

## Broadband Backhaul

*"The greatest driver for WDM-PON is the continuous increase in the bandwidth demand by broadband subscribers and the need for a flexible access technology to address this trend."*

*Adeel Najam, Frost & Sullivan*

### More Bandwidth at Lower Cost

The continuously increasing demand for next-generation broadband services in support of new residential and business applications is driving heavy investment in evolving first-mile access technologies. Across all media on copper, coaxial cable, fiber or radio access, new technologies are being quickly adopted to gain competitive advantage in terms of bandwidth to the end user. To remain competitive and profitable, service providers need cost-effective and scalable second-mile transport network solutions, enabling flexible backhaul of broadband services from access aggregation sites to the service edge. Application transparency and resiliency are key requirements for next-generation solutions. And with the growing amount of bandwidth and service intelligence, special attention must be drawn to operational simplicity.

### Our Solution – Unconstrained Access and Backhaul

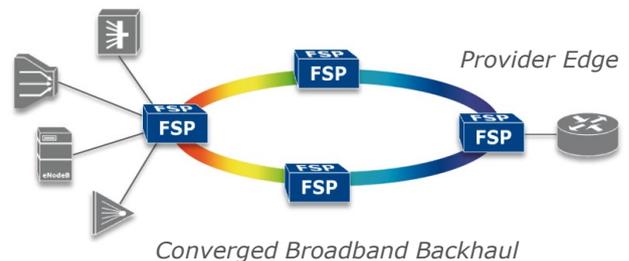
Our FSP 3000 is one of the most scalable optical transport solutions on the market. Carriers use the solution to implement passive point-to-multipoint WDM configurations that are fully integrated with active transport technology for metro access and metro core. It is the ideal solution for deploying cost-effective broadband backhaul networks that will scale with the tremendous bandwidth growth expected over the next decade.

With its multi-service capability, our FSP 3000 enables you to transport virtually any service type across your backhaul network – whether it be Ethernet, OTH or SONET/SDH. Our advanced sub-wavelength aggregation function includes add/drop capability and helps you to significantly increase network utilization, resulting in capital and operational savings due to the lower number of wavelengths required.

The WDM-PON architecture available with our FSP 3000 supports high splitting ratios and distances. This enables network operators to concentrate active technology in a few sites that sit farther back in the network. The system is energy-efficient

and interoperates with various in-house and first-mile technologies through intelligent Optojack™ technology. With our FSP 3000, you can implement a seamless access and backhaul infrastructure that delivers more with less.

Backhaul your ultra-fast access services by providing dedicated and secure wavelengths of symmetrical bandwidth. Our FSP 3000 offers a competitive edge by accelerating the rollout of backhaul services with a simple engineering and deployment model. In addition, service-based network operations and management across the entire network are enabled by our FSP Service Manager.



## Key Benefits – Increased Capacity, Energy Efficiency

With the continuously increasing demand for bandwidth, access network operators are seeking scalable and energy-efficient ways to optimize their second-mile backhaul networks. Our FSP 3000 brings new levels of simplicity, flexibility, security and performance to the delivery of broadband services. It enables operators to deploy scalable and transparent broadband backhaul networks that meet the requirements of tomorrow. The combination of our FSP 3000 and the FSP Service Manager offers:

- **Future-proof capacity**  
Service aggregation onto 4Gbit/s and 10Gbit/s wavelengths for scalability and optimal network resource utilization
- **Highest service availability**  
Fast and automatic protection options for increased network availability with guaranteed quality-of-service levels
- **Intelligent management**  
Rich Optojack™ and Etherjack™ functionality for next-generation optical and Ethernet service monitoring and assurance
- **Simplified operations**  
Service-based network operations for end-to-end service provisioning and service management across the entire network
- **Seamless networking**  
Single platform for backhaul and metro networks for common operational processes, spares and network management
- **Energy efficiency**  
Low energy consumption and increased space efficiency due to highly integrated design with customization capability

## FSP 3000

ADVA Optical Networking's scalable optical transport solution is a modular WDM system specifically designed to maximize the bandwidth and service flexibility of access, metro and core networks. The unique optical layer design supports WDM-PON, CWDM and DWDM technology, including 100Gbit/s line speeds with colorless, directionless and contentionless ROADMs. RAYcontrol™, our integrated, industry-leading multi-layer GMPLS control plane, guarantees operational simplicity, even in complex meshed-network topologies. Thanks to OTN, Ethernet and low-latency aggregation, the FSP 3000 represents a highly versatile and cost-effective solution for packet optical transport.



## About ADVA Optical Networking

ADVA Optical Networking is a global provider of intelligent telecommunications infrastructure solutions. With software-automated Optical+Ethernet transmission technology, the Company builds the foundation for high-speed, next-generation networks. The Company's FSP product family adds scalability and intelligence to customers' networks while removing complexity and cost. Thanks to reliable performance for more than 15 years, the Company has become a trusted partner for more than 250 carriers and 10,000 enterprises across the globe.

Innovation



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