

IPv6 (TK711)

Prerequisites

Participants should have basic knowledge of TCP/IP network and especially the IPv4 addressing and technology. For knowledge background, we recommend the TEKonsult course Introduction to IP Network.

Target groups

Participants who wish to get a technically oriented overview of the technology, applications and internetworking of IPv6.

Duration

3.0 days

Course Content

Introduction to IPv6

- Why IPv6
- IPv4 and IPv6 Comparison

IPv6 Addressing

- Binary Number Representation
- IPv6 Addressing

IPv6 Header Information

- IPv4 Protocol Stack
- Ipv6 Protocol Stack
- IPv6 Dual Stack
- New Header Format
- IPV6 Extension Headers

ICMPv6 Network Operation

- ICMPv6 Message Types
- ICMPv6 Ping Operation
- Neighbor Solicitation
- Neighbor Advertisement
- Router Solicitation
- Router Advertisement
- DHCPv6 Overview
- ICMPv6 Redirect
- ICMPv6 Multicast Messages
- ICMPv6 Time Exceeded Destination Unreachable
- ICMPv6 MTU Path Discovery

Routing Services and Protocols

- Routing Protocols Supported by IPv6
- RIPng protocol
- OSPFv3 Protocol
- BGP Protocol

IPv6 Security

- IPSec Tunneling
- IPv6 IPSec Overview
- IPSec Framework