

BlueTel Networks

Managed DWDM Services

Managed DWDM Service Overview

BlueTel's Managed DWDM (Dense Wavelength Division Multiplexing) service delivers a fully managed, carrier-grade optical transport platform designed for high-capacity, low-latency data transmission across metro and long-haul networks.

Our solution supports bandwidth scalability from 1 Gbps, 10Gbps up to 400Gbps and beyond per wavelength, providing flexible capacity for data centers, carriers, OTTs, and enterprises. BlueTel manages the complete DWDM lifecycle - from design and deployment to 24x7 monitoring, performance management, and maintenance, ensuring maximum network uptime and service quality.

Key Highlights



High-Capacity Optical Transport: Supports 1Gbps to 400G and beyond per wavelength, providing flexible, scalable connectivity across metro, regional, and long-haul networks.



End-to-End Management: Complete lifecycle coverage - equipment provisioning, configuration, monitoring, maintenance, and optimization.



High Reliability: Carrier-grade network design with 1+1 or ring protection, within 50ms restoration.



Future-Ready Scalability: Expand capacity as needed by adding wavelengths or upgrading transponders and no need for major rework.

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Service Architecture Overview

Our DWDM infrastructure combines advanced optical technologies to deliver reliable, low-latency transmission across multiple fiber routes.

Core Components:



Optical Layer: Mux/Demux, EDFA, ROADM for dynamic wavelength routing.



Transmission Layer: Multi-protocol transponders and muxponders supporting Ethernet, Fibre Channel, and OTN interfaces.



Network Management: Centralized NMS for real-time monitoring, alarm management.



Topology Options: Point-to-point, ring, and mesh configurations with diverse fiber routing.

Key Technical Features

Category	Specification
Capacity	1Gbps, 10Gbps up to 400Gbps and beyond per wavelength
Channel Spacing	50GHz / 75GHz / 100GHz / 150GHz
Reach	Up to 2000 km
Amplifiers	EDFA
Protection	1+1, ring, or diverse-path redundancy
Protocols Supported	10GE, 100GE, 400GE, FC, OTU2, OTU4
Management	24x7 NOC monitoring

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Benefits



Operational Simplicity: Fully managed service and no need for in-house optical expertise.



Scalable Growth: Add capacity as bandwidth needs increase.



Powered by carrier-grade optical backbone with flexible capacity 400G per wavelength and beyond.



Lower TCO: Managed model reduces capital and operational burden.



Trusted Partner: End-to-end delivery by BlueTel's certified optical engineers.

Use Cases

- Data Center Interconnect (DCI)
- Carrier Backhaul and Metro Aggregation
- Subsea Cable Terrestrial Extensions
- Enterprise Multi-Site Connectivity
- Cloud and CDN Transport

Service Assurance

- 24x7 proactive network monitoring
- Real-time fault detection and notification
- Preventive maintenance and performance optimization
- Restoration and escalation process
- Monthly performance reporting and analytics

Why BlueTel?

With decades of telecom experience and in-house optical expertise, BlueTel delivers a trusted, future-ready transport platform for the region's most demanding networks. Our Managed DWDM Service ensures your critical links remain fast, reliable, and intelligently managed - today and tomorrow.