



Operate & Maintain the FSP 150-XG 300 Series

4.5 days technical training



One device, multiple technologies
A single common hardware architecture supports MEF-certified CE 2.0, IPv4/IPv6 and MPLS service demarcation.

Multiple network interface options
Our FSP 150-XG300 Series supports fiber- and copper-based access networks with an optional connection over 4G mobile networks.

Objective and Level

At the end of this course students will be able to troubleshoot configuration and connectivity issues on the FSP150-XG300 platform utilizing the Command Line Interface via out-of-band and in-band management.

- FSP150-XG304 (former OS-V8)
- FSP150-XG304u (former OS-V8-M)
- FSP150-XG308 (former OS-V20)

Level: Introductory

Audience and Benefits

- This is a course intended primarily for network operations, engineering and support personnel.
- No ACE exam available.
- Small courses, 8 attendants maximum

Agenda	THEORY	PRACTICE
	<ul style="list-style-type: none">• Product Overview• CLI (Basic commands, ACLs, etc)• Ports and Interfaces• Utilities• Layer 2 Protection• ProVision CLI• ProVision GUI	<ul style="list-style-type: none">• Operating FSP 150-XG 300 family• ProVision CLI• ProVision GUI

Pre-requisites

There are no prerequisite ADVA courses; however the student must have a basic knowledge of networking; familiarity with the Ethernet infrastructure projects; an understanding of MEF services.

Contact

Training: training@adva.com

Day 1 9am – 5pm	ADVA FSP150-XG300 Module 1 – Product Overview
Theory	<ul style="list-style-type: none"> • Product specifications, RAM, flash memory, on board copies of system config. • FSP150-XG300 current production models (OS-V8 & OS-V20) • Interfaces – 10/100/1000 GigE and 10G • Power supplies and fans. • Pluggable optics – Specifications and applications of each. • LEDs – Status indications available on the different systems.
Lab Exercises	<ul style="list-style-type: none"> • Hardware overview: installation, cable up, power on
	ADVA FSP150-XG300 Module 2 - Basic Configuration (Command Line Interface)
Theory	<ul style="list-style-type: none"> • CLI overview • CLI commands, access levels, help and auto-fill • Connecting and logging in to the CLI via serial port • Configuring Management via out-of-band Ethernet port • Password Recovery • Image/FPGA Upgrades
Lab Exercises	<ul style="list-style-type: none"> • Connecting and logging in to the CLI • Date, time, system access, system banners, & hostname configuration • Discovering & utilizing commands to configure and view the system status, running configuration and event logging. • Configuration File Management <ul style="list-style-type: none"> o Resetting factory default configurations o Saving, backing up and restoring configurations
	ADVA FSP150-XG300 Module 3 – Remote Management
Theory	<ul style="list-style-type: none"> • Remote Management • AAA • SNMP / VACM
Lab Exercises	<ul style="list-style-type: none"> • SNMP / VACM
	ADVA FSP150-XG300 Module 4 – Ports & Interfaces
Theory	<ul style="list-style-type: none"> • Port & interface configuration • Identify types of physical ports supported • L2 Protocol Counters ingress/egress • Port Statistics , show / monitor and table • Inband management configuration
Lab Exercises	<ul style="list-style-type: none"> • Physical port attributes • Create vlan interfaces • Inband management interface
	ADVA FSP150-XG300 Module 5 – Layer 2 Protection

Theory	<ul style="list-style-type: none"> • Link protection • Link Reflection • LACP • MSTP • ERPS
Lab Exercises	<ul style="list-style-type: none"> • Link Protection • Link Reflection • LACP • ERPS
Day 2 9am – 5pm	ADVA FSP150-XG300 Module 6 – Layer 2 services
Theory	<ul style="list-style-type: none"> • Port-based and Vlan-Based services • Tag Swapping with ACLs • Tag translation with ACLs • Q-in-Q services with ACLs (Point to point and Point to MultiPoint) • Layer control Protocols (Tunneling and dropping) • MEF 10.3
Lab Exercises	<ul style="list-style-type: none"> • Ethernet Service • Action-list (Policer) • Access-list (ACLs) • Binding ACLs to ports
	ADVA FSP150-XG300 Module 7 - OAM
Theory	<ul style="list-style-type: none"> • CCMs • Layer 2 loopback • Layer 2 link trace • Y.1731 • SOAM • RFC2544 • Y.1564
Lab Exercises	<ul style="list-style-type: none"> • CCMs • Layer 2 loopback • Layer 2 link trace • Y.1731 • SOAM • RFC2544 • Y.1564
	ADVA FSP150-XG300 Module 8 - Troubleshooting
Theory	<ul style="list-style-type: none"> • Layer 2 Port Loopbacks • SFP Digital parameters and diagnostics • Virtual Cable Diagnostics VCD • XFP Transmit & Receive Traces • Uni-Directional Link Detection (UDLD) • Ingress Port & VLAN Counters • Port Mirror

Lab Exercises	
	ADVA FSP150-XG300 Module 9 – Utilities
Theory	<ul style="list-style-type: none"> • Scheduler • Master OS upgrade • FPGA upgrade • Configuration Management • DNS • Traceroute • Tcpcmdump • telnet/ssh
Lab Exercises	
Day 3 9am – 5pm	ADVA FSP150-XG300 Module 10 – Provisioning Layer 3 Services
Theory	<ul style="list-style-type: none"> • Static Routes • OSPF (Open Shortest Path First) protocol • IS-IS • BGP
Lab Exercises	<ul style="list-style-type: none"> • Configure Static Routes, OSPF
	ADVA FSP150-XG300 Module 11 – VRF-Lite, VRRP
Theory	<ul style="list-style-type: none"> • VRF-Lite, VRRP
Lab Exercises	<ul style="list-style-type: none"> • VRF-Lite, VRRP
	ADVA FSP150-XG300 Module 12 – Provisioning Multiprotocol Label Switching (MPLS)
Theory	<ul style="list-style-type: none"> • Configure LDP Label Distribution Protocol • Configure RSVP-TE trunks Resource Reservation Protocol – <ul style="list-style-type: none"> o Traffic Engineering • MPLS Virtual Circuits • Hierarchical VPLS Virtual Private LAN Service • Troubleshooting with LSP Ping and Traceroute • Display MPLS & Routing performance statistics
Lab Exercises	<ul style="list-style-type: none"> • Properly configure LDP, RSVP-TE trunks, MPLS Virtual Circuits on the OptiSwitch. • Properly use LSP PING and Traceroute on the XG300

Day 4 9am – 5pm	ProVision CLI
Module 1	ADVA Provision Module 1 – ProVision CLI Overview
	<ul style="list-style-type: none"> • Overview of ProVision CLI • Carrier Ethernet Terminology & Acronyms
Module 2	ADVA Provision Module 2 – ProVision CLI Profiles
	<ul style="list-style-type: none"> • Start a Pro-Vision CLI session • Describe and understand the four types of profiles • Configure the profiles using the Pro-Vision CLI
Lab Exercises	<ul style="list-style-type: none"> • Creating ProVision profiles (bandwidth, CFM, RFC2544)
Module 3	ADVA Provision Module 3 – ProVision CLI Services
	<ul style="list-style-type: none"> • Create an Ethernet Service on the OptiSwitch • Assign a Bandwidth profile to an Ethernet Service • Assign a CFM profile to an Ethernet Service • Assign a PM profile to an Ethernet Service • Assign a RFC2544 profile to an Ethernet Service • Understand the underlying (low-level) commands performed by Pro-Vision CLI
Lab Exercises	<ul style="list-style-type: none"> • Create ProVision Ethernet service • Apply profiles to Ethernet service
Module 4	ADVA Provision Module 4 – ProVision CLI Monitoring
	<ul style="list-style-type: none"> • Service counters • CCM stats • Y.1731 results • RFC2544 results • OAM Link trace • OAM loopback
Lab Exercises	<ul style="list-style-type: none"> • Configure OAM on Ethernet Service • Configure RFC2544 on Ethernet Service

Day 5 (1/2) 9am – 12pm	ProVision GUI
Module 1	ADVA Provision Module 1 – Pro Vision GUI Getting connected Alarms and Events
	<ul style="list-style-type: none"> • What Pro-Vision is and how it is used • Connect and log in to Pro-Vision • Create and view alarms and events
Lab Exercise	<ul style="list-style-type: none"> • Start a Pro-Vision GUI client session across the web to Pro-Vision Server • Create map • Add Device • Sync Device to PV • View Alarms and Events
Module 2	ADVA Provision Module 2 – Pro Vision GUI Profiles
Lab Exercise	<ul style="list-style-type: none"> • Create the following profiles: <ul style="list-style-type: none"> ○ Connectivity Fault Management ○ Bandwidth ○ Performance (Y.1731) ○ RFC2544
Module 3	ADVA Provision Module 3 – Pro Vision GUI Ethernet Services
Lab Exercise	<ul style="list-style-type: none"> • Create Ethernet Services
Module 4	ADVA Provision Module 4 – Pro Vision GUI OAM
Lab Exercise	<ul style="list-style-type: none"> • Apply the following Profiles to Ethernet service <ul style="list-style-type: none"> ○ Connectivity Fault Management ○ Bandwidth ○ Performance (Y.1731) ○ RFC2544 ○ Run Y.1731 and RFC2544 tests
Module 5	• ADVA Provision Module 5 – Pro Vision GUI Utilities
Lab Exercise	<ul style="list-style-type: none"> • Create File transfer profile • Backup device configuration