

## CORIANT IS NOW PART OF INFINERA

# Coriant® 7610 Service Edge Platform Enables Secure and Cost-effective Transmission

*Delivering Service Flexibility for Data Center and Enterprise Connectivity*

## CHALLENGE

With the increasing importance of data center connectivity, including private enterprise data centers, and the ongoing trend toward cloud computing, the need for secure and reliable high speed connections is critically important for transport network infrastructures. In fact, securing transmissions can be as important as ensuring adequate transmission capacity. Addressing the requirement for protected data transmission on the optical layer requires a solution that can be easily and flexibly implemented into existing transport architectures.

## SOLUTION

The Coriant® 7610 Service Edge Platform is the ideal solution to provide a secure and reliable low latency, high speed transmission for point-to-point topologies. By combining a variety of fiber channel and Ethernet services with support for up to eight transponders, the 7610 solution enables maximum flexibility and scalability for fiber optic connectivity.

## CORIANT® 7610 SERVICE EDGE PLATFORM VERSIONS

The 7610 is available in two product versions, the 7610 SEP and the 7610 Crypto, each offering a flexible mix of applications that meet industry standards and protocols. Both versions are based on the same hardware architecture and offer the same configuration flexibility for specific requirements and diverse applications.

- **7610 SEP** – The 7610 SEP provides DWDM optical transponder functionalities for various types of services including 1GbE/10GbE/40GbE, 4G/8G/10G/16G FC, and STM-64. Each of these services is converted into an optical DWDM signal and multiplexed on a single fiber for transmission over long distances.
- **7610 Crypto** – As a WDM access and transport device that supports data encryption, the 7610 Crypto provides a high security solution for fiber infrastructure by encrypting up to eight services transparently with low latency and at the full data rate. The 7610 Crypto provides payload encryption for a variable combination of 1GbE/10GbE/40GbE and 4G/8G/10G/16G FC services

The 7610 SEP and 7610 Crypto deliver a cost-effective feature set in a compact 1RU chassis with low power consumption. Both platform versions are highly integrated devices that incorporate mux/demux capabilities, optical amplifiers, and a Dispersion Compensation Module (DCM). With a modular architecture and flexible configuration options, the 7610 SEP and 7610 Crypto ensure simplified implementation into a variety of network applications.

## FEATURES OF THE CORIANT® 7610 SERVICE EDGE PLATFORM

- **Payload encryption** for various services including 1GbE/10GbE/40GbE and 4G/8G/10G/16G FC services
- **Compact design and highest flexibility** with integrated mux/demux, optical amplifiers, and a Dispersion Compensation Module (DCM)
- **Seamless in-service expansion** by adding pluggable optical interfaces (SFP/SFP+) or by stacking the chassis
- **Fully integrated into the Coriant Dynamic Optical Cloud™ Solution** as part of our end-to-end product portfolio



## OFFERING FULL SUPPORT OF ENCRYPTED 16G FIBER CHANNEL

Fiber Channel technology is the typical choice for network connections that require reliable, high speed transport. The 7610 supports 4G, 8G, 10G, and 16G Fiber Channel services in a modular, flexible architecture that ensures simplified configuration changes through the installation of up to eight SFP/SFP+ transponders per chassis without service interruption. In addition, multiple 7610 chassis may be stacked and interconnected to provide support for up to 96 services per site.

## 7610 INTERWORKING WITH THE CORIANT END-TO-END PRODUCT PORTFOLIO

The 7610 SEP and 7610 Crypto are integral components of the Coriant product portfolio and work seamlessly with Coriant® 7100 Packet Optical Transport Solutions, the Coriant® mTera® Universal Transport Platform, and the Coriant® hiT 7300 Multi-Haul Transport Platform. The Coriant portfolio provides flexible and reliable transport solutions that meet a wide variety of service needs in access to metro/regional networks.

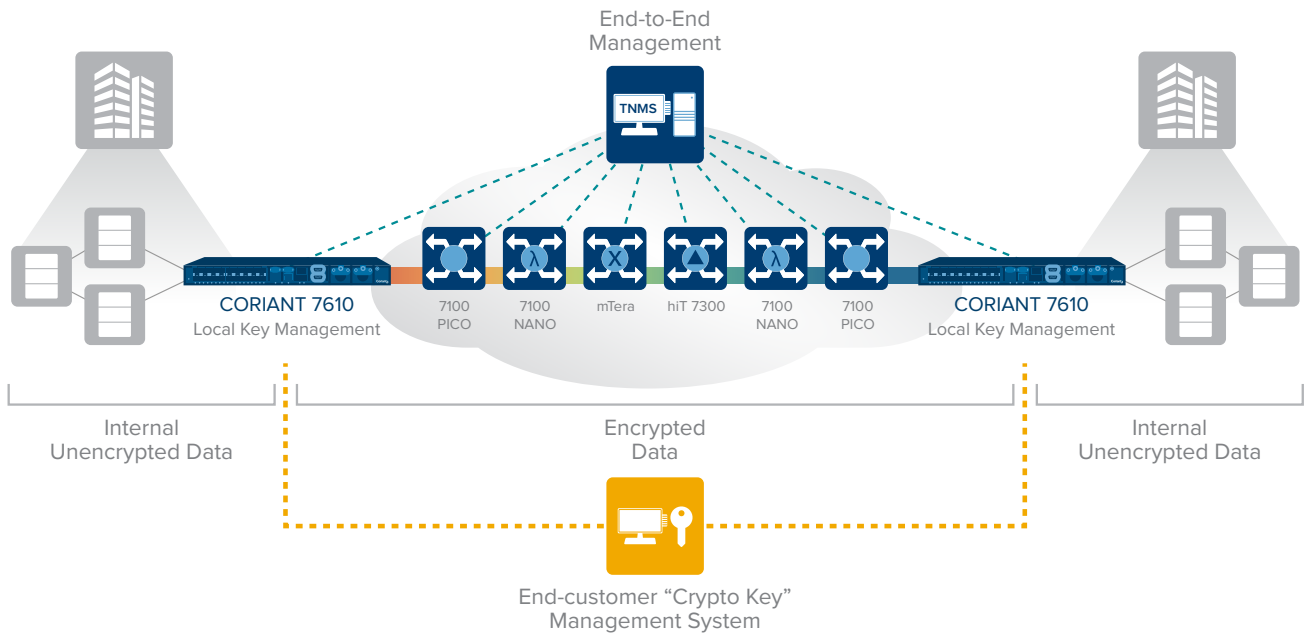


Figure 1: End-to-end Data Encryption

## ENABLING HIGH SECURITY PAYLOAD ENCRYPTION

The 7610 Crypto provides reliable payload encryption and key management and delivers full control of the master keys (pre-shared secret) to the end-user. Access to the master keys is completely separated from the network administrator domain. Security on the 7610 Crypto is conducted by state-of-the-art encryption and key management based on FIPS 140-2 Level 2 standards, which offer guidelines for encryption, key exchange, digital signature, and hashing.

In order to ensure protected data transmission on the optical layer, the 7610 Crypto is typically installed at the customer premises. The 7610 platforms support AC or DC power supply configurations and can be easily placed next to the data server, router, switch, etc. Through a compact design and unique, flexible configuration options, the 7610 SEP and 7610 Crypto provide the most efficient solution for protected data transmission.

## OPERATIONAL APPLICATION SCENARIOS

### External Transport Infrastructure

One of the typical 7610 Crypto network applications involves installing the platform at the end-user domain and connecting it to an external DWDM transport network. In this scenario, the 7610 Crypto ensures a protected data transmission between user domains on an untrusted external carrier's transport infrastructure. The 7610 Crypto provides the encrypted payload as a DWDM wavelength to the external carrier where the signal is transmitted as an alien wavelength. This scenario supports a reach of up to 300 km. In this external transport application, security for the data center, the switch, and the 7610 Crypto, including key management, is fully controlled by the end-user. The Crypto officer user account, whose function is to configure the encryption keys and to change port configurations, can be assigned to the end-user and separated from the network operator or carrier.

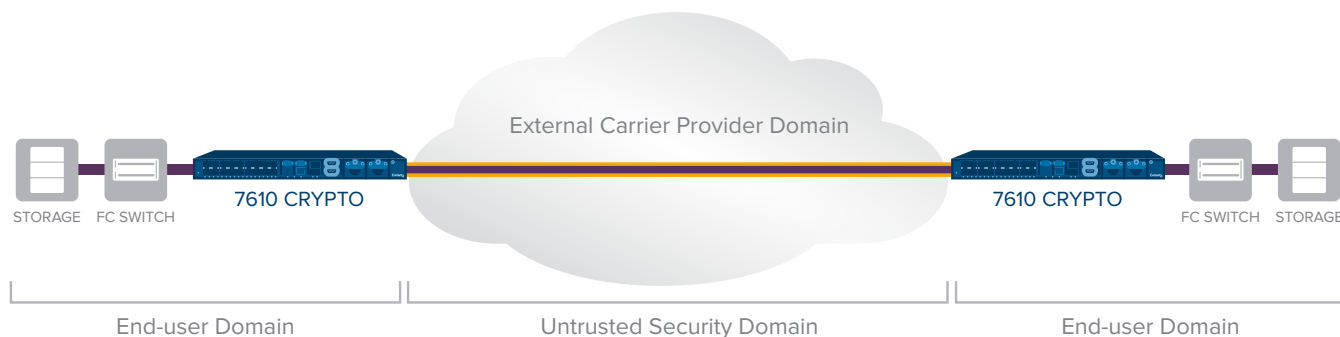


Figure 2: External Transport Infrastructure

### Internal Transport Infrastructure

Another application for the 7610 Crypto is the integration of the platform within a trusted transport network infrastructure. In this scenario, the end-user has full control of the security solution and the transmission network for the most cost-effective, efficient, and reliable transport of encrypted data between various network elements. The use of an internal transport network ensures no additional cost for external carrier infrastructure. In addition, internal infrastructure provides the maximum level of security for payload encryption. Configuring and exchanging keys occurs via a fully trusted transport environment, and the customer retains full control over service encryption. Services are individually encrypted with a key before being multiplexed with other services to provide additional security in the fully trusted internal transport environment.

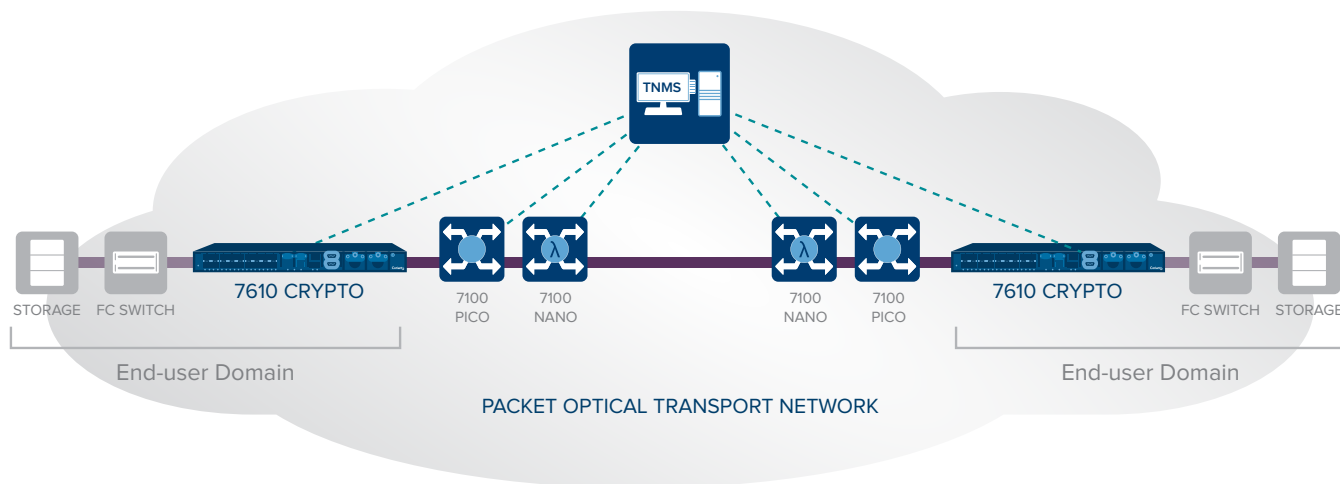


Figure 3: Internal Transport Infrastructure

### CONCLUSION

Deployed in data center and enterprise applications, the 7610 offers a powerful, scalable solution for versatile service configurations. As a stand-alone platform or coupled with the 7100, mTera® UTP, or hiT 7300, the 7610 SEP and 7610 Crypto enable cost-efficient, simplified implementation within existing network infrastructures without additional transponders or muxponders. Combining a flexible mix of services in a compact, modular architecture, the 7610 solution delivers reliable, high speed transport, with a platform option for secure data encryption.

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