



## Cisco Networking Academy: Indiana 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.<sup>†</sup>

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.

<sup>†</sup> 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 Indiana. Table 2 lists information about Networking Academy curricula in Indiana, 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 Indiana

<b>Networking Academy students</b>	2237
<b>Distinct cumulative academy students (having successfully completed a course)</b>	9848
<b>Academy instructors</b>	78
<b>Total estimated cumulative contribution value to Indiana academies*</b>	\$6,275,746

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 Indiana.

\*Sources: AME/MRE reports 1211\_190710.31.07 Date: November 30, 2007

**Table 2.** Networking Academy Curricula in Indiana

<b>Curriculum</b>	<b>CCNA®</b>	<b>CCNP®</b>	<b>IT Essentials</b>	<b>Security</b>	<b>Wireless</b>
<b>Number of academies by curriculum</b>	48	0	14	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.** Indiana Academies and Students by Education Level

<b>Education Level</b>	<b>Number of Indiana Academy Students</b>	<b>Percentage of Indiana Students</b>	<b>Number of Indiana Networking Academies</b>	<b>Percentage of Indiana Academies*</b>
<b>Secondary schools</b>	1297	58%	33	64%
<b>Community colleges</b>	470	21%	12	23%
<b>Universities</b>	425	19%	6	12%
<b>Other</b>	45	2%	1	1%
<b>Total by education level</b>	2237	100%	51	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 Indiana.

**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](http://stat.bls.gov/oes/current/oes_nat.htm)

**Table 5.** Selected IT-Related Occupations in Indiana

Occupation	Employment		Employment Change		Average Annual Openings	Occupational Employment as of May 2006^
	2004	2014	Numeric	Percent		
Computer Support Specialists	7800	9180	1380	17	230	7720
Computer Systems Analysts	7410	9660	2250	30	310	6660
Network and Computer Systems Administrators	4400	5890	1490	33	200	4620
Network Systems and Data Communications Analysts	1980	3070	1090	54	130	2620
Computer and Information Systems Managers	4560	5730	1170	25	200	4010

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>





## Indiana Student and Graduate Profile

According to Joe Miller, a Cisco® Networking Academy® student from Fort Wayne, living with a visual disability can be hard, especially if you are pursuing a career in the information technology (IT) field. “Throughout my life, people have thought of me as being less capable of doing certain things. This misunderstanding has caused me problems with getting jobs. One potential employer even thought I couldn’t use a computer.” Although Joe has faced many challenges, he says he has never let any of them stop him from pursuing the things that he wanted to do.

In the fall of 2006, Joe began the Networking Academy at Anthis Career Center where he is currently pursuing an associate’s degree in computer information systems networking. In addition to his Cisco studies, Joe actively participates and has placed in the SkillsUSA internetworking competitions. His future goals include becoming Cisco Certified Network Associate (CCNA®) certified and competing at the SkillsUSA national competition.

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**Joe attended nationals as an observer, not just to cheer on his friends but also to learn about other successful SkillsUSA chapters so he could develop an even stronger chapter back home. Having observed the national internetworking competition, Joe is now more determined than ever to earn first place at the 2008 state competitions and return to nationals, this time as a competitor.**

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Joe, who was born visually impaired, says he has always been interested in computers. He recalls being four years old when his mother bought their first home computer and that he was intrigued from the first time he used it. His mother further encouraged Joe by providing resources on DOS commands and BASIC programming. From there Joe developed his interest in IT and began learning as much as he could about computers and technology.

Since Joe has such low vision, some administrators at Anthis were uncertain of his ability to meet some of the basic Networking Academy course requirements such as terminating cables and troubleshooting cabling problems; but, Joe remained positive and was determined to prove that he could be successful. A perfect example of his ability to succeed came during spring 2007 when Joe placed second in the state-level SkillsUSA internetworking competition. That year, when four of his peers were selected to compete in the national championship, Joe attended nationals as an observer, not just to cheer on his friends but also to learn about other successful SkillsUSA chapters so he could develop an even stronger chapter back home. Having observed the national internetworking competition, Joe is now more determined than ever to earn first place at the 2008 state competitions and return to nationals, this time as a competitor.

Today, Joe continues his Cisco education at Anthis Career Center where he is one of the officers in the local SkillsUSA chapter. He plans to earn his Cisco CCNA, CompTIA A+, and Microsoft Certified Systems Administrator (MCSA) certifications by the end of 2008. “I feel that Cisco works well with people with visual impairments. I found the large print option on the Networking Academy Website for tests and



Joe with Area Academy Manager Clydene Stangvik and Cisco SkillsUSA liaison Bob Schoenherr at the SkillsUSA championship.

curriculum extremely helpful. The CCNA Exploration curriculum is a great asset for every student, including those like me with visual impairments. I am excited to continue my journey through the Networking Academy.”

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**“I feel that Cisco works well with people with visual impairments. I found the large print option on the Networking Academy Website for tests and curriculum extremely helpful. The CCNA Exploration curriculum is a great asset for every student, including those like me with visual impairments.”**

**Joe Miller**

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For more information on the Networking Academy at Anthis Career Center, visit: <http://anthis.fwcs.k12.in.us/>



## Active Cisco Networking Academies in Indiana

### 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 actively teaching 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 Indiana congressional districts. Custom reports by congressional districts may be run upon request by contacting Melody Buchanan at [Melody.Buchanan@ciscolearning.org](mailto:Melody.Buchanan@ciscolearning.org).

**Table 6.** Networking Academies in Indiana Congressional Districts

Number of Indiana Congressional Districts	Number of Indiana Congressional Districts <u>with</u> Networking Academies	Number of Indiana Congressional Districts <u>without</u> Networking Academies	% Indiana Congressional District Penetration
9	9	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 Indiana 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

- Gary Area Career Center (Gary)
- Hammond Area Career Center (Hammond)
- Hobart High School (Hobart)
- Lew Wallace High School (Gary)
- Merrillville School District (Merrillville)
- \*Purdue University Calumet - ECET (Hammond)
- Tri-Creek Cisco Networking Academy (Lowell)

#### Congressional District 2

- Davenport University - South Bend/Mishawaka (Granger)
- \*Elkhart Area Career Center (Elkhart)
- Ivy Tech State College - Kokomo (Kokomo)
- Ivy Tech State College - South Bend (South Bend)
- SCILL Center Cisco Networking Academy (Knox)

#### Congressional District 3

- Anthis Career Center (Fort Wayne)
- \*Indiana Institute of Technology (Fort Wayne)
- Ivy Tech State College - Fort Wayne (Fort Wayne)
- Leo Jr./Sr. High School (Leo)
- Warsaw High School (Warsaw)
- Whitley County Consolidated Schools (Columbia City)

#### Congressional District 4

- Ben Davis High School (Indianapolis)
- Central Nine (Greenwood)
- Crawfordsville High School (Crawfordsville)
- Ivy Tech State College - Bloomington (Bloomington)
- \*Ivy Tech State College - Region 4 (Lafayette)
- Zionsville Community High School (Zionsville)

**Congressional District 5**

- Carmel High School (Carmel)
- J. Everett Light Career Center (Indianapolis)
- Maconaquah High School (Bunker Hill)
- Madison-Grant Networking (Fairmount)
- Mt. Vernon Community School Corp. (Fortville)
- Tucker Networking Academy (Marion)

**Congressional District 6**

- \*Ball State University (Muncie)
- BSU-Industry and Technology (Muncie)
- C.A. Beard Networking Academy (Knightstown)
- Ebbertt Education Center (Anderson)
- \*Muncie Community Schools (Muncie)
- Wapahani Local Networking Acad. (Selma)

**Congressional District 7**

- Indiana Business College (ACC) (Indianapolis)
- \*Indianapolis Public Schools (Indianapolis)
- IPS- Arlington High School (Indianapolis)
- MSD of Pike Township (Indianapolis)
- University of Indianapolis (Indianapolis)

**Congressional District 8**

- Attica Jr.-Sr. High School (Attica)
- Evansville North High School (Evansville)
- Ivy Tech State College - Evansville (Evansville)
- Ivy Tech State College-Terre Haute (Terre Haute)
- Loogootee High School (Loogootee)
- Terre Haute South Vigo High School (Terre Haute)
- \*Vincennes University (Vincennes)

**Congressional District 9**

- C4-Columbus Area Career Connection (Columbus)
- Ivy Tech State College - Sellersburg (Sellersburg)
- Ivy Tech State College Madison (Madison)
- Prosser School of Technology (New Albany)



## 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](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](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](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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