



## Proposal for implementing Cisco Networking Academy (Netacad)

### Introduction:

#### Cisco Networking Academy (Netacad)

- Netacad now offers a wide range of valuable Internet technology skills through the following range of curricula:
  - CCENT
  - CCNA
  - CCNP v5.0
  - IT Essentials PC Hardware & Software
  - Network Security
  - Fundamentals of Wireless LANs

**The flagship course – CCNA - trains students, government employees and in-transition workers to design, build, and maintain complex computer networks.**

- An e-learning model that delivers web-based educational content, online testing, student performance tracking, hands-on labs, and instructor training and support.
- Education and networking experts jointly developed the curriculum.
- It demonstrates a highly successful alliance among Cisco Systems, educators, governments, international organizations, leading technology companies, and nonprofit organizations as the Networking Academy prepares graduates for the demands and opportunities of the New Economy, and access to the latest IT and telecommunication technology..
- It is offered at various levels from technical colleges to universities, polytechnics, community-based organizations, government organizations such as army units and other educational programs around the world.
- At the end of the course, students are prepared for globally recognized industry standard certifications like the Cisco Certified Entry Networking Technician (CCENT), Cisco Certified Network Associate (CCNA) and Cisco Certified Network Professional(CCNP)
- E-learning is also a highly effective tool for reaching disadvantaged and under-served communities world wide to help address the digital divide concern.

For more information on the Networking Academy Program, please refer to [www.cisco.com/asiapac/academy](http://www.cisco.com/asiapac/academy)

#### Program Impact (as of July 10, 2008)

##### Cisco Networking Academy: Impact since 1997

- Academies Worldwide - 13,109
- Academies Asia Pacific - 1,709
- Students Worldwide - 5.0 Million
- Students Asia Pacific - 470,000
- Countries Worldwide - 165
- Countries Asia Pacific - 25

E-learning is also a highly effective tool for reaching disadvantaged and under-served communities world wide to help address the digital divide concern.

## Current Industry Status

Indian IT software and services sector is on track to achieve its long term target aspiration of US\$ 77 billion (excluding e-commerce transactions of \$10 billion). The CAGR required between 2002 and 2008 would be 34% India has emerged as the most preferred destination for BPO and almost every Fortune 100 CEO looking at outsourcing operations to India

### *Fast Facts – Indian Basic Telephony network*

- India has 24 basic telecom circles, which include the 29 states and 6 Union Territories
- Second largest telecom network among emerging economies after China
- Annual industry growth rate of 20%

### *Some Projections*

- As per Gartner Dataquest, the Indian NLD market accounts for 45% of the total call revenue and has an annual growth rate of 20%. This is high even when compared to APAC countries most of which reflect single digit growth rates, including China.

The Year 2002 was dubbed as the 'Year of Infrastructure'. It saw the cellular industry almost double its subscriber base to over 10 million and invest significantly in expansion and new network rollouts. Majority of public sector banks announced investments in increasing their ATM branches and integrating them. Even the IT Enabled Services industry registered growth in excess of 60%. All these sectors significantly grew the domestic demand for networking professionals.

India's telecommunications industry is booming, and the number of mobile-phone subscribers rose from 28 Million in 2003 to an estimated 224 Million in 2007. However, more advanced forms of telephony, including Voice over Internet Protocol (VoIP) and Wireless Internet access, are only now beginning to take off, as is e-commerce. In 2007 mobile subscribers outnumbered fixed-line subscribers by about three to one. The Economist Intelligence Unit expects the ratio to increase to around six to one by 2012.

The government wants to link the country's huge rural population, as well as its own district offices, to the telecoms network. Only about 1/3 of India's 1 billion people live in cities; the rest live in more than 600,000 villages. At present the telecoms network connects only about 4,500 towns and cities and 65,000 villages. To address this issue, the Ministry of Communications and Information Technology has developed a programme, Vision 2010, to guide the telecoms sector. The ten-point plan, released in December 2006, sets out a number of goals to be achieved by 2010, focusing on "connecting the unconnected parts of the country". These include reaching 500m mobile-phone subscriptions, coverage of 85% of the country by mobile networks, a mobile penetration rate of 90% and 80m mobile connections in rural areas. The government's push to increase mobile penetration will also generate increased demand for networking professionals.

The market for IT hardware, too, is substantial, accounting for 64% of total IT spending in 2007. IT hardware spending is forecast to rise from US\$11.3bn in 2007 to US\$19.6bn in 2012. The rate of growth in hardware spending will be far exceeded, however, by that in IT services spending, which will rise from US\$4.6bn to US\$11.8bn over the same period. The most rapidly growing of India's IT businesses is IT-enabled services (ITES), especially call centres and business-process outsourcing (BPO), which is projected to earn US\$43.5bn in combined domestic and export revenue in 2008/09. US, UK and Australian companies have been steadily moving call centres to India during the past few years. More recently, Indian BPO companies have begun to make acquisitions abroad, underscoring the industry's growing maturity in managing costs, and its drive towards efficiency and scale. However, the most pressing reason for going overseas is global competition. Over the past two years international companies such as EDS, Accenture and IBM Global have been aggressively scaling up their offshore BPO activities, and already have a significant presence in India.

The information economy will demand an unprecedented level of technology literacy from tomorrow's workers. Yet in many Asia-Pacific countries there is a severe shortage of trained networking specialists. While IT-focussed curricula are becoming more commonplace in developed countries, colleges and universities in developing countries are often not able to provide up-to-date IT curricula due to a lack of trained staff and equipment. Unless this changes, these countries run the risk of being left behind in the information age, widening the gap between rich and poor countries. Cisco believes that Internet & Education are the two greatest equalizers in life and this program attempts to bridge this gap through the Cisco Networking Academy Program

As per IDC and Gartner Group, a shortage of networking professionals will mean that 30 percent of enterprises will be unable to support the onslaught of new applications they are building. By 2009, the Asia Pacific region, excluding Japan, will have 221,000 fewer people than it needs with advanced network skills in wireless technologies, security and IP telephony, up from 113,000 in 2006. This represents 80 per cent of the total network professional shortfall, which IDC forecasts will be 396,000 in 2009, up from 210,000 in 2006. As network becomes more important to individuals and organisations, this skills shortage may eventually impede the region's economic development. The Cisco Networking Academy is a timely response to these challenges

The Cisco Networking Academy provides graduates with a lucrative career option in this networking field.

## Proposal

### Objectives:

- Educate and train a pool of people in your institution in the highly employable IT skills on Internet networking skills. This will also benefit the corporations in your state that face a shortage of skilled IT personnel and thus obviate their need to recruit foreign talents.

### Suggested implementation phases:

- Implement one/or more course at the Cisco Networking Academy to impart it to a minimum of 100 students each year. Netacad is self-sustainable and needs little cost beyond the first initial investment.

### Commitment for the implementation:

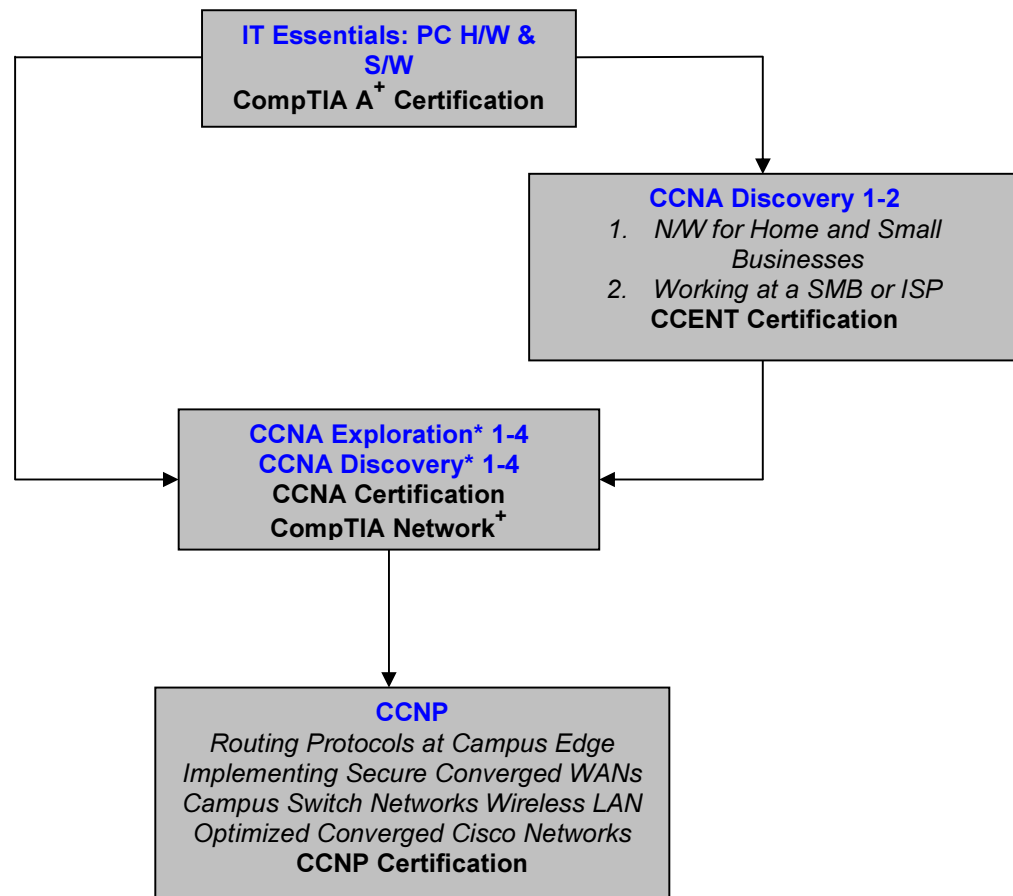
- Cisco's Commitment:
  - Provide the web-based curriculum, and on line course materials, developed by Cisco for the Networking Academy, FREE of charge to your institution
  - Provide 24-hours-7-days-a-week technical support, developed by Cisco for the Networking Academy, FREE of charge to your Academy;
  - Provide necessary Cisco laboratory equipment at a subsidized cost to the Academy;
  - Provide training to 2 instructors (chargeable by the Parent Academy);
  - Provide time of Cisco personnel to help implement the initiative;
  - Provide advice to help all the Academies implement the Quality Assurance Plan to help ensure that quality education can be achieved in these institutions.
- Your institutions commitment:
  - Recommend 2 instructors who can do the additional task of getting trained and imparting instruction to students
  - To impart it to at least 100 students each year;
  - Grant the instructors of the Academies time off for training (CCNA - Total of 22 days in Phases- Phase 1 for 14 days and Phase 2 for 8 days, IT Essentials 1 and 2 -Total 12 days, Network Security 10 days, Wireless LANs – 6 days, Unix – 7 days, Java -10 days)
  - Endeavor to incorporate it as part of the curriculum and offer credits for Networking Academy graduates
  - Ensuring your institution has the necessary lab requirements such as PCs, server, tools and dedicated Internet connection.
  - Arranging for funding or procuring the necessary laboratory equipment for the Local Academy depending on the course opted
  - Pay Parent Academy requisite costs for training as well as any support and mentoring

## Cisco Networking Academy (Netacad)

### Fact Sheet

- Background:** The Cisco Networking Academy (Netacad) is an e-learning model that delivers Web-based educational content, online testing, student performance tracking, hands-on labs, and instructor training and support. With a curriculum developed by education and networking experts, Netacad is offered at, technical colleges and universities around the world. It demonstrates a highly successful alliance among Cisco Systems, educators, governments, leading technology companies, and nonprofit organizations as it prepares graduates for the demands and opportunities of the New Economy.
- The Cisco Networking Academy is an education oriented, non-profit making, and globally recognized IT program. It serves to nurture IT professionals and contribute to the implementation of IT education in Asia Pacific region. The project-driven education program provides students in Asia Pacific with a unique, Internet-based curriculum combined with hands on experience that will help them develop practical computer networking knowledge and skills needed for the Internet age.
- Objective:** Through an innovative partnership with schools, Cisco Systems aims to help students prepare for the demands and enormous opportunities of the information economy, while creating a qualified talent pool for building and maintaining networks.
- Methodology:** Through Netacad, students and in-transition workers learn how to design, build, and maintain computer networks. They develop practical computer networking knowledge and skills in a hands-on environment. Cisco Systems provides the curriculum, training and program support required to help establish and maintain the Academies. This program is the first and only global E-Learning program, and is currently implemented in about 10,000+ education institutions in 160+ countries.
- E-learning:** E-learning is comprised of content delivery in multiple formats, management of the learning experience, and a networked community of learners, content developers and experts. It delivers faster learning at reduced costs, increases access to learning, and provides greater opportunities and accountability for all participants in the learning process.

## SUGGESTED CURRICULUM MAP FOR NETACAD WITH INTERNATIONAL CERTIFICATIONS



Both CCNA Exploration 1-4 & Discovery 1-4 lead to the International CCNA 640-802 Certification

### CCNA Exploration Modules

1. N/W Fundamentals
2. Routing Protocols and Concepts
3. LAN Switching and Wireless
4. Accessing the WAN

### CCNA Discovery Modules

1. N/W for Home and Small Businesses
2. Working at a SMB or ISP
3. Introducing Routing and Switching in the Enterprise
4. Designing and Supporting Computer Networks

### Minimum Requirements for implementing the program at a Local Academy:

- 1-2 instructors
- Minimum 128KB dedicated internet connection to the classroom
- Cisco lab equipment bundle (please see below for the list of equipment)
- Laboratory tools (please see below for the tools needed)
- Laboratory consumables (please see below)
- System and browser requirements (please see table below)
- Provide at least 900 square feet of space available for both the Cisco Networking Academy classroom and lab operations

### Minimum and recommended browser requirements:

If you are using Netscape Communicator, you need Netscape 7.0x and 7.1. Available at: <http://home.netscape.com/browsers/4/index.html?cp=briinf>

If you are using Microsoft Internet Explorer, you need version 6 or higher. The Microsoft Internet Explorer is available from: <http://www.microsoft.com/windows/Ie/default.htm>

Java, JavaScript, and Style Sheets must be enabled in your browser's preference settings.

The RealPlayer 7 plug-in must be installed. If you don't already have RealPlayer, you can find version 7.0 on the Real Media Site at: <http://www.real.com>

The Shockwave/Flash plug-in must be installed. If you don't already have the latest version of the plug-in installed, you can find it on the Macromedia Site at: <http://www.macromedia.com/shockwave/download/>

### Reference List of non-Cisco Necessary Lab Equipment

Personal Computers\* for the curriculum delivery classroom, using a 3:1 maximum ratio of students to computers.

#### *Recommended system requirements for a PC:*

- Windows 2000, Windows XP or higher with Netscape 7.0x and 7.1, IE 6.0, or IE 5.5 SP 2, or Firefox 1.x with Java, JavaScript, and Style Sheets Enabled Java script enabled, with QuickTime plug-in and Macromedia Flash Player 8.0 or higher, MacroMedia Shockwave plug-in (all of these are available free on the Web)
- Intel Pentium III 500 MHz or equivalent/higher processor
- 512 MB Installed RAM or better, 100 MB free disk space
- Display minimum resolution 800 x 600 at 256 colors
- 10BaseT Ethernet Network Interface Card and or wireless capability
- Latest video card drivers and operating system updates
- 1024 x 768 Resolution, High Color (16-Bit) (800 x 600 Resolution, 256 colors minimum)
- Mouse, Sound Card and Speakers
- Wireless Network Adapters

*Note: CCNA Discovery, CCNA Exploration with Packet Tracer are NOT SUPPORTED on Macintosh systems*

#### *Recommended System Requirements for Macintosh*

- OS X with OS 9 Classic Environment
- Power PC G3 Processor or higher
- 512 MB Installed RAM (ITE requires 512 MB RAM for virtual laptop)
- Netscape 7.0x, 7.1, and 7.2 or Firefox 1.x (Java, JavaScript, and Style Sheets Enabled)
- Flash 8.0 Plugin
- 17" Monitor
- 1024 X 768 Resolution, High Color (16-Bit)

- 10 Base T Ethernet Card
- Mouse, Speakers, Headphones, and Sound Card

Note: Packet Tracer is NOT SUPPORTED on Macintosh systems

Five Personal Computers for the development lab with the following capabilities:

- Windows (2000, XP) or higher;
- Terminal emulation software;
- 10BaseT Ethernet Network Interface Card
- Netscape 7.0x and 7.1, IE 6.0, or IE 5.5 SP 2,
- Available COM port/serial port

Web server – for storing approximately 130Mbytes of zipped web-based curriculum content

Hub 8-port unmanaged – 4 units

Cat 5 Twisted Pair Ethernet UTP Cables\*\* - Approximately 45 metres/150 feet per student

Cat 5 Twisted Pair Ethernet Connectors\*\* - 12 per student in the CCNA Module 1 class

Cat 5 Crimping tools, wire cutters and punch down tools - 6 sets per class based on a 30-student class

Cable tester - 1 per class (this could range from a simple continuity tester to tester that can check total throughput of the cable)

Six 568B Standard Patch Panels

Two 19-inch Communication Racks, inter-connected by Cable Tray

\* Amount dependent on class size (number of students) and ratio listed above.

\*\* indicates reoccurring cost for one class module



**PROGRAM TITLE: CISCO CERTIFIED NETWORK ASSOCIATE (CCNA)**

There are 2 modes to complete CCNA:

- The Cisco Networking Academy offers 2 different CCNA Curriculum, viz, CCNA Discovery and CCNA Exploration
- CCNA Discovery provides students with a foundational learning in networking based on application while.
- CCNA Exploration provides students with deep insight on to protocols and theory of networking based on Technology
- Upon successful completion of modules 1 & 2 of CCNA Discovery Curriculum, students qualify for the Cisco Certified Entry Network Technician (CCENT) certification
- Upon successful completion of modules 1 to 4 of either CCNA Discovery or CCNA Exploration Curriculum, students qualify for the Cisco Certified Network Associate (CCNA) Certification.

DURATION OF COURSE FOR STUDENTS :	280 HOURS
DURATION OF INSTRUCTOR TRAINING	19 WORKING DAYS split into 11 and 8 days in 2 phases
INDICATIVE COST OF SUPPORT FEES :	Rs.12,500/- + taxes per Year
INDICATIVE COST OF INSTRUCTOR TRAINING, PER INSTRUCTOR	Approx. Rs 1250/- per day + taxes
MINIMUM NUMBER OF FACULTY TO BE TRAINED	Preferable TWO
INDICATIVE COST OF EQUIPMENT	(current applicable price shall be provided by Cisco Partner)
Required Equipment for the CCNA lab	Rs 4,10,000 (1841 Router Pod) Rs 4,85,000 (2801 Router Pod) Rs 5,50,000 (2811 Router Pod) Rs 3,10,000 (Only CCNA Discovery 1 & 2)  <i>College to choose from one of the above depending on the curriculum opted for and their available budget</i>
Passive equipment cost excludes cost of existing PC & server of the institutes computer lab	Rs 50 K
CCNA Certification of 2 instructors	Rs 4 K
Travel Costs of 2 instructors to Parent Academy Boarding & Lodging Costs during training	On actuals As per diem

**Course Content:**

**Curriculum:** Both the CCNA Discovery and CCNA Exploration curriculum is designed to be a comprehensive program consisting of four modules with a total of 280 hours each with every module spanning to 70 hours

**CCNA Discovery** CCNA Discovery teaches networking based on application covering the types of practical networks students may encounter, from simple home or small office networks to more complex enterprise models. Students learn the technical skills and soft skills needed to succeed in entry-level networking professions such as a network installer, help desk technician, pre-sales support technician, or network technician. CCNA Discovery also provides an introduction to advanced technologies such as voice, video, wireless, and security

CCNA Discovery	Course Content
Home and Small Business Networking	<ul style="list-style-type: none"> <li>• Introduction to networking</li> <li>• Basic cabling for SOHO</li> <li>• LAN addressing and network services</li> <li>• Basic wireless and security</li> <li>• Troubleshooting – plan/build home network</li> </ul>
Networking at a Small-to-Medium Business or an ISP	<ul style="list-style-type: none"> <li>• Intro to OSI model/TCP model</li> <li>• SMB routing and switching</li> <li>• WAN technology</li> <li>• IP addressing</li> <li>• Network devices and cabling</li> <li>• Security / disaster recovery</li> </ul>
Introducing Routing and Switching in the Enterprise	<ul style="list-style-type: none"> <li>• Enterprise overview</li> <li>• LAN/WAN performance</li> <li>• IP addressing – VLSM and subnetting</li> <li>• Advanced switching and routing</li> <li>• EIGRP, OSPF, VLANs, VTP, Frame Relay</li> <li>• LAN/WAN/VLAN troubleshooting</li> </ul>
Designing and Supporting Computer Networks	<ul style="list-style-type: none"> <li>• Design concepts and equipment selection</li> <li>• IP addressing on a LAN/WAN</li> <li>• Network design</li> <li>• Cisco device configuration upgrade</li> <li>• Stronger theoretical notion of converged networks</li> </ul>

#### CCNA Exploration

CCNA Exploration integrates related engineering concepts and provides students with the skills needed to succeed in networking-related degree programs. The curriculum allows students to learn skills in a comprehensive, theoretical, and practical way that is reflective of common educational practices at the college level. It offers flexibility in curriculum delivery and permits shortened course delivery time. CCNA Exploration also provides an introduction to advanced technologies such as voice, video, wireless, and security.

CCNA Exploration	Course Content
Networking Fundamentals	<ul style="list-style-type: none"> <li>• Intro to Advanced Technologies and Converged Networks</li> <li>• Top-Down Approach to Networking</li> </ul>
Routing Protocols and Concepts	<ul style="list-style-type: none"> <li>• Dynamic Routing protocols</li> <li>• VLSM, OSPF, EIGRP</li> <li>• More challenging labs</li> </ul>
LAN Switching and Wireless	<ul style="list-style-type: none"> <li>• Switch Configuration</li> <li>• Rapid Spanning Tree protocol</li> <li>• Wireless concepts</li> <li>• VLAN's &amp; IP Telephony basics</li> </ul>
Accessing the WAN	<ul style="list-style-type: none"> <li>• New WAN concepts</li> <li>• ACLs, VPN concepts</li> <li>• PPP, PPPoE and Frame relay, etc</li> </ul>

**Equipment Details for CCNA:**

Required Cisco Equipment Configuration (The following CCNA Program Lab Bundles are only applicable to CCNA curriculum ONLY)

**Academies adopting CCNA Discovery 1–4 or CCNA Exploration 1–4:**

**Minimum Required Equipment Bundle**

In order to implement the different topologies that are used in the lab exercises of the CCNA curricula, Academies teaching the four courses of CCNA Discovery or CCNA Exploration must meet or exceed the following equipment requirements:

- 3 Cisco 1841,2801 or 2811 routers with Base IP IOS
- 3 2960 switches
- 2 Linksys wireless routers (Linksys 310N is preferred but 54G is alternative) or SOHO equivalent

Note: The routers and switches in this equipment bundles can be substituted by other Cisco models with equal or higher specifications

**Academies adopting CCNA Discovery 1 and 2 Only**

**Minimum Required Equipment Bundle:**

Academies that decide to offer CCNA Discovery 1 and 2 only do not require the full functionality of the 2960 switches and can substitute them with Ethernet Switch Interface Cards for the 1841 routers. The following is the minimum equipment required:

- 3 Cisco 1841 routers with Base IP IOS
- 3 four port Ethernet Switch Interface Cards for the 1841 Routers
- 2 Linksys wireless routers (Linksys 310N is preferred but 54G is alternative) or SOHO equivalent

Note: The routers and switches in this equipment bundles can be substituted by other Cisco models with equal or higher specifications

**Additional Lab Equipment Required**

In addition to the networking equipment specified above, the lab topologies of CCNA Discovery and CCNA Exploration require the use of the following equipment and accessories:

- 1 PC acting as an Application Server
- 2 desktop PCs acting as clients
- NIC Cards for the PC server and PC clients
- 2 Wireless LAN Adapters for the client PCs
- Ethernet cables and serial cables
- Cable-making and -testing equipment

**Bundles:**

<b>Bundle Code: CCNA-APAC-ED1841</b>		
<b>CCNA Discovery and CCNA Exploration 1–4 - Standard Equipment Bundle - Version 1.0</b>		
<b>Routing Products</b>	<b>Description</b>	<b>Qty</b>
CISCO1841	Modular Router w/2xFE, 2 WAN slots, 32 FL/128 DR	3
WIC-2A/S	2-Port Async/Sync Serial WAN Interface Card	3
CAB-SS-V35MT	V.35 Cable, DTE Male to Smart Serial, 10 Feet	3
CAB-SS-V35FC	V.35 Cable, DCE Female to Smart Serial, 10 Feet	3
<b>Switching Products</b>	<b>Description</b>	<b>Qty</b>
WS-C2960-24TT-L	Catalyst 2960 24 10/100 + 2 1000BT LAN Base Image	3
<b>Support Products</b>	<b>Description</b>	<b>Qty</b>
CON-SNT-CISCO1841	SMARTnet 8x5xNBD for 1841 Modular Router w/2xF	3
CON-SNT-C29602TT	SMARTNET 8X5XNBD Catalyst 2960 24 10/100 + 2 1000BT LAN	3
<b>Linksys Products</b>	<b>Description</b>	<b>Qty</b>
Linksys WRT310N	Wireless N-Broadband Router	2
<b>Optional Rack Mount Kit</b>		<b>Qty</b>
ACS-1841-RM-19	Rackmount Kit for the 1841	3

<b>Bundle Code: CCNA-APAC-ED2801</b>		
<b>CCNA Discovery and CCNA Exploration 1–4 - Standard Equipment Bundle - Version 1.0</b>		
<b>Routing Products</b>	<b>Description</b>	<b>Qty</b>
CISCO2801	2801 w/AC PWR,2FE,4slots(2HWIC),2PVDM,2AIM,IP BASE,64F/128D	3
WIC-2A/S	2-Port Async/Sync Serial WAN Interface Card	3
CAB-SS-V35MT	V.35 Cable, DTE Male to Smart Serial, 10 Feet	3
CAB-SS-V35FC	V.35 Cable, DCE Female to Smart Serial, 10 Feet	3
<b>Switching Products</b>	<b>Description</b>	<b>Qty</b>
WS-C2960-24TT-L	Catalyst 2960 24 10/100 + 2 1000BT LAN Base Image	3
<b>Support Products</b>	<b>Description</b>	<b>Qty</b>
CON-SNT-C2801	SMARTNET 8X5XNBD 2 FE Router w/2 HWIC/IP	3
CON-SNT-C29602TT	SMARTNET 8X5XNBD Catalyst 2960 24 10/100 + 2 1000BT LAN	3
<b>Linksys Products</b>	<b>Description</b>	<b>Qty</b>
Linksys WRT310N	Wireless N-Broadband Router	2

<b>Bundle Code: CCNA-APAC-ED2811</b>		
<b>CCNA Discovery and CCNA Exploration 1–4 - Standard Equipment Bundle - Version 1.0</b>		
<b>Routing Products</b>	<b>Description</b>	<b>Qty</b>
CISCO2811	2811 w/ AC PWR,2FE,4HWICs,2PVDMs,1NME,2AIMS,IP BASE,64F/256D	3
WIC-2A/S	2-Port Async/Sync Serial WAN Interface Card	3
CAB-SS-V35MT	V.35 Cable, DTE Male to Smart Serial, 10 Feet	3
CAB-SS-V35FC	V.35 Cable, DCE Female to Smart Serial, 10 Feet	3
<b>Switching Products</b>	<b>Description</b>	<b>Qty</b>

WS-C2960-24TT-L	Catalyst 2960 24 10/100 + 2 1000BT LAN Base Image	3
<b>Support Products</b>	<b>Description</b>	<b>Qty</b>
CON-SNT-2811	SMARTNET 8X5XNBD 2811 w/ AC PWR,2FE,4HWI	3
CON-SNT-C29602TT	SMARTNET 8X5XNBD Catalyst 2960 24 10/100 + 2 1000BT LAN	3
<b>Linksys Products</b>	<b>Description</b>	<b>Qty</b>
Linksys WRT310N	Wireless N-Broadband Router	2

**Bundle Code: CCNA-APAC-D1841**

**CCNA Discovery - Standard Bundle - Version 1.0 - Academies Teaching CCNA Discovery 1 and 2 Only**

<b>Routing Products</b>	<b>Description</b>	<b>Qty</b>
CISCO1841	Modular Router w/2xFE, 2 WAN slots, 32 FL/128 DR	3
WIC-2A/S	2-Port Async/Sync Serial WAN Interface Card	3
CAB-SS-V35MT	V.35 Cable, DTE Male to Smart Serial, 10 Feet	3
CAB-SS-V35FC	V.35 Cable, DCE Female to Smart Serial, 10 Feet	3
<b>Switching Module</b>	<b>Description</b>	<b>Qty</b>
HWIC-4ESW	4 port 10/100 BaseT Ethernet switch HWIC	3
<b>Support Products</b>	<b>Description</b>	<b>Qty</b>
CON-SNT-CISCO1841	SMARTnet 8x5xNBD for 1841 Modular Router w/2xF	3
<b>Linksys Products</b>	<b>Description</b>	<b>Qty</b>
Linksys WRT310N	Wireless N-Broadband Router	2
<b>Optional Rack Mount Kit</b>	<b>Description</b>	<b>Qty</b>
ACS-1841-RM-19	Rackmount Kit for the 1841	3

\* Please note that this current list of equipment or their equivalents is as of July 11, 2007. Cisco reserves the absolute right to change any or all of the components of these laboratory equipment in the future as deemed appropriate. For more information, please speak with the Cisco person or the relevant Partner that Cisco has designated.

- The Cisco CCENT (Cisco Certified Entry Networking Technician) certification validates the skills required for entry-level network support positions, the starting point for many successful careers in networking. Candidates should have the knowledge and skill to install, operate and troubleshoot a small enterprise branch network, including basic network security. CCENT certification is the first step toward achieving CCNA, which covers medium size enterprise branch networks with more complex connections.

**PROGRAM TITLE:  
IT ESSENTIALS: PC Hardware and Software**

Advantages of the Program:

This course will introduce students to information technology and data communications.

DURATION OF COURSE FOR STUDENTS :	70 HOURS
DURATION OF INSTRUCTOR TRAINING :	ITE PC Hardware and Software – 7 Working Days
INDICATIVE COST OF SUPPORT FEES :	Rs.3,500 – PER YEAR
INDICATIVE COST OF INSTRUCTOR TRAINING :	Approx. Rs 1250/day + Education cess tax
MINIMUM NUMBER OF FACULTY TO BE TRAINED	Preferably Two
<b>INDICATIVE COST OF EQUIPMENT</b>	
Required Min. Equipment for the lab	As per the list given below
CompTIA A+ Certification cost for ITE 1	Rs 8.9K
Travel Costs of 2 instructors to parent academy for IT Essentials	On actual
Boarding & Lodging Costs for a total of 7 days training	As per diem charges

\* Assumption that institution has necessary infrastructure like PC's for curriculum viewing, 4-5 PC's for lab Practice.

**IT ESSENTIALS: COURSE CONTENTS**

***IT Essentials: PC Hardware and Software***

This course introduces students to information technology and data communications. Students will develop the necessary skills to enter this field by building a computer, installing the operating system, adding peripherals, connecting the computer to a local area network and to the Internet. This is a hands-on, lab-oriented course that stresses laboratory safety and working effectively in a group environment.

Completion of ITE: PC Hardware and Software curriculum student is eligible to appear for **CompTIA A+**

**Equipment Details:**

**IT Essentials: PC Hardware and Software:**

<b><u>ITEM:</u></b>	<b><u>Qty:</u></b>	<b><u>Usage:</u></b>
Class set of PCs: (either Pentium IIIs / Celerons 500Mhz or better). With: 4 to 10 Giga byte Hard Disk, CD-ROM Drive, Network Card, Sound Cards, Floppy Drive, Monitor, Keyboard and Mouse Best not to have sound, video and networking	1 (per Student) (example 16 for 16 Students)	Delivery of Cisco Curriculum and Assessment.  Also note, if required, ITE curriculum may be down loaded from Cisco Academy and installed on a protected Server PC accessible only to the class students and Instructor. This option is required if the Internet access is only 56kbps. or

built into motherboard as this type of system lacks flexibility.		is intermittent in access etc.
<b>Internet Access:</b> (Broadband – Min 128 kbps)	As per number of PCs. PLUS one for the Instructor.	Cisco Academy Assessment access and curriculum delivery.
<b>Class set of Software:</b> Working CD Sets of: Windows 9x (Win98SE) Windows 2000 Professional Windows XP Professional Blank floppy disks.	As per number of PCs	Students to Install and Configure during Lab. Exercises.
<b>Data Projector</b> (min. 800x600 Resolution and PC compatible)	1	Required for Instructor and Student curriculum and lesson delivery.
<b>Anti-Static Precautions:</b> Bench Anti-static mats and individual anti-static wrist straps.	As per number of Students PLUS one .	
<b>Tool Kits:</b> Small selection of Phillips and PoziDrive Screwdrivers, small angle cutters, small long nose pliers, tweezers, multimeter, etc.	One set per student preferable.	Will be extensively used during Lab. Exercises in PC assembly dis-assembly and peripheral installation.
<b>Lab. Class set of older PCs:</b> ( min. Pentium I's or better)	As per number of students	Used for assembly and dis-assembly Labs. May use better set above but these may then require extra spare parts if students accidentally damage a part.
<b>Environment:</b> Room to be large enough to accommodate all the students and equipped with a white board for the Instructor. With: Adequate heating/cooling and fresh air. Adequate Tables/benches and chairs .	As per number of Students PLUS for Instructor	For Theory and Lab. Exercise delivery.

**Recommended:**

- One Internet connection for each student to conduct Internet searches and download drivers
- One integrated printer/scanner/copier per two Lab PCs
- One Linksys wireless router/switch or equivalent per two Lab PCs, Linksys model WRT 300N preferred
- One Wireless PCI network adapter (compatible with the above wireless router/switch) for each Lab PC

**Minimum Requirement:**

- One Internet connection for Internet searches and driver downloads
- One integrated printer/scanner/copier for the class to share
- One Linksys wireless router/switch or equivalent for the class to share, Linksys model WRT 300N preferred
- Two Wireless PCI network adapters (compatible with the above wireless router/switch) for the class to share

## ADVANCED COURSES

### PROGRAM TITLE: CISCO CERTIFIED NETWORK PROFESSIONAL (CCNP)

Advantages of the Program:

- This is a more advanced program. The curriculum includes complex network configurations and how to Diagnose and troubleshoot network problems. Upon successful completion of CCNP 1-4, students qualify for Cisco Certified Network Professional (CCNP) certification.
- **Pre requisite – Students & Instructors must have qualified as a CCNA to take the international CCNP certificate**

DURATION OF COURSE FOR STUDENTS :	280 HOURS
DURATION OF INSTRUCTOR TRAINING :	8 WEEKS (2 WEEKS per module)
INDICATIVE COST OF SUPPORT FEES :	Charged by the Support Academy in Australia
INDICATIVE COST OF INSTRUCTOR TRAINING PER INSTRUCTOR	USD 4000
MINIMUM NUMBER OF FACULTY TO BE TRAINED	TWO
INDICATIVE COST OF EQUIPMENT (current applicable price shall be provided by Cisco Partner)	
Required Equipment for the lab	Standard – Rs 1685 K Modular - Rs 1784K Premium – Rs 1915 K
Passive equipment cost excludes cost of existing PC & server of the institutes computer lab	Rs 100K
CCNP Certification of 2 instructors	USD 600
Travel Costs of 2 instructors to Parent Academy Boarding & Lodging Costs during training	On actuals As per diem

Course Contents:

CCNP: Building Scaleable Internetworks (The course introduces Advanced Routing principles in implementing scalability for Cisco routers that are connected to LANs and WANs.)	Internetwork scalability Routing protocol operation, configuration, and troubleshooting EIGRP, OSPF, IS-IS, BGP Route optimization IP Multicast DHCP configuration IPv6
CCNP: Implementing Secured Converged Wide Area Networks (The course introduces advanced multilayer switches in implementing a scalable topology based upon Cisco technologies)	Network Requirements Connect Teleworks Implement Frame Mode MPLS IPsec VPNs Cisco Device Hardening Cisco IOS Threat Defense Features
CCNP: Building Multilayered Switched Networks (An advanced course that introduces techniques and features enabling or enhancing WAN and remote access solutions.)	Introduction to Campus Networks Virtual Local Area Networks (VLANs) Spanning Tree Protocol Inter-VLAN Routing High Availability in a Campus Environment Wireless Client Access Minimizing Service Loss and Data Theft in a Campus Network



	Hierarchical Network Model for campus networks Configuring Campus Switches to Support Voice
CCNP: Optimizing Converged Networks (The course include the new Cisco Intelligent Information Network (IIN) model and the Cisco Service-Oriented Network Architecture (SONA) as architectural frameworks for converged networks)	Network Requirements Cisco VoIP Implementations Introduction to IP QoS Implementing the DiffServ QoS Model Implementing AutoQoS Wireless Security

### Equipment Details:

<b>Recommendation</b>	<b>Configuration</b>
Standard Option	2811&1841 Router + 3650 Switch + 2811 Wireless + Voice
Modular Option	2811&2801 Router + 3650 POE Switch + 2811 Wireless + Voice
Premium Option	2811 Router + 3650 Switch POE Switch + 2811 Wireless + Voice

CCNP Academy would need one pod of each section (Router, Switch, Wireless and Voice) below for the CCNP v5.0 Course

CCNP Version 5.0 - Standard Equipment Bundle - Version 1.0  
Recommend 8 students per bundle

Routing Products	Description	Qty
CISCO2811	2811 w/ AC PWR,2FE,4HWICs,2PVDMs,1NME,2AIMS,IP BASE,64F/256D	1
CD28N-AISK9=	CISCO 2800 ADVANCED IP SERVICES Feature Pack	1
CISCO1841	Modular Router w/2xFE, 2 WAN slots, 32 FL/128 DR	3
MEM1841-128U192D	128 to 192MB SODIMM DRAM factory upgrade for the Cisco 1841	3
CD18-AISK9=	CISCO 1841 ADVANCED IP SERVICES Feature Pack	3
CON-SNT-CISCO1841	SMARTNET 8X5XNBD Modular Router w/2xF	3
WIC-2T=	2-Port Serial WAN Interface Card spare	5
CAB-SS-V35MT=	V.35 Cable, DTE Male to Smart Serial, 10 Feet	5
CAB-SS-V35FC=	V.35 Cable, DCE Female to Smart Serial, 10 Feet	5
Switching Products	Description	Qty
WS-C3560-24PS-E	Catalyst 3560 24 10/100 PoE + 2 SFP Enhanced Image	2
WS-C2960-24TT-L	Catalyst 2960 24 10/100 + 2 1000BT LAN Base Image	2
Wireless Product	Description	Qty
NME-AIR-WLC8-K9	8-AP WLAN Controller NM for Cisco 2800/3800 Series	1
AIR-LAP1242AG-?-K9	802.11ag LWAPP AP Dual 2.4,5GHz RP-TNC FCC Cnfg	2
AIR-ANT4941	2.4 GHz,2.2 dBi Dipole Antenna w/ RP-TNC Connect. Qty. 1	4
AIR-CB21AG-?-K9	802.11a/b/g Cardbus Adapter; FCC Cnfg	2
AIR-PI21AG-?-K9	802.11a/b/g Low Profile PCI Adapter; FCC Cnfg	2
* AIR-CB21AG and AIR-PI21AG are the wireless NIC for Laptop and Desktop. Academy should order either Laptop or Desktop Wireless NIC		
Voice Product	Description	Qty
CD28N-IPV=	CISCO 2800 IP Voice Feature Pack	1
SW-IPCOMM-E1-CH1	IP Communicator and License for CallManager 3.x or 4.x	2

Support Products	Description	Qty
WS-C3560-24TS-E	Catalyst 3560 24 10/100 + 2 SFP Enhanced Image	2
WS-C2960-24TT-L	Catalyst 2960 24 10/100 + 2 1000BT LAN Base Image	2
CON-SNT-356024TE	SMARTNET 8X5XNBD Cat 3560 24 10/100 + 2 SFP Enhanced	2
CON-SNT-C29602TT	SMARTNET 8X5XNBD Catalyst 2960 24 10/100 + 2 1000BT LAN	2
CON-SNT-LAP1242?	SMARTNET 8X5XNBD 802.11ag LWAPP AP Dual 2.4 5GHz RP	2
CON-SNT-AIRCB21?	SMARTNET 8X5XNBD 802.11a/b/g Cardbus	2
Yellow highlight is the upgradable part to <b>Modular</b> and <b>Premium Edition</b>		

Bundle Code: CCNP-APAC-2801-2811		
Upgrade to Modular Edition	Upgrade Router to 2801	
CISCO2801	2801 w/AC PWR,2FE,4slots(2HWIC),2PVDM,2AIM,IP BASE,64F/128D	3
MEM2801-128U192D	128 to 192MB SODIMM DRAM factory upgrade for the Cisco 2801	3
CD28-AISK9=	CISCO 2801 ADVANCED IP SERVICES Feature Pack	3
CON-SNT-C2801	SMARTNET 8X5XNBD 2 FE Router w/2 HWIC/IP	3
Note: Based on CCNP Version 5.0 - Standard Equipment Bundle Fully Support CCNP v5.0 Router, IOS software and Router maintenance service upgrade from 1841 to 2801		

Upgrade to Premium Edition	Upgrade all routers to 2811 and upgrade switch to support PoE	
CISCO2811	2811 w/ AC PWR,2FE,4HWICs,2PVDMs,1NME,2AIMS,IP BASE,64F/256D	1
CD28N-AISK9=	CISCO 2800 ADVANCED IP SERVICES Feature Pack	1
WS-C3560-24PS-E	Catalyst 3560 24 10/100 PoE + 2 SFP Enhanced Image	2
CON-SNT-2811	SMARTNET 8X5XNBD 2811 w/ AC PWR,2FE,4HWI	3
CON-SNT-356024PE	SMARTNET 8X5XNBD Catalyst 3560 24 10/100	2
Note: Based on CCNP Version 5.0 - Standard Equipment Bundle Fully Support CCNP v5.0 All Routers, IOS softwares and Router maintenance services are upgraded to 2811 WS-C3560-24TS-E is upgrade to WS-C3560-24PS-E which support Power over Ethernet (PoE)		

Part number marked with character "?" is to be replaced by the respective regulatory domain for each country. Specific requirements for each country should always be checked before ordering at the following URL: <http://www.cisco.com/warp/public/779/smbiz/wireless/approvals.html>

## PROGRAM TITLE: NETWORK SECURITY (NS)

### Advantages of the Program:

- This is more specialized curricula. Network Security (NS) curriculum includes the design and implementation of security solutions that will reduce the risk of revenue loss and vulnerability. As with existing courses offered by the Cisco Networking Academy, the focus of the course will combine hands-on experience, instructor-led and e-learning for students.

DURATION OF INSTRUCTOR TRAINING :	10 WORKING DAYS
INDICATIVE COST OF INSTRUCTOR TRAINING PER INSTRUCTOR	Rs.20,000/- + EDUCATION CESS + SERVICE TAX
INDICATIVE COST OF SUPPORT FEES	Rs.12, 500 – PER YEAR
MINIMUM NUMBER OF FACULTY TO BE TRAINED	TWO
INDICATIVE COST OF EQUIPMENT (current applicable price shall be provided by Cisco Partner)	
Required Equipment for the lab – Number of bundles to choose from dependent on ASA or PIX – Only one required NS 2.0 Standard Bundle NS 2.0 Premium Bundle	Rs 4,87,925 Rs 5,63,050
Passive equipment cost excludes cost of existing PC & server of the institutes computer lab	Rs 100 K
Travel Costs of 2 instructors to Parent Academy Boarding & Lodging Costs during training	On actuals As per diem

### *Course Contents:*

- Security policy design and management
- Security technologies, products, and solutions
- Firewall and secure router design, installation, configuration, and maintenance
- AAA implementation using routers and firewalls
- Securing the network at Layers 2 and 3 of the OSI model
- Intrusion prevention implementation using routers and firewalls
- VPN implementation using routers and firewalls

### Min. requirements for NS

#### STUDENT POD:

#### Hardware:

- Pentium III processor, 550 MHz or faster, 256 MB of RAM, CD ROM, 5GB Hard Drive, Minimum graphics resolution of 256 colors at 800 x 600 lines, Available 32 bit PCI slot

#### Software for Student Pod PCs:

- Windows 2000 Server with Service Pack 1 or Service Pack 2 installed
- Windows 2000 Advanced Server, with these additional requirements: (120 day eval copy available via Microsoft)
- Without Microsoft Clustering Services installed
- With Service Pack 1 or Service Pack 2 installed
- Window 98, 2000, XP with latest Service Pack (Several Labs using Cisco Secure ACS must be modified)
- With Personal Web server and freeware FTP server.
- With a Web and FTP server

Demo and Freeware Applications used in the labs will have to be substituted with equivalent programs.  
 SUPERSERVER:

Software for SuperServer:

- Windows 2000 Server with Service Pack 1 or Service Pack 2 installed (eval version or standard 5 or 10 user versions)
- Windows 2000 Advanced Server, with these additional requirements: (120 day eval copy available via Microsoft)
- Without Microsoft Clustering Services installed
- With Service Pack 1 or Service Pack 2 installed

Practice Lab Equipment:

Standard - the standard bundle is an economical way to purchase the minimum equipment required to deliver NS.

**EQUIPMENT LIST**

<b>BUNDLE CODE : SAA1</b>	<b>NS 2.0 Standard Bundle ASA Pod</b>	
<b>Products</b>	<b>Description</b>	<b>Qty</b>
CISCO1841	Modular Router w/2xFE, 2 WAN slots, 32 FL/128 DR	1
CISCO1841-SEC/K9	1841 Security Bundle, Adv. Security, 64FL/256DR	2
ASA5510-BUN-K9	ASA 5510 Appliance with SW, 3FE, 3DES/AES	2
WS-C2960-24TT-L	Catalyst 2960 24 10/100 + 2 1000BT LAN Base Image	1
CON-SNT-CISCO1841	SMARTNET 8X5XNBD Modular Router w/2xF	1
CON-SNT-C1841SEC	SMARTNET 8X5XNBD 1841 Security Bundle	2
CON-SNT-C29602TT	SMARTNET 8X5XNBD Catalyst 2960 24 10/100 + 2 1000BT LAN	1
CON-SNT-AS1BUNK9	SMARTNET 8X5XNBD ASA5510 w/ 50 VPN Peers, 3 FE, 3DES/AES	2

<b>BUNDLE CODE : SAA2</b>	<b>NS 2.0 Premium Bundle ASA Pod</b>	
<b>Products</b>	<b>Description</b>	<b>Qty</b>
CISCO1841	Modular Router w/2xFE, 2 WAN slots, 32 FL/128 DR	1
CISCO2811-SEC/K9	2811 Security Bundle, Adv Security, 64F/256D	2
ASA5510-BUN-K9	ASA 5510 Appliance with SW, 3FE, 3DES/AES	2
WS-C2960-24TT-L	Catalyst 2960 24 10/100 + 2 1000BT LAN Base Image	1
CON-SNT-CISCO1841	SMARTNET 8X5XNBD Modular Router w/2xF	1
CON-SNT-C2811SEC	SMARTNET 8X5XNBD 2811 Security Bundle	2
CON-SNT-C29602TT	SMARTNET 8X5XNBD Catalyst 2960 24 10/100 + 2 1000BT LAN	1
CON-SNT-AS1BUNK9	SMARTNET 8X5XNBD ASA5510 w/ 50 VPN Peers, 3 FE, 3DES/AES	2

**PROGRAM TITLE: CISCO FUNDAMENTALS OF WIRELESS LANs (FWL)**

**Advantages of the Curricula:**

- This is more specialised curricula. Fundamentals of Wireless LANs is a specialised introductory course that focuses on the design, planning, implementation, operation and troubleshooting of wireless networks.

DURATION OF COURSE FOR STUDENTS :	70 HOURS
DURATION OF INSTRUCTOR TRAINING :	06 WORKING DAYS
INDICATIVE COST OF INSTRUCTOR TRAINING PER INSTRUCTOR	Rs.10,000/- + Education cess + Service Tax
INDICATIVE COST OF SUPPORT FEES	Rs.12,500 – PER YEAR + taxes
MINIMUM NUMBER OF FACULTY TO BE TRAINED	TWO
INDICATIVE COST OF EQUIPMENT (current applicable price shall be provided by Cisco Partner)	
Required Equipment for the lab	Rs 2,34,500/-
Passive equipment cost excludes cost of existing PC & server of the institutes computer lab	Rs 50 K
Travel Costs of 2 instructors to Parent Academy Boarding & Lodging Costs during training	On actuals As per diem

***Course Contents:***

- Understand wireless radio technologies and topologies
- Understand IEEE 802.11 wireless standards
- Configure and install wireless access points, bridges, adapters, and antennae
- Wireless design, installation, configuration, monitoring and maintenance using CLI and web-based Device Manager
- Identify wireless security threats and vulnerabilities
- Wireless security using MAC filtering, WEP, LEAP, EAP and 802.1x technologies
- Understand proper site survey techniques and safety practices
- Configure monitoring technologies such as Syslog, SNMP and logging
- Troubleshooting wireless installation and configuration
- Understand vertical and horizontal wireless implementations and uses

## Minimum Equipment Requirements for FWL

### Hardware:

Pentium III processor, 550 MHz or faster, 256 MB of RAM, CD ROM, 5GB HardDrive  
Minimum graphics resolution of 256 colors at 800 x 600 lines, Available 32 bit PCI slot  
Student Pod PCs: (1 Lab PC per Pod, 4 pods per Academy Lab Bundle)

### Software Platforms

- Window 98, 2000, XP with latest Service Pack (Several Labs using Cisco Secure ACS must be modified)
  - o With Personal Web server and freeware FTP server.
  - o Instructors will have to make adjustments as needed without assistance from the help desk or Academy support
- MacOS 9.0 and greater and Linux (requires modifications in many of the labs.)
  - o with a Web/FTP server and a terminal emulation program.
  - o Demo and Freeware Applications used in the labs will have to be substituted with equivalent programs.

### Browser Requirements for viewing the curriculum and Lab Exercises (choose one)

- Netscape browser: (6.0 or greater recommended)  
<http://home.netscape.com/download/index.html?cp=djuc1>
- Internet Explorer browser: (6.0 or greater recommended)  
<http://www.microsoft.com/downloads/search.asp>

### Demo and Freeware Applications for viewing the curriculum

- Adobe Acrobat Reader:  
<http://www.adobe.com/products/acrobat/readstep2.html>
- Macromedia Flash 6 Player:  
[http://www.macromedia.com/shockwave/download/index.cgi?P1\\_Prod\\_Version=ShockwaveFlash](http://www.macromedia.com/shockwave/download/index.cgi?P1_Prod_Version=ShockwaveFlash)
- Windows Media Player  
<http://www.windowsmedia.com/download>

### Cisco Demo and Freeware Applications for Lab Exercises

- Cisco Secure ACS v3.1.1 (to deliver optional 802.1x security labs)
- Cisco Secure ACS 90 day trial version is available via CCO software center.  
<http://www.cisco.com/cgi-bin/tablebuild.pl/acs-win-3des>
- A valid CCO license is required

### Demo and Freeware Applications for Lab Exercises

- PUTTY SSH Client or equivalent  
<http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html>

- SolarWinds TFTP Server or equivalent  
[http://www.solarwinds.net/Tools/Free\\_tools/TFTP\\_Server](http://www.solarwinds.net/Tools/Free_tools/TFTP_Server)
- Kiwi Enterprises Syslog Server or equivalent  
<http://www.kiwisyslog.com/products.htm#syslog>
- SNMP Trap Watcher or equivalent  
<http://www.bttsoftware.co.uk/snmptrap.html>

## EQUIPMENT LIST

<b><i>Recommend 8 students per bundle</i></b>		
<b>Wireless Client Products</b>	<b>Description</b>	<b>Qty</b>
AIR-CB21AG-?-K9	802.11a/b/g Cardbus Adapter; Rest of World Cnfg	4
AIR-PI21AG-?-K9	802.11a/b/g Low Profile PCI Adapter; Rest of World Cnfg	2
<b>Access Point Products</b>	<b>Description</b>	<b>Qty</b>
AIR-AP1131AG-?-K9	802.11a, .11g AP, Int Radios, Ants	1
AIR-AP1232AG-?-K9	802.11a/g dual radio IOS AP	1
AIR-ANT5135D-R	5GHz 3.5dBi Black Dipole Antenna w/RP-TNC connector	2
AIR-ANT4941	2.4 GHz,2.2 dBi Dipole Antenna w/ RP-TNC Connect. Qty. 1	4
AIR-CONCAB1200=	Console Cable for 1130AG, 1200, 1230AG, 1240 Platform	2
<b>Wireless Bridge Products</b>	<b>Description</b>	<b>Qty</b>
AIR-BR1310G-?-K9-R	Aironet 1310 Outdoor AP/BR w/RP-TNC Connectors	2
AIR-ANT4941	2.4 GHz,2.2 dBi Dipole Antenna w/ RP-TNC Connect. Qty. 1	4
<b>Antenna Products (Optional)</b>	<b>Description</b>	<b>Qty</b>
AIR-ANT2410Y-R	2.4 GHz,10 dBi Yagi with RP-TNC Connector	1
AIR-ANT2460P-R	2.4 GHz, 6 dBi Patch Antenna w/RP-TNC Connector	1
AIR-ANT5959	2.4 GHz ,2 dBi Divers. Omni Ceiling Ant. w/ RP-TNC Connect.	1
AIR-ANT2506	2.4 GHz, 5.2 dBi Mast Mount Omni Ant w/RP-TNC Connector	1
AIR-CAB020LL-R	20 ft LOW LOSS CABLE ASSEMBLY W/RP-TNC CONNECTORS	2
<b>Support Products</b>	<b>Description</b>	<b>Qty</b>
CON-SNT-PI21AGA9	SMARTNET 8X5XNBD 802.11a/b/g Low Prof	2
CON-SNT-AIRCB21A	SMARTNET 8X5XNBD 802.11a/b/g Cardbus	4
CON-SNT-AP1AG?K9	SMARTNET 8X5XNBD 802.11a/g dual radio	1
CON-SNT-AIRAP11?	SMARTNET 8X5XNBD 802.11a, .11g AP	1
CON-SNT-AIRBR13R	SMARTNET 8X5XNBD Aironet 1310 Outdoor	2

Note: Wireless equipment configuration standard are mapped to the corresponding Regulatory Domain.

## Some Quotable Quotes:

**James Wolfensohn, President of the World Bank Group:**

*Young people must learn the skills and knowledge needed to be responsible citizens in democratic societies, and to play an effective role in building strong economies. This is where initiatives such as the Cisco Networking Academy program can contribute*

**John Chambers, President and CEO, Cisco Systems:**

*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.*

**(Late) Dr.AK.Pujari, Chief Executive Officer, Orissa Computer Application Centre, Bhubaneshwar, Orissa**

*"The Cisco Networking Academy Program will help create highly employable and globally skilled manpower required with the expanding applications of Internet in Orissa.*

**Mohamad Maidin Packer Mohd, Parliamentary Secretary for the Ministry of Education, Singapore**

*Through an innovative partnership with educational institutions across the world, Cisco Systems has been preparing students worldwide for the demands and enormous opportunities of the information economy while creating a qualified talent pool for building and maintaining networks*

**Professor Er Meng Hwa, Deputy President and Dean of the School of Electrical and Electronic Engineering, Nanyang Technical University (NTU), Singapore.**

*We examined the Cisco Networking Academy Program closely, and found it to be an excellent model for elearning as well as a good vehicle for imparting vital skills and knowledge in an increasingly important area, the Internet.*

**YB Datoí Abdul Aziz Shamsuddin, Deputy Minister of Education, Malaysia.**

*There is no question that the Internet has transformed the global economy and in order for Malaysia to succeed, we will need to develop a workforce with the skills that courses such as the Cisco Networking Academy Program can provideÖto achieve a significant technologically competent and adept society.*

**Prof Wu Jianping, Tsinghua University, and Director of China Education and Research Network (CERNET), China.**

*The curriculum is not tied into Cisco products, and graduates of this course will be able to set up and configure networking equipment from any vendor, not just Cisco.*

**Mr. Keith Simmons, Project Manager, Liverpool City Council, Sydney, Australia**

*"Graduates from the Cisco Networking Academy Program have demonstrated that they have the skills needed to power the Internet economy. The Academy is part of several long-term goals for the Council, namely reducing long-term unemployment in the region by re-skilling people in computer networking technology, and encouraging knowledge-based industries to the area by providing a skilled workforce"*