XTran for Network Engineers – Advanced ETH/IP Module – Course Description

This course is the former 'XTran for Service Engineers - Advanced ETH/IP', now offered under a new name.

Target Audience

XTran **Network Engineers** seeking advanced expertise in configuring and troubleshooting Ethernet/IP features in XTran networks..

Course Prerequisites

- "XTran for Network Engineers" course certificate
- Strong understanding of Ethernet (Layer 2) and IP (Layer 3) protocols

Course Objectives

By the end of this training, participants will be able to:

- Gain a deeper understanding of traffic engineering within XTran (like HQoS) to optimize Ethernet services
- Know the security functions available at the Ethernet level
- Utilize all protocols on the 9-L3A-L interface module
- Implement all Layer 2 protocols on the 6-GE-L interface module and XTD/XTR nodes
- Configure and monitor access devices (e.g., Hirschmann) connected to XTran

Exercises

Hands-on training is included.

Duration

2 days

Content

Advanced Ethernet Options

- Explore and test features such as QoS and HQoS.
- Learn how to deploy MAC security (MACsec) on the XTran network and understand other security functions available for Ethernet connections.

Access Networks

- Learn how to visualize Ethernet access switches (like Hirschmann) in TXCare.
- Understand how to interwork with loop redundancy protocols on Ethernet devices, such as MRP.

Layer 2

- Gain an understanding of Layer 2 features, including MSTP, which can be configured on 6-GE-L, 9-L3A-L modules and XTD/XTR nodes.
- Discuss Link Aggregation and its implementation.

Layer 3

- Explore and test the various Layer 3 protocols available on L3-modules (and XTD/XTR nodes), including OSPF, Static Routing, VRRP.
- Upon request, IGMP and PIM can also be covered.