

# Managed Private Optical Network

With applications like high-speed trading, medical imaging, content delivery, synchronous replication and cloud migration, the demand for bandwidth continues to increase exponentially. These applications place significant strain on available network resources, driving a need for increased scalability and performance.

Billions meet this increased demand, our Managed Private Optical Network (MPON) is a reliable, dedicated solution capable of supporting multiple technologies, protocols and applications across a wide area. MPON provides a private, dedicated, private network with custom designed Dark Fiber routes, DWDM equipment installation and around-the-clock monitoring, maintenance and trouble shooting by our Network Operation Center.

MPON is a great option for organizations looking for a Dark Fiber solution that does not require in-house technical and operational personnel on-call, monitoring and troubleshooting the network.

## Key Benefits

### Increased flexibility and scalability

Across our Dark Fiber, dedicated network with all of the private, secure and bandwidth required has more cost efficiency than building in-house.

### Dedicated support and monitoring

Access to technical and operational teams who have the need to address DWDM equipment in real-time, reducing operational risk and overhead.

### Simplified network management

A single point of contact compared to working with multiple providers increasing efficiency and peace of mind. Additionally, our operations and equipment upgrades are performed on our scheduled maintenance minimizing network impact.

## Key Network Features

- 30 years of experience applied to the design, installation, monitoring, maintenance and upgrade of advanced DWDM network
- Multiple high availability options for fiber and equipment protection, giving you the peace of mind and guaranteed SLA
- Enhanced security with private fiber and equipment, and optional FIPS-certified Layer 1 optical encryption add extra protection for your data in flight
- Ability to engineer a design with the latest available equipment and software for higher density and peak performance
- Optimal fiber route and equipment, with optional built-in upgrade to meet your future needs
- Monitoring and managing all DWDM nodes and fiber via an out-of-band management connection to our Network Operation Center
- 24/7 network surveillance and monitoring

SPECIFICATION	DESCRIPTION
Key Solution Component	Dark Fiber between deployed location DWDM nodes with ROADM technology
(See Diagram)	Network management via out-of-band connection. Designed, installed and managed by the provider.
Bandwidth Option & Hand-off Protocol (non-encrypted)	<ul style="list-style-type: none"> <li>- 1Gbps (pl): 1 GigE, OTU1</li> <li>- 10Gbps: 10 GigE, FC800/1200, OC-192/192c, OTU2</li> <li>- 40Gbps: 40 GigE, OC-768, OTU3</li> <li>- 100Gbps: 100 GigE, OTU4</li> </ul>
Bandwidth Option & Hand-off Protocol (Encrypted)	<ul style="list-style-type: none"> <li>- 10Gbps: 10 GigE, FC800, FC1200, OC-192/192c</li> <li>- 40Gbps: 40 GigE, OC-768, OTU3</li> <li>- 100Gbps: 100 GigE, OTU4</li> </ul>

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Optional Protection Option	<ul style="list-style-type: none"> <li>- Backup circuit in different route</li> <li>- Optical Protection Switch for automatic failover to backup path</li> <li>- Guaranteed SLA option determined by the design of the network</li> </ul>
Bit Error Rate	1 10 <sup>-9</sup>
Mean Time to Repair (MTTR)	4 hours
Availability	Contract (MTTR) 0.02% (OT 12 T 11.429 (OR) 10ITTR) e
Bandwidth Option	43 TdF6 1835 (availability) 11.429 (OR) 10ITTR) 656 41 601nEITR) er-