

Cisco Networking Academy: Rhode Island 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 Rhode Island. Table 2 lists information about Networking Academy curricula in Rhode Island, 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 Rhode Island

Networking Academy students	823
Distinct cumulative academy students (having successfully completed a course)	3433
Academy instructors	15
Total estimated cumulative contribution value to Rhode Island academies*	\$1,415,008

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 Rhode Island.

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

Table 2. Networking Academy Curricula in Rhode Island

Curriculum	CCNA®	CCNP®	IT Essentials	Security	Wireless
Number of academies by curriculum	7	1	1	1	0

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. Rhode Island Academies and Students by Education Level

Education Level	Number of Rhode Island Academy Students	Percentage of Rhode Island Students	Number of Rhode Island Networking Academies	Percentage of Rhode Island Academies*
Secondary schools	313	38%	6	75%
Community colleges	247	30%	1	13%
Universities	263	32%	1	13%
Other	0	0%	0	0%
Total by education level	823	100%	8	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 Rhode Island.

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 Rhode Island

Occupation	Employment		Employment Change		Average Annual Openings	Occupational Employment as of May 2006 [^]
	2004	2014	Numeric	Percent		
Computer Support Specialists	1,910	2,250	340	17	60	1,650
Computer Systems Analysts	2,220	2,870	650	29	90	1,810
Network and Computer Systems Administrators	750	1,000	260	34	30	840
Network Systems and Data Communications Analysts	430	680	250	56	30	290
Computer and Information Systems Managers	1,030	1,280	250	24	40	880

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/oessrcst.htm>

Rhode Island Student and Graduate Profile

When a 2002 Jeep Grand Cherokee fell from a mechanic's lift and crushed his arm, David St. Laurent knew the event would be life-changing. But he had no idea that the change would ultimately be positive.

Three years and eight surgeries later, the doctor told David that he would no longer be able to work as an auto mechanic. David began investigating other careers and his brother, who was already working in a networking position, suggested David investigate the field of information technology (IT). David looked in to Cisco® Networking Academy® at the Community College of Rhode Island and, less than four years later, earned his Cisco Certified Network Associate (CCNA®) certification.

At times it was a challenge for David to balance school, studying, marriage, and raising two children, all while undergoing rehabilitation from a life-changing injury, but David was driven by a desire to do better in life and to make a good living for his family. He invested much of his time in study, which was evidenced by his graduation at the top of his class. "I was not like this in high school" laughs David. By his own admission, "I did not have the drive then, and the material was just not interesting; but now, I would rather read a Cisco manual than a novel!"

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David says he enjoyed the entire program, especially the labs. "There was lots of equipment, and I loved being able to work hands-on with actual Cisco equipment. We could set up test networks in the classroom and that was better than just a simulator. The books and online curriculum were also great. They were laid out well and pretty easy to follow," David says enthusiastically. "And the instructors were great, I had an excellent instructor who believed in me," he adds.

David is so passionate about the Networking Academy that he was instrumental in getting his brother—who was already working in the networking area but had no formal information technology education or training—to enroll. Today, some of the same teachers who taught David are now teaching his brother. David has encouraged a mechanic friend to enroll in the academy as well!



David's younger brother, Adam, also has his CCNA certification. They attended classes for CCNA 3 and 4 together and, at times, would get into friendly competitions and strive to outdo each other. David believes this friendly competition caused both of them to raise the level of their game and do better as a result. The Networking Academy "has changed my life" says David. "It gave me a good base education for networking that I can apply in the future and I definitely recommend it for anyone interested in networks, TCP/IP, or technology."

David has since begun a career as a network/systems engineer for ACS Services, Inc., a consulting firm that provides information technology service and support for small to mid-sized companies in Massachusetts. His responsibilities include administering and maintaining networks and equipment for clients and he says he applies the skills that he's learned through the Networking Academy on a daily basis. David is delighted with his job—he has a lot of variety, never gets bored, and learns

something new every day—and he’s enthusiastic about his life, which he describes as less stressful and more financially rewarding. When he talks about his experience with Networking Academy David says, “It is a great program and an excellent way to obtain a career in the networking field,” says David.

His injured arm may limit what he can do, but it will not stop David from eventually earning his Cisco Certified Security Professional (CCSP®) and the Cisco Certified Network Professional (CCNP®) certifications, especially since his brother is already studying for the CCNP certification exams. Outside of work, David enjoys playing and watching baseball, snowboarding, fishing ... and reading Cisco manuals.

For additional information on the Networking Academy at the Community College of Rhode Island, go to:

<http://faculty.ccri.edu/tonyrashid/ccna.htm>

Active Cisco Networking Academies in Rhode Island

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 Rhode Island 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 Rhode Island Congressional Districts

Number of Rhode Island Congressional Districts	Number of Rhode Island Congressional Districts <u>with</u> Networking Academies	Number of Rhode Island Congressional Districts <u>without</u> Networking Academies	% Rhode Island Congressional District Penetration
2	2	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 Rhode Island 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

- Woonsocket Area Career and Technical Center (Woonsocket)

Congressional District 2

- *Community College of Rhode Island (Warwick)
- Cranston Career and Technical Center (Cranston)
- Exeter-West Greenwich Senior High School (West Greenwich)
- Narragansett High School (Narragansett)
- New England Institute of Technology (Warwick)
- North Kingstown High School (North Kingstown)
- Warwick Area Career and Technical Center (Warwick)

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/>



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