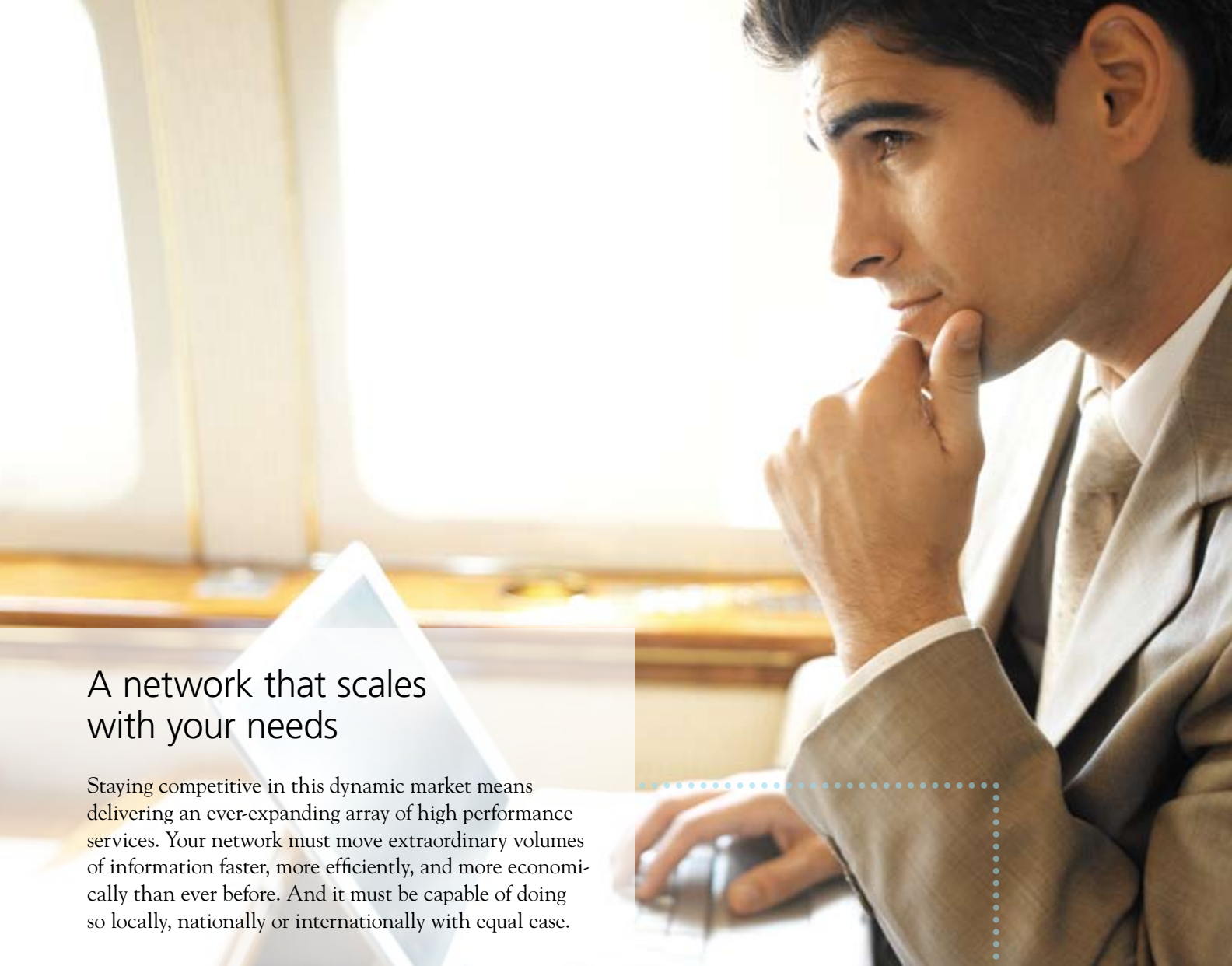


Alcatel-Lucent 1625 Lambda Extreme Transport



Ultra Long-haul and
Ultra High-capacity DWDM
The Next Generation of
Optical Core Transport Solutions





A network that scales with your needs

Staying competitive in this dynamic market means delivering an ever-expanding array of high performance services. Your network must move extraordinary volumes of information faster, more efficiently, and more economically than ever before. And it must be capable of doing so locally, nationally or internationally with equal ease.



Benefits

- Expanded service offering with new applications
- Common platform for long-haul, ultra long-haul, and ultra high-capacity transport over legacy and new fiber plant
- Modular growth with increased service velocity and low operational costs
- Advanced technologies that help lower transport costs



Simplify your network and offer fast, transparent wavelength services

The Alcatel-Lucent 1625 Lambda Extreme Transport (1625 LambdaXtreme®) is a next generation 10Gbps/40Gbps core transport solution from Alcatel-Lucent Technologies offering one common platform for cost effective long-haul, ultra long-haul, and ultra high-capacity optical transport.

Based on revolutionary Bell Labs technologies, the 1625 LambdaXtreme helps to simplify and dramatically lower the cost of designing, installing, and managing complex networks.

Operating costs can be lowered, and new service provisioning time can be reduced from days to minutes with innovative features such as circuit pack auto-discovery, dynamic channel equalization, automatic power optimization, high-capacity OC-3 (155Mbps) supervisory channel, automatic discovery and tuning of optical transponders (over 128 contiguous wavelengths), and Software Control of Transmission (SCOT) algorithm.



One platform does it all

The 1625 LambdaXtreme platform uses the same optical amplifiers and common end terminal equipment for both 10Gbps- and 40Gbps-based transport, thereby supporting lower operating, training, and sparring costs by providing common hardware and software across multiple application spaces.

For 10Gbps-based transport, the 1625 LambdaXtreme can deliver an unprecedented capacity of 1.28Tbps up to an all-optical reach of 4000km, via 128-wavelength tunable transponders with enhanced Ultra Forward Error Correction (UFEC), reducing transponder sparing by up to 93% and simplifying inventory management in the network.

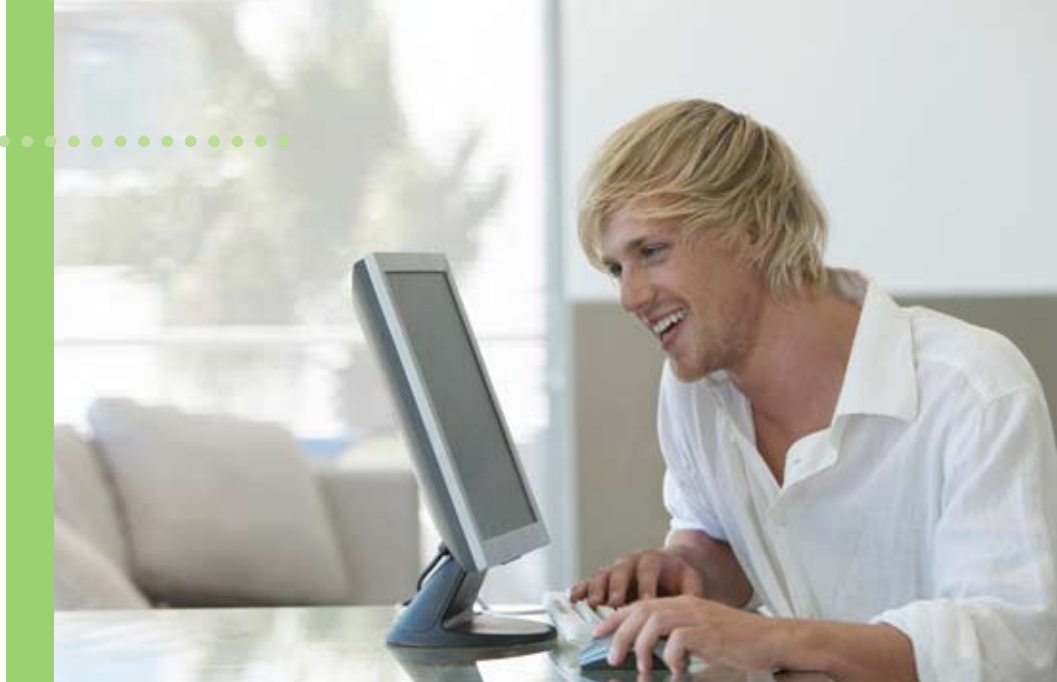


The 1625 LambdaXtreme offers a common platform for ultra long-haul or ultra high-capacity DWDM with a high-density footprint and low power consumption.

Additional network flexibility is provided by the Alcatel-Lucent 1625 LambdaXtreme Transport high-capacity Reconfigurable Optical Add-Drop Multiplexer (ROADM), which can be software configured remotely. This mesh-ready ROADM can be deployed at intermediate sites to support varying add/drop and through-capacity requirements.

For 40Gbps-based transport, the 1625 LambdaXtreme currently supports an ultra high-capacity of 2.56Tbps up to an all-optical reach of 2000km, via 64-wavelength tunable transponders with Ultra Forward Error Correction (UFEC).





Improve network economics and lower cost per bit

The unique 1625 LambdaXtreme platform assists in dramatically lowering transport and operational costs through the pioneering use of UltraBand (single wideband) transmission. UltraBand enables the 1625 LambdaXtreme to support the entire suite of 128 or 64 wavelengths at 10Gbps or 40Gbps respectively without additional transmission bands or complicated splitters/combiners that impact system performance and increase operational costs.

Additionally, modular amplification design enables cost-effective system growth. The platform also supports an industry-leading 2.56Tbps capacity in only 4 bays of end terminal equipment.

The 1625 LambdaXtreme provides client interface rates of OC-48/STM-16, OC-192/STM-64/10GbE WAN PHY and OC-768/STM-256, with various reach options, to further support cost-effective interfaces to your client equipment.

Additional cost and footprint reductions of the total networking solution can be enabled through compatible optics interfaces at both 10Gbps and 40Gbps rates with the 1675 Lambda Unite Multiservice Switch.

The result? An inherently cost-effective and scalable platform that enables easier, faster, and more flexible provisioning of revenue generating services, while significantly reducing the need for cost-prohibitive regeneration equipment.





Summary of features and benefits

Expanded service offering with new applications*

- Fully transparent 2.5G, 10G, and 40G wavelength services
- 128-wavelength 10G tunable transponders, reducing inventory and sparing cost
- Sub-2.5G, 10GbE, and GbE
- 10GbE LAN & WAN PHY compatibility for further flexibility
- Compatible Optics at both 10Gbps and 40Gbps for cost-effective integration of DWDM transport and STS-1/VC-4 granular optical switching

Common platform for long-haul, ultra long-haul and ultra high-capacity transport over legacy and new fiber plant

- Up to 128 × 10G wavelengths (1.28Tbps), up to 4000km
- Up to 64 × 40G wavelengths (2.56Tbps), up to 1000km
- Multiplexing transponders with 4x2.5G and 4x10G client interfaces
- Flexible, remotely software-configured, high-capacity, mesh-ready ROADMs

*Some functionality may require the Alcatel-Lucent 1675 Lambda Unite Multiservice Switch.



Modular growth with increased service velocity and low operational costs

- Cost-effective scalability
- In-service upgrade of up to $128 \times 10G$ or $64 \times 40G$ wavelengths
- Automatic power balancing and gain control
- Automatic discovery of circuit packs and systems topology, and automatic tuning of new wavelengths
- Single-step provisioning of new wavelengths in minutes
- Highly dense footprint and economical power consumption
- Sophisticated performance management and fault management via Digital Wrapper

Advanced technologies that help lower transport costs

- Raman amplifications
- Integrated chromatic dispersion compensation
- Enhanced Forward Error Correction (EFEC)
- Ultra Forward Error Correction (UFEC)
- UltraBand (extended L-band) transmission
- Software Control of Transmission (SCOT) algorithm

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