

## XTRAN FOR SERVICE ENGINEERS

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### Course description

- **Target Audience**

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

- **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 & 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 & services for all applications
- 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 & MPLS-TP and its implementation in XTran.

- **TXCare**

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

- **XTran Interface Modules**

In this chapter we discuss the different interface modules of XTran : 4-GC-LW, 4-E1T1-L, 4-DSL-L, 2-C-37.94, 7-SERIAL, 4-2/4WEM and 1-10G-LW.

The students will install/replace the interface cards, configure different applications and (re)connect the peripheral equipment.

- **XTran OAM**

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

- **XTran SYNCE**

We explain the options that XTran/TXCare offer for synchronization over the XTran network (using SYNCE).

- **XTran Troubleshooting**

We discuss some tips & tricks for troubleshooting in XTran networks