

# Egyptian Government Builds National Technology Infrastructure to Transform and Empower the Country's Workforce

#### **Executive Summary**

CUSTOMER NAME Egyptian Ministry of

Communications and Information Technology

INDUSTRY Public Sector

#### BUSINESS CHALLENGES

- Improve the knowledge base and competitiveness of Egyptian professionals and small and mediumsize businesses
- Develop an e-learning program to educate thousands of Egyptian citizens quickly
- Deliver education and training through e-learning and ICTenabled instruction

#### SOLUTIONS

- Deliver training and education via a national e-learning platform
- Nationwide e-learning infrastructure for IT and business education

**BUSINESS RESULTS** 

- ICT and professional education for Egyptian citizens
- E-Learning Competence Center to train next generation of IT educators
- E-learning model for other government ministries to follow

The Egyptian government wanted to improve the country's ability to compete in the global economy by equipping citizens and businesses with the technology skills they needed to succeed. The Ministry of Communications and Information Technology worked with the Cisco<sup>®</sup> Internet Business Solutions Group (IBSG) to develop a national e-learning education center and a comprehensive e-learning curriculum to address critical skills gaps in Egypt.

## **Business Challenges**

Focused on reform, the government of Egypt was determined to develop a new generation of skilled business and technology professionals that would transform the nation's workforce. The country's Ministry of Communications and Information Technology (MCIT)—led in 2004 by His Excellency Dr. Ahmed Nazif (now prime minister of Egypt) envisioned a highly skilled, adaptable, and technology-savvy workforce that would allow Egypt to compete effectively in the global economy. The first step was to help Egyptian small and medium-size businesses (SMBs)—which lagged in information and communications technology (ICT)—to develop the critical skills they needed to thrive in a knowledgebased global economy.

Several barriers, however, stood in the way of achieving these goals. The ICT industry in Egypt was developing slowly, and the level of business skills and ICT knowledge, especially among SMB employees, was low. In addition, the country had a shortage of qualified IT teachers, and no standardized business and ICT education content was available to support the initiative.

The MCIT needed a strategy for providing high-quality standardized IT and business education to large numbers of people as quickly as possible. MCIT leaders quickly recognized that e-learning could play a central role in the education initiative.

Cisco Internet Business Solutions Group (IBSG)

"We have a lot of challenges in the education system on all levels, starting from the preuniversity level going up to the higher-education level, and continuing through lifelong learning," says Yasser Kazem, director of Egypt's E-Learning Competence Center and EEI strategic coordinator. "We believe that e-learning will help accommodate the ever-increasing number of learners, and will allow us to control the quality of the education and structure the learning process."

To build a new generation of Egyptian knowledge workers and IT professionals, the ministry needed to develop a targeted e-learning curriculum and implement a technology platform capable of supporting the curriculum's authoring, management, and delivery systems. The ministry needed to develop a comprehensive model for creating and delivering a state-of-the-art, nationwide e-learning initiative in an environment where nothing of the kind had existed before. In addition, the MCIT wanted its SMB-focused education program to serve as a model for other government agencies and for future e-learning initiatives in a variety of subjects, at all levels of education nationwide.

### Solutions

Dr. Nazif had long maintained a relationship with top-level executives at Cisco. He and other MCIT leaders were familiar with the Cisco Networking Academy<sup>®</sup> a global Cisco e-learning program that provides IT and networking education in 152 countries—and they believed that the program offered the perfect model for Egyptian SMBs. The MCIT asked IBSG to partner with them to develop and implement the e-learning strategy and curriculum.

"We thought the Cisco Networking Academy program was an ideal model to follow in establishing our own e-learning initiative," says Kazem. "We were able to study the various Cisco e-learning models and evaluate them for our own environments. It helped us to better develop the role e-learning would hold nationally, as well as to highlight our unique issues and challenges."

With help from IBSG, the MCIT developed plans for the creation of an Egyptian E-Learning Competence Center (ELCC). The ELCC was designed to be the heart of the national education initiative, developing the e-learning model and curriculum for the entire country, and training the instructors who would go on to educate SMB leaders and managers. The ELCC program—a public-private partnership—would provide a complete and scalable Web-based e-learning authoring delivery and management system to facilitate the broad-based education initiative. From the beginning, the MCIT strived to develop processes and an infrastructure for the ELCC that could later be duplicated by other government ministries to create similar centers targeting other areas of the Egyptian education system.

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Yasser Kazem, Director E-Learning Competence Center; EEI Strategic Coordinator "We designed the ELCC to achieve multiple goals," says Kazem. "First, the center would develop the e-learning content. For that, we needed to train our students and graduates to master the tools and techniques of e-learning content development. Second, we wanted to develop the infrastructure for running an e-learning program. For that, we intended to study and evaluate all the e-learning platforms available worldwide, and select the most suitable platforms for each sector of our economy."

Working closely with IBSG consultants, the MCIT took these high-level goals and transformed them into a cohesive step-by-step plan for implementing the ELCC and creating the country's e-learning curriculum. IBSG and the MCIT achieved the following:

- Developed business and operations plans for the ELCC
- Designed and deployed an IP technology platform for e-learning development and delivery
- Implemented a learning management system, including custom e-learning templates and developer training materials
- Established ELCC as a Cisco Regional Networking Academy, and created curricula to provide computer and networking skills to young people in Egypt
- Piloted a new leadership and management curriculum to enhance the business management in Egyptian SMBs
- · Conducted pilots of all e-learning education programs
- Conducted training workshops for ELCC instructors and delivery partners

MCIT and IBSG began developing the ELCC and the country's e-learning curriculum in the fourth quarter of 2004, developing the content, infrastructure, and instructors to serve Egyptian SMBs over the course of the next two years.

## **Business Results**

Today, the ELCC serves as the central vehicle in Egypt for bridging the gap among Egyptian SMBs, knowledge workers, and the global economy. The center equips young Egyptian professionals with the cutting-edge business and technology skills they need to help their businesses become efficient, productive, and competitive.

In the nearly two years since the center has been fully operational, ELCC has trained a core development team to create the e-learning curriculum, and has delivered the Business Essentials basic technology and networking course to more than 500 Egyptian professionals. The center has also established local academies across the country, and has developed and rolled out custom executive training courses for Egyptian SMBs.

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Yasser Kazem, Director E-Learning Competence Center; EEI Strategic Coordinator "Cisco and our IBSG consultants gave us the opportunity to better understand the meaning of an e-learning platform, and to think more deeply about the requirements for delivering e-learning," says Kazem. "This encompassed not only the learning management system, but the entire e-learning initiative for Egypt, and the infrastructure and the skills required to augment the traditional education system."

Through the ELCC development process and the work with IBSG, the MCIT established not only an organizational and technical foundation for delivering e-learning to SMBs, but also a comprehensive model for helping other government ministries and sectors of the Egyptian education system achieve similar objectives.

"We were able to think strategically about how we could develop e-learning as a technology to support all types of education in Egypt," says Kazem. "I believe that in the future, the ELCC will set the standard for e-learning. This model will be replicated throughout Egypt."

## **Next Steps**

Today, the ELCC has a team of developers creating Arabic courses to serve the needs of Egypt and other countries in the region, and to provide a model for ICT skills development for all of North Africa and the Middle East. Based on the lessons learned through the Business Essentials pilot, Cisco and ELCC have also worked together to create a new, localized version for Egyptian SMEs.

Within Egypt, the ELCC is a core component of the Egyptian Education Initiative. The initiative, sponsored by the World Economic Forum, is designed to transform preuniversity, higher education, and professional lifelong learning throughout the country, and serve as a catalyst for the social and economic development of Egyptian citizens.

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#### More Information

The Cisco Internet Business Solutions Group (IBSG), the global strategic consulting arm of Cisco, helps Global Fortune 500 companies and public organizations transform the way they do business—first by designing innovative business processes, and then by integrating advanced technologies into visionary roadmaps that improve customer experience and revenue growth.

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