

# N50/N70/ETS FOR SERVICE ENGINEERS

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## Course description

- **Target Audience**

OTN Service Engineers who are responsible for the configuration, daily maintenance and troubleshooting of OTN networks that are based on N50/N70, eventually in combination with ETS.

- **Course Prerequisites**

Basic knowledge of Ethernet, IP and its protocols is required.

- **Course Objectives**

After the training, the students will be able to:

- install and replace the HW components of an N50/N70/ETS-based network;
- use the OTN Management System (OMS) monitor function to indicate and solve alarms;
- use the OMS to set up the network database;
- use the FEM (Front End Manager) to configure Ethernet- and IP-features;
- install OMS and perform upgrades;
- perform the OMS backup procedures.

- **Exercises**

Hands-on training is included.

- **Duration**

5 days

## Contents

- **Introduction into OTN: features, families, technical principles**

We will start by explaining the key features, terminology and detailed technical principles of the OTN product.

- **N50/N70/ETS – Installation**

In this part of the course we will explain how to set up a basic N50/N70/ETS network. We will learn how to install the hardware and how the nodes are connected via optical fiber.

- **OMS**

We will learn how to install OMS and remote OMS Clients. The students will use the OMS to :

- set up a network database,
- make backups and reports,
- analyze the general status of the network,
- find the data they need to solve problems.

We will discuss compatibility issues and learn how to perform network upgrades.

We will explain the functionality of all OMS add-ons.

- **FEM**

The FEM (Front-End Manager) is used to configure Ethernet- and IP-features. The topics below will be explained and illustrated with exercises.

- SLAN-concept & services in the OTN-network
- VLAN
- Spanning tree options
- IGMP
- Routing : VRF, VRRP