Case Study December 2002

Learning Technologies in the Workplace Award Winner 2002
Cisco Systems Canada Co.

The Education and Learning case studies examine outstanding education and lifelong learning programs and initiatives. This case study addresses e-learning.

OVERVIEW

In today's global, knowledge-based economy, human capital is the lifeblood of most companies. Employees who are able to quickly disseminate information, knowledge, and insights give their company a competitive advantage. At Cisco, skills training and education play an important role. They ensure that knowledge, information, and expertise are acquired and transferred between employees and company divisions right across the world.

Cisco Systems is a leader in networking for the Internet—providing networking solutions that customers use to build information infrastructures of their own or to connect to someone else's network. Cisco's networking solutions—including, for example, Ethernet access servers, cable products, Internetwork Operating System (IOS) software, optical hardware and software products, media servers, routers, security and Virtual Private Network (VPN) products, switches, and wireless products—connect computing devices and computer networks and allow people to access or transfer

Effective practices case study in employee learning through learning technologies

Name of Program
Cisco's Field E-Learning Connection

Date Established
1999

Skills Developed
- Employability skills
- Technical skills
- Sales skills

Contact
Holly Copestick
National E-Learning Solutions Manager
Cisco Systems Canada Co.
Bay Wellington Tower, BCE Place
3400–181 Bay Street
Toronto, ON M5J 2T3
Tel. (416) 306-7403
Fax (416) 306-7099
hollyc@cisco.com

information without worrying about differences in time, place, or type of computer system.

In addition to being known for its technology and product leadership, Cisco is also recognized as being an innovator in how it conducts business. Cisco pioneered the use of the Internet to offer training, manage finances, sell products, and provide customer support.

Cisco embraces and supports an environment in which employees learn and develop their workplace skills and talents in order to remain competitive and up-to-date on the latest technologies and thinking. Using the Internet as an effective communications and networking tool, as well as a core skills-development tool, is a key to its success. By employing its own e-learning solutions, Cisco has been able to develop and deploy training quickly and effectively to employees and partners around the world, on an "anytime, anywhere" basis. Today, a typical employee at Cisco taps into the internal Web site—or Intranet—more than 30 times a day. The use of the Web permeates nearly every aspect of an employee's business and job functions, from e-commerce, product development and testing, mergers and acquisitions, public relations, and human resources to completing on-line training.

Cisco's model of employee learning—as exemplified in its Field E-Learning Connection—is well suited to companies with a geographically dispersed employee base. Companies that recognize the value and importance of employee learning and development—who see training as an investment and not as a cost—can learn from Cisco's e-learning success. This case study focuses on Cisco's Field E-Learning Connection, which is one of many examples of the application of e-learning at Cisco Systems.[1]

EMPLOYEE LEARNING AND DEVELOPMENT

Cisco offers its employees a range of learning and development options—from business skills, to marketing skills, to technical and engineering skills, to product knowledge skills, to basic industry skills.
- The majority of Cisco's training initiatives—whether or not they are on-line, face-to-face, formal, or informal—tend to focus on technical and technological skills competencies.

- Generally speaking, training opportunities at Cisco fall into three major categories: technical skills training (40 to 50 per cent), management skills training (20 per cent), and generic skills or "softer skills" training (30 to 40 per cent). They include time management, product knowledge, effective communications, problem solving, and teamwork.

OBJECTIVES

Cisco takes employee learning seriously. Through a breadth of learning initiatives—particularly through on-line and on-demand multimedia training and development programs—Cisco is able to offer its employees opportunities that:
- increase their performance and productivity;
- develop learners who are better equipped to participate and succeed;
- reduce the amount of training time that employees need in order to be competent, which is something that adds tremendous value in the competitive high-tech industry;
- reduce costs and eliminate traditional barriers like time, distance, and space; and
- offer flexibility and training choices so that learning takes place at the employee's own pace and is designed to match individual targeted learning plans.

Cisco's management recognized early on that relying solely on traditional classroom training was ineffective because it could not be delivered on an as-needed basis, was not cost effective, and it interrupted business flow. Traditional learning not only took the sales force away from customers, it was also limited in terms of its accessibility. It could not be scaled to meet the needs of Cisco's global employee base and it simply could not keep pace with the continuous development needs of the company's sales force.

TARGET GROUPS

The company's e-learning initiatives are directed at Cisco's sales force and support staff.

LEARNING ACTIVITIES

In the early days at Cisco, individual business units looked after their own training and education needs. This resulted in redundancies in efforts and programs, and unnecessary expenses. Travel and extended time away from an employee's primary occupation, for example, made training a costly endeavour. With traditional training:

- business units would ship 8 to 12 CD-ROMS containing training instruction every quarter to the sales force. In addition, the company had 10 million Web pages on the corporate Intranet, and trying to find information on them was time consuming and fostered somewhat of an "anti-learning" bias;
- newly hired salespersons were required to travel to corporate or regional sites for several five-day courses each year, and lost sales time quickly translated into lost opportunity costs; and
- delivering single-product training to the entire sales team through a traditional classroom model required up to 200 course offerings to reach everyone worldwide.

Cisco's Internet Learning Solutions Group (ILSG) is responsible for the training of the global sales force and support staff, 30,000 channel partners, and thousands of customers on product lines, new technologies and Internet business practices. In 1999, it was asked to re-engineer the company's training strategy in order to gain the same business efficiencies that had been realized from their other deployed Internet business solutions. The ILSG needed to find a way to match the pace of learning at Cisco with the speed of its product releases and changes in the economy. In an effort to optimize learning on a global basis, streamline development initiatives, eliminate needless repetition, and identify personal and organizational learning gaps, the ILSG launched the Field E-Learning Connection. This is a Web site where content is aggregated by audience and organized in curriculum maps based on job role, line of business, and technology.

CISCO'S FIELD E-LEARNING CONNECTION

The Cisco Field E-Learning Connection is a unified delivery framework that delivers training activities and communications to its sales force quickly and effectively. It is a single, on-line point of entry that plans, tracks, develops, and measures the company's sales force's skills and knowledge. The global site links tens of thousands of searchable Web-based learning aids and job-specific learning paths with corresponding individual histories and access to on-line assessment tools and certification examinations.

There are various delivery strategies within the Field E-Learning Connection.

- Content-on-demand training allows staff to access training whenever and wherever they want.
- Through using IP/TV—which supports large-scale, high-quality streaming media—Cisco can conduct a single update training that reaches up to 3,000 people at once, worldwide.
- Live Internet broadcasts and rebroadcasts to multiple users in multiple sites, cost little and reach many people.
- A video-on-demand (VoD) menu searches disparate databases and systems at Cisco to find VoD modules relevant to a learner's focus, subject matter, speaker or sales theatre anywhere in the world.
- On-line virtual lab programs enable learners to connect to a hands-on remote lab and receive instructional directions upon their arrival.
- Web-delivered simulations are used for complex topics and subject matter.
- On-line seminars provide a cost-effective integrated audiovisual format with built-in accountability and measurability via front-end registration and back-end reporting.
- Virtual classrooms and remote labs provide access to equipment, lab equipment, training environments, and techniques too costly to replicate locally for every learner.
- CD-ROMs allow employees with incompatible technologies or no access to the Web to take training and learning modules.
- Employees have electronic access to Cisco experts or "e-mentors" who can respond via e-mail, phone, or virtual meetings where they can walk a learner through an exercise, like e-Learning for the Sales Force.

The information in the on-line learning modules is captured from the most qualified sources and ensures consistency and quality of content. In addition, the Field E-Learning Connection incorporates accountability by ensuring that the learner and knowledge provider can track results.

- Learners select a curriculum or an individual module based on their skills learning needs, usually in consultation with their managers.
- Following the learning activity, a follow-up assessment is administered to gauge effectiveness.
- Results of the post-learning assessment, including records of all training modules, are stored in a personal training history file in the human resource on-line database.

This robust reporting capability enables sales managers to track and monitor their employees' curriculum, understand which of their employees have taken and passed the assessment tests, and allows them to assess employee baseline product knowledge and progress, all of which are critical to the success of the company.

RESOURCES

The Field E-Learning Connection uses the knowledge, expertise, and products of Cisco, including its Internet Protocol-based (IP) networking solutions. It has support and commitment from all levels of Cisco Systems.

INNOVATIONS

- Cisco recognizes the value of investing in its employees. By developing employees' talents, the company, in the longer term, believes it will come out on top.
- Engineers and product marketing specialists, as well as professional content developers, come up with the content for training and curricula. Today, all employees at Cisco who have knowledge or subject matter to be shared or communicated to other employees contribute to content development. It is part of their job.
- Cisco has embedded the process of learning into the job functions of its employees. Learning and development are an almost invisible part of one's daily functions and tasks.

- E-learning through Internet use is an integral part of Cisco's training and development platform. It enables the company to scale the delivery of the learning program to meet almost any of the demands and needs of employees.
- Many of the learning modules and programs available through Cisco's e-learning platform are designed around core products and specific job occupations.
- At Cisco, learning measures are not based on minimum training hours or required classes (lagging indicators), but on assessment tests that determine the levels of knowledge and competency of core products or processes required for one's job (leading indicators).

BARRIERS

- Finding the time to take training
- Ensuring that the learning reflects the strategic needs and growth areas of the organization
- Overcoming attitudes and prejudices that training is not necessarily a "real" part of the business process
- Ensuring that all of the training materials—whether they are posted on the Web or delivered in a classroom—are up-to-date and current
- Coming up with the upfront resources (time, capital, equipment, and technology) to develop and implement e-learning tools, training modules, and content
- Overcoming challenges in locating necessary learning modules or products, because with over 10 million pages on Cisco's corporate Intranet, the on-line database is enormous

SOLUTIONS/KEYS TO SUCCESS

- Throughout the organization, Cisco believes that training is an investment, not a cost. The corporate culture empowers individuals to learn and continuously raise their skills and knowledge.
- Management views training in general and e-learning in particular as an effective and empowering tool.
- Employees at all levels of the company buy into and use Web-based learning.
- Cisco's Field E-Learning Connection's strength lies in having a centralized deployment platform for all e-learning products, and a decentralized content development platform in which the subject-matter experts get to create and develop the content.
- Cisco's learning and training and development strategy is linked directly with its corporate strategy.

- Training and development initiatives are seen as a primary enabler through which employees can build and share knowledge, and solve problems.

OUTCOMES

- E-learning has helped Cisco to become more efficient. It has streamlined operations and enabled employees to take care of tasks quickly and cost-effectively.
- E-learning builds in accountability by tracking the training history of employees and ensuring standard levels of proficiency. Managers and employees can work together to build career training and development paths.
- Today, close to 80 per cent of all in-house skills training and learning activities are conducted over the Web and through Cisco's Intranet site.
- Sales team members know where to go for the latest information and knowledge on new products and technologies, and are confident that the content is accurate, timely, and that it comes from the most expert individual or group.
- The sales force spends up to 40 per cent less time away from customers.
- A Web site that is dedicated entirely to the field sales force allows team members to review their training histories, read relevant news articles, and register for on-line classes.
- On-line assessments and baseline measurements gauge individual training needs and ensure that sales force team members know their stuff.

IMPACTS AND BENEFITS

Cisco has realized significant benefits from the Field E-Learning Connection. These benefits include, for example:
- Increased quality of work by employees.
- Improved problem-solving abilities in employees.

- Ability to achieve just-in-time skills enhancement or refreshment when required, thereby helping to ensure that skill sets are fresh and up-to-date.
- Cisco's travel expenses and classroom scheduling and costs have been greatly reduced or eliminated, thereby reducing fixed training costs and freeing up more training dollars for content and delivery development.
- Greater efficiencies in the workplace. Over the past several years, Cisco has achieved a 40 to 60 per cent cost savings through the increased use of e-learning applications by way of more efficient, convenient, and effective knowledge transfer to those who need it, when they need it.
- Through its e-learning platform, employees can take the skills training and development courses they need, when they need them.
- The acquisition of necessary and critical skills and knowledge is quick—there are zero time lags.

USE AS A MODEL

High-tech organizations that utilize their information and communications technologies for internal knowledge management and knowledge-sharing activities will have experienced many of the same successes and challenges that Cisco has faced. By committing to a culture that empowers and encourages employees to learn—a culture that permeates all levels and all functions of Cisco's workforce—companies are able to motivate and encourage their employees to quickly learn and share information. And, in today's knowledge-based economy, agile companies are winning companies.

Our thanks to Holly Copestick and other employees at Cisco Systems Canada Co., who provided comment.

---

1 Much of the content for this case study comes from Cisco Systems' 2002 entry submission to the National Awards for Learning Technologies in the Workplace, which was prepared by Holly Copestick, National E-Learning Solutions Manager, Cisco Systems.

About the Education and Learning Case Studies

The Education and Learning case studies examine outstanding education and learning programs and initiatives. The case studies provide in-depth analysis of the methods used to develop, assess, implement, and deliver education and lifelong learning in schools, colleges, universities, workplaces, and communities. They focus on goals, activities, resource requirements, achievements and outcomes, benefits, innovations, and keys to success and challenges.

This case study addresses e-learning and highlights one of the award winners from the National Awards for Learning Technologies in the Workplace, funded by the Office of Learning Technologies, Human Resources Development Canada.

Learning Technologies in the Workplace Award Winner 2002: Cisco Systems Canada Co.
by *Doug Watt*

About The Conference Board of Canada

The Conference Board of Canada is the foremost independent, not-for-profit applied research organization in Canada. We help build leadership capacity for a better Canada by creating and sharing insights on economic trends, public policy issues, and organizational performance. We forge relationships and deliver knowledge through our learning events, networks, research products, and customized information services. Our members include a broad range of Canadian organizations from the public and private sectors. The Conference Board of Canada was formed in 1954, and is affiliated with The Conference Board, Inc. that serves some 3,000 companies in 67 nations.

www.conferenceboard.ca