There are no translations available.

IPv6 workshops

This is the basic course that we will run by default at all locations where we are doing training for the first time.

Target Audience	Network engineers and systems administrators who are comfortable with implementing and managing IPv4 networks.
Pre-requisites	• IPv4 addressing and subnetting. • The OSI model and the various protocols that operate at each layer. • Intra-domain routing and OSPF. • How to use the command line interfaces of key routing platforms (e.g Cisco IOS).
Slides	• IPv6 fundamentals

- IPv4 exhaustion and the case for IPv6 ["Why a new IP?"]
- Why NAT is not a sustainable solution to IPv4 exhaustion
- IPv6: Fact|Reality vs Fiction/Myth
- Understanding IPv6 addressing
  - Global Unicast Unique Local Addresses
  - Link Local
  - Multicast Addresses
  - How IPv6 Addresses are Allocated.
- IPv6 Address Planning
- IPv6 from an IPv4 Perspective
  - Neighbour Discovery
  - ICMPv6 Messages Used by ND
  - IPv4 vs IPv6: Head-to-Head
    - Packet Structure
    - Duplicate Address Detection
    - Finding out neighbour's L2 addresses
    - Host Configuration [Windows, Linux/Unix]
    - Automatic Address assignment - Stateless Address Configuration and DHCPv6
    - FQDN-to-IP Address Resolution: DNS
    - Subnetting in IPv6
- Fundamentals of Routing in IPv6
  - Static routing
  - Intra-domain routing with OSPFv3
  - Inter-domain routing with BGPv4
- Transition Mechanisms
  - The problem that transition mechanisms solve.
  - Configuring manual tunnels.
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Configuring 6to4 Automatic tunnels.
    - Overview of other translation techniques
- IPv6 Equipment & Software Buyers' Guide
- Labs/Exercises
    - Configuring IPv6 clients (Windows, Mac OS X, Linux/Unix)
        - Static Configuration
        - Automatic Configuration
        - Testing IPv6 connectivity with ping6 and traceroute6
    - Routing
        - Enabling IPv6 routing and configuring IPv6 addresses
        - Configuring static routing
        - Inter-domain routing with OSPFv3
    - Transition Techniques
        - Manual tunnels
        - Automatic 6to4 tunnels.

Go Up