

# WDM for Research and Education Networks



## Challenges

- ◆ Connect remote facilities with high capacity network
- ◆ Connect multiple fragmented campus buildings into one unified network
- ◆ High level data security to protect sensitive data
- ◆ Build backbone that is easy to grow
- ◆ Simple setup and maintenance enabling self maintenance and low OPEX
- ◆ Cost-saving equipment
- ◆ Network management system for complete control

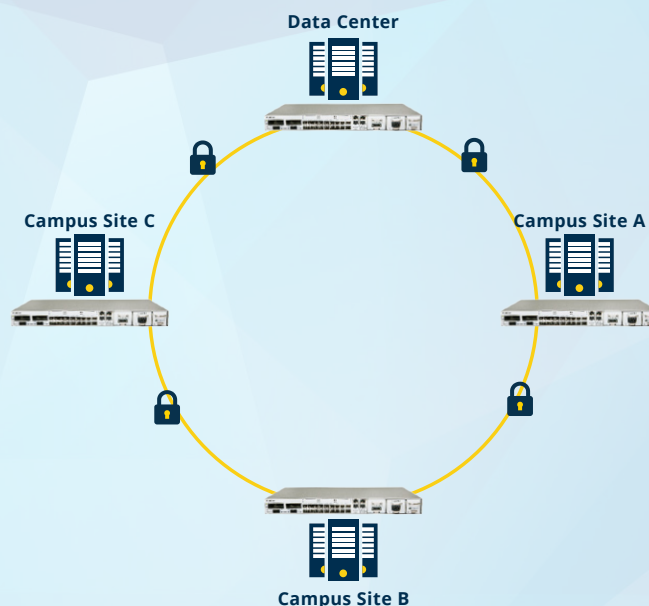


## Solution

- ◆ High capacity backbone network with DWDM product suite
- ◆ Flexible mix of services including Ethernet, Fibre Channel and video protocols
- ◆ Layer-1 encryption with fully transparent data transport
- ◆ Pay-as-you-grow scalable architecture
- ◆ Quick to deploy and operate
- ◆ Low power consumption and 1U compact form factor guarantee low OPEX
- ◆ Ultra-low latency for fast, reliable data transfer
- ◆ EMS/NMS - for easy configuration, management, and monitoring



## Network Diagram





# Products for This Solution



**PL-4000M**  
400G muxponder



**PL-4000T**  
4x400G  
transponder/muxponder



**PL-4000G**  
4.8T transponder



**PL-2000T**  
800G platform



**PL-2000ADS**  
200G multi-rate ADM  
muxponder/transponder



**PL-2000M**  
200G multi-protocol  
coherent muxponder



**PL-2000**  
20G OTN ADM  
muxponder



**PL-1000TE-Crypto**  
Up to 8 multi-rate  
transponders



## Advantages

- ◆ Muxponder/transponder
- ◆ Build network with up to 400G capacity per wavelength
- ◆ Flexible aggregation of mix of services:  
10/25/40/100/400Gb Eth, STM-64/OC-192, 8G/16G/32G FC,  
OTU2/2e/3/4
- ◆ Encryption per service or per uplink
- ◆ Scalable, pay-as-you-grow network
- ◆ Integrated with mux/demux, optical amplifiers, and optical switch in 1U devices
- ◆ Compatible with third-party networks for extending existing OTN/DWDM infrastructure
- ◆ Supports protected ring and point-to-point topologies
- ◆ Features OTN cross-connect