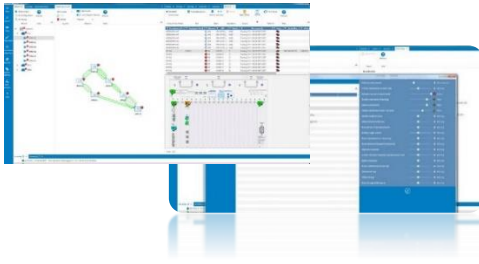# ENSEMBLE CONTROLLER with ENSEMBLE OPTICAL DIRECTOR

3 days technical training

Ensemble Controller Software is an advanced platform for reliable, secure and user-friendly management and surveillance of ADVA FSP and OSA networks, with full FCAPS support. With our Ensemble Optical Director, service-based management enables you to actively track, manage and support your network with ease.

Objective and Level

This training course explains Ensemble Controller software for management of ADVA FSP networks. We also introduce the basics of network management. Installation of Ensemble Controller server and client software is also included. Practical exercises focus on the discovery of network elements (NEs), on creating WDM services as well as getting familiar with alarms and events on the network elements.

The last training day is devoted to Ensemble Optical Director. We will prepare the Network Elements with dedicated Control Plane (CP) settings, CP server (if applicable) and fiber map. After these preparations, we explore Ensemble Optical Director in practice.

Level: Introductory

Audience and Benefits

- To achieve self-sufficiency at installation, configuration and maintenance of the Ensemble Controller applications, including Ensemble Optical Director for automated service provisioning.
- Exam available (if applied for)
- Small course, 8 attendants maximum

Agenda	Theory	Practice
	• Ensemble Controller Overview • Introduction ADVA Licensing • Ensemble Controller Client GUI • Fault, Configuration-, Performance- and User Management • Reporting Tools • Ensemble Optical Director with GMPLS Control Plane	• Server and Client Installation • Server/Client Provisioning • Manage a FSP network via the Ensemble Controller • Centralized NE Database backup • Centralized NE Software update • Ensemble Controller High-Availability • Ensemble Optical Director for automated service provisioning

Pre-Requisites

The attendees should have basic knowledge about Networking, TCP/IP, SNMP and Fault Monitoring. Basic Windows (and Linux) OS skills are required. Students need to be familiar with the ADVA WDM platforms. If training happens at customer site, students should bring laptops and be allowed to adjust IP address and install Ensemble Controller Client software.

Contact

Training: training@adva.com

Day 1 9am–5pm	**Network Management Basics (FCAPS model, SNMP)** **Ensemble Controller Overview; Ensemble Controller DCN Architectures;** **Ensemble Controller User Administration and Security Management** **Ensemble Controller Server/Client Configuration; ADVA Licensing**
LAB Exercises	o Ensemble Controller Server Installation; Ensemble Controller Client Installation o Starting/stopping Ensemble Controller Server o Setting up Ensemble Controller Server and Ensemble Controller Client o Utilizing Ensemble Controller Server/Client configuration files and scripts (properties files) o Working with Ensemble Controller Client GUI o Ensemble Controller User accounts management o Ensemble Controller Security management o Ensemble Controller database backup and software upgrade
Day 2 9am–5pm	**Ensemble Controller Operation: Tracked Services** **Network and Service Management using Ensemble Controller** **Ensemble Controller High Availability** **Ensemble Controller and Network Troubleshooting**
LAB Exercises	o Connecting remote Ensemble Controller Clients to the Server o Discovering Network Elements o Alarms and events monitoring (security, network status, etc) o Defining (tracked services) and monitoring network services within Ensemble Controller o Performance management and report generation o Centralized NE database backup and software update o Client-server and server-network connectivity issues o Using embedded WebGUI (NED) for configuration of Network Elements o Using Ensemble Controller to troubleshoot network and service failures o Introducing High Availability for Ensemble Controller
Day 3 9am–5pm	**Ensemble Optical Director: Provisioned Services** **Ensemble Optical Director dependence on Control Plane** **FSP 3000 Control Plane Pre-requisites** **Ensemble Optical Director Operations**
LAB Exercises	o Enabling Control Plane in FSP 3000 nodes and preparation for Ensemble Optical Director o The differences between tracked and provisioned services o Creating and managing Ensemble Optical Director provisioned services o Control Plane and Ensemble Optical Director troubleshooting introduction – Wizard based