academy Program.



# The World's Biggest E-Learning Laboratory

Through curriculum development and equipment and instructor training, Cisco has invested more than \$50 million dollars in creating the largest e-learning laboratory in the world—the Cisco Networking Academy Program. This e-learning lab delivers content in multiple formats, manages the learning experience, and comprises a networked community of learners, content developers, and experts. The Networking Academy program is rooted in the three pillars of education: curriculum, instruction, and assessment. Therefore, the program integrates: a Web-based curriculum, Internet-based communities, frequent online testing, and an Online Instructor's Guide. These education management tools provide built-in accountability, providing feedback to student, instructor, and administrator.

# Partnering with Educators: Key to Success

The success of the Networking Academy program lies in great part with Cisco academic partnerships. The Networking Academy curriculum has been developed with educators and instructional designers, enabling Cisco to create effective lesson plans and tools to support Networking Academy instructors. This holistic approach to curriculum development unites the core competencies of the world's leading networking company with educational experts, faculty, and student interns around the world who continually review and evaluate the curriculum and validate testing methodologies. The Networking Academy program supports teacher needs in areas such as lab equipment, software, lesson plans, 24x7 technical support, and access to ecosystem partners and employers.

# **Integrated Assessments Improve Learning Outcomes**

The Networking Academy program addresses the needs of all stakeholders in the educational process: administrators, educators, and students. These needs are identified and met through assessment tools and methodologies that are tightly integrated within the Networking Academy curriculum. Through assessments, students get feedback to help them learn; teachers have access to automated grade books that reflect learning patterns and free-up their time to teach; and administrators get an overall summary of proficiency levels. Cisco cutting-edge assessment tools are continually evolving to meet the teaching and learning needs of Networking Academy participants.



# "Knowledge is power.

# Those who hold the **key** to **technology** hold **power in society.**"

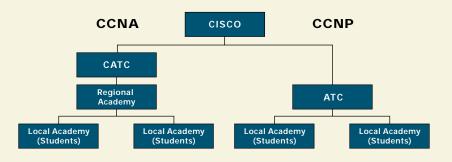
-Anne Urevick, Cisco Networking Academy Instructor





# **Tiered Program Structure Supports Worldwide Growth**

The CCNA program structure includes Cisco Academy Training Centers (CATCs), Regional Academies and Local Academies. For CCNP, the Academy Training Centers (ATCs) provide training and support to Local Academies.



# "The Networking Academy program will help solve the most immediate lack of networking skills in our region. Cisco's contribution is decisive. They are leading in data networks and the Internet."

-Carl Cederschiöld, Mayor, Stockholm Sweden

# **Education Mandate: Prepare Students and Workers for the Internet Economy**

The demand for a networking-centric workforce is skyrocketing with the complexity surrounding the design, implementation, and maintenance of new economy networks. According to International Data Corporation, by the year 2003 the world will experience a networking professional shortage of 1.45 million. While Networking Academy participants are contributing to a skilled workforce, Cisco is launching additional initiatives to meet IT demands.

# Work-Based Learning Initiative

The Work-Based Learning Initiative provides real-life working experiences for Networking Academy students. This program provides students with internships, mentor programs, and on-the-job training with local partners and organizations. It features a Web site with search and matching functions (http://wbl.netacad.net), and it offers businesses an opportunity to support education in their communities while helping prepare their future workforce.

## **Personalized Learning Environments**

CLI will deliver the e-learning engine, an application for personalized learning environments. Personalized learning environments deliver an individualized curriculum that is indexed to specific learning goals, objects, and assessment items. By providing a dynamic link to the assessment engine, a personalized learning environment is generated to match a student's assessed knowledge and skill gaps with the appropriate educational offerings. Incorporating Web authoring, database management, content and assessment, and a student/user management system, the e-learning engine is an innovative e-learning model. CLI will make the e-learning engine available to organizations within its charitable class at little or no cost, under a licensing agreement.



# The Cisco Global Learning Network

E-learning should bring all the benefits of the Internet, such as a global network that can be accessed for content and collaboration worldwide. Cisco's personalized learning environments require an infrastructure that can handle e-learning's authoring, management, and delivery requirements. To support worldwide access to content, collaboration, and personalized learning environments, Cisco is developing the Cisco Global Learning Network. Large-scale, content authoring and course management are directly dependent on scalable delivery solutions. To address this, Cisco is designing the Global Learning Network as a scalable, modular architecture that emphasizes delivery.

From simple Word documents to streaming video, the Global Learning Network will support a wide range of personalized learning environments. So, content from any educational, government, or commercial institution can be delivered across the Global Learning Network.

To ensure that media-rich, high-bandwidth content is delivered worldwide, the Global Learning Network is creating an architecture in which content delivery engines are deployed worldwide. The Cisco ecosystem of partners will participate in this network through contributions such as bandwidth, authoring and management tools, content materials, and production facilities.

# **Industry and Community Alliances**

To ensure the vitality and success of the education ecosystem, Cisco and CLI also partner with a range of companies, nonprofit organizations, unions, international organizations, and government agencies. Cisco has alliances with industry leaders such as Microsoft, Oracle, Sun, Digital Island, Hewlett-Packard, Fluke, Adobe, and Computing Technology Industry Association (CompTIA). Additional alliances have been developed to reach nontraditional populations. These include:

- Communications Workers of America (CWA) and the U.S. Department of Labor
- International Youth Foundation
- Institute for International Education
- Native American Communities
- United Nations Development Program (UNDP)
- Organization of American States
- United Nations Economic Commission for Africa (UNECA)
- United Nations Development Fund for Women (UNIFEM)
- U.S. Department of Housing and Urban Development
- World Bank Group/InfoDev

The education ecosystem created by the Cisco Networking Academy Program enables people and organizations to keep pace in a global economy that is evolving on Internet time. More importantly, the partnerships and alliances that nurture this ecosystem are successfully building bridges across the Digital Divide to create good-paying jobs and educational opportunities worldwide.







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