



Open Optical Networking Platform

DCI Solution

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Company Profile

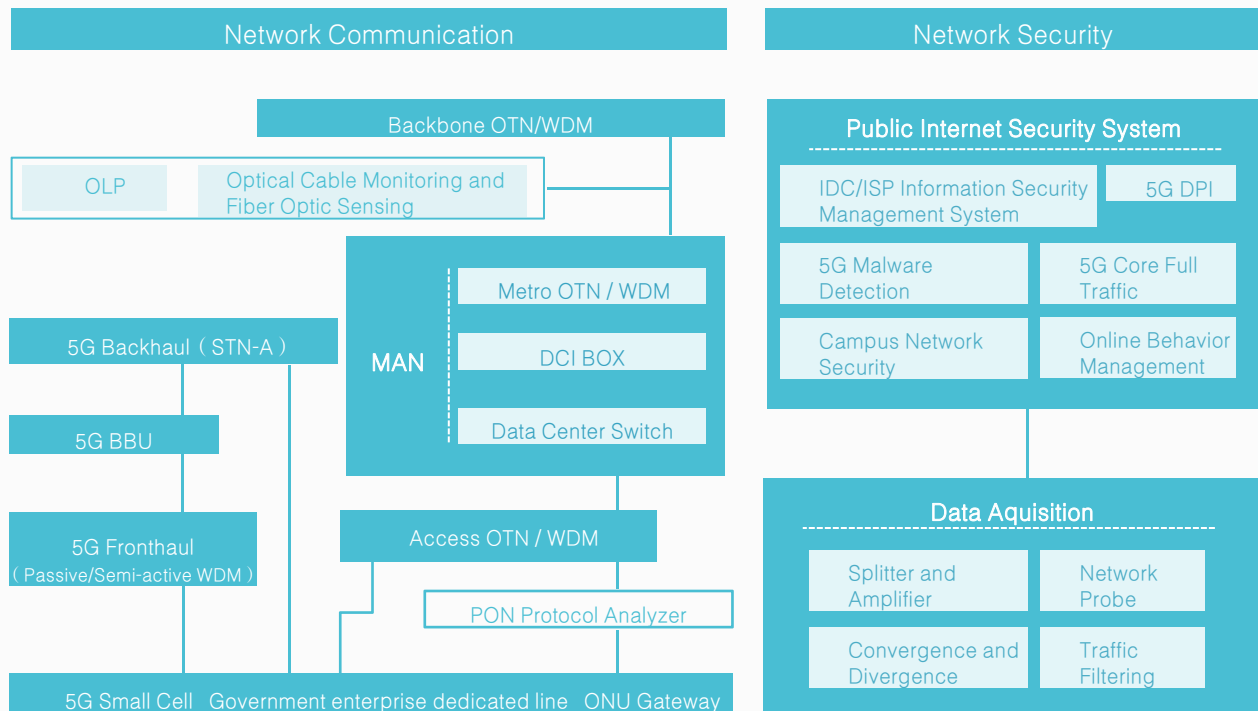
Sino-Telecom Technology Co., Inc. is a research-oriented high-tech company based in Shanghai, dedicated to the field of network communication. We have been recognized as a national high-tech enterprise and have been honored with national distinctions such as "Specialized and New Small Giant" enterprise, as well as being acknowledged as a strategic emerging enterprise in Shanghai.

Sino-Telecom focuses on providing cutting-edge network communication solutions, building a comprehensive product line with a primary emphasis on optical networks and data communication. Our product portfolio includes 100G+ OTN/WDM, DCI/Next-Generation Metropolitan Wavelength Division Multiplexing (WDM), Access OTN, STN-A transmission products, as well as Data Center Switches, IPRAN, and other data communication products.

We value the precious nature of the current strategic opportunity and are committed to offering our customers cost-effective solutions, along with comprehensive after-sales service support and supply chain assurance. Sino-Telecom is dedicated to collaborating with our customers to meet the challenges of the digital era, contributing to innovative developments in the field of telecommunication.



Sino-Telecom Network Communication Product



Sino-Telecom serves a diverse range of domestic clients in China, including traditional telecommunications companies such as China Telecom, China Mobile, and China Unicom. Additionally, our clientele extends to specialized networks with customers in the broadcasting, power, railway, public security, and other sectors. Our international customer base spans across the globe.



Data Center Interconnect (DCI)

STN6800-D16-I / STN6800-D16-II

STN6800-D16 is an optical-electrical Wavelength Division Multiplexing (WDM) transmission device designed for Data Center Interconnect (DCI) in the intelligent era. Data Center Interconnect demands products with large bandwidth, low latency, high density, quick deployment, ease of maintenance, and high reliability. Sino-Telecom's STN6800-D16 is designed to meet these requirements. The 1U device supports a maximum transmission capacity of 1.6T, while the 2U device supports a maximum transmission capacity of 6.4T.

STN6800-D16 features high port density, compact structure, and easy installation. They provide customers' data centers with greater scalability within the same spatial footprint, enabling clients to effortlessly utilize high-speed, low-latency, reliable, and secure transmission channels for seamless data sharing between data centers and balanced workload distribution.

Stackable DCI WDM Platform

STN6800-D16-II



Overview

STN6800-D16-II serves as a 200G/400G stackable WDM transmission platform with advantages such as substantial transmission capacity, compact size, low power consumption, and user-friendly operation and maintenance. It exhibits robust scalability, high reliability, and secure connections, making it ideal for data center interconnection and next-generation metropolitan area network transmission.

STN6800-D16-I supports various service cards at the electrical layer, including a 400G service card (with 4x100G client-side interfaces and 1x400G line-side interface), a 200G service card (with 4x100G client-side interfaces and 2x200G line-side interface), and a 200G TMUX service card (with either 20x10G client-side interfaces and 1x200G line-side interface). At the optical layer, STN6800-D16-II offers functionality such as FOADM, ROADM, EDFA, OLP, and more. Built on an open software architecture, it provides various open interfaces for seamless integration into third-party comprehensive network management systems.

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Physical Characteristics

Characteristics	STN6800-D16 I	STN6800-D16 II
Height	1U	2U
Rack-mountable Cabinet	19-inch	19-inch
Power Supply	1+1 Power Redundancy, AC input: 100 ~ 240V, 47 ~ 63Hz; DC input: -40V ~ -72V	1+1 Power Redundancy, AC input: 100 ~ 240V, 47 ~ 63Hz; DC input: -40V ~ -72V
Cooling Method	Front-to-Rear	Front-to-Rear
Operating Environment	Operating Temperature: 0°C ~ 45°C; Storage Temperature: -40°C ~ 70°C; Relative Humidity: 10% ~ 90%, non-condensing	Relative Humidity: 10% ~ 90%, non-condensing
Management Interface	RJ45	RJ45
Management	Support SNMP/NETCONF	Support SNMP/NETCONF

Electrical Specifications

400G TMUX Card, 4x100G Muxponder Card

- Client-side Interface: Supports 4 pluggable 100G client-side interfaces with QSFP28. The entire unit can accommodate a maximum of 32 100G client-side interfaces;
- Line-side Interface: Supports 1 pluggable 400G CFP2 DCO coherent optical module. The entire unit can accommodate a maximum of 8 400G line-side interfaces.



200G TMUX Card, 2x100G Muxponder Card

- Client-side Interface: Supports 2 pluggable 100G client-side interfaces with QSFP28. The entire unit can accommodate a maximum of 16 100G client-side interfaces;
- Line-side Interface: Supports 1 pluggable 200G CFP2 DCO coherent optical module. The entire unit can accommodate a maximum of 8 200G line-side interfaces.



200G TMUX Card, 4x100G Muxponder Card

- Client-side Interface: Supports 4 pluggable 100G client-side interfaces with QSFP28.
- Line-side Interface: Supports 2 pluggable 200G CFP2 DCO coherent optical module.



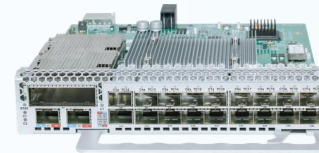
200G TMUX Card, 1x100G+10x10G Muxponder Card

- Client-side Interface: Supports 2 pluggable 100G client-side interfaces with QSFP28 and 10 pluggable 10G client-side interfaces with SFP+. The entire unit can accommodate a maximum of 8 100G client-side interfaces and 40 10G interfaces;
- Line-side Interface: Supports 1 pluggable 200G CFP2 DCO coherent optical module. The entire unit can accommodate a maximum of 4 200G line-side interfaces.



200G TMUX Card, 20x10G Muxponder Card

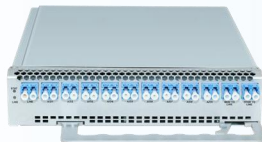
- Client-side Interface: Supports 20 pluggable 10G client-side interfaces with SFP+. The entire unit can accommodate a maximum of 80 10G interfaces;
- Line-side Interface: Supports 1 pluggable 200G CFP2 DCO coherent optical module. The entire unit can accommodate a maximum of 4 200G line-side interfaces.



Optical Specifications

ROADM Card

- Supports 9-Degree Wavelength Selective Switch (WSS).



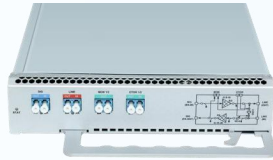
OLP Card (Single path)

- Supports single path optical channel, optical multiplex section, and optical line protection;
- Supports manual and automatic operation modes;
- Supports power-off and no-light lock.



Booster Amplifier Card

- Including booster amplifier and pre amplifier
- Supports built-in OSC
- Supports adjustable gain
- Supports monitoring interface



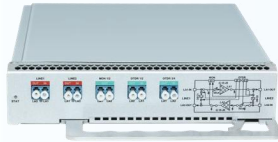
OLP Card (Dual path)

- Supports dual path optical channel, optical multiplex section, and optical line protection;
- Supports manual and automatic operation modes;
- Supports power-off and no-light lock.



Line Amplifier Card

- Including line amplifier
- Supports built-in OSC
- Supports adjustable gain
- Supports monitoring interface



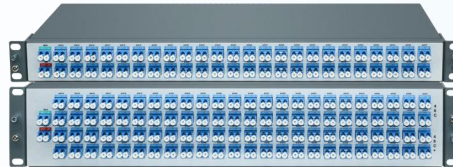
Clock Pass-Through Card

- Supports 1588v2 clock synchronization transmission



DWDM Multiplexer Unit

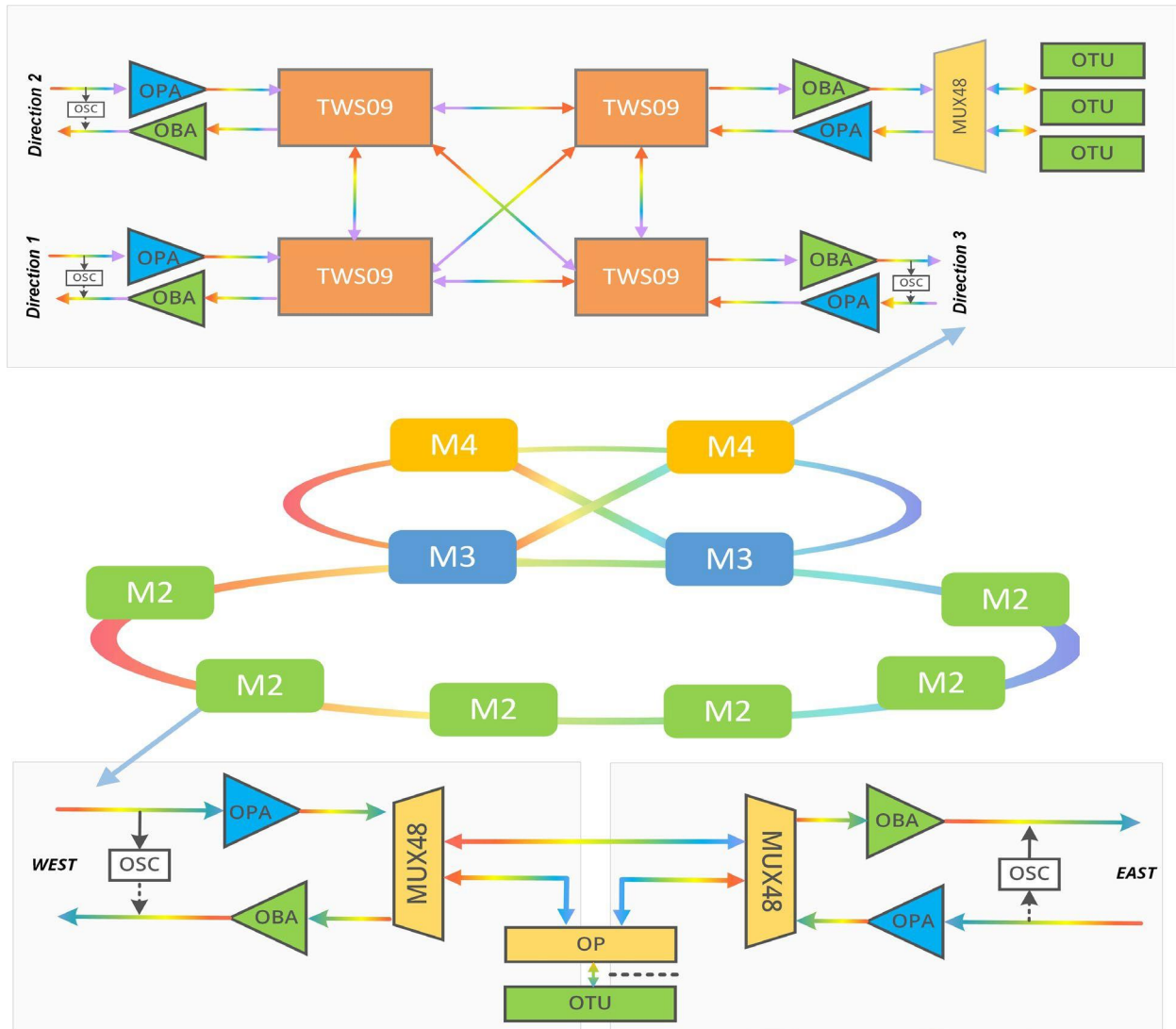
- 48-channel DWDM Mux and Demux Unit
- 96-channel DWDM Mux and Demux Unit



Fixed 4-channel Mux and Demux Card



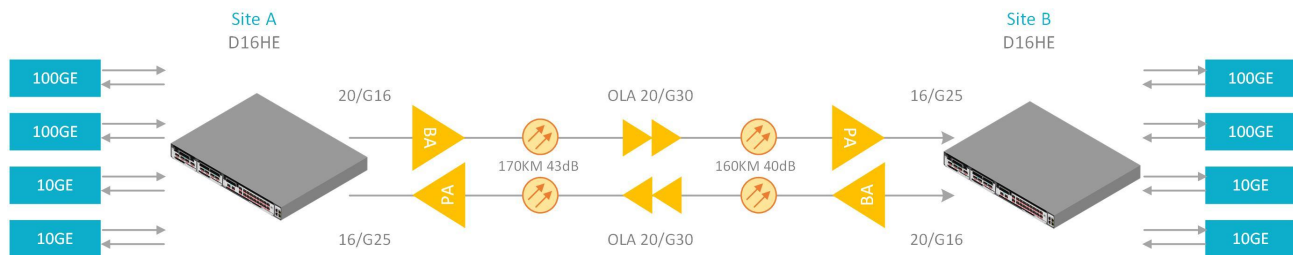
Typical Application Scenarios



DCI Application Cases

Point-to-Point / Ring Network / Northeast Chain Network / County Township
WDM Network / New Metropolitan Network / CBN Application / Ultra High Speed
and Ultra Long Distance Transmission Network

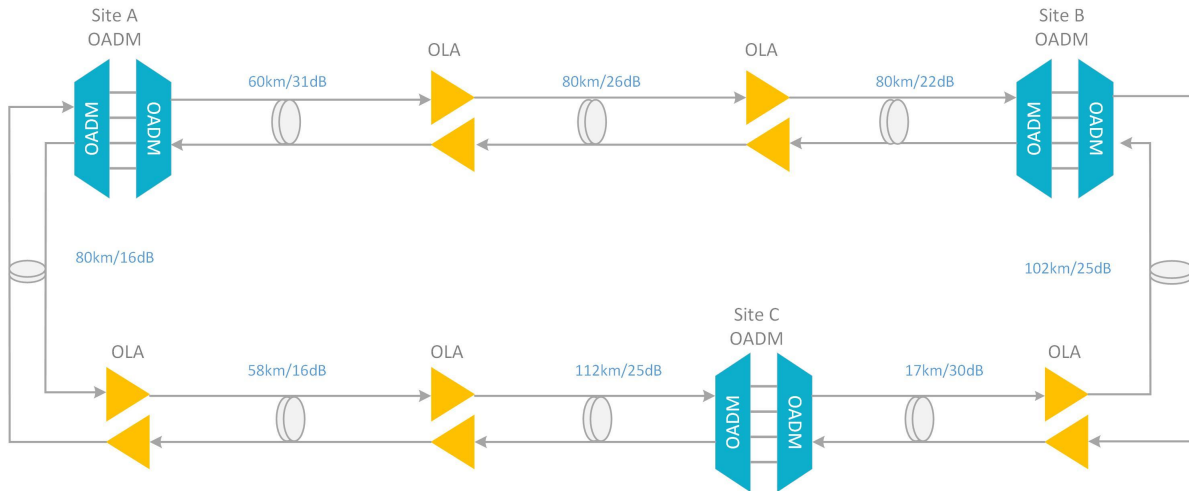
Point-to-Point Network



Case Description

- Requirement: A banking client needs to transmit 100GE and 10GE services between Site A and Site B, with a distance of 330km and an optical amplifier relay point in between.
- Solution: The solution utilizes STN6800-D16HE to achieve 200G service transmission, successfully activating two channels of 100G services, with no need for dispersion compensation throughout the entire line.

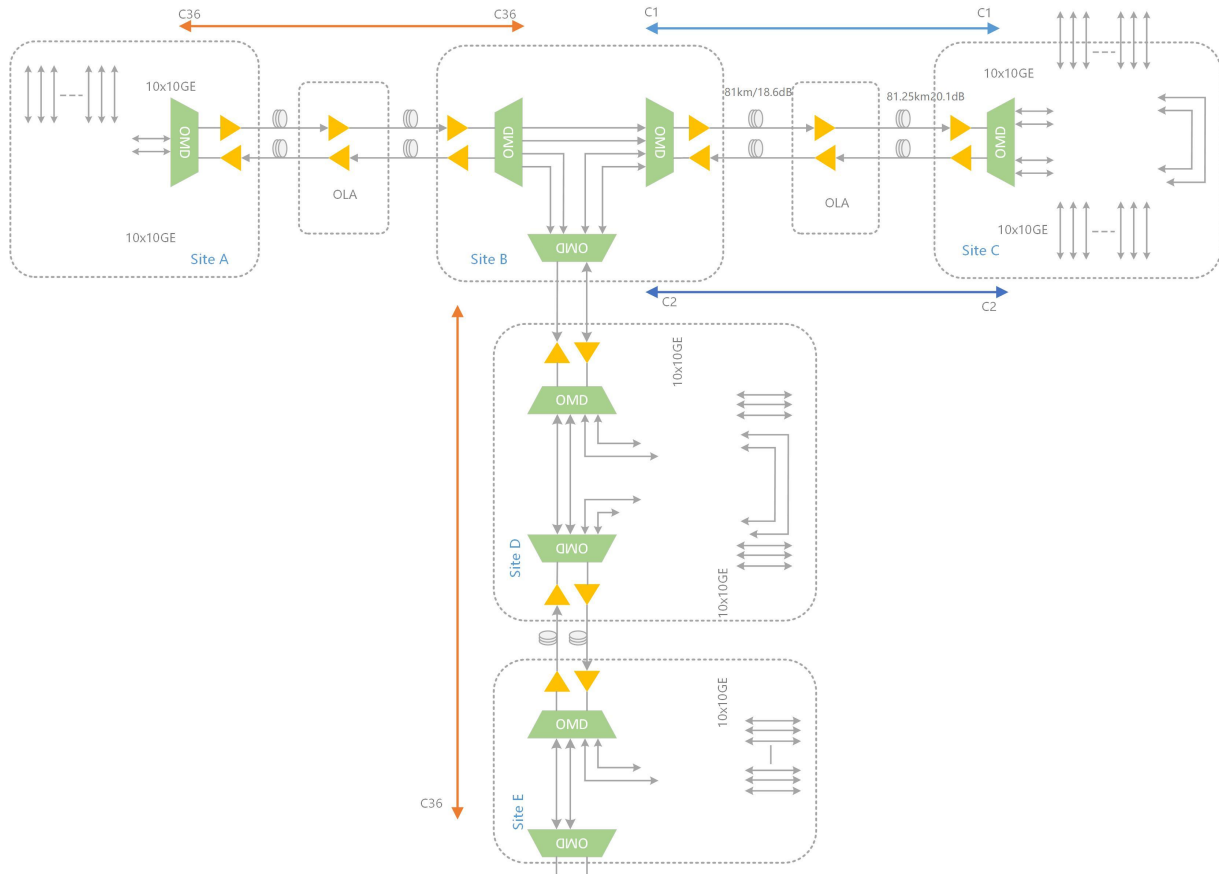
Ring Network with Protection



Case Description

- Requirement: Due to the rapid growth of data services, an internet company in the Yangtze River Delta plans to progressively upgrade the backbone transmission ring network of the original A, B, and C data centers to a 200G transmission system.
- Solution: This solution utilizes the STN6800-D16HE devices to form a 200G OTN ring network. Simultaneously, it integrates with the existing 100G DWDM system, necessitating a redesign of the optical transmission paths.

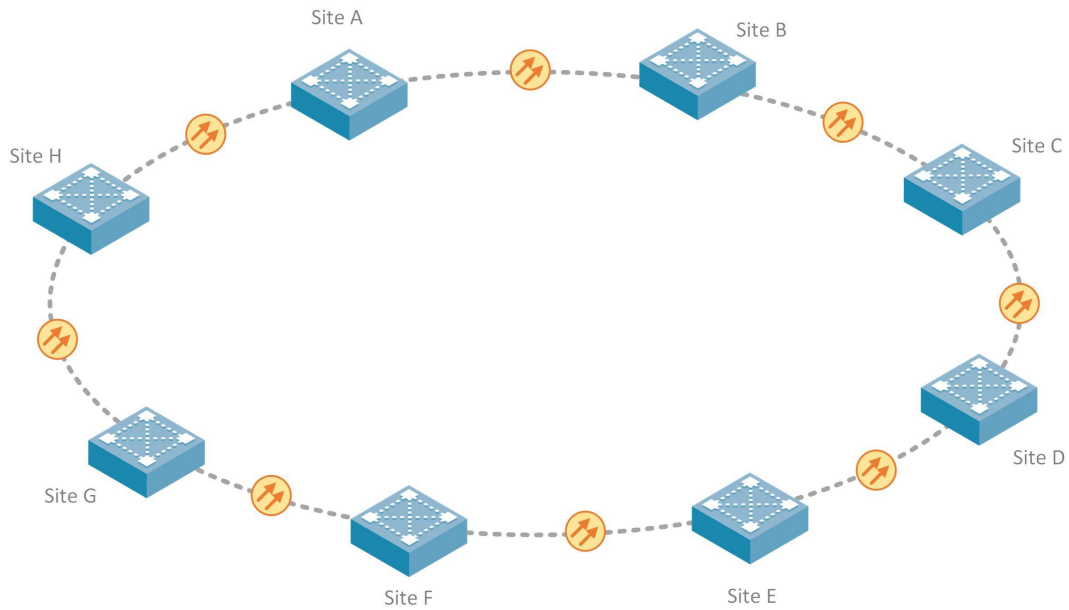
Northeast Chain Network



Case Description

- Requirement: A client in Northeast China urgently requests the rapid activation of 10x10G services between various sites and expresses the desire for future implementation of ring protection.
- Solution: The solution utilizes STN6800-D16HE for network deployment, enabling remote business scheduling through network management. It also offers the feasibility for future upgrades to a ring network.

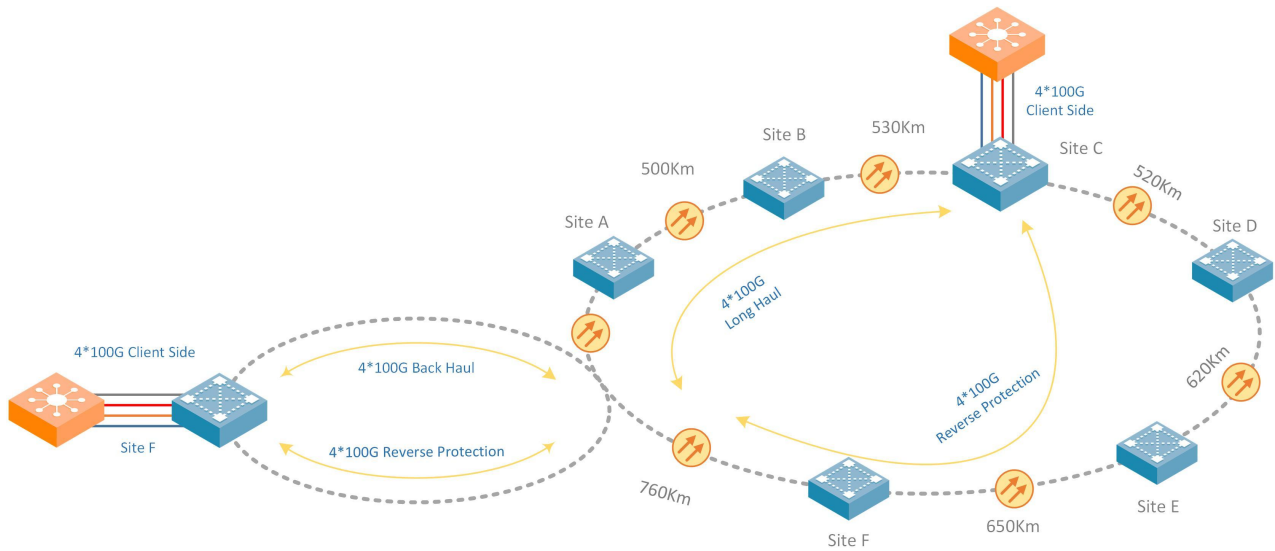
200G Ring Network



Case Description

- Requirement: A client urgently aims to establish a 200G ring transmission network, similar to the Northeast Chain project. The deployment of backbone optical layer equipment is already completed, and there is a need to add DCI electrical layer equipment to support upstream and downstream services.
- Solution: The solution utilizes STN6800-D16HE to form a ring network, primarily focused on point-to-point services, with protection implemented at the data layer.

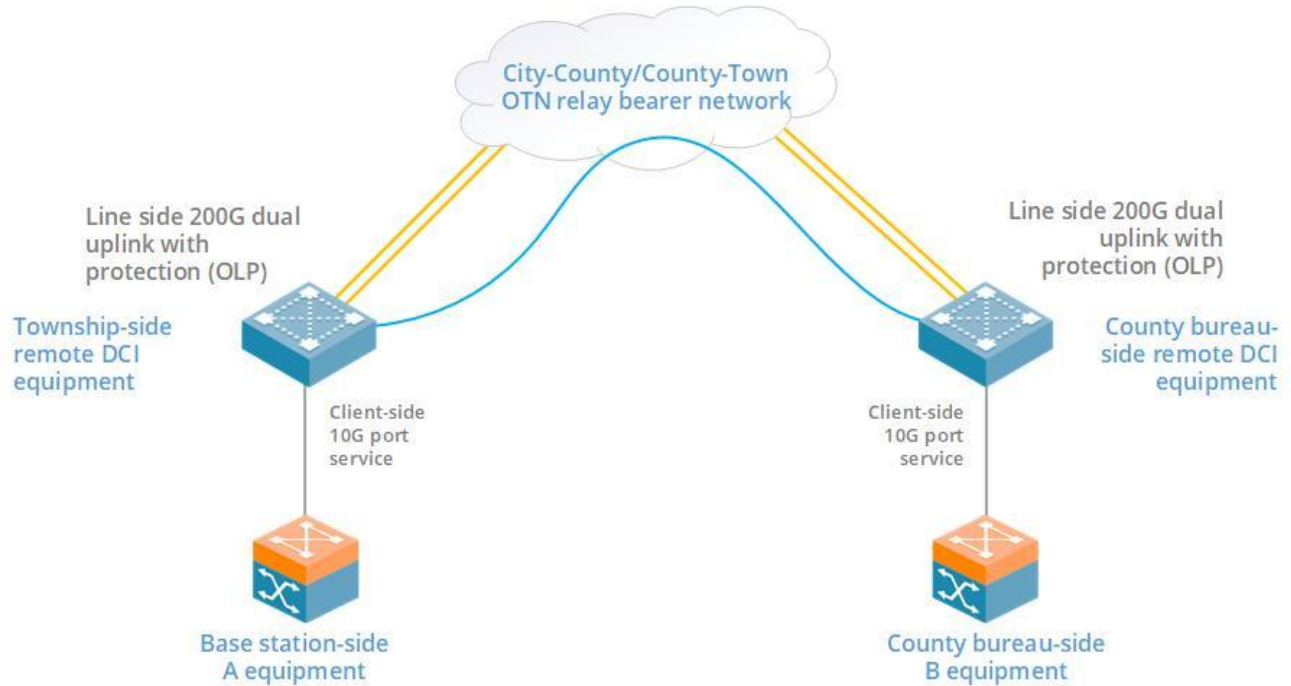
400G Ring Network



Case Description

- Requirement: An internet company is establishing a new data center in the Northwest, taking advantage of favorable policies. The company plans to establish a backbone transmission network between the new and existing data centers and gradually upgrade it to 1.2T.
- Solution: The solution utilizes STN6800-D16HE to form a ring network, enabling seamless expansion.

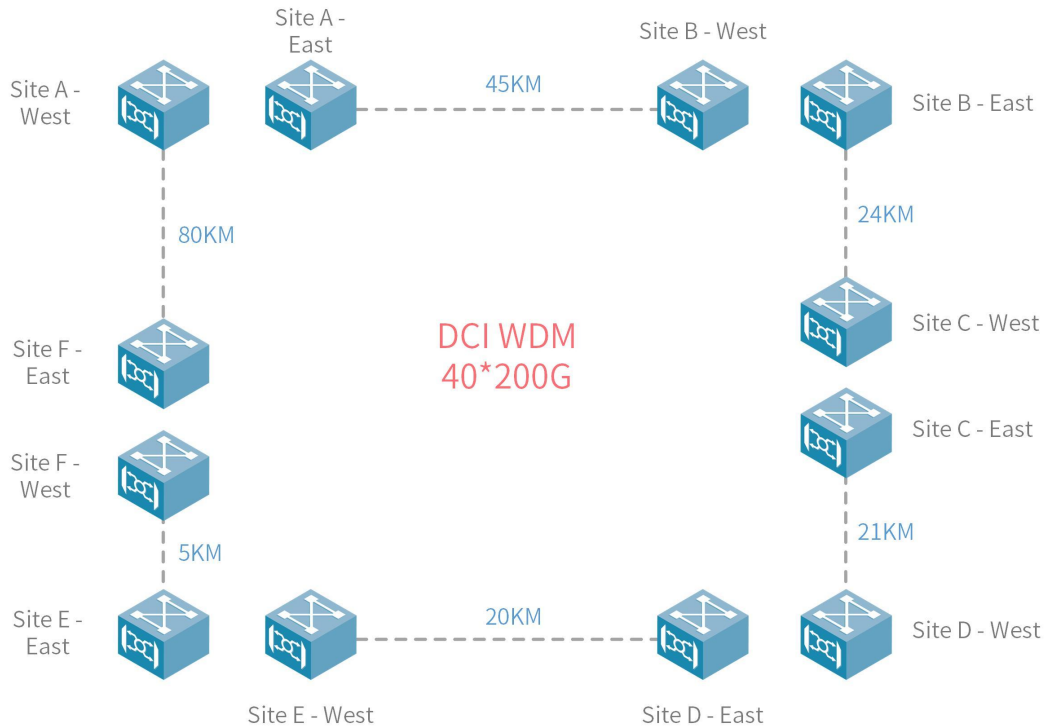
County-Township WDM Network



Case Description

- Requirement: Device B from a county needs to transmit 20x10G services to device A in a certain township. The optical layer is connected to the county-township OTN ring network, which utilizes ZTE OTN equipment.
- Solution: The electrical layer of this solution utilizes the STN6800-D16HE, connecting to the ZTE county-township OTN channel at the 200G line side to achieve optical-electrical decoupling and interoperability between different vendors.

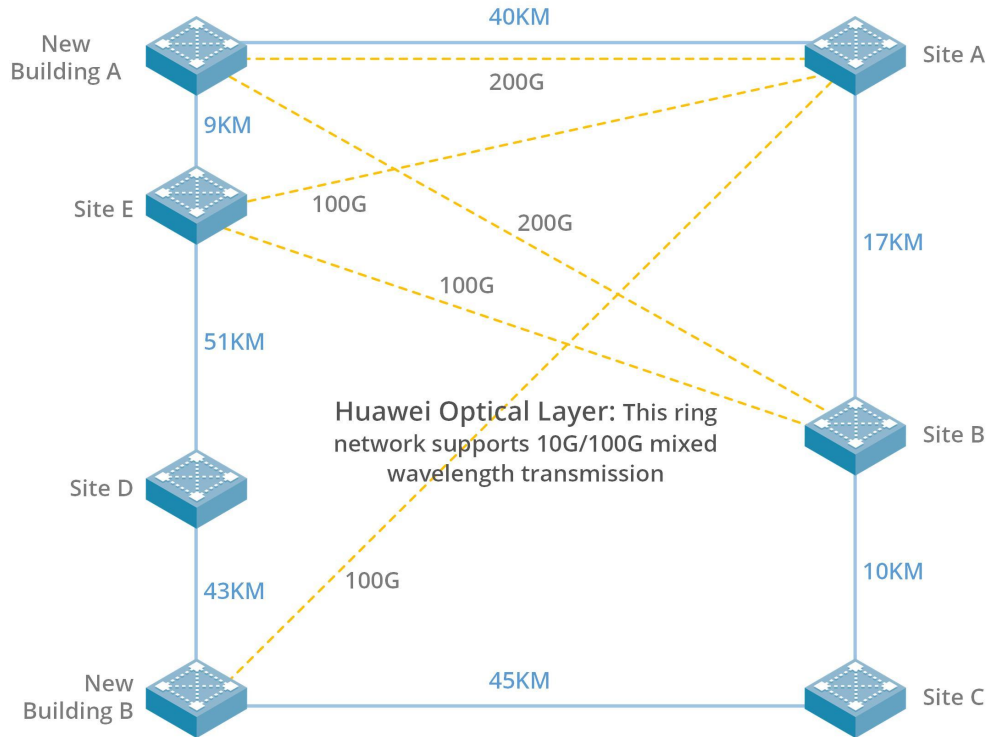
Next-Gen MAN Case



Case Description

- Requirement: A client is planning to deploy a system with 40 channels, each with a transmission rate of 200G, in a ring topology with a total ring length of approximately 200km.
- Solution: This solution utilizes the STN6800-D16HE, employing Och protection, to establish a ring network with 40 channels, each operating at 200G.

Radio and Television Cases

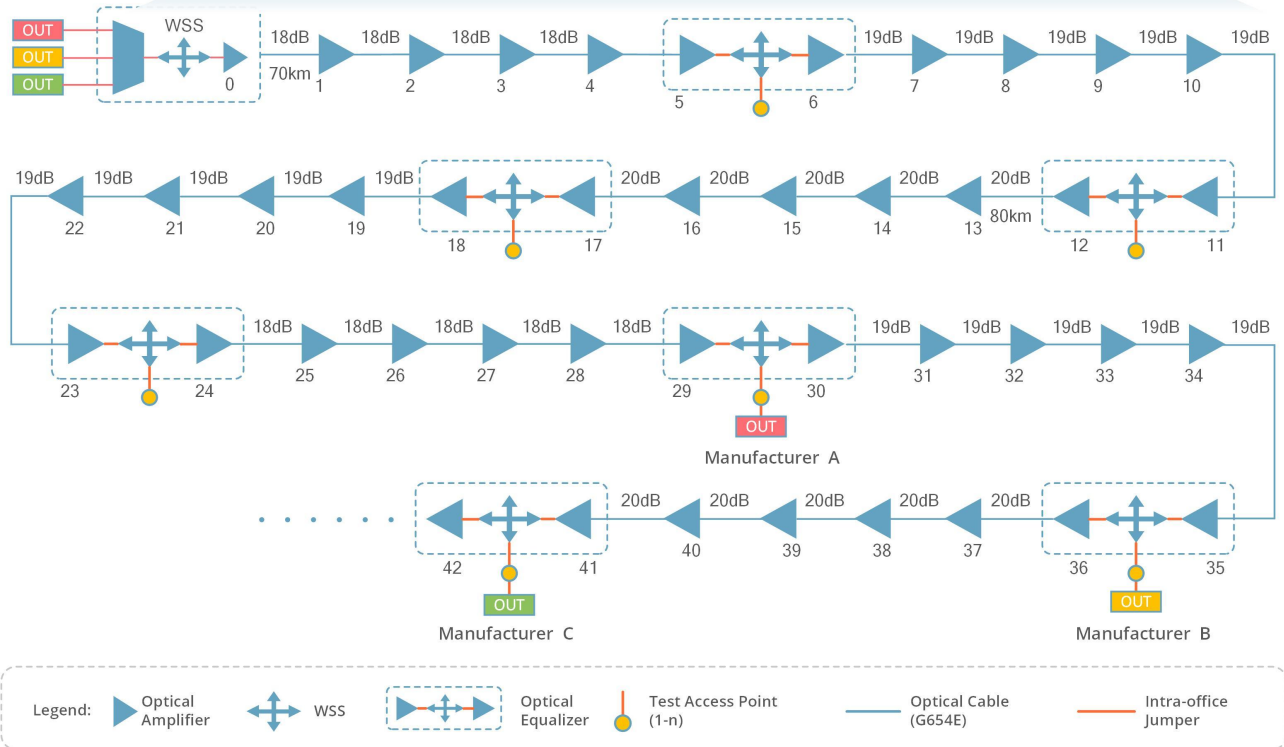


Case Description

- Requirement: A certain radio television company plans to expand its existing system with 14 channels 100GE and 20 channels 10GE services. The optical transmission layer is integrated into an OTN ring network, and the devices within this network are Huawei OTN equipment.
- Solution: The electrical layer of this solution utilizes the STN6800-D16HE, connecting to the Huawei OTN channel at the 200G line side to achieve optical-electrical decoupling and interoperability between different vendors.

Ultra High Speed and Ultra Long Distance Transmission Network

Open Optical Network Control System



Case Description

- Requirement, The project utilizes G.654E optical fiber as the transmission medium and establishes an open optical network test model based on EDFA optical amplifiers, achieving the transmission and amplification of optical signals.
- Solution, Testing of the single-wavelength 200G system demonstrates a no-amplification relay distance of over 2600km and a relay section count exceeding 35 sections. For the single-wavelength 400G system, the testing indicates a no-amplification relay distance of over 1000km and a relay section count of 15 sections or more.



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