

## Course Introduction

A good knowledge of general networking concepts is assumed. IPv4 is reviewed as it is compared and contrasted with IPv6, but experience on IPv6 is not critical. Knowledge on the level of Cisco Certified Network Associate (CCNA) would be an added advantage.

## Course Objectives

- To assist student to successfully pass CNE6 Level 1-2
- To assist student to understand IPv6 structure and how to implement IPv6 network base on IPv6 forum curriculum

## Course Highlights

- Network tools and simulation software provided
- CNE6 examination review
- Free membership for ACIS Alumni
  - Access to the latest information related to the course subjects
  - A life-time class re-sit

## Learning Level

- Advanced

## Course Duration

- 5 Days (30 Hours)

## Prerequisites

- CCNA
- Practical Enterprise Information Security

## Target Group

- Network and Systems Administrators
- IT Security Professional

## Course Outline

### Module 1: IPv6 Address Architecture and Scheme

- Notation of IPv6 addresses
- Types of addresses
- IPv6 Addressing Schemes

- A case study of IPv6 addressing scheme
- LAB: Calculate IPv6 subnet

## Module 2: IPv6 device configuration

- Autoconfiguration
  - Stateless autoconfiguration
  - Stateful autoconfiguration
  - Duplicate address detection
  - Address Resolution
  - Neighbour discovery procedures
  - Neighbour solicitation messages
  - Neighbour advertisement messages
- LAB: Analyze IPv6 Traffic using sniffer (Wireshark)

## Module 3: Introduction to routing

- Introduction Static Routing
- Introduction Dynamic Routing
- Hands on (Static Routing)
- LAB: Configure IPv6 Static routing

## Module 4: Translation Mechanisms

- Introduction to NAT ,NAT-PT
- Introduction Tunneling
  - 6-to-4
  - ISATAP
  - Teredo
- LAB: Configure IPv6 Tunneling
  - 6-to-4
  - ISATAP

## Module 5: IPv6 Advance routing

- Routing protocols
- Dynamic routing and its advantages over the static routing
- RIPng
- BGP4+
- LAB: Configure IPv6 dynamic routing protocol
  - RIP
  - OSPFv3

- BGP4+

## Module 6: IPv6 Security Configuration

- IPv6 over Tunnels
- IP Sec
- IPv6 IPsec overview
- Security policies and security associations
- IPsec tunneling
- IPsec Framework
- Authentication header
- Encapsulating security payload
- ESP transport mode
- ISAKMP/IKE
- LAB: Configure IPsec over IPv6

## Module 7: IPv6 Integration

- IPv6 over Tunnels
- Steps to migrate to IPv6
- Hardware
- Software
- Operating System (OS)
- Windows Vista/7/2008 Server
- Linux
- IPv6 Services
  - DNS
  - Web
  - IPv6 and DNS
  - AAAA and A6 records
  - DHCPv6
    - Stateful address management
    - Stateless address management
    - Manual address management
- LAB: Setup and configure DHCP Server
- LAB: Install IPv6 Protocol to OS (Windows XP ,Linux)f

**สำรองที่นั่งและขอรับรายละเอียดเพิ่มเติมกรุณาติดต่อ (FOR MORE INFORMATION & REGISTRATION PLEASE CONTACT)**

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