The OSA 5430 and OSA 5440 are modular, high-performance IEEE 1588v2 PTP core grandmasters, NTP servers and SSUs. Both are equipped with 10Gbit/s as well as 1Gbit/s interfaces. Their ultimate scalability, with a carrier--class fully redundant design, predestinies them to work as core devices of synchronization networks.

Objective and Level

This training course introduces the OSA 5430 and OSA5440 with their features, using GUI and CLI for provisioning. SyncE, PTP and NTP will be presented in more details. Devices specific function as ePRTC and different protection types will be explained. SyncJack™, our tool synchronization signals quality check, will be shown and used during practical exercises.

This class is applicable to different industries (Broadcasting, Power and Enterprise).

Level: Advanced

Please, note: the training will be provided using GoToTraining application or other tool – we will arrange a short test of the tool upfront the training – you will get invited for both – test and training session. For the practical exercises trainer will hand over keyboard and mouse to one student at a time, for e.g. a configuration exercise. For the handover the student needs to have the GoToTraining Client installed on his computer.

Note: Recording the remote training session is not permitted.

Note: We also recommend our 1 day training on 'Using SyncDirector with Ensemble Controller'. For installation and administration of ENC software, we offer a separate full Ensemble Controller training.

Audience and Benefits

- The class is aimed for synchronization experienced users to achieve advanced knowledge of OSA 5430 and OSA 5440
- Certificate of attendance, no exam
- Small courses, 8 attendants maximum

Agenda	THEORY	PRACTICE
	• SyncE, PTP and NTP • System overview and differences between OSA 5430 and OSA 5440 • Redundancy Principle on 5430/40 • Sync Delivery and Sync Assurance applications (PTP, NTP & SyncJack™)	• Working on a setup system and its components • Implementing DCN • Setting up PTP, NTP clock • Using GUI & CLI command line • Database Backup & Restore • Software upgrade • SyncJack™ configuration

Pre-requisites

Engineer or technician having a telecommunication background and synchronization knowledge.

Contact

Training: training@adva.com

Day 1 9am – 4pm **Lunch Break:** **12am – 1pm**	Advanced Setup of OSA 5430/40

Theory	• The concept of SyncE, PTP and NTP
	• Overview of the OSA 5430 and OSA 5440
	    o Hardware overview
	    o Management
	    o protection types

Lab Exercises	• Advanced Setup of the OSA 5430 and OSA5440
	    o Using local management port RS232 and DCN Ethernet port
	    o Navigating with WebGUI
	    o DCN Setup (IP settings)
	        ▪ tunnels
	        ▪ management traffic bridging
	        ▪ management protection test
	    o Routing (Static routes, default gateways)
	    o Name, time and user configuration
	    o Local user and remote authentication
	• Database Backup & Restore
	• Software upgrade

Day 2 9am – 4pm **Lunch Break:** **12am – 1pm**	Delivery of Synchronization via Packet Networks
Theory	• Time & Sync clock configuration (GNSS) • PTP & NTP configuration • ePRTC • SyncJack™ (Maintaining and monitoring the performance of synchronization services)

Lab Exercises	• Setup of the time & sync clock
	• SyncE
	    o test with usage of SyncJack™
	• CLCK and BITS outputs
	    o protection test
	• ToD and PPS outputs
	    o protection test
	• PTP & NTP port configuration
	    o GM, different profiles
	    o test with usage of SyncJack™
	    o protection