The Role of Private Sector in Building Capacity - Cisco Networking Academy Program

Hital Muraj
hmuraj@cisco.com
Networks and People

For Thousands of Years,

Networks have connected people in all facets of life—families, communities, institutions, commerce.
Networks and People

The Internet Is Empowering

Billions of people to communicate and collaborate using all forms of human expression—data, voice, video—without regard to location, whether at work, at home, at school or on the road.
Welcome to the Human Network

The Internet Is Not a Network of Computers,

It is a network of people.
Demanding Marketplace, Impacting All

More Sophisticated Networking Skills

Skills for All Environments...
Homes, Schools, Streets, Offices

Business Understanding
Work Ready Graduates
Talent Spotting...
Certifications

Inclusion...
Older, Unemployed, Under-qualified, Women

Shortages and Leapfrogging
Heightened Pressure
on Education Systems
Tech Sector Tipped to See Fastest Job Growth From Now to 2014

Networking Top of the List for 10 Fastest-Growing Jobs

Note: Fastest-growing occupations for college-educated workers. Source: Bureau of Labor Statistics
IDC MEA Skills Gap Study 2006

- Covered 9 countries in the Middle East region, Pakistan and South Africa
- Alarming Networking Skills shortage across Emerging Markets
- In three years there will be a shortage of approximately 265,000 skilled people
- By 2009, demand will outstrip supply by 24% in South Africa and 35% in countries surveyed in the Middle East region and Pakistan
- In the areas of IP telephony, security and networking, South Africa will have a projected gap of 30%
- Nigeria
IDC Skill Gap Study South Africa

Shortage of techies: risk of IT blackout in 2010

Ana Montero

AS THE 2006 FIFA World Cup went off without any technical hitches in Germany, the Information Technology industry (IT) in SA is ringing alarm bells about whether it will be as hassle-free when the country hosts the sporting spectacular in 2010.

Spurred by the release of a report last week that found SA needs 51 580 networking professionals just to fill current vacancies in the market, commentators are concerned that South Africa may suffer from a tech shortage "in dire straits. By 2006 we are looking at a shortage of 113 000 network professionals," he says.

Hussain Hamid, the deputy CEO of Business Connection, the biggest outsourced online – as access platforms need to be secure at all times.

Hamid says that focus on basic IT skills such as using word-processing, spreadsheet and e-mail packages has led to the neglect of developing more advanced skills. "Had we not done the study, we wouldn't have known that we now are in dire straits. By 2006 we are looking at a shortage of 113 000 network professionals," he says.

According to the IDC report, the technology sector will need 70 000 additional IT professionals to fill current vacancies in the market by 2010.

SA needs 70 000 techies

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Clive Fynn, Cisco Systems South Africa general manager, said: "The findings represent a call to action to governments, the private sector, educators and individuals to do more to address these needs."

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Value of State and Vendor Backed Certification

Thinking about certifications, which of these elements do you believe to increase their value?

- Recognised by Government: 40%
- Backed by vendor: 60%

Technology is Key to Development

“...The two fundamental equalizers in the global economy are the Internet and education. The Internet is creating unprecedented opportunities for businesses, individuals and governments and the winners will be those with the right skills and knowledge to compete.”

John Chambers
President and CEO
Cisco Systems, Inc.
The Cisco Networking Academy is a dynamic educational program that teaches students relevant technology skills. This increases students’ competitiveness in the global marketplace and opens doors to different employment opportunities.
History of Cisco Networking Academy Program

- Created as a solution for schools installing networks in the US
- **Challenge:** Schools lacked financial and human resources to manage networks
- **Solution:** Curriculum to train teachers, staff, and students to wire and maintain networks in their schools
- Academy program launched
  - August 1997 in the United States with 64 Academies in 7 states
  - Globally in 1998 – Argentina, Australia, Canada, and UK/Ireland
### Network Academy is Strong
Cisco’s longest running and most successful education initiative

<table>
<thead>
<tr>
<th>Quickview:</th>
<th>#</th>
<th>Success Metrics</th>
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<tbody>
<tr>
<td>Participating Countries</td>
<td>166</td>
<td>Percent of Students indicating they use Networking Academy skills on a daily basis 91%</td>
</tr>
<tr>
<td>Participating Academies</td>
<td>9,500</td>
<td>Percent of Students indicating they pursued more education in IT 79%</td>
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<tr>
<td>Participating Students</td>
<td>500,000</td>
<td>Percent of Students indicating that Networking Academy helped them make IT contacts 78%</td>
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<tr>
<td>Participating Instructors</td>
<td>17,000</td>
<td>Percent of Students that indicated they were able to get a new job in IT 50%</td>
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<td>CCNA 4 Graduates (since inception)</td>
<td>407,000</td>
<td>Percent of Students that indicated they started a business in IT 29%</td>
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<tr>
<td>Classes in session right now</td>
<td>30,000+</td>
<td></td>
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<tr>
<td>Online exams taken every 24 hrs</td>
<td>25,000+</td>
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<tr>
<td>New students enter the program every 24 hours</td>
<td>500+</td>
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Source: MRE Reporting, November 28, 2006

Source: Cisco Learning Institute (CLI); Student Outcome Assessment; March 2005 to November 2006, n=24,531 student graduates 3-5 months after last class completion
Emerging Theatre’s Students by Region (500,000+ Students)

- U.S. and Canada: 16%
- Western Europe: 10%
- Latin America: 10%
- Central and Eastern Europe: 3%
- Russia and CIS: 4%
- Middle East: 21%
- Africa: 3%
- AsiaPac - Mature: 13%
- AsiaPac - Emerging and Less Developed: 9%
- Japan: 16%

% of Worldwide Total as of 10.31.06

% Yr-to-Yr Growth from 10.31.05 to 10.31.06: 4%

Source: AME, prepared by jzinn on October 31, 2006 - data as of November 19, 2006
Partnering with Local Educational Institutions

[Map showing distribution of educational institutions by region and type]

Source: AME, prepared by jzinn on October 31, 2006 - data as of October 31, 2006
Cisco Networking Academy - Africa

Africa NetAcad Participation
47 Participating Countries*
435 Participating Academies
24,400+ Participating Students
30% Women
670+ Participating Instructors
12,000+ CCNA 4 Graduates

Source: NetAcad Metrics as of October 31, 2006
for combined: North Africa & Sub-Saharan Africa
*2 additional countries (Libya & Somalia) added since Oct 06, for a total of 49 countries
Government Partnership Examples

**CAMEROON:** 11 Acads; 326 students; 428 CCNA 4 graduates

**Key Initiatives**
- MOU for Cameroon ICT Transformation through NetAcad
- Networking Academy Taskforce: ANTIC, Ministries of Education, Post & Telecom, Women’s Affairs

**Objectives**
- Launch 30 new Networking Academies over next three years
- One Academy per province
- Instructor capacity building

**ETHIOPIA:** 14 Acads; 432 students; 167 CCNA 4 graduates

**Key Initiatives**
- 100 Academies: 10 completed, 90 more identified
- High Schools Integration: 269 high schools, 168 vocational & teacher training colleges

**Objectives**
- Launch ICT education and training program over next two years
- 600 schools across the country delivering ICT training
- Deliver digitized E-Learning curricula

Stats as of Oct 31, 2006
Government Partnership Examples

Nigeria:

Key Initiatives
- FME 100 Academies
- Networking Academy Taskforce:
  FME, Cisco Systems

Objectives
- 32 000 First Degree Holders in an FME survey between 1996 – 2006, 60% still unemployed (i.e. 20 000 Degree holders unemployed). This has led to the Nigeria 20000 initiative through the creation of 100Acads
# Networking Academy Program “2.0” Portfolio – 18 Courses

## CAREERS

<table>
<thead>
<tr>
<th>Enterprise Networking</th>
<th>Small and Medium Business Networking</th>
<th>Network Installer</th>
<th>Basic IT Support</th>
<th>System Admin</th>
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<tr>
<td><strong>FUNDAMENTALS</strong></td>
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<td>IT Essentials I</td>
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<td>IT Essentials II</td>
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<td>PNIE</td>
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## Student Networking Knowledge and Skills

- **CCNA Discovery**
  - Routing, Switching, WANs, Intro to Adv Tech

- **CCNA Exploration**
  - Routing, Switching, WANs, Intro to Adv Tech

- **CCNP**
  - Advanced Routing
  - Remote Access
  - Multilayer Switching
  - Troubleshooting

- **Wireless**

- **Security**
  - Advanced Routing
  - Remote Access
  - Multilayer Switching
  - Troubleshooting
Partner Strategy: Three Pronged Approach

Holistic Approach to Aid Academies, Instructors, Students

Academy Sustainability
- Regional trainings
- Quality programs
- PLAN-IT
- Curriculum expansion
- UNVs
- Impact Assessment

Workforce Development
- Jobs for graduates
- Internships
- Career fairs
- Skills gap surveys
- Soft skills
- Entrepreneurial skills

Gender / Underserved
- Student Funding Support/ Scholarships
- IT Associations

PLAN-IT
- Curriculum expansion
- UNVs
- Impact Assessment
Global Development Partners

- United Nations Development Program (UNDP)
- United States Agency for International Development (USAID)
- International Telecommunication Union (ITU)
- United Nations Volunteers (UNV) / (UNITeS)
- United States Peace Corps
- United Nations Development Fund for Women (UNIFEM) – Arab States
- United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA)
1. Help eradicate poverty, support MDG’s

2. Provide ICT education to underserved communities (female, community centers, slums)

3. Provide a wide range of career opportunities for graduates
Least Developed Countries Initiative—
“A Call for Action” - UNDP, UNV, USAID

Results to Date:

51 Countries (40 LDCs, 11 non-LDCs in Africa)
204 Academies
589 Instructors trained in Africa, Asia, Arab States
11,475 Continuing CCNA Students as of Sept 2006 (27% female)
7,478 Graduates

GENDER INITIATIVE: 50/30
LDC Phase II – Africa 100, Afghanistan Expansion, PLAN-IT
Cisco Networking Academy Program

**Gender Initiative**

- Increase the number of females pursuing academic and career opportunities in Information Technology

- **Gender Initiative established in 2000 “50/30”**
  
  Increase females’ access to IT training and career opportunities
  
  Utilize Academy program as a model / gender laboratory
  
  Collect and share information on best practice recruitment and retention strategies
  
  Develop tools and resources to attract and retain more females to IT
  
  Female role models
International Development Initiatives
Cisco Gender Initiative

- **EDUCATE** young women on careers in Information and Communications Technology (ICT)
- **EXPLORE** opportunities for females to participate in the Cisco Networking Academy Program
- **EMPOWER** females to succeed and continue their education in engineering and computer science
- **CONNECT** women to other women in ICT
- Create a **PIPELINE** of females entering the ICT workforce
At 37 years of age, there is no turning back for Francis Okethwengu. He is currently unemployed— but has no regrets as he is now a student of CCNA, a far cry from his days as cleaner.

Worked for 5 years as a cleaner with Jefkee General Cleaners contracted to the University. Saw a light in the academy program and quit his job to become a full time student.

“I did a short time course in Computer Literacy (prior to the Cisco classes) which built a foundation for me in the computer field and therefore thought it necessary to venture into the IT field by way of embarking on CCNA. This has gradually and significantly improved my skills in IT. I am confident that with this certification, I will get a better job and will be able to provide a better life for my wife and 5 children.”
Thank You