



Education and technology are two of the greatest social equalizers. Education helps people improve their economic opportunities, while technology provides access to education.

In Canada, Cisco partners with many private and public organizations to deliver programs that contribute to education and the innovative use of technology. The largest of these programs is Cisco Networking Academy®.

Every year, Networking Academy teaches hundreds of thousands of students worldwide the skills needed to design, build, manage, and secure computer networks, helping to enhance these students' career prospects and fill the global demand for networking professionals. With 10,000 academies in 165 countries, Networking Academy delivers classroom instruction, online teaching materials, interactive tools, and hands-on learning to students from every socioeconomic background, so that they can develop the knowledge and skills required to succeed in a technology-driven market.

As organizations become increasingly reliant on intelligent networks and innovative workers, Cisco and our partners are helping the workforce prepare by teaching the career-ready skills that employers need.



### 20,246

students ICT taught in 2010-2011



### 525

instructors preparing the ICT workforce



### 107,031

students since inception

### 214

organizations offering Cisco courses



### 46.5 Million

in-kind contribution to education

you + networks = impact

## Economic and Workforce Development

For a competitive and sustainable economy, Canada must have a skilled and well-trained workforce that can meet the needs of industry. Students must now acquire problem-solving and critical-thinking skills, in addition to specific job-related expertise, to reach their full potential as a vital work resource.

The growth of global networks has resulted in a shortage of people who are qualified to design, build, manage, and secure the information infrastructure needed to do business, support communications and in some cases, save lives. Every business, school, hospital, nonprofit, and other organization that relies on intelligent networks requires trained professionals to keep them running and secure.

A workforce that is well-schooled in information and communications technology (ICT) and engineering can spur innovation across many industries, which in turn inspires additional opportunities to fuel productivity and economic growth. ICT investments are expected to play a major role in generating stable, high-paying jobs and boosting the nation's gross domestic product (GDP).

Cisco Networking Academy is assisting the nation by helping to ensure the supply meets the demand.

## Innovative Education Program

Cisco Networking Academy is a technology education program that partners with public and private organizations to provide the knowledge and skills required for career- and college-ready students. Students acquire basic-to-advanced knowledge of information communications technology and learn networking skills. They also develop the analytic, teamwork, and efficiency skills and the self-confidence that are so essential in the 21st century, both in the job world and in college.

For career-ready students, this means preparation for globally recognized certification exams that qualify them for high-demand, high-wage jobs. Coursework teaches the Focus on Information Technology (FIT) program standards for technical subjects and aligns to many of the initiatives designed to stimulate student interest in science, technology, engineering, and mathematics.

College-ready students strengthen their understanding of technology as well as math, science and engineering concepts, improving success in their advanced studies.

The program is available to high schools, community colleges, universities and a variety of community based organizations. The coursework is comprehensive and free to nonprofit institutions.

## Technical and Career-Ready Skills

Courses include IT Essentials, Cisco CCNA® (Cisco Certified Networking Associate) Discovery, CCNA Exploration, CCNA Security, and the more advanced Cisco CCNP® (Cisco Certified Networking Professional).

With a focus on learning technical skills, the instructional approach encourages student engagement, enhancing students' ability to synthesize what they learn

Every 60 seconds:

- 168 million emails sent
- 13,000 iPhone apps downloaded
- 98,000 tweets
- 698,000 web searches

From an economic development perspective, the Internet accounts for 21% of GDP growth in the mature countries studied.

The Internet creates 2.6 new jobs for every 1 job lost.

McKinsey Global Institute



"Everything I learned in Cisco Networking Academy courses proved applicable in my career."

Academy Student

and apply it in other contexts. Networking Academy course content integrates four skill areas identified by education researchers as critical for 21st century workers:

- **Problem solving and decision making:** Students practice and test their knowledge by configuring and troubleshooting networks using hands-on labs and simulation software.
- **Creative and critical thinking:** Students understand the how and why of networking by combining hands-on learning with conceptual and analytical exercises.
- **Collaboration, communication and negotiation:** Students acquire individual and teamwork skills as they perform lab exercises and practice solving problems in the context of business scenarios.
- **Intellectual curiosity and information handling:** Students develop the ability to locate, select, structure and evaluate information. Real-world case studies give students the opportunity to develop advanced problem-solving techniques.

Courses prepare and motivate students to pursue further education or to apply these skills in their own businesses.

### Comprehensive with Communities of Support

Each course is free to non-profits and includes instructor-led course content, lab exercises and simulation software, skills assessments, case studies, a gaming application, and interactive teaching guides and grade books. All materials are available to instructors online with 24/7 support.

Unique to Networking Academy is our focus on instructor professional development, and the creation of communities to support both instructors and students. Instructors receive training prior to teaching their first class and many free professional development opportunities throughout the year. Cisco hosts peer communities where instructors can collaborate and share best practices online and in person. Students have access to skills competitions and a global network of peers to troubleshoot coursework and prepare for exams, while mentoring and encouraging one another.



“We ended up with an amazing high school graduation rate of at-risk young people getting involved with IT, and pursuing postsecondary education.”

High School Principal

“The tools and support are the reason we chose Cisco Networking Academy over any other tech ed program.”

Academy Instructor



#### Human Network

At the heart of Cisco Networking Academy is a unique public-private partnership model, directing vast networks of human passion and expertise into creating the world's largest classroom. Cisco partners with governments, businesses, schools, universities, nonprofits, non-governmental and community organizations in 165 countries to deliver its innovative ICT curriculum.

#### Technology Network

Networking Academy uses technology networks and cloud computing to deliver innovative, comprehensive ICT education through a blended learning model that provides immediate interactive feedback. Instructors access teaching content and assessments online. Students create, configure, secure, and troubleshoot highly complex simulated networks through Cisco Packet Tracer, a powerful network simulation and visualization tool.

#### Future Workforce

With more than 4 million students to date, Networking Academy helps to ensure a supply of ICT professionals around the world. Many Networking Academy graduates have gone on to successful ICT careers in a variety of industries, including education, healthcare, financial services, and of course technology. Other graduates have harnessed the entrepreneurial spirit and knowledge they've acquired to start businesses and create new jobs.

## The Growing Demand for ICT Skills

Table 1. National employment projections for select ICT occupations<sup>1</sup>

Canada Occupation Projections	Employment	
	2011	2016
Computer and Information Systems Managers	46,562	49,395
Information Systems Analysts and Consultants	147,729	158,954
User Support Technicians	65,591	69,456
Telecommunication Carrier Managers	10,561	11,274
Computer Network Technicians	49,578	52,369
Broadcast Technicians	2,778	2,990

<sup>1</sup> Source: Information and Communication Technology Council (ICTC), www.ictc-ctic.ca

## The Impact in Canada

The partnership between Cisco and Canada has touched the lives of 107,031 students and generated an estimated in-kind contribution value of \$ 46.5M.

Table 2. Impact since the adoption of Cisco Networking Academy in Canada

<b>Students</b>	107,031
<b>In-kind contribution value</b>	\$ 46.5M

Table 3. Detailed results of Cisco Networking Academy over the last 12 months in Canada

Students					20,246
Female students					10%
Instructors					525
Academies					214
<b>Education Level<sup>1</sup></b>	<b>Secondary</b>	<b>Community colleges</b>	<b>Universities</b>	<b>Other<sup>2</sup></b>	
Students	25%	55%	19%	1%	
Academies	48%	39%	10%	3%	
<b>Curricula<sup>1</sup></b>	<b>Basic ICT IT Essentials</b>	<b>Basic networking CCNA 1, 2</b>	<b>Intermediate networking CCNA 3, 4</b>	<b>Advanced networking CCNA-S, CCNP</b>	
Students enrolled in each curriculum	25%	50%	21%	4%	

<sup>1</sup> Academies and students that teach or enroll in more than one education level or curriculum in 12 months may be counted more than once

<sup>2</sup> Community-based organizations, middle schools, military, nontraditional educational settings, and post-graduate institutions

## Academy Success Stories

### NetRiders Skills Challenge

Cisco NetRiders is an annual skills-based competition for academy students globally, separated into two segments: one for secondary and one for post-secondary students. Each year, 10,000 students compete in over 80 countries for the chance to win cash prizes and study trips to Cisco headquarters in Silicon Valley, California. Students advance through in-person and virtual theoretical exams and simulation exercises designed to test their networking aptitude and prepare them for on-the-job technology challenges. NetRiders and other student competitions challenge students to excel, provide visibility for academy schools and instructors, help promote ICT and networking careers, and identify top talent for potential employers.

## ICTC and Cisco Networking Academy

ICTC recently reported the need for 106,000 new ICT workers in Canada over the next five years, due in part to an increase in worker retirement. Paul Swinwood, ICTC president, identifies an important step to address the demand for ICT specialists: “We must get high school students interested in ICT careers so they will progress to postsecondary school. Getting the students when they are young and putting them through Cisco Networking Academy shows them the fun they can have while learning. We must identify the right courses and the right training for these students so they can transition to jobs in ICT.”

Cisco and ICTC have been collaborating since 1998, with just 15 initial academy schools in secondary and postsecondary schools. Now almost 100,000 Canadian students have taken Networking Academy courses at over 200 schools. “Cisco is ahead of other technology companies in its approach to the educational system, the depth and breadth of its curricula, and the fact that schools can afford it. Cisco approaches us with ways to solve education challenges, rather than ways to make sales.”

Paul is a fan of Passport 21, the entrepreneurial teaching tool used in Networking Academy courses that allows students to tackle case studies and practice real-world skills in simulated environments. ICTC paid to have the component translated into French for Canada’s French-speaking populations. “Our Networking Academy graduates can improve the productivity of a company. Having people educated to understand the business picture, the ICT sector, and being able to communicate it clearly— skills taught in Networking Academy courses— is crucial to Canada’s economic development.”

In 10 provinces and two Canadian territories, ICTC has created a high school program called Focus on IT (FIT) to establish a bridge to community colleges and universities. Students who pass Networking Academy courses in high school receive advanced standing when they start postsecondary school, effectively reducing their time in college by receiving credit for studies completed in high school. And conversely, “If the local high school does not offer Networking Academy courses, community colleges and universities are prepared to offer their Networking Academy courses to supplement the high school’s program.”

ICTC’s first pilot program was aimed at a group of students who were identified as at-risk to drop out during grades 9 and 10. “We ended up with an amazing improvement in the high school graduation rate for young people taking Networking Academy courses and getting involved with ICT. If we do not do something as an industry, we will lose enrollment in postsecondary education. We cannot afford that, because 80% of our current ICT workforce has postsecondary graduation certificates, diplomas or degrees. We need to keep today’s students interested enough to pursue more education, by showing them what their opportunities will be if they stick with it.”

### Learn More

For additional information on Networking Academy, impact stories, contacts in your area, and how you can get involved, visit our website: [cisco.com/go/netacad/can](http://cisco.com/go/netacad/can)



[cisco.com/go/csr](http://cisco.com/go/csr)



## Cisco Corporate Social Responsibility

We believe that businesses have a responsibility to operate in ways that respect and ultimately benefit people, communities and the planet we live on; we call this Corporate Social Responsibility (CSR). Our core CSR philosophy is that impact multiplies whenever human and technology networks combine to solve a problem.

This is why we approach CSR the same way we approach business – by applying our technology, employee expertise and partnerships. We are focused on four primary goals: improving the well-being of people and communities around the world, reducing our environmental impact and helping our customers do the same, conducting our business ethically, and creating a workplace where our employees thrive.