# The Computerworld Honors Program

Honoring those who use Information Technology to benefit society

## Final Copy of Case Study

**LOCATION:**
*Neosho, MO, US*

**YEAR:**
*2011*

**STATUS:**
*Laureate*

**CATEGORY:**
*Economic Opportunity*

**ORGANIZATION:**
Cisco Systems, Inc.

**ORGANIZATION URL:**
http://www.cisco.com/go/netacad

**PROJECT NAME:**
Cisco Networking Academy

## PROJECT OVERVIEW

Cisco Networking Academy: Becoming the Architects of the Networked Economy No country or region can fully participate in the global economy without a well-educated information and communication technology (ICT) workforce. ICT education has a direct impact on social and economic well-being. The World Economic Forum's Global Information Technology Report (GITR) states that "good education fundamentals and high levels of technological readiness and innovation are essential engines of growth … Even in emerging markets in Africa, Latin America, and Asia, access to ICT has boosted information availability, transformed social interactions, and contributed to poverty reduction and improving the life of everyday citizens." Cisco Networking Academy is a global, innovative, education ecosystem that uses IT technology to equip students with information and communication technology (ICT) skills and knowledge to improve their career and economic opportunities, and in turn ultimately improving their quality of life and that of their families and communities. In a macro-level quantitative study of economic impact on countries, Stockford & Wright (2009) (1) found a significant relationship between 117 countries level of participation in Networking Academy and their capacity to leverage information and communication technologies for economic and social development. With its unprecedented geographic reach, Networking Academy connects 1 million students and partners with 10,000 academies in 165 countries using the network as a platform while leveraging cloud technology to ensure students benefit from a unique curriculum including instructor-led, web-based course content, online skills assessment, hands-on laboratories, and cutting-edge IT simulations. The high quality and global consistency of the courses are sustained through the use of the latest networking technologies along with significant investment in instructor training and continuing professional development. Networking Academy locations include secondary schools, community and technical colleges, universities, NGOs, and other ventures ranging from youth centers to prisons. Courses have been translated from English into the five other official UN languages (Arabic, Chinese, French, Russian, and Spanish), as well as eleven additional languages, with more

translations ongoing to reach as many students as possible around the world with an equal opportunity for participating in ICT skills acquisition. To support the demand of the IT industry and the global infrastructure, which companies, communities, and countries are increasingly becoming dependent on, as well as providing individual economic opportunity, Networking Academy is: • Educating the next generation of ICT workers to meet the growing demand in the ICT industry globally • Preparing students to implement infrastructure that supports Web 2.0, video conferencing and other collaboration technologies • Providing students the knowledge needed to implement virtualization technologies that save costs and conserve power and resources • Providing students with the skills needed to implement converged networks that support high-bandwidth video, voice, and data streams required for 21st century communications around the globe • Developing a diverse workforce for entryway into to the global market and economy (1) Stockford, S. and Wright, D. Cisco Networking Academy and Network Readiness Growth, 13th UNESCO-APEID International Conference & World Bank-KERIS, November, 2009.

## SOCIETAL BENEFITS

Cisco Networking Academy provides ICT firms, as well as organizations in an array of industries outside ICT, with knowledgeable workers who have demonstrated their mastery of networking skills and can make an immediate contribution to the long-term economic growth in communities around the world.

## PLEASE DESCRIBE THE PROJECT'S PHASES AND WHICH PHASE THE PROJECT IS IN

Since its inception in 1997, Cisco Networking Academy is continually updating and expanding its curriculum, assessments, simulations, and course offerings, due to the constantly changing nature of the ICT industry, the growth in student participation, and academy additions. Because Networking Academy reflects the latest in ICT technological advancements, it is a project that once implemented will be continuous in providing. An example of the Networking Academy's philosophy of continuous improvement is the update in September, 2010, to Packet Tracer, its simulation environment that provides a versatile practice and visualization environment for network design, configuration, and troubleshooting. This particular update was the addition of Cisco Packet Tracer Skills Assessment – innovative, formative assessments that measure student performance and knowledge of networking concepts and skills using the simulation and configuration capabilities of the Packet Tracer learning environment. The online Packet Tracer Skills Assessment presents complex and authentic tasks, immediately scores the exams and provides rich, detailed feedback that supports learning and evaluation of student performance throughout the learning process.

## PROJECT BENEFIT EXAMPLE

Cisco Networking Academy has had a profound and lasting impact. These three stories represent the diverse impact of the Networking Academy experience as it directly relates to career and economic opportunity. Meet Joy Miller, an unemployed, single mother of three, and a Networking Academy Alumnus from the Bucks County Housing Group in Pennsylvania, USA. "I was a stay-at-home mom for ten years. When my husband and I divorced, I was on public assistance and couldn't imagine what kind of job I could get with three kids, no home and no skills. The Bucks County Housing gave me the opportunity to get on my feet and off welfare. The program gave me a career …not just a job. I started at Toll Brothers and now work as a Network Engineer at LabCorp Inc. My starting salary was over $70,000. If you would have told me three years ago that I'd be bringing home this pay check, I'd

have said, "How? How could I do that?" I am one test away from Cisco Certified Networking Professional (CCNP) certification and for the first time in my life I'm responsible for my life. I'm even building my own home for me and my children." From the other side of the globe meet Tefera Waluwa, Minister of Capacity Building in Addis Ababa, Ethiopia, speaking to the importance of Networking Academy. "Every aspect of Ethiopian life must be IT assisted so that we can compete in the world and sell whatever we may produce or provide services globally. Cisco Networking Academies are key to the strategy of developing our human resources. IT provides much greater potential for developing countries than the developed countries. There is a remote part of Ethiopia with a high population. Now there is a center here with Internet, video conferencing and telephone services. We've come quite a long way from having no access at all to a connection with New York or Tokyo. Can you imagine? This is a very huge potential." And, finally meet a young man named Christopher Riling from Toledo, Ohio. When Christopher was a Cisco Networking Academy student at Sylvania Southview High School in Ohio, the City of Toledo's Department of Public Utilities asked him to assist with a core network redesign for part of the city. Christopher had developed an interest in, and aptitude for, technology at a very early age, and enrolled himself in the Networking Academy program to expand his skills and gain experience. After graduating from high school and going on to earn an associate's degree in business computer networking systems technology, Christopher had two challenges to overcome in his quest to find a job: his young age and the fact that he was born with cerebral palsy. Fortunately, the skills and experience he gained through Networking Academy and working with the City of Toledo helped him secure a job as a network administrator at a mutual fund, and then as a network engineer for an Internet service provider in Toledo, Ohio.

## IS THIS PROJECT AN INNOVATION, BEST PRACTICE?

Yes. Cisco Networking Academy is considered to be highly innovative program which models best practices for teaching and training individuals for careers in the field of information and communication technology (ICT). An organization could adopt and implement Networking Academy as their ICT program of choice, such as many schools, institutions of higher education, NGOs and other organizational groups have done.

## ADDITIONAL PROJECT INFORMATION

In 10,000 Networking Academies around the world (see Appendix 1), 1,000,000 students engaged this year in learning ICT knowledge and skills (see Appendix 2) to enhance economic opportunity for themselves, their families, and their communities. Networking Academy students are finding job and educational opportunities. A survey conducted between March 2005 and December 2009 of 19,000 students worldwide who had completed all four of the Networking Academy's CCNA (first-level professional) courses found that 70% attained a job opportunity(1) and 93% attained a job opportunity and/or education opportunity.(2) (1) Job opportunity defined as: Obtain a new or better job, higher status, increased responsibilities, or higher salary (2) Education Opportunity defined as: Pursue more education, higher degree, or decide on a program of study As of January 31, 2011, Cisco Networking Academy has touched the lives of 3,750,000 students around the world. (see Appendix 3)