Adtran

FSP 3000 open line system (OLS) for 400ZR+ interoperability demonstrations

At ECOC 2023, Adtran is participating in demonstrations showcasing OIF work on 400ZR+ interoperability over a disaggregated Adtran FSP 3000 OLS configuration optimized for 400ZR+ DCI.

The Adtran FSP 3000 OLS provides an open, compact and cost-efficient optical layer engineered to meet all data center interconnect (DCI) demands. Its compact, modular architecture and wide range of OLS component options enable customized configurations that offer high-performance transport and a high level of automation and operational simplicity. What's more, with open and standard APIs the FSP 3000 OLS easily integrates into software-controlled networks.

For this demonstration, the Adtran FSP 3000 OLS consists of two terminal nodes and four bidirectional in-line amplifier (ILA) nodes, which can span up to 400km. The FSP 3000 OLS has been configured to efficiently meet the optical specifications of all 400ZR+ pluggable interfaces showcased in this demonstration.
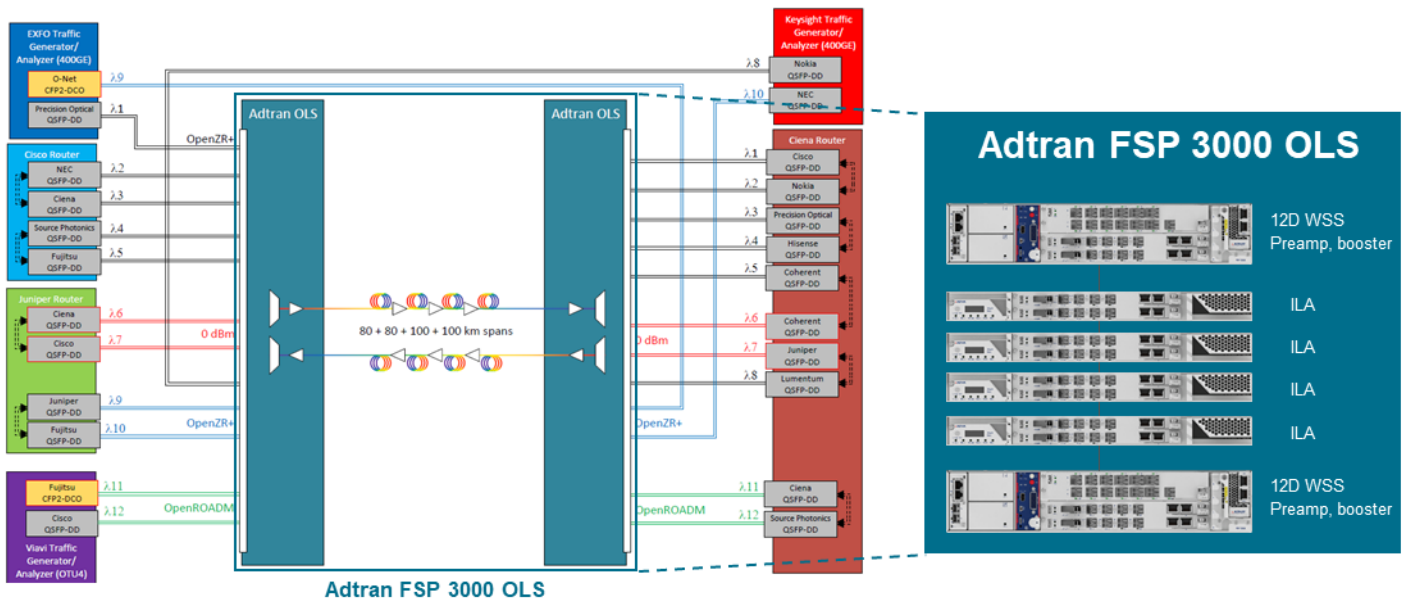

Figure 1. OIF 400ZR+ ECOC demo block diagram and Adtran FSP 3000 OLS configuration
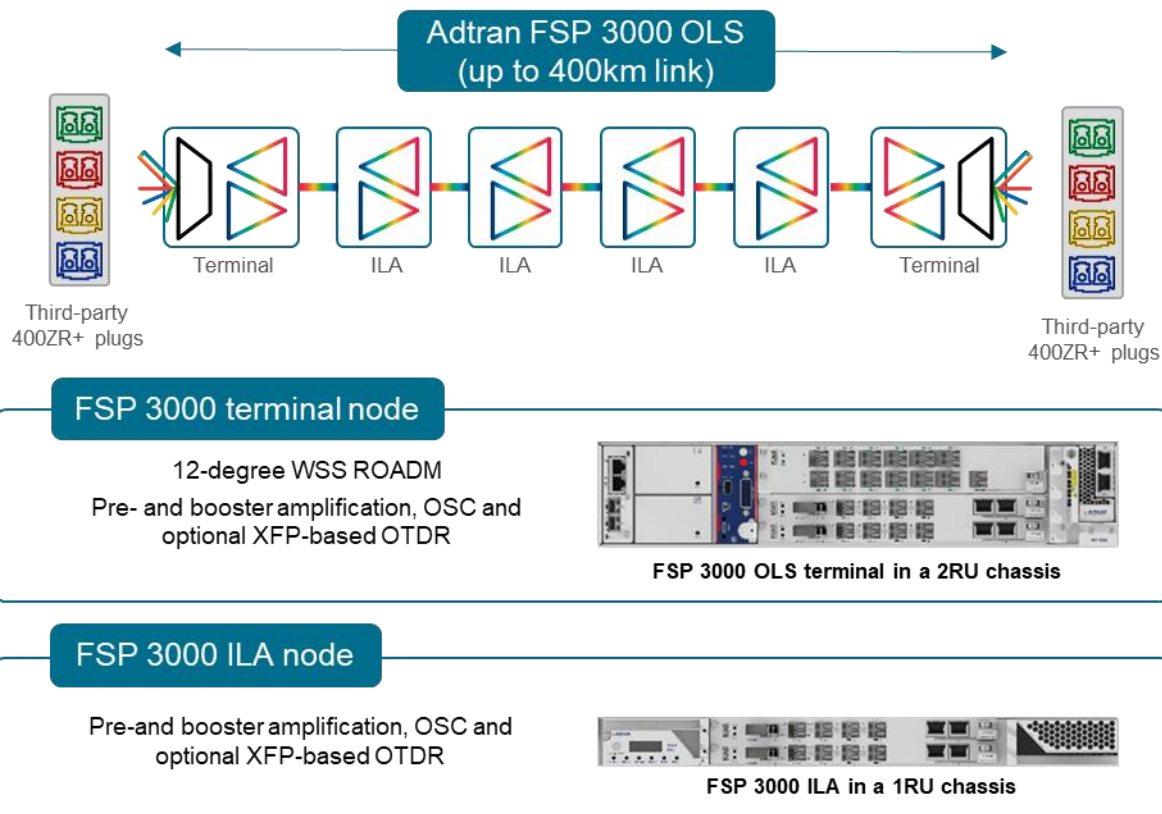
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Figure 2. FSP 3000 OLS configuration optimized for OIF 400ZR+ demonstration at ECOC 2023

The FSP 3000 OLS nodes for this demo use two key components:

- The *RD-12RS*: a reconfigurable optical add-drop multiplexer (ROADM) module that supports up to 13 degrees and provides 12 client ports for add-drop services, channel equalization and optical channel monitoring (OCM) in a dual-slot card
- The *AM-S23L*: an EDFA-type optical amplifier with auto-span equalization, optional XFP-based OTDR monitoring and optical supervisory channel (OSC) in a single-slot card. The AM-S23L EDFA can work as pre-amplifier, booster and in-line amplifier

Key benefits
- Open line system engineered to meet OIF 400ZR+ DCI demands; compatible with other formats
- High degree of integration and automation in a compact form factor
- Built-in OCM, OTDR and OSC functions for accurate and comprehensive channel, system and fiber monitoring
- Automatic span equalization
- Graphical user interface (GUI)

About Adtran
Adtran has the industry's most comprehensive fiber networking toolbox that empowers operators to build a converged infrastructure from metro core to customer premises. The company's solutions serve a wide range of networking applications including residential, business, wholesale and mobile. In 2022, Adtran merged with ADVA. Learn more at adtran.com