Ultra Long Haul Optical Transport Solutions

Redefining Cost-Effective, Flexible Connectivity Up to 4,000 km

Robust, Compact and Open

Today's networks move faster and further than ever — connecting hyperscalers, national carriers, utilities, and critical infrastructure over 1,000–4,000 km of fiber.

PacketLight redefines long-haul architecture with modular, software-defined optical transport platforms that scale from metro to ultra long haul on the same hardware — with no license fees and up to 4,000 km reach.

Business Benefits You Can Count On

Low Latency
Fewer hops, fewer handoffs

Lower Power Use
Compact, efficient hardware

Low TCO
No vendor lock-in or licensing fees

Improve ROI
Reduced cost-per-bit, faster time-to-value

Deliver SLA-Grade Services
Monitor & meet performance commitments

Scale Modularly
Grow as needed — AI, cloud, enterprise, GPUaaS

- Deploy up to **4.8T per 1U** device and up to **51.2 Tbps per fiber**
- Support **100G–400G** wavelengths over 75/100/150 GHz grids
- **Seamless integration**

Built for Tomorrow's Network

Tunable Modulation & DSP Intelligence

- Supports tunable modulation QPSK, 8-QAM, and 16-QAM for flexible bandwidth/ reach tradeoffs
- Coherent DSP automatically compensates for fiber impairments and dispersion

OSNR & Reach Optimization

- OSNR as low as 17dB for ultra-long reach
- Advanced FEC improves tolerance to optical noise
- Achieves 2.5–5.5 dB higher OSNR margins vs. other legacy solutions

Built-In Efficiency & Interoperability

- Fully redundant optical architecture ensures zero downtime
- No license fees to unlock features or change modulations —software-defined and hardware-ready

Real-Time Monitoring & Automation

- Centralized Layer-1 diagnostics with actionable SLA assurance
- Real-time performance alerts and fault visibility
- Supports automated provisioning and open APIs for SDN integration

Proven Across Diverse Use Cases

Long terrestrial fiber with no amplification sites

Subsea segments between islands where regeneration is impractical

National and cross-border long-haul networks

Utility-owned fiber transport

Ready to Transform Your Backbone?

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