

XTRAN FOR SERVICE ENGINEERS – POWER UTILITIES Profile

Course description

- **Target Audience**

XTran Service Engineers who are responsible for the configuration, daily maintenance and troubleshooting of XTran networks in the POWER UTILITIES sector.

- **Course Prerequisites**

Basic knowledge of telecommunications (IP and WAN technologies) and electronics.

- **Course Objectives**

After the training, the students should be able to:

- position XTran and MPLS-TP technology;
- setup a basic XTran network
- setup a basic set of tunnels and Ethernet-services
- demonstrate TXCare
- install and replace the HW components of an XTran network
- use the XTran Management System (TXCare) monitoring functions to indicate and solve alarms
- use the TXCare to set up tunnels and services for Ethernet & E1/T1 applications
- use the TXCare to set up basic routing functionality
- use the OAM-features of TXCare to perform measurements
- install TXCare and perform upgrades
- perform the TXCare backup procedures

- **Exercises**

Hands-on training is included.

- **Duration**

5 days

Contents

The course “XTran for Service Engineers – Getting Started” is part of this curriculum.

- **XTran for Service Engineers – Getting Started**

For more detailed information: see the description of this course.

- Introduction into MPLS-TP & XTran
- XTran Essential Components
- XTran Getting Started
- Tunnels & Services
- TXCare

- **XTran for Service Engineers – In-Depth**

- **MPLS-TP Technology**

In this module we expand on the underlying principles of MPLS and MPLS-TP and its implementation in XTran.

- **TXCare**

We will explain more TXCare features, like the upgrade process, the Remote Client and various maintenance topics.

- **XTran Circuit Emulation Interface Modules**

In this chapter, we present an overview of all XTran CES interface modules.

The students will install/replace, configure applications and (re)connect peripheral equipment on the 4-E1-L, 7-SERIAL, C.37-94 and 4-CODIR IFMs.

- **XTran Ethernet Interface Modules**

In this chapter we present an overview of all XTran Ethernet interface modules.

The students will install/replace, configure different applications and (re)connect peripheral equipment on different LAN and WAN modules.

We discuss and implement the basic routing functionality of the 9-L3A-L.

- **Synchronization over XTran**

In this chapter, we will explain and configure the different options (Adaptive, SyncE & PTP IEEE1588).

- **XTran OAM**

We discuss the OAM-features of XTran: performance measurements, logging options and some troubleshooting exercises.

- **XTran Troubleshooting**

We discuss some tips and tricks for troubleshooting in XTran networks.