



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

Networking Academy students	477
Distinct cumulative academy students (having successfully completed a course)	2185
Academy instructors	29
Total estimated cumulative contribution value to Alaska academies*	\$1,353,533

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 Alaska.

*Sources: AME/MRE reports 1212_191010.31.07 Date: November 30, 2007

Table 2. Networking Academy Curricula in Alaska

Curriculum	CCNA®	CCNP®	IT Essentials	Security	Wireless
Number of academies by curriculum	10	3	5	1	1

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. Alaska Academies and Students by Education Level

Education Level	Number of Alaska Academy Students	Percentage of Alaska Students	Number of Alaska Networking Academies	Percentage of Alaska Academies*
Secondary schools	124	26%	4	36%
Community colleges	91	19%	3	27%
Universities	262	55%	4	36%
Other	0	0%	0	0%
Total by education level	477	100%	11	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 Alaska.

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 Alaska

Occupation	Employment		Employment Change		Average Annual Openings	Occupational Employment as of May 2006^
	2004	2014	Numeric	Percent		
Computer Support Specialists	960	1110	160	16	30	980
Computer Systems Analysts	790	930	140	17	20	340
Network and Computer Systems Administrators	410	550	140	33	20	430
Network Systems and Data Communications Analysts	N/A	N/A	N/A	N/A	N/A	360
Computer and Information Systems Managers	540	660	120	22	20	480

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/oesrscst.htm>



Alaska Student and Graduate Profile

When Allen Sagoonick decided to pursue a career in IT (information technology) he wanted to find a program and school that would provide him with the same level of challenge and satisfaction he has experienced by serving his country and community for most of his adult life. His commitment to duty has included enlisting in the Alaska National Guard, joining the United States Marine Corps, and working as a local police officer for eight years.

Allen began his journey into IT when he crashed a computer he had recently purchased, then repaired it himself without any previous computer training or technical support. Once Allen discovered that he had a knack for technology, he began researching education and training programs and found the IT field to be full of opportunities. In his usual disciplined manner, Allen conducted an exhaustive search and selected the Alaska Vocational Technical Center (AVTEC) as his school of choice where he enrolled in the Cisco® Networking Academy Certified Network Associate (CCNA®) course. As Allen notes, “I wasn’t looking for just any school, I was looking for the best school, and AVTEC was the only one that was certified by everyone and his brother.”

Selecting AVTEC and the Networking Academy® has definitely paid off for Allen and others. In fact, 14 of the 16 students in his graduating class were hired two weeks before they graduated. Allen attributes his and the other students’ success to their instructor, Mark Ganser. In Allen’s words, the high employment rate among graduates “shows you how good Mark is. ... He has a lot of success stories.” Allen can’t say enough good things about Mark, who has a deep understanding of networking, and was able “to explain something seven different ways to get through to different people” until it made sense.

Selecting AVTEC and the Cisco Networking Academy has definitely paid off for Allen and others in his class. In fact, 14 of the 16 students in his graduating class were hired two weeks before they graduated.

Mark brushes off the praise, saying that Allen would be successful at anything he chose to do. From Mark’s standpoint, “What sets Allen apart from many others is that he recognizes the responsibility that comes with success: the responsibility to contribute something. Allen actively encourages others from the Northwest Region of Alaska to pursue careers in IT and provides a role model young people can relate to.” Mark adds, “Because of Allen’s encouragement, several other students from the northwest region have attended AVTEC’s program and then returned to Northwestern Alaska to begin their careers.”

Allen is an Inupiat Eskimo who attributes his success to listening to his elders. They taught him to be patient, and to take incremental steps toward a long-term goal. Some of his success is also due to having “a mind like a sponge and a steel trap—I absorb a lot and don’t let it go.” His energy, drive, and positive attitude must also have been factors. While he was enrolled in the academy Allen was balancing being a father to three active children, serving as president of AVTEC’s Student Council, mentoring a troubled youth, and serving in the Alaska National Guard.

Allen is currently employed at Kawerak, Inc., a non-profit corporation that provides education, housing, natural resource management, and economic development services to residents throughout the Bering Strait region. Through his job at Kawerak, Allen is able to continue his focus on giving back. Although he is not literally in the line of fire as an Information Systems Tech at Kawerak, he has faced his share of challenges on the job, including a rigorous travel schedule that was necessary when he was setting up the LAN, MAN, WAN, and providing PC support for a large geographic area roughly the size of the state of Iowa. Having completed the initial set-up, Allen is now responsible for upgrades and ongoing maintenance of the network.

Besides his work at Kawerak, Inc., Allen provides technical support on a contract basis to other organizations in the area. In fact, he is considering starting his own business and is in the process of preparing his business plan. But Allen is not all work and no play. He makes time for personal interests such as hunting, fishing, and reading, and helps his children with special projects for school or for fun. Between his natural ability to troubleshoot and his personal motto of “no problems, only solutions,” Allen has found his niche. He loves what he does and the quality of his work experience has exceeded his expectations.

His enthusiasm for information technology and networking may be contagious. Allen’s 17-year-old son appears to be leaning toward the IT field. Who knows, AVTEC may soon have a second generation Sagoonick.

When asked what advice he would give to others who may be interested in the Networking Academy, Allen says, “Go do it! It can only help you. Funding might be a problem, but after the Networking Academy you’ll get paid more. ... The benefits are far greater than the initial cost of paying for the program. ... Borrow the money if you have to. It’ll pay off.”

His enthusiasm for information technology and networking may be contagious. Allen’s 17-year-old son appears to be leaning toward the IT field. Who knows, AVTEC may soon have a second generation Sagoonick.

For more information on the Networking Academy at AVTEC, visit: <http://avtec.labor.state.ak.us/>



Active Cisco Networking Academies in Alaska

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 Alaska 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 Alaska Congressional Districts

Number of Alaska Congressional Districts	Number of Alaska Congressional Districts <u>with</u> Networking Academies	Number of Alaska Congressional Districts <u>without</u> Networking Academies	% Alaska Congressional District Penetration
1	1	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 Alaska 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 – At Large

- *Alaska Vocational Technical Center (Seward)
- Charter College, LLC (ACC) (Anchorage)
- Hutchison Career Center (Fairbanks)
- Matanuska-Susitna Borough School District (Wasilla)
- Matanuska-Susitna College (Palmer)
- McLaughlin Secondary School (Anchorage)
- North Pole High School (North Pole)
- University of Alaska - Anchorage, Goose Lake Campus (Anchorage)
- University of Alaska Fairbanks, Tanana Valley Camp (Fairbanks)
- University of Alaska Se-Ketchikan (Ketchikan)



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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