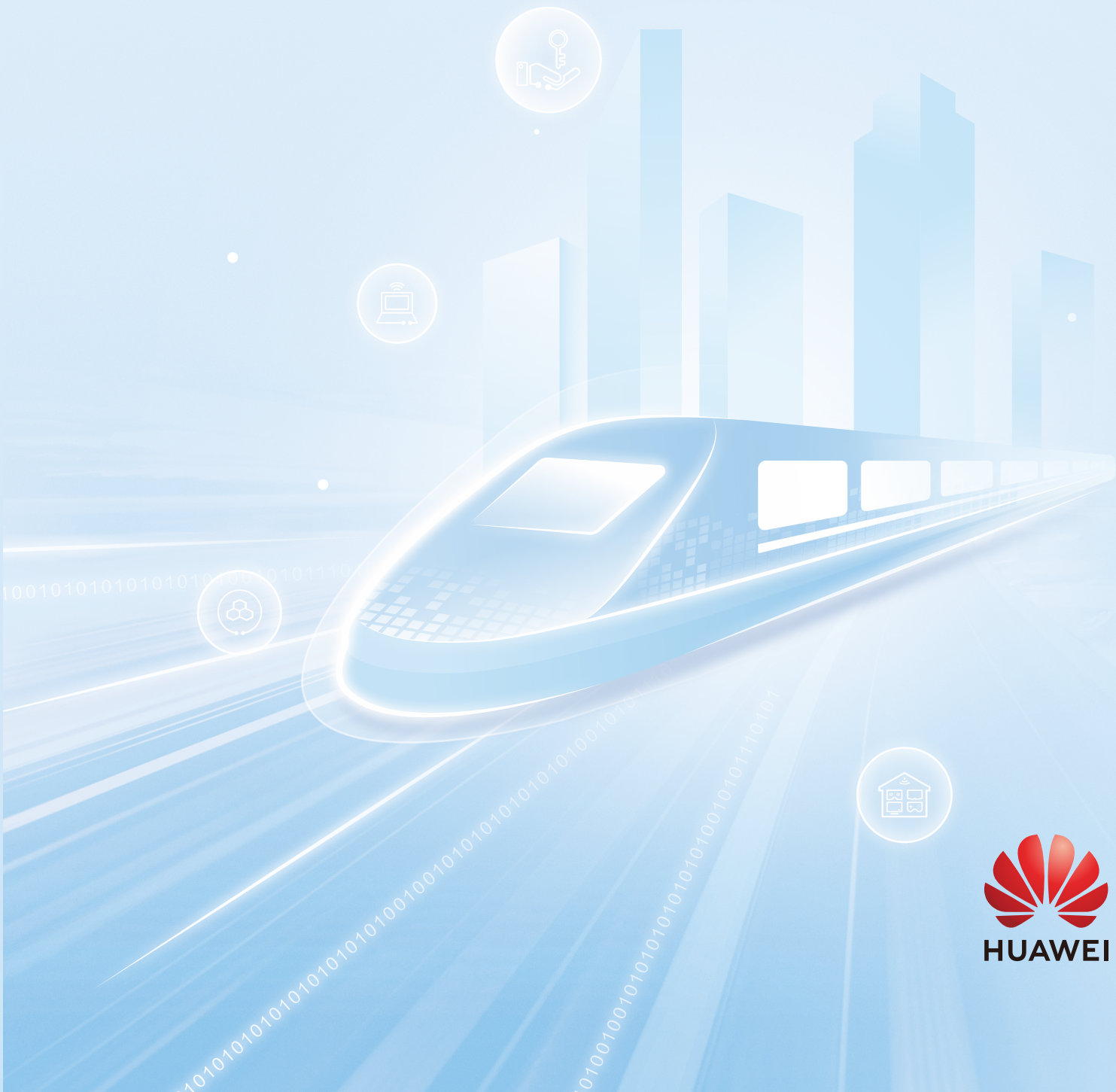


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WDM/OTN Solution

Full Series of 400G/800G WDM Solution



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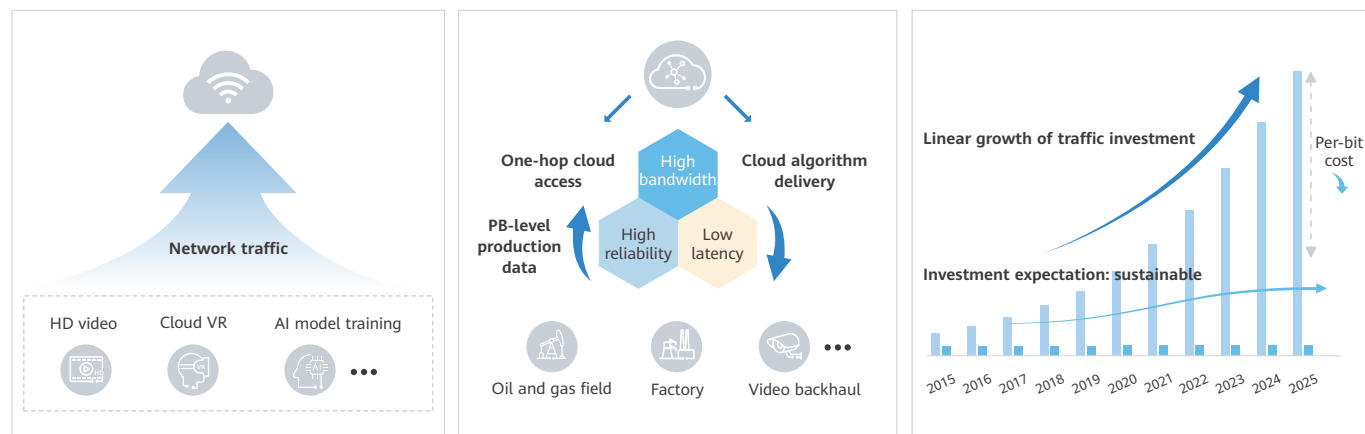
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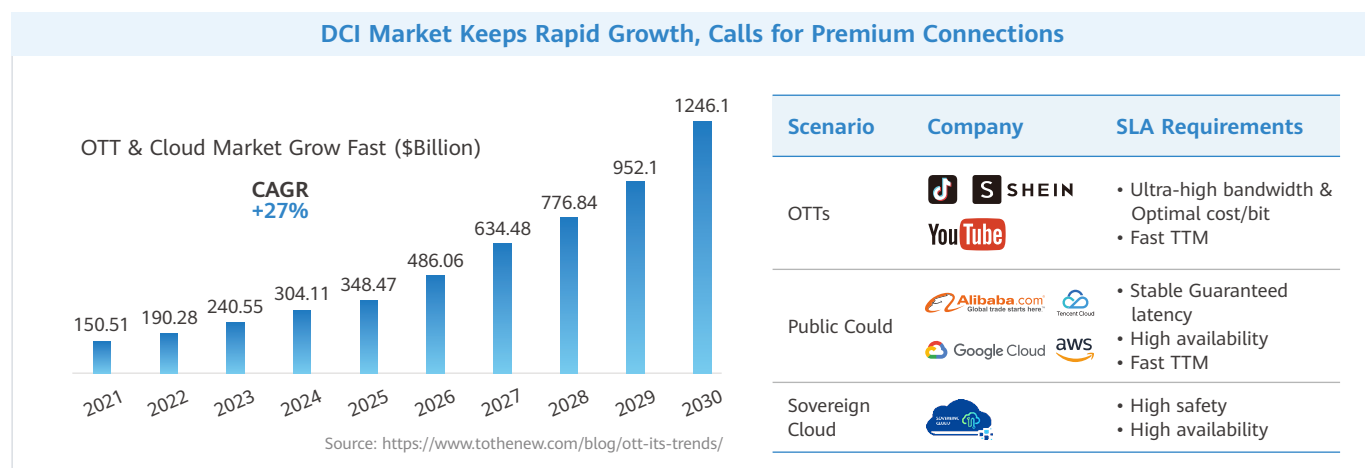
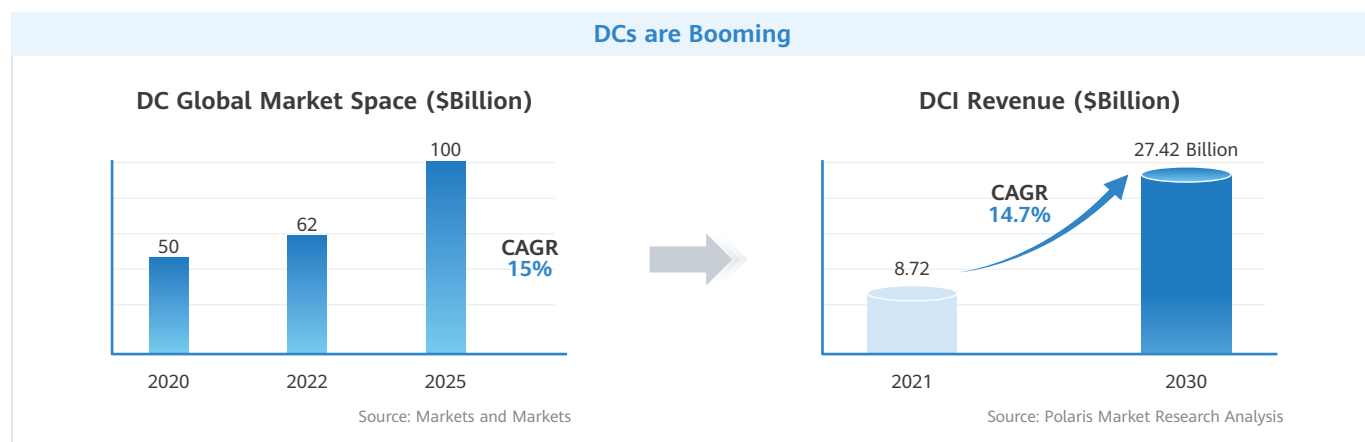
01 Trends and Challenges

1.1 Services Drive Traffic Growth and Upgrade of Transmission Network Bandwidth

Services such as HD video, cloud VR, and AI model training are driving the rapid growth of network traffic. Petabytes of data needs to be transmitted with high bandwidth, high reliability, and low latency.



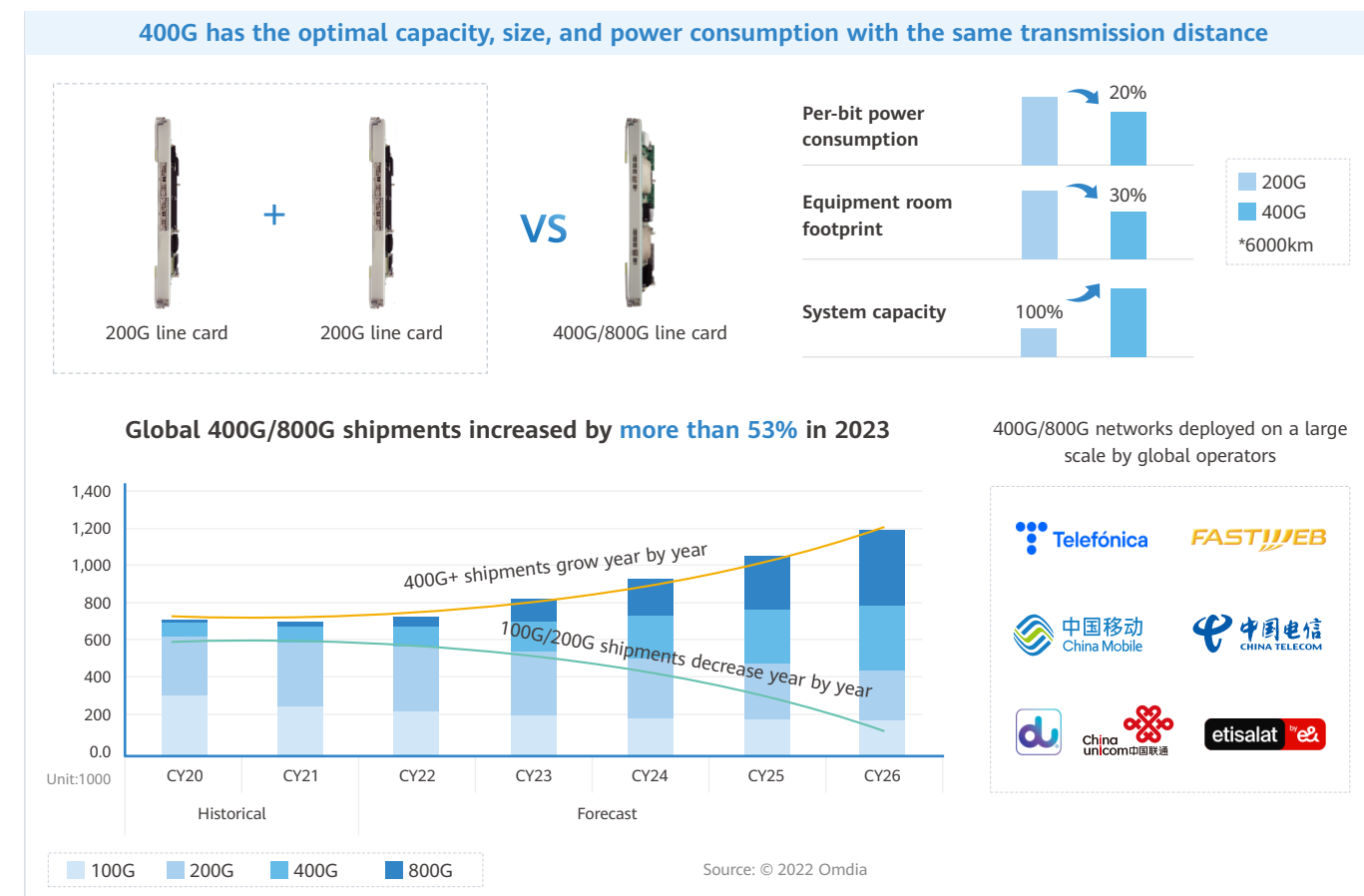
1.2 DC-centric Network Needs High Reliability and High Bandwidth



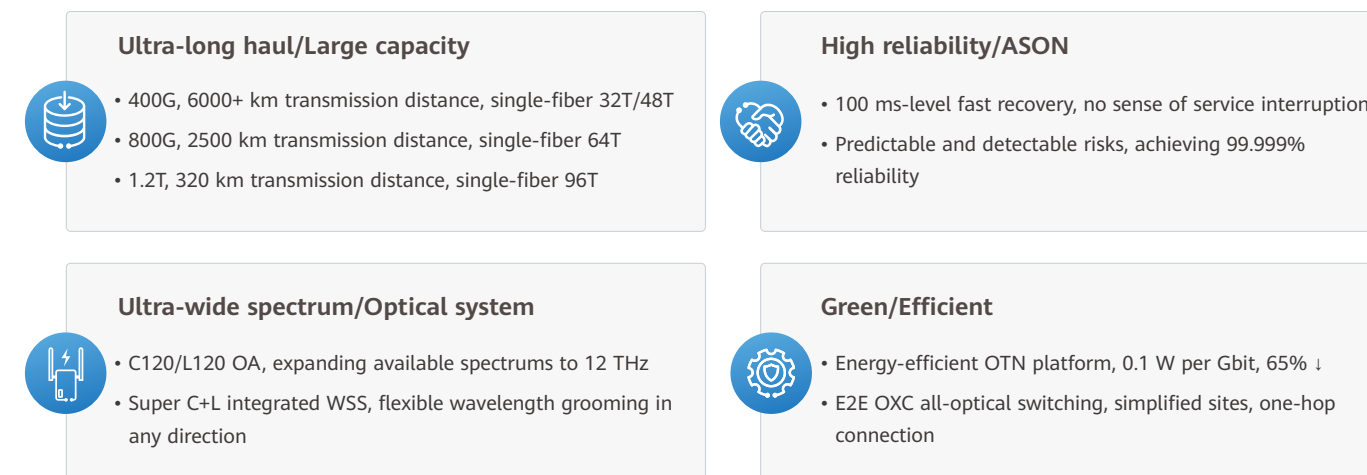
02 Overview of 400G/800G Solution

2.1 400G/800G Ushers in a New WDM Era

Compared with 200G, 400G has the same transmission capability, double system capacity, and less per-bit power consumption. This makes 400G the mainstream choice for operators.



2.2 Key Capabilities of Huawei 400G/800G Solution

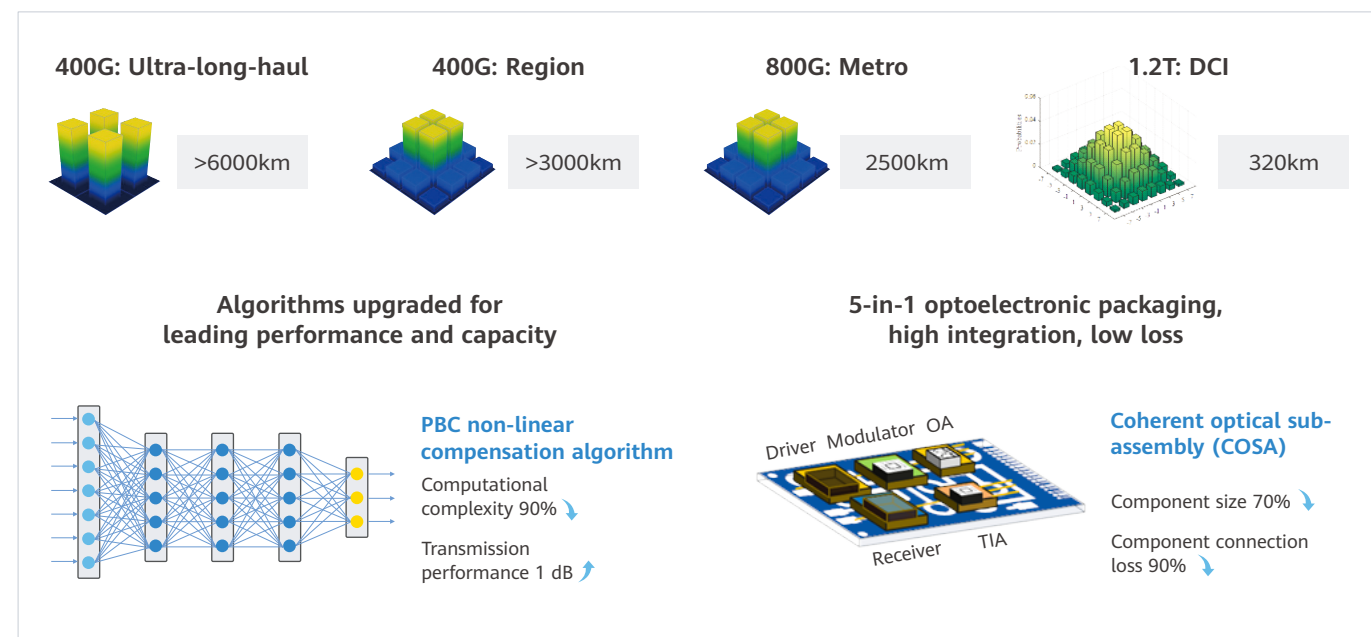




03 Key Capabilities

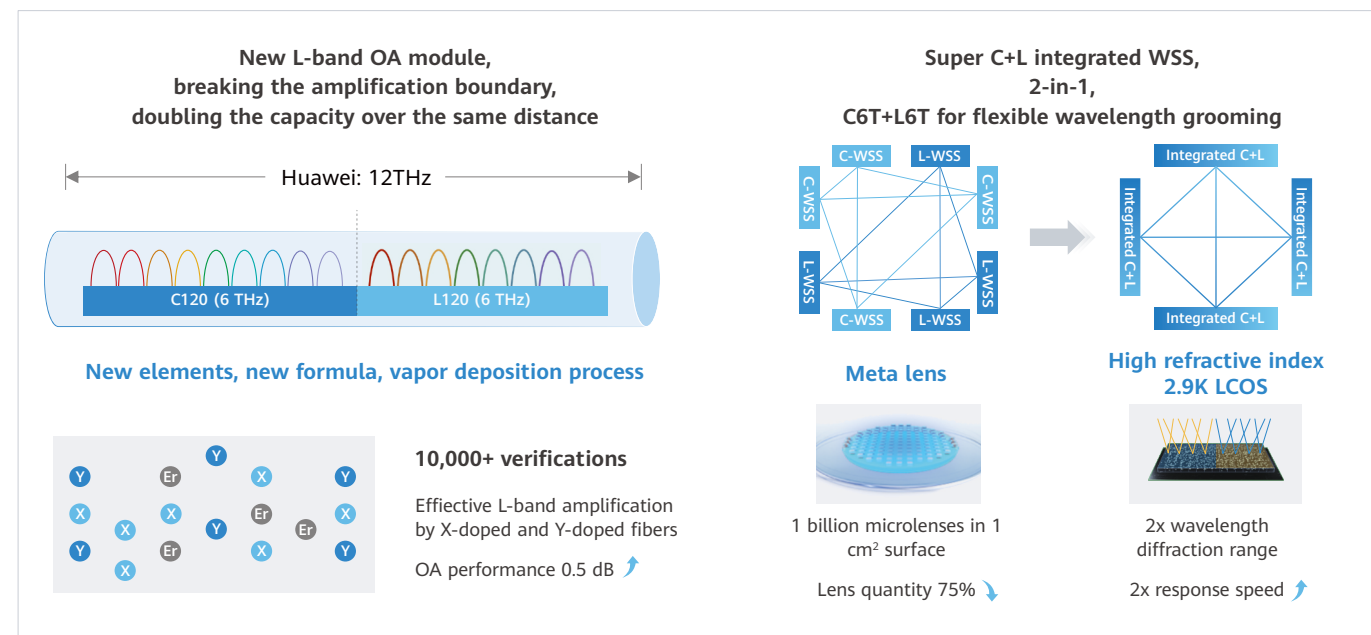
3.1 Ultra-Long Haul and Large Capacity

Huawei full series of 400G/800G WDM solution supports QPSK and s16QAM modulation formats and is applicable to ultra-long-haul, regional, and metro networks.



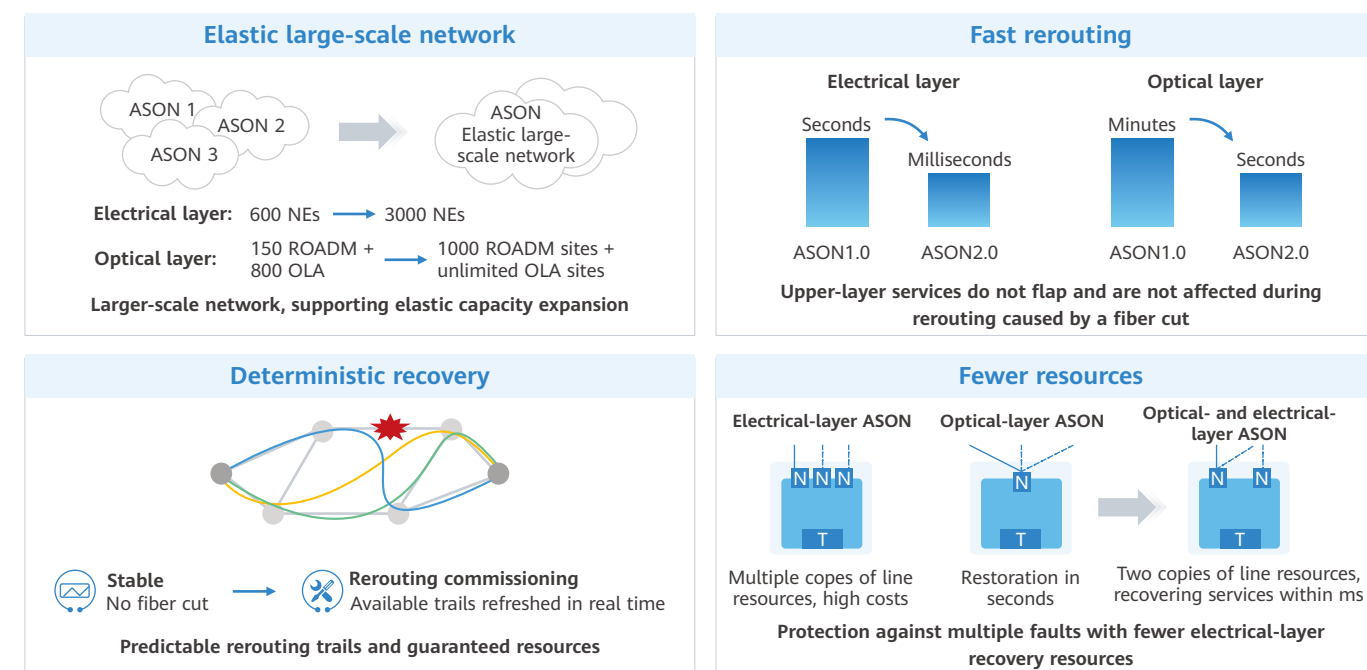
3.2 Wide-Spectrum Optical Switching

The 400G/800G WDM solution supports smooth evolution from C120 to C120+L120, and provides 25% wider spectrum than the industry average.



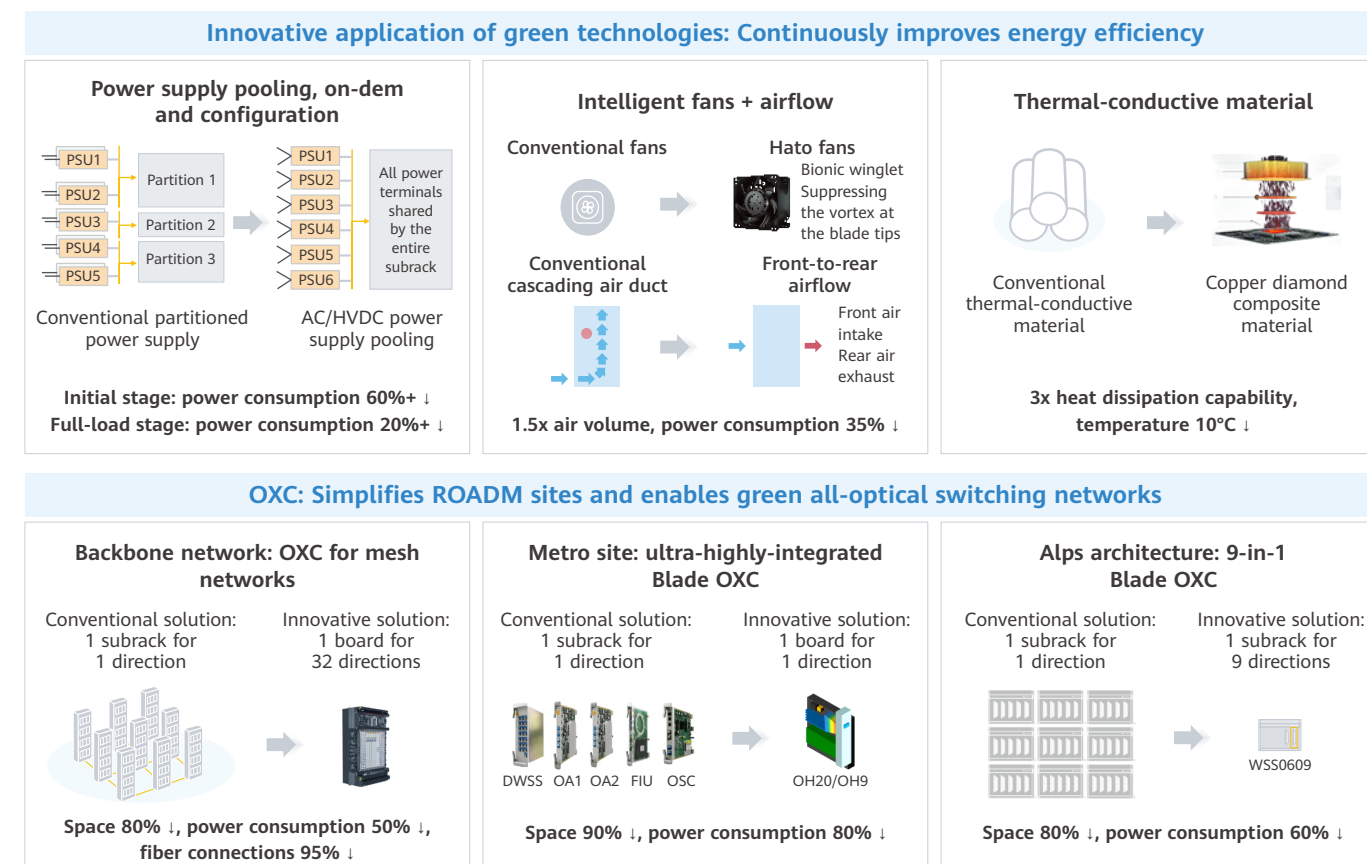
3.3 Highly Reliable ASON

An ASON with the new architecture supports more than 3000 NEs and deterministic trail recovery within 100 ms.



3.4 Green and Efficient

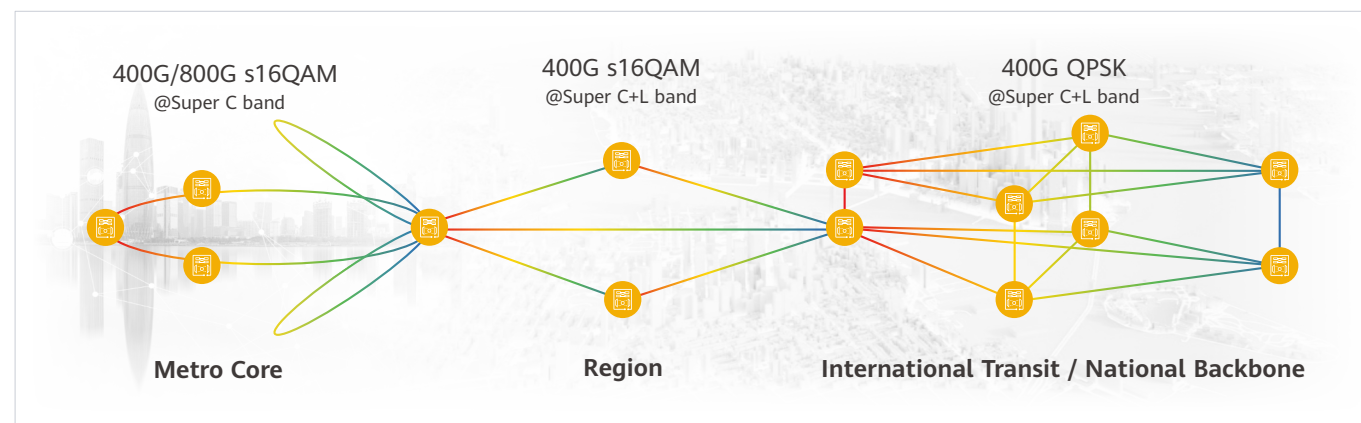
By using E2E OXC & OTN devices and efficient, green, and innovative technologies, operators can continuously build green all-optical networks.



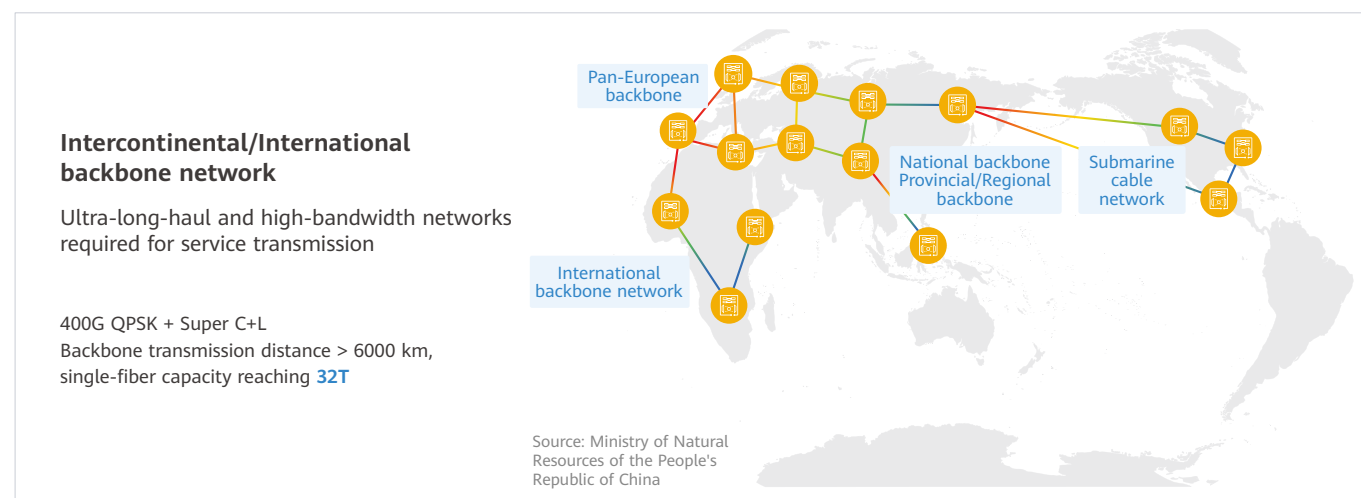


04 Application Scenarios

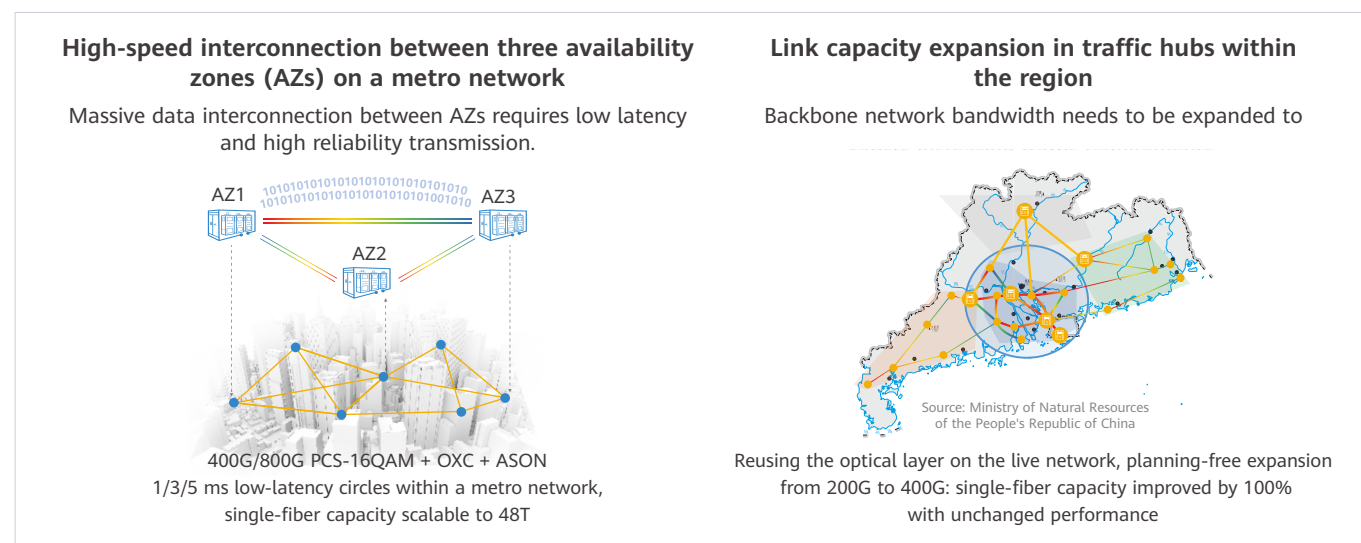
The 400G/800G solution is applicable to ultra-long-haul, regional backbone, and metro networks



Ultra-long-haul networks

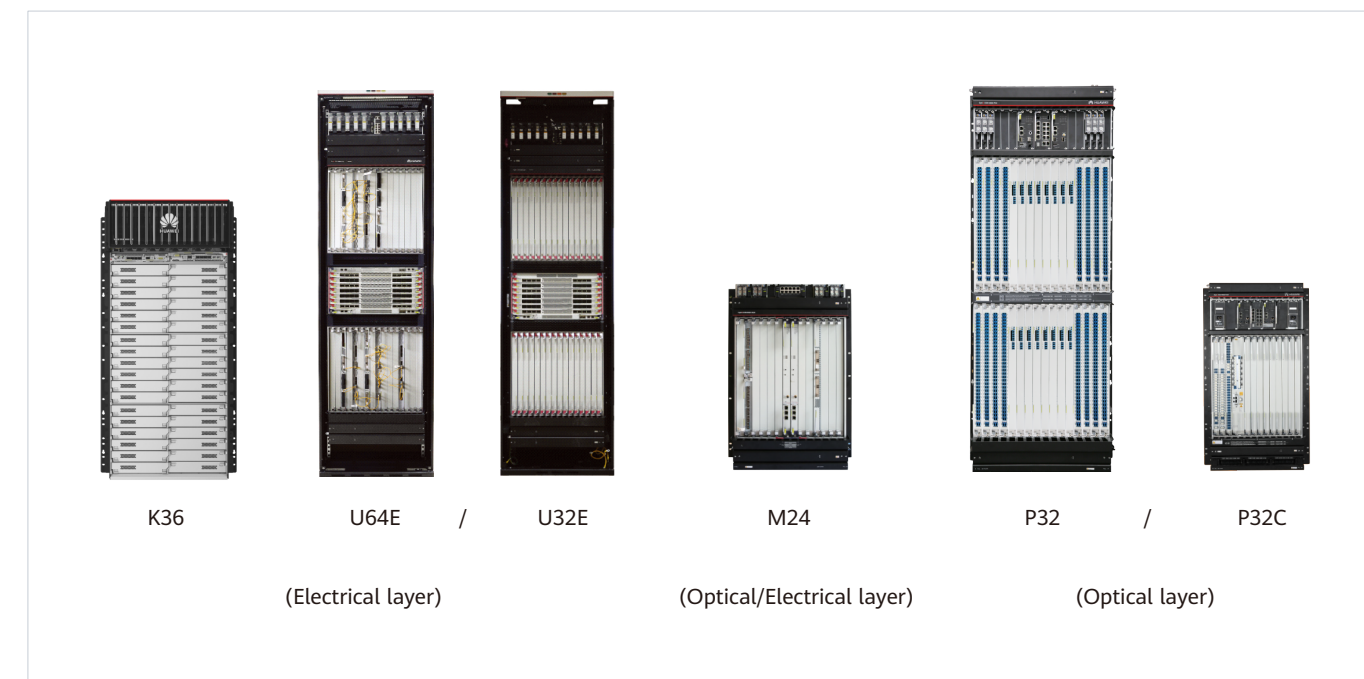


Regional/Metro networks

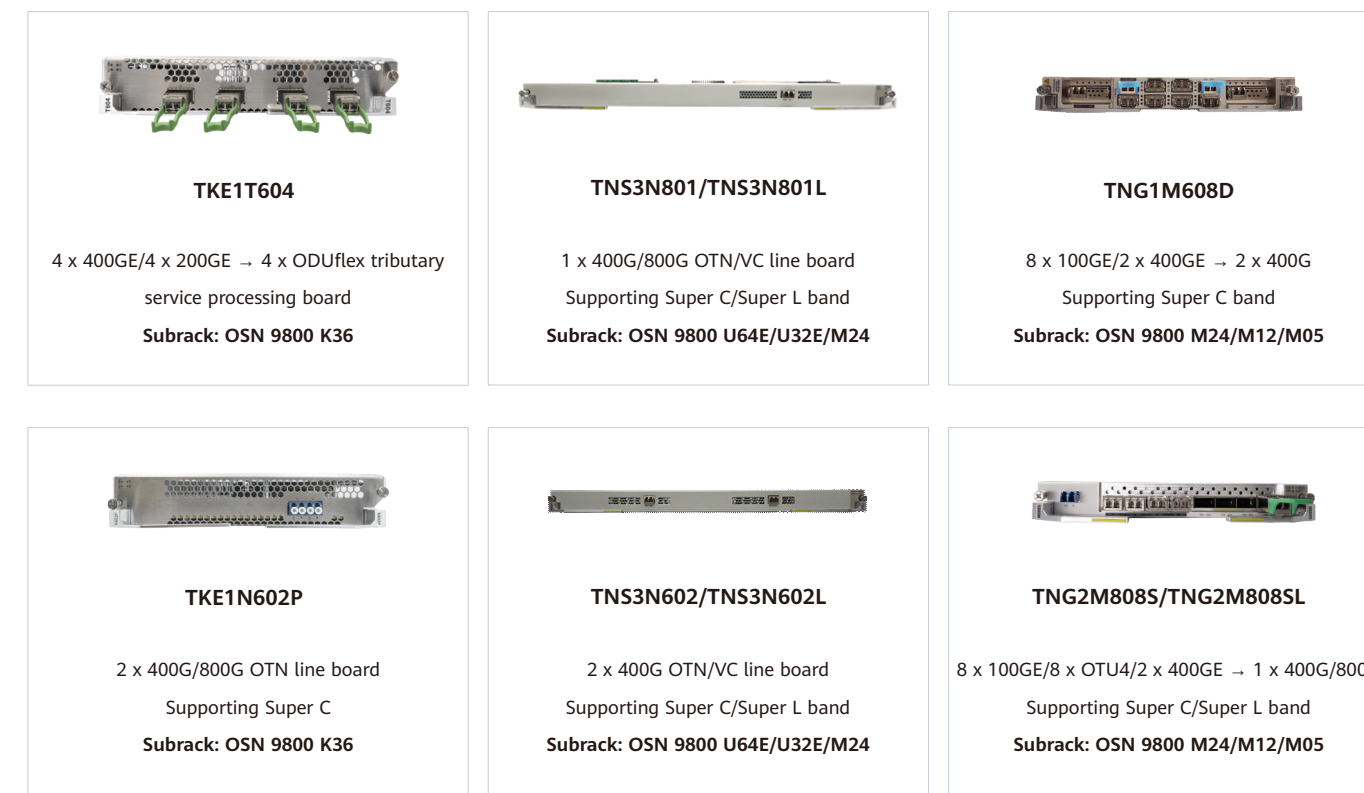


05 Products

5.1 Supported Devices



5.2 Boards

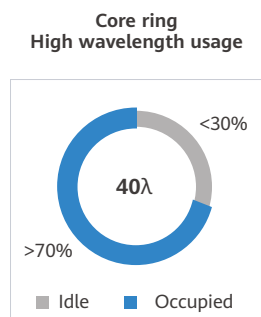




06 Success Stories

Challenges

- Backbone networks cannot provide sufficient bandwidth to satisfy increasing traffic requirements.
- The overall usage is low. The core ring is congested with high wavelength usage, while the edge ring is lightly loaded.
- High-value services and low-value services are not distinguished, thereby affecting each other.
- As the O&M manpower is limited, products need to support easy O&M, for example, quick fault locating and easy service expansion and commissioning.



Solution

1

Large capacity

Only the core sites are upgraded to 200G/400G, reducing network construction costs and difficulties in the initial phase.

2

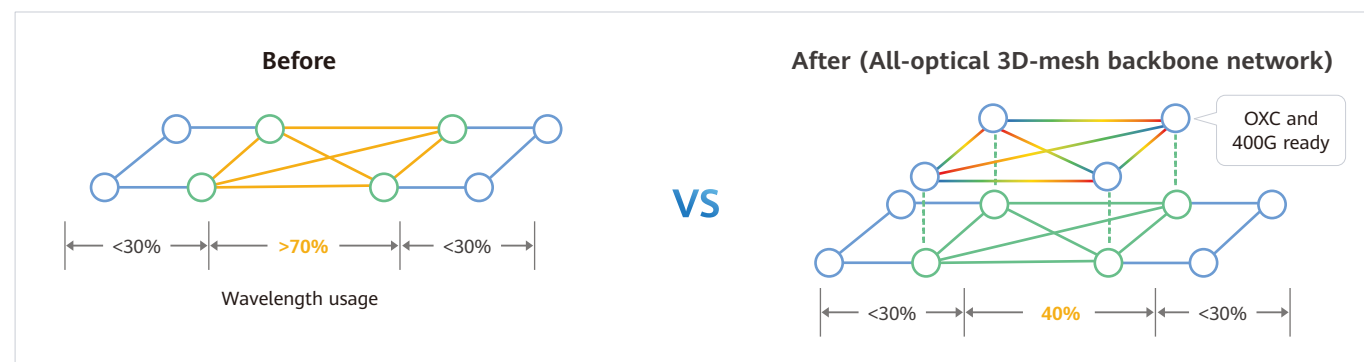
Simplified sites

OXC is deployed in core areas to build a 3D mesh backbone network, simplifying ROADM sites and improving system scheduling capabilities.

3

Easy O&M

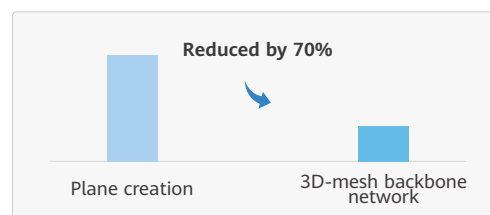
NCE-T is used for unified management and O&M, and line-side 1+1 protection achieves 99.999% service reliability.



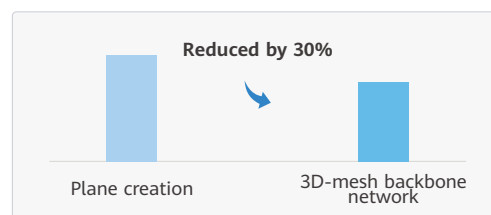
Solution benefits



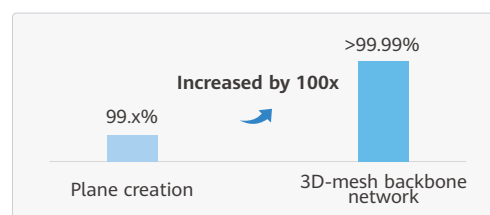
Construction cost



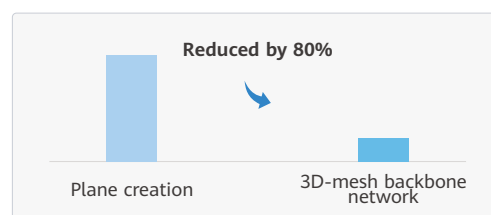
Maintenance cost



Network reliability



Delivery period



07 Acronyms and Abbreviations

Abbreviation	Full Name
ASON	automatically switched optical network
AZ	availability zone
COSA	Coherent Optical Sub-Assembly
DC	data center
OTN	optical transmission network
OXC	optical cross-connect
PBC	Perturbation-based compensation
PCS	probabilistic constellation shaping
QAM	quadrature amplitude modulation
QPSK	quadrature phase shift keying
ROADM	reconfigurable optical add/drop multiplexer
WDM	wavelength division multiplexer
WSON	wavelength switched optical network(WSON)
WSS	wavelength selective switch