



Cisco Networking Academy: New Jersey Profile

Educating the Architects of the Networked Economy

Now in its second decade, Cisco® Networking Academy® has provided more than two million students worldwide with the information technology (IT) and networking skills necessary to compete in the 21st century global economy.

To prepare the Networking Academy for the decade ahead, Cisco has launched innovative new curricula including Cisco Certified Network Associate (CCNA®) Discovery and CCNA Exploration, as well as a new version of IT Essentials called PC Hardware and Software, and updates to the Cisco Certified Network Professional (CCNP®) curriculum. These new courses have been specifically designed to help students be more successful, whether they plan to be IT professionals or are simply seeking a deeper understanding of IT.

Our new courses align to industry certifications, including the recently launched Cisco Certified Entry-Level Technician (CCENT™). In addition to serving as an entry-level certification for employers, CCENT helps meet the new Carl D. Perkins Career and Technical Improvement Act funding requirements.

The new Networking Academy curricula provide seamless educational pathways between secondary and post-secondary institutions and are aligned to national and state education standards for math, science, and language arts. These courses can also help students prepare to pursue degrees related to science, technology, engineering, and math (STEM). In the United States, academies are located in high schools, technical schools, colleges, universities, and community-based organizations with more than 125,000 students enrolled at more than 2300 academies.[†]

As IT continues to be a high-demand job field in the United States, many educational institutions are incorporating IT into their offerings:

- Secondary schools are building pathways for students around the IT career cluster.
- Post-secondary institutions are integrating IT curriculum into degree programs ranging from computer science to networking to business.
- Community colleges and technical schools are providing existing workers with the opportunity to upgrade their skills, pursue additional education, and expand their expertise in technical fields.

Through its proven model of public-private partnerships with education, government, and business, Cisco Networking Academy is addressing the growing need for a pipeline of skilled IT professionals at a time when corporate technology leaders, public sector IT officials, and technology-service-oriented industries are concerned about the lack of a trained technical workforce to fill existing jobs.

[†] Source: AME/MRE FULL Package_10 31 07 Quarterly Metrics_v2 Date: November 28, 2007

An academy has a class currently in session or has taught a class, with at least 3 students, within the last 12 months.

A student is enrolled in a class or has taken a class within the last 12 months.

Learn More

Table 1 lists data about academies in New Jersey. Table 2 lists information about Networking Academy curricula in New Jersey, and Table 3 shows information by student education level.

For additional information about Cisco Networking Academy, visit <http://www.cisco.com/go/netacad>

Table 1. Cisco Networking Academy in New Jersey

Networking Academy students	2767
Distinct cumulative academy students (having successfully completed a course)	10,646
Academy instructors	81
Total estimated cumulative contribution value to New Jersey academies*	\$6,543,578

Source: AME/MRE FULL Package_10 31 07 Quarterly Metrics_v2 Date: November 28, 2007

Cumulative students are distinct; therefore, each student is only counted once.

*This estimate includes donations and discounts made to educational institutions implementing Cisco Networking Academy within New Jersey.

*Sources: AME/MRE reports 1209_190910.31.07 Date: November 30, 2007

Table 2. Networking Academy Curricula in New Jersey

Curriculum	CCNA®	CCNP®	IT Essentials	Security	Wireless
Number of academies by curriculum	51	1	18	2	4

The above curricula represent the core Networking Academy curricula. Panduit Network Infrastructure Essentials, Java, and UNIX are also available.

Academies often teach multiple curricula and may be counted more than once in this table.

Source: AME/MRE rpt 3087 Date: December 5, 2007

Table 3. New Jersey Academies and Students by Education Level

Education Level	Number of New Jersey Academy Students	Percentage of New Jersey Students	Number of New Jersey Networking Academies	Percentage of New Jersey Academies*
Secondary schools	1688	61%	41	75%
Community colleges	553	20%	9	16%
Universities	360	13%	3	5%
Other	166	6%	2	4%
Total by education level	2767	100%	55	100%

Source: AME/MRE FULL Package_10 31 07 Quarterly Metrics_v2 Date: November 28, 2007

Academies represented in "Other" category include the following: community-based organizations, middle schools, the military, nontraditional educational settings, and post-graduate institutions



Cisco Networking Academy: Workforce Development

If the United States is to remain competitive in this global economy, leading experts believe we must have a trained and educated workforce. And yet the number of U.S. students pursuing careers in science, technology, engineering and math—critical areas for educating the workforce of tomorrow—continues to decline.

Cisco Networking Academy addresses this gap by providing students with the skills needed to succeed in the wide range of careers available today and tomorrow. In addition to integrating IT skills, the Networking Academy also embeds math, science, and language arts skills in the curricula.

IT Occupational Data

Table 4 lists information about IT-related occupations in the United States, and Table 5 lists this information for New Jersey.

Table 4. Selected IT-Related Occupations in the United States

Occupation	Employment		Employment Change		Average Annual Openings	Occupational Employment as of May 2006*
	2004	2014	Numeric	Percent		
Computer Support Specialists	518,370	637,560	119,190	22	18,300	514,460
Computer Systems Analysts	486,550	639,500	152,960	31	20,800	446,460
Network and Computer Systems Administrators	278,380	385,250	106,870	38	13,770	289,520
Network Systems and Data Communications Analysts	231,270	357,460	126,190	54	15,340	203,710
Computer and Information Systems Managers	280,290	352,920	72,620	25	12,350	251,210

U.S. Department of Labor, Bureau of Labor Statistics, <http://www.bls.gov/oco/oco20024.htm>, based on data availability as of December 2007

*U.S. Department of Labor, Bureau of Labor Statistics, May 2006 State Occupational Employment and Wage Estimates (US), http://stat.bls.gov/oes/current/oes_nat.htm

Table 5. Selected IT-Related Occupations in New Jersey

Occupation	Employment		Employment Change		Average Annual Openings	Occupational Employment as of May 2006 [^]
	2004	2014	Numeric	Percent		
Computer Support Specialists	18,300	20,700	2500	13	500	16,100
Computer Systems Analysts	18,100	21,500	3500	19	600	16,990
Network and Computer Systems Administrators	7700	9900	2200	27	300	10,910
Network Systems and Data Communications Analysts	5600	8100	2500	44	300	7,170
Computer and Information Systems Managers	11,400	13,200	1800	15	400	12,380

U.S. Department of Labor, Bureau of Labor Statistics, <http://www.bls.gov/oco/oco20024.htm>, based on data availability as of December 2007

[^]U.S. Department of Labor, Bureau of Labor Statistics, May 2006 State Occupational Employment and Wage Estimates (by state), <http://stat.bls.gov/oes/current/oesrcst.htm>



New Jersey Student and Graduate Profile

At just 19 years of age, Chris Boker was already well on his way to a rewarding and successful career in network engineering. He attributes his success to the skills and experience he obtained through Cisco® Networking Academy®.

“I was really into computers and internetworking at a young age,” explains Chris. “I started out doing the basic childhood things like playing video games and then took them to another level. I gained a lot of interest in how everything worked and started getting into networking when I was 12 years old,” he says. Another factor was having family members who had worked in the technology field. They encouraged Chris’s interest and inspired him to go further. Chris noticed the comfortable lifestyle his family enjoyed as a result of working in the industry and realized that “by taking my skill to a higher level, I could have a good life, too.”

Most of the people Chris works with are 15 to 25 years older, and they often bemoan the fact that there was no such program when they attended high school. “This is true” says Chris, “and I think everyone should take advantage of this opportunity as it may be your stepping stone to a successful career.”

Although he was already working part-time as an entry level network administrator, Chris knew he’d need to prove his networking skills if he was to move up within the company. Chris’s high school guidance counselor told him about occupational programs offered to juniors and seniors through Monmouth County Vocational School District (MCVSD). Since Chris was eager to strengthen his technical skills, he decided the “Networking Academy was a good fit.” He earned his Cisco Certified Network Associate (CCNA®) certification through MCVSD and, with his certification in hand, has steadily moved up the career ladder.

Chris’ first career success came at age 19 when he was hired as a junior network engineer by a contractor supporting the government. His next career move came recently when he took a new position as Network Engineer at a state-of-the-art U.S. Army research laboratory where new military technologies are tested and implemented. Most of the people Chris works with are 15 to 25 years older, and they often bemoan the fact that there was no such program when they attended high school. “This is true,” says Chris, “and I think everyone should take advantage of this opportunity as it may be your stepping stone to a successful career. Even if you do not plan to attend college for some reason or another, you can use the skills learned through Cisco Networking Academy to help develop a successful career in the networking field.”

What Chris enjoyed most about the Networking Academy was interacting with students from other school districts, his down-to-earth teacher who was willing to help the class in any way possible, and being able to learn the technology hands-on. “When I started out, I did a lot of self-study,” says Chris. “All I did was read books, and I came to understand the real way to learn this stuff is by hands-on activities. The Cisco course offered all of this and more. The hands-on labs explained things better and helped develop my skills, and I had a great teacher, Marty Quigley, who was more than willing to assist me with any problems.”

Reflecting upon his experience in the Networking Academy, Chris says, “It paved the way for me. It gave me enough knowledge to



get a better job.” Looking ahead, Chris’ career and education plans include continuing to work full-time, taking online classes at Colorado Technical University, and, since his CCNA certification has expired, seeking re-certification. He also plans to earn his Cisco Certified Network Professional (CCNP®) and Cisco Certified Internetwork Expert (CCIE®) certifications.

“When I started out, I did a lot of self-study. All I did was read books, and I came to understand the real way to learn this stuff is by hands-on activities. The Cisco course offered all of this and more.”

Outside of work, Chris is a weekend DJ at a local night club and is teaching himself music production. Marty recently invited Chris to serve on the advisory committee for the academy at MCVSD and Chris has accepted. When asked what advice he would give someone who may be interested in the Networking Academy, Chris says “I think the Networking Academy is a great opportunity for anyone interested in new technology. Make sure you are interested in networking, research the job opportunities, and see if this is something you can see yourself doing for the rest of your life. Also, make sure you pay attention and learn as much as possible in the Networking Academy. Knowledge is power, and power leads to success.”

For information on the Networking Academy at Monmouth County Vocational School District: <http://www.mcvsd.org/>



Active Cisco Networking Academies in New Jersey

U.S. Congressional District Database

Data for this report was gathered using the U.S. Congressional District Database. This tool was developed to communicate with congressional representatives about Cisco Networking Academy implementation in their home districts. The database maps active academies by congressional district or by all districts within a state, providing academy name, city, state, and congressional district. The listing by state is updated annually.

Table 6 lists information about academies in New Jersey congressional districts. Custom reports by congressional districts may be run upon request by contacting Melody Buchanan at Melody.Buchanan@ciscolearning.org.

Table 6. Networking Academies in New Jersey Congressional Districts

Number of New Jersey Congressional Districts	Number of New Jersey Congressional Districts <u>with</u> Networking Academies	Number of New Jersey Congressional Districts <u>without</u> Networking Academies	% New Jersey Congressional District Penetration
13	13	0	100%

Academies listed here have taught a class, with at least one student, within the last six months

Source: MRE/Academy Connection, U.S. Congressional District Database Date: January 3, 2008

Active New Jersey Cisco Networking Academies by Congressional District

* Indicates Cisco Networking Academy Training Center

Academies listed here have taught a class, with at least one student, within the last six months

Source: MRE/Academy Connection, U.S. Congressional District Database Date: December 31, 2007

Congressional District 1

- Camden County Technical Schools (Sicklerville)
- *Gloucester County Vocational-Technical School Dist (Sewell)
- Haddon Heights High School Local Cisco Academy (Haddon Heights)
- Washington Township Public Schools Local Cisco ACA (Sewell)

Congressional District 2

- Cumberland County Technical Education Center (Bridgeton)
- Delsea Regional High School Local Cisco Academy (Franklinville)

Congressional District 3

- *Burlington County College (Mount Laurel)
- Cherokee Cisco Networking Academy (Marlton)

- Lenape Cisco Networking Academy (Medford)
- Seneca High School (Tabernacle)
- Shawnee Cisco Networking Academy (Medford)

Congressional District 4

- Florence Township Memorial High School (Florence)

Congressional District 5

- Bergen Community College (Paramus)
- Phillipsburg School District (Phillipsburg)
- River Dell Regional High School (Oradell)
- Bergenfield High School (Bergenfield)
- Sussex County Community College (Newton)
- Sussex County Technical School (Sparta)

Congressional District 6

- Long Branch High School (Long Branch)

- Piscataway High School (Piscataway)
- Plainfield High School (Plainfield)

Congressional District 7

- Cranford Board of Education (Cranford)
- Roselle Park High School (Roselle Park)
- *Union County College (Cranford)

Congressional District 8

- *Advanced Technology Institute, Bloomfield College (Bloomfield)
- Eastside High School (Paterson)
- Essextech-Bloomfield Cisco Net-Acad (Bloomfield)
- Montclair State University (Montclair)
- Nutley High School (Nutley)
- *Passaic County Manchester Regional High School Reg (Haledon)
- Passaic High School (Passaic)

Congressional District 9

- *Bergen Cty Tech Hackensack - Regional (Hackensack)
- *Bergen Cty Tech Teterboro-Regional (Hackensack)
- Dwight Morrow Academies @ Englewood (Englewood)
- Hackensack High School (Hackensack)
- Kearny High School (Kearny)
- Teaneck High School (Teaneck)

Congressional District 10

- Hillside High School (Hillside)
- Orange High School (Orange)
- Roselle Board of Education (Roselle)

Congressional District 11

- County College of Morris (Randolph)
- Madison School District (Madison)
- *Morris County School of Technology (Denville)
- Raritan Valley Community College (Somerville)
- Somerset County Technical Institute Cisco Net-Acad (Bridgewater)
- Somerset County Vocational and Technical HS (Bridgewater)

Congressional District 12

- Brookdale Community College Local Cisco Academy (Lincroft)
- DeVry University, North Brunswick (ACC) (North Brunswick)
- Franklin Township Board of Education (Somerset)
- *High Technology High School (Lincroft)
- Lawrence Cisco Net-Acad (Lawrenceville)
- MCVSD-Middletown Cisco Net-Acad (Middletown)
- Monmouth Regional High School (Tinton Falls)
- Princeton High School (Princeton)
- Rumson-Fair Haven Regional High School (Rumson)

Congressional District 13

- Elizabeth High School (Elizabeth)
- Emerson High School Downtown Academy (Union City)
- Hudson County Schools of Technology (North Bergen)
- Union Hill High School (Union City)



Cisco Networking Academy: Promoting IT Careers

Technology jobs will not only continue to grow, but the role of information technology (IT) workers will continue to evolve since today nearly every company in every industry relies on IT. The skills learned through Cisco Networking Academy lay a critical foundation for almost any profession, even non-IT careers. Networking Academy graduates not only build careers, but also help build businesses, communities, and countries.

If the United States is to remain competitive and continue to innovate in a global economy, we must foster student interest in pursuing technology- and engineering-related careers. A critical strategy in building a technical workforce for the 21st century is the development of seamless programs like Networking Academy that build pathways between secondary and post-secondary institutions and lead to professional career development.

Through the Cisco Promoting IT Careers initiatives, students are introduced to potential careers in IT and networking and given valuable information about pathways to advanced education, certification, and careers.

Visit the Promoting IT Careers Website, <http://www.cisco.com/go/promoteitcareers>, which is dedicated to the following:

- Increasing awareness and interest in opportunities in IT and networking
- Creating interest in IT and networking as a profession
- Helping students establish career goals
- Providing tools and resources to support success as students pursue IT careers
- Creating opportunities for students and graduates to transition from classroom to careers

Five Ways to Promote IT Careers

The following events and activities engage students at all levels of experience. Valuable tools and resources for each event are available through the Promoting IT Careers Website.

1. Host Your Own All Academy Day

All Academy Day is a competition that gives students the chance to show off the skills they have learned in the Networking Academy and to explore career pathways by interacting with IT professionals. Teams of students participate in a series of hands-on events selected from the following options: cable making, component identification, computer building, home networking, quiz bowl, router configuration, TAC/professionalism, and virtual computers. For more information, visit: <http://www.cisco.com/go/allacademyday>

2. Help Students See Your Shadow

Job shadowing can be an important first step in pointing students toward IT careers. You can put on a full **Job Shadow Day** or offer an event as simple as a guest speaker in your classroom. Hearing first-hand about the world of work from IT professionals helps students relate their classroom experiences to the workplace and can inspire students to pursue careers in math, science, and technology. For more information, visit: <http://www.cisco.com/go/jobshadow>

3. Introduce Young Students to the World of IT

Packetville is a public e-learning portal filled with interactive and educational resources for introducing students aged 8 to 14 to the world of IT. Lesson plans, which are aligned with the standards of the International Society for Technology in Education, include community service projects and career exploration. For more information, visit:

<http://www.cisco.com/go/packetville>

4. Connect Students with Employers

The Networking Academy is connecting Networking Academy alumni with employers through the Career Connection job board. For more information, visit: <http://cc.netacad.net/home.do>

5. Explore the Landscape of IT

This series of **Virtual Field Trips** helps Networking Academy students and instructors explore and understand the landscape of IT and prepare for networking careers, all without leaving the classroom. Designed to engage students early on in their Networking Academy experience, the videos cover a range of topics that encourage students to continue their education and begin early to build their career path. A companion module that accompanies each video reinforces the content from the video. For more information, visit: <http://www.cisco.com/go/virtualfieldtrip>

Learn More about IT and Networking Careers

- Certification Magazine, “Hot Jobs & Skills for 2007”
http://www.certmag.com/articles/templates/CM_gen_Article_template.asp?articleid=2521&zoneid=1
- CNNMoney.com, “Skilled Worker Shortage Hurts U.S.”
http://money.cnn.com/2007/01/04/news/economy/jobs_outlook/index.htm
- Job Data Resources
 - U.S. Department of Labor Bureau of Labor Statistics, Occupational Employment Statistics
<http://data.bls.gov/oes/search.jsp>
 - State-Level Job Projections
<http://www.projectionscentral.com>
- John Chambers on the role of technology in education
http://www.forbes.com/opinions/2008/01/23/solutions-education-chambers-oped-cx_sli_0123chambers.html
- “The Quiet Crisis,” Shirley Ann Jackson, Ph.D.; President, Rensselaer Polytechnic Institute
<http://www.rpi.edu/homepage/quietcrisis/>



Americas Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 527-0883

Asia Pacific Headquarters
Cisco Systems (USA) Pte. Ltd.
168 Robinson Road
#28-01 Capital Tower
Singapore 068912
www.cisco.com
Tel: +65 6317 7777
Fax: +65 6317 7799

Europe Headquarters
Cisco Systems International BV
Haarlerbergpark
Haarlerbergweg 13-19
1101 CH Amsterdam
The Netherlands
www-europe.cisco.com
Tel: +31 0 800 020 0791
Fax: +31 0 20 357 1100

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.

CCVP, the Cisco logo, and Welcome to the Human Network are trademarks of Cisco Systems, Inc.; Changing the Way We Work, Live, Play, and Learn is a service mark of Cisco Systems, Inc.; and Access Registrar, Aironet, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, CCSP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Enterprise/Solver, EtherChannel, EtherFast, EtherSwitch, Fast Step, Follow Me Browsing, FormShare, GigaDrive, HomeLink, Internet Quotient, IOS, iPhone, IP/TV, iQ Expertise, the iQ logo, iQ Net Readiness Scorecard, iQuick Study, LightStream, Linksys, MeetingPlace, MGX, Networkers, Networking Academy, Network Registrar, PIX, ProConnect, ScriptShare, SMARTnet, StackWise, The Fastest Way to Increase Your Internet Quotient, and TransPath are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries. Mind Wide Open is a trademark of Cisco Networking Academy.

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. (0711R)