IPv6

CERTIFIED NETWORK ENGINEER

LEVEL 1

Introduction

It is estimated that some 20 million engineers are working on the current Internet worldwide at I5Ps, corporate and all other public and private organisations and they will need quaky training on IPv6,This is a gigantic task since its the first upgrade of the Internet a rid most probably the fast one for decades to come IPV6 Forum. "The rPv6 Curriculum study has abundantly demonstrated that hands-on IPv6 skills and field experience are dearly missing. Achieving parity between IPv4 and IPv6 deployment, quality expertise is the one pillar to focus on.

Training Approach

This program is designed to increase practical engineering expertise and hands-on knowledge to tackle complex systems and configurations, extending his/her confidence by demonstrating that IPv6 will be deployed by qualified engineers.

Who Should Attend?

This course is ideal for engineers (designers/developer, testers etc.) who develop and test IP-applications and need deeper knowledge of how to build solutions/applications based in IPv6.

What Will You Learn?

- Implementing new networking software and devices to support 1PV6
- Implementing auto-configuration to manage IPv6 addresses
- Configuring the different IPV6 migration tools such a tunneling in order to facilitate the transition
- Obtain and configure upgrades for common operating systems

Pre-Requisite

- A good knowledge of general networking concepts is assumed.
- IPv4 is reviewed as it is compared and contrasted with IPv6, but experience on I Pv4 is necessary
- All participants are required to bring a laptop

Approach

- This is particle training program that's conducted in a Lab environment.
- The participants will have a hand on experience as how network systems work
- Devices & equipment will be used in the class in-order to help the participants identify these devices.
- Group discussion and CAA sessions will be encouraged in order for participants to understand thing more clearly.

Objective

This course is designed to provide Network Engineers the skills needed to implement IPV6 in multi-vendor, commercial environment.

Duration

4 days

Who Should Attend?

CNE6 is ideal for network administrators, network support personnel, network designers, networking consultants, IT managers and directors.

IPv6 CERTIFIED NETWORK ENGINEER

LEVEL 1 — Course Outline

Introduction
The Problem with [Pv4 Protocol Life Expectancy
What's wrong with IPv4
IPv4 Addressing Crisis
The End-to-End Problem

Current Solutions to IPv4 Depletion Problem
Network Address Rationing
IP Sub-netting
Classless Inter-Domain Routing (CIDER
Dynamic Host Configuration Protocol (DHCP) Recycling
Unused IP Networks
Sub-netting Class A Networks
Network Address Translation (NAT)
Realm - Specific IF (R51P)

IPv6 Overview
Opportunities Offered by IPv6
Introductory Overview of IPv6
Migration and Co-existence

IPv6 Neighbour Discovery
Neighbour Discovery Overview
Neighbour Discovery Message Format
Neighbour Discovery Options
Neighbour Discovery Messages
Neighbour Discovery Processes

Transition Approaches and Mechanisms
Pv61/ IPv4 Dual Stack
Translation Mechanisms
Tunnelling

A globally recognized certification

1Pv6 Protocol Basics
The IPv6 Address Space.
IPv6 header Format
IPv4 Versus IPv6
Ipv6 Header Fields
Option Headers
IPv6 Packet Size Limits
Jumbo grams
Other IPv6 Features

IPv6 Addressing
IPv6 Address Type
Network and Node Addressing Aggregately Addressing
IPv6 Address Representation Unicast Address Types
IPv6 Address Format
IPv6 Node Self- Awareness

IPv6 Internet Control Message Protocol (ICMPv6)
New Control Message Protocol
ICMPv6 Messages
Fragmentation and Path MTU
Other ICMPv6 functions

IPv6 Routing
IP Routing Fundamentals
14.2 RIP and RIPng
OSPF and OSPFng
IPv6 and BGP
IPv6 Routing Issues

Disclaimer: Course contents are subject to changes without prior notice.

REGISTRATION FORM
Training Program

AXSEL

PARTICIPANT DETAILS

Name : _____

Date of Birth : _____ Qualification : _____

Gender : Male / Female   Ethnic: Malay / Chinese / Indian / Others _____

Address : _____

_____

Company : _____ Designation : _____

IC / Passport : _____ Department : _____

Contact No : _____ Office No : _____

Mobile No : _____ Email Address : _____

COURSE REGISTERED

☐ IPv6 Certified Network Engineer - Level 1
☐ IPv6 Certified Network Engineer - Level 2
☐ IPv6 Certified Network Programmer - Gold
☐ _____

MODE OF PAYMENT

☐ By Cheque: Made payable to "Axsel Management International Sdn Bhd with the title of the course indicated at the back of the cheque
☐ By Purchase Order: For Government Agencies Only

PAYMENT & CONFIRMATION
Payment is due within two weeks upon receipt of invoice, AND must be made in full prior to the course.

On receipt of payment, a confirmation letter with venue & logistical information will be forwarded via email or fax.

Company Stamp & Signature

TERMS & CONDITIONS
Programme Fee: Fee is payable to Axsel Management International Sdn Bhd. Fee includes course materials, lunch and 2 breaks per day. Admittance will be allowed only upon full payment.

Cancellation/Transfer: Upon registering, participant(s) are considered successfully enrolled in the program. Should participants decide to cancel/transfer their enrollment; a cancellation/transfer fee will be levied.

Certification: Certificate of attendance will be issued to all participants.

Disclaimer: Axsel Management International Sdn Bhd reserves the right to change the speaker(s), date(s), or cancel the program should any circumstances arise. Axsel Management International Sdn Bhd also reserves the right to make alternative arrangements without prior notice.