ADVANCED IPv6 TRAINING COURSE

This two-day course provides an in-dept coverage of key topics regarding IPv6 for both ISPs and enterprise users. The participant will gain insight into industry best practices and gain a high-level understanding of the most pressing IPv6 security concerns today.

Goals

- Identify what the differences are between IPv6 and IPv4 regarding routing protocols

- Learn how to implement OSPFv3 and BGP in an IPv6 network

- Understand the aspects of IPv6 that differ from IPv4, especially regarding host configuration, SLAAC and DHCPv6

- Recognise the existing solutions to provide a smooth transition to IPv6

- Acquire a general understanding of the major issues with IPv6 regarding security and IP address management

- Configure IPv6 with OSPF and BGP in a test network

Pre-Requisites

It is assumed you are familiar with IPv4 and IPv6 (Basic IPv6 course level) networking, basic networking concepts and protocols (OSPF, BGP), (for the labs) CLI and command line tools.

Course Content

Day 1

- Introduction
- IPv6 Routing Basics
  - *Exercise: Enable IPv6*
- OSPFv3
  - *Exercise: Configuring OSPFv3*
- BGP
  - *Exercise: Configuring BGP*
- Content
- Mobile Providers

Day 2

- Transition Mechanisms
  - *Exercise: NAT64/DNS64*
- Host Configuration
  - *Exercise: SLAAC*
- DHCPv6
  - *Exercise: DHCPv6*
- Security
- IP Address Management Systems

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