Cisco Networking Academy: South Dakota Profile

Cisco® Networking Academy® is playing a critical role in the U.S. economic recovery by preparing students for the sustainable jobs that government, education and industry all agree will fuel America’s ability to innovate and compete, not just today but in the future. As the focus turns to infrastructure, Networking Academy provides students with critical IT and networking skills to design, build, and maintain the infrastructure highway that both the public and private sector now depend on for sustainability.

The new Obama administration clearly recognizes the importance that technology plays in preparing students to compete in a 21st century global economy. In a speech on January 8, 2009, at Virginia's George Mason University, President Obama highlighted the current science and technology skills gap in the United States and the urgent need to address it:

“To give our children the chance to live out their dreams in a world that’s never been more competitive, we will equip tens of thousands of schools, community colleges, and public universities with 21st century classrooms, labs, and libraries. We’ll provide new computers, new technology, and new training for teachers, so that students in Chicago and Boston can compete with kids in Beijing for the high-tech, high-wage jobs of the future.”

Cisco Networking Academy is a proven model for delivering 21st century learning because it delivers:

- rigorous and interactive curricula licensed at no cost to nonprofit educational institutions
- an e-learning platform that supports different learning styles
- web-based content available to students 24/7
- online assessments
- student performance tracking
- hands-on labs
- instructor training and support

Networking Academy is a unique public-private partnership between educational institutions, national, state and local government, and community-based organizations, currently educating more than 128,000 students in over 2,200 U.S. educational institutions.

As an education solution, Networking Academy encourages seamless educational pathways between secondary and post-secondary institutions by using curricula aligned to national and state education standards for math, language arts, and technology and industry certifications. These courses also help students prepare to pursue degrees related to science, technology, engineering, and math (STEM). Networking Academy courses provide instructors with tools to help students make the connection between their educational experience and their careers. In the United States, academies are located in high schools, technical schools, colleges, universities, and community-based organizations.

Cisco Networking Academy provides:

- IT and networking skills mapped to high-skill, high-demand, high-wage 21st century jobs across virtually every industry
- sustainable partnerships at all levels of education, including community colleges at the forefront of workforce development and retraining
• strong alignment with high school career and technical education programs that build technical skills and create pathways for high school graduates going either directly into the workforce or on to post-secondary education

• the skilled pipeline of talent required to design, build and maintain the infrastructure needed for economic recovery

Included in each state profile are Networking Academy statistics, IT workforce projections, and student/graduate stories. These state-by-state profiles will provide you with important information about the value Cisco brings to government, education and business through delivery of IT/networking skills and knowledge. Cisco Networking Academy educates the architects of today’s networked economy.

Profiles are updated annually with core content, and we will continue to add student/graduate profiles. For your convenience, the library of profiles for each state, plus the District of Columbia and the United States as a whole, are accessible at http://www.cisco.com/go/netacadresourcecenter.

We welcome your suggestions for future profiles. Please send any questions and feedback to our U.S. Marketing Team via Nancy Bischoff at nbischof@cisco.com.

Learn More

Table 1 lists data about academies in South Dakota. Table 2 lists information about Networking Academy curricula in South Dakota, 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 South Dakota

<table>
<thead>
<tr>
<th>Networking Academy students</th>
<th>687</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female Networking Academy students</td>
<td>14% female</td>
</tr>
<tr>
<td>Distinct cumulative academy students (having successfully completed a course)</td>
<td>2846</td>
</tr>
<tr>
<td>Academies</td>
<td>15</td>
</tr>
<tr>
<td>Academy instructors</td>
<td>25</td>
</tr>
<tr>
<td>Total estimated cumulative contribution value to South Dakota academies*</td>
<td>$2,036,205</td>
</tr>
</tbody>
</table>

Sources: AME/MRE FULL Package_10 31 08 Quarterly Metrics  Date: Nov 13, 2008
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 South Dakota.
*Sources: AME/MRE report #3616student and instructor enrollment by year 2008.11.24_JBZ_v8.xls

Table 2. Networking Academy Curricula in South Dakota

<table>
<thead>
<tr>
<th>Curriculum</th>
<th>All</th>
<th>ITE</th>
<th>CCNA 1, 2</th>
<th>CCNA 3, 4</th>
<th>Advanced Technologies and Other*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of academies by curriculum</td>
<td>15</td>
<td>87%</td>
<td>60%</td>
<td>33%</td>
<td>7%</td>
</tr>
</tbody>
</table>

The above curricula represent the core Networking Academy curricula.
*Includes CCNP, Security, Wireless, Java, UNIX and Panduit Network Infrastructure Essentials (PNIE)
Academies often teach multiple curricula and may be counted more than once in this table.
Source: AME/MRE rpt #3651 as of 10.31.08 v2  Date: Dec 8, 2008
**Table 3.** South Dakota Academies and Students by Education Level

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Total Number</th>
<th>Secondary Schools</th>
<th>Community Colleges</th>
<th>Universities</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Dakota Students*</td>
<td>687</td>
<td>34%</td>
<td>66%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>South Dakota Academies*</td>
<td>15</td>
<td>73%</td>
<td>27%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Sources: AME/MRE FULL Package_10 31 08 Quarterly Metrics  Date: Nov 13, 2008

*For academies that self identify as more than one education level, the academies and students in this table are distributed proportionately across the education levels.

Academies represented in “Other” category include the following: community-based organizations, middle schools, the military, nontraditional educational settings, and post-graduate institutions.
Active Cisco Networking Academies in South Dakota

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 4 lists information about academies in South Dakota congressional districts.

<table>
<thead>
<tr>
<th>Number of South Dakota Congressional Districts</th>
<th>Number of South Dakota Congressional Districts with Networking Academies</th>
<th>Number of South Dakota Congressional Districts without Networking Academies</th>
<th>% South Dakota Congressional District Penetration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>0</td>
<td>100%</td>
</tr>
</tbody>
</table>

Academies listed here have taught a class with at least three students, or adopted a new curriculum, within the last twelve months.

Source: MRE/Academy Connection, U.S. Congressional District Database   Date: October 31, 2008

Active South Dakota Cisco Networking Academies by Congressional District

* Indicates Cisco Networking Academy Training Center

Academies listed here have taught a class with at least three students, or adopted a new curriculum, within the last twelve months.

Source: MRE/Academy Connection, U.S. Congressional District Database   Date: October 31, 2008

Congressional District – At Large

- Boxelder Job Corps (Nemo)
- Canton Public School (Canton)
- Dakota Valley High School (North Sioux City)
- Deuel School District (Clear Lake)
- Douglas School District (Box Elder)
- East Central Multi District (Brookings)
- Ethan Public School (Ethan)
- *Lake Area Technical Institute (Watertown)
- Mitchell Senior High (Mitchell)
- *Mitchell Technical Institute (Mitchell)
- *Southeast Technical Institute (Sioux Falls)
- Sturgis High School (Sturgis)
- Wall High School (Wall)
- *Western Dakota Technical Institute (Rapid City)
- Yankton School District (Yankton)
Cisco Networking Academy: Workforce Development in South Dakota

Cisco Networking Academy® is ready to help U.S. workers learn critical IT and networking skills through academies located in high schools, community colleges, four-year colleges, and nontraditional settings. Developing in-demand technical skills in a timely, focused program enables students to quickly find and retain sustainable, high-paying jobs. Academy courses map to industry certifications and prepare students for technical jobs in a new, improved technical infrastructure across the nation. Even students who complete introductory courses will be prepared to work for companies that depend on a technical infrastructure for business sustainability.

“Obama’s pro-tech agenda could increase the number of technology jobs in the United States by 10 percent, adding about 300,000 high-paying IT positions.” –Katherine McGuire, VP of government relations, Business Software Alliance

“Even with this economic downturn, the jobs outlook in IT for 2009 is better than that of many other industries, since IT is no longer at the peripheral of industries but at the core of their competitive edge, and IT will play a critical role in the infrastructure build out.” –David Foote, CEO of Foote Partners LLC, which analyzes IT wages and hiring data

As the U.S. remains focused on economic recovery throughout 2009, there is a growing emphasis on upgrading the educational infrastructure to deliver the required knowledge and skills to build the needed technical workforce to support and maintain technology infrastructure assets and requirements. Just as the interstate highway investment created millions of construction jobs, which were then followed by maintenance and automotive jobs in the long term, so technology investments will initially create jobs necessary to design and deploy technology infrastructure, and these jobs will be followed by an array of new business opportunities.

“Investments in America’s digital infrastructure will spur significant job creation in the immediate term. An investment of $40 billion in IT network infrastructure in 2009 will create more than 949,000 U.S. jobs, more than half of which will be in small businesses.” –Technology CEO Council press release

Cisco Networking Academy addresses the need for 21st century teaching and learning models that prepare students to move into the pipeline of talent needed to fill these high-skill, high-wage, high-demand careers.

"We will enable students of all ages to learn in 21st century classrooms, labs, and libraries, to help our students compete with any worker in the world.” –American Recovery and Reinvestment Plan press release

In a recent report, the Information Technology and Innovation Foundation “finds that investments in America’s digital infrastructure will spur significant job creation in the short run. Specifically, ITIF estimates that an additional investment of $30 billion in America’s IT network infrastructure in 2009 will create approximately 949,000 U.S. jobs.”

1 Computerworld, 1/5/09, Stimulus could create thousands of IT jobs, http://www.computerworld.com/action/article.do?command=viewArticleBasic&articleId=331783
**IT Occupational Data**

Table 5 lists information about IT-related occupations in the United States, and Table 6 lists this information for South Dakota.

### Table 5. Selected IT-Related Occupations in the United States

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Employment 2006</th>
<th>Employment 2016</th>
<th>Employment Change</th>
<th>Average Annual Openings</th>
<th>Occupational Employment as of May 2007*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Support Specialists</td>
<td>552,000</td>
<td>624,000</td>
<td>52,000</td>
<td>21.9</td>
<td>24,000</td>
</tr>
<tr>
<td>Computer Systems Analysts</td>
<td>504,000</td>
<td>650,000</td>
<td>146,000</td>
<td>29</td>
<td>28,000</td>
</tr>
<tr>
<td>Network and Computer Systems Administrators</td>
<td>309,000</td>
<td>393,000</td>
<td>84,000</td>
<td>27</td>
<td>15,000</td>
</tr>
<tr>
<td>Network Systems and Data Communications Analysts</td>
<td>262,000</td>
<td>402,000</td>
<td>140,000</td>
<td>53.4</td>
<td>19,000</td>
</tr>
<tr>
<td>Computer and Information Systems Managers</td>
<td>264,000</td>
<td>307,000</td>
<td>43,000</td>
<td>16.4</td>
<td>9,000</td>
</tr>
</tbody>
</table>


### Table 6. Selected IT-Related Occupations in South Dakota

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Support Specialists</td>
<td>1530</td>
<td>1805</td>
<td>275</td>
<td>18</td>
<td>76</td>
</tr>
<tr>
<td>Computer Systems Analysts</td>
<td>635</td>
<td>820</td>
<td>185</td>
<td>29.1</td>
<td>36</td>
</tr>
<tr>
<td>Network and Computer Systems Administrators</td>
<td>1210</td>
<td>1565</td>
<td>355</td>
<td>29.3</td>
<td>64</td>
</tr>
<tr>
<td>Network Systems and Data Communications Analysts</td>
<td>745</td>
<td>1155</td>
<td>410</td>
<td>55</td>
<td>56</td>
</tr>
<tr>
<td>Computer and Information Systems Managers</td>
<td>200</td>
<td>230</td>
<td>30</td>
<td>15</td>
<td>6</td>
</tr>
</tbody>
</table>

South Dakota Student and Graduate Profile

With an appetite for knowledge and a passion for technology, Houston King excelled in his academic pursuits at an early age. He earned an associate of science degree and early acceptance to Massachusetts Institute of Technology (MIT) before his high school graduation.

At the same time, while he was attending Lake Area Technical Institute (LATI) in Watertown, South Dakota, Houston completed the Cisco® Certified Network Associate (CCNA) curriculum and passed his CCNA certification. “The Cisco Networking Academy® has given me the jumpstart needed to pursue a higher degree in education and has opened the door for obtaining a rewarding career in the information technology industry.”

Having completing the majority of his required high school courses by his junior year, in May 2007 Houston earned an associate of science degree from LATI and his CCNA and CCNP certifications just two weeks before he received his high school diploma.

Houston has been on the technology track since the seventh grade when he dual-enrolled in his first course at LATI in the computer information services program. “Investigating the workings of technology has always intrigued me. Computers and networking technologies are areas where I was able to focus my interest,” says Houston.

Having completed the majority of his required high school courses by his junior year, in May 2007 Houston earned an associate of science degree from LATI and his CCNA and Cisco Certified Network Professional (CCNP®) certifications just two weeks before he received his high school diploma. “I enjoyed the mix of both the practical hands-on experience and higher level theory that the Networking Academy introduced. I am excited to use my skills to obtain a job and excel at my studies at MIT.”

Along with his academic studies, Houston served as Vice President of LATI’s tech club and placed second at the national 2007 SkillsUSA internetworking competition. Houston has also given back to his community, working as a Website collaborator and serving as the multimedia technician for his local church, all the while maintaining a 3.95 GPA.

In the spring of 2007, Houston was a recipient of a Cisco Networking Academy 4R Recognition Award in the Results category, which recognizes students and graduates who demonstrate the impact of the Networking Academy in creating opportunities for career, educational, or personal development.

“Houston has several interests and very lofty goals. He does not do anything halfheartedly,” says his academy instructor at LATI, Mark Wayt. “Knowing Houston as I do, I expect him to continue to achieve the goals he sets for himself.”
Currently, Houston is enrolled at MIT in Cambridge, Massachusetts, where he earned early acceptance in December 2006. He is pursuing a degree in computer science and hopes to graduate in 2011. His ultimate goal is to obtain a job in information technology and earn Cisco Certified Internet Expert (CCIE®) certification by age 20.

For more information on the Networking Academy at Lake Area Technical Institute, visit: http://lati.tec.sd.us/