

## 6500

Reconfigurable Line System





## Delivering scale and programmability for the photonic layer while maximizing operational efficiencies

Ciena's 6500 Reconfigurable Line System (RLS) empowers network operators to efficiently address the highest-capacity networking requirements in today's metro, long-haul, and Data Center Interconnect (DCI) networks. The 6500 RLS is an open and programmable photonic networking platform that is simple to deploy and operate, and optimized for space-constrained, multi-vendor environments.

Compact, modular transport devices have emerged to solve footprint challenges in networks requiring massive capacity scalability. However, footprint and scalability challenges also exist within the photonic layer, driving the need to minimize footprint while scaling for capacity growth. As hyperscale data center networks light thousands of fiber pairs over the coming years, line system technologies will not scale with minimal footprint without the introduction of compact solutions for the photonic line. The 6500 RLS was designed to address evolving density and footprint requirements for the photonic layer while integrating tools and capabilities to simplify installation, turn-up, and management.

The 6500 RLS provides network operators with choice in how they deploy their photonic line systems, whether integrated or disaggregated. It is highly programmable, and its open APIs enable integration into existing management and back-office systems. The 6500 RLS improves service velocity through significant operational savings and provides the scale network operators need to increase their competitive edge and elevate their end-customers' experience.

## Ultra-dense design for optimal photonic line system scale and efficiencies

The 6500 RLS addresses scalability needs with an ultra-dense design optimized for capacity and efficiency. With support for both large and small sites, it can be deployed into a variety of applications including simple, mux/demux configurations for DCI, Colorless Direct Attach, Colorless Transponder Direct Attach, or fully-flexible Colorless, Directionless, Contentionless (CDC) photonic architectures. The 6500 RLS provides a greater level of scale for both metro and long-haul applications by supporting C-band and C&L-band 12-port and 32-port ROADM configurations, with

## **Features and Benefits**

- Efficiently scales to meet the highest capacity network requirements with an optimized ultra-dense design
- Reduces footprint by as much as 70 percent, compared to traditional chassis-based systems, with its modular and compact form factor
- Eases deployment and operations with Zero-Touch Provisioning (ZTP), network auto-discovery, and full network visibility for simplified troubleshooting
- Provides openness and programmability with a full suite of open APIs and a microservices-based software architecture
- Doubles the fiber capacity with optimized C&L-band
- Intelligent L0 control plane accelerates wavelength turn-up and improves service availability