# 6500-T12/T24

6500 Packet-Optical Platform

With the ability to scale to Terabit/s switching per slot and flexibly route wavelengths without restriction across any one of 16 directions, the programmable 6500 T-Series configurations enable service providers to efficiently distribute customizable content to their end-users and provide an on-demand, superior customer experience.

As traffic demands continue to grow and become more unpredictable, providers need a more adaptive network that can scale and respond on demand, based on the applications and services running on top of it. Ciena's 6500 T-Series shelf configurations provide the capacity, flexibility, and resiliency to address today's unpredictable traffic patterns to drive ongoing efficiency and programmability required to realize the benefits of the Adaptive Network.

Ciena's 6500 Packet-Optical Platform converges packet, Optical Transport Network (OTN), and flexible WaveLogic Photonics capabilities in a single platform, as well as across multiple shelf configurations, helping service providers streamline operations and optimize footprint, power, and capacity to specific site requirements.

Capable of scaling to Terabit/s switching per slot, the 6500 T-Series shelves evolve from the 6500 S-Series (100 Gb/s per slot Packet/OTN switching) shelves to address high-capacity applications in a very dense and compact form factor. Inherent with the rest of the 6500 Family of Packet-Optical platforms, the 6500 T-Series offers the same programmability benefits for ultra-high-capacity switching sites in the network. These include multilayer control plane and flexible grid CDC ROADM, eliminating service routing restrictions and maximizing service availability, network bandwidth utilization, and return on investment.

The 6500-T12/T24 shelves, operate with the robust and feature-rich 6500 software, and support high-density, high-capacity hardware modules. The 6500 T-Series leverages the programmability of Ciena's industry-leading WaveLogic™ Ai coherent technology, enabling operators to maximize fiber capacity and lower the cost of transport, to deliver switching of >100G wavelengths. The 6500-T12 supports initial switching capacities of 6 Tb/s in half a rack, with the ability to scale to 12 Tb/s in the future.
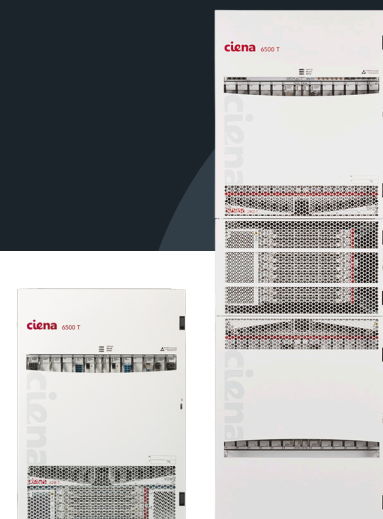
Features and Benefits

- Addresses ultra-high capacity requirements using less hardware via converged packet, OTN, and DWDM functions in a single platform

- Provides significant power and space savings with support of 6Tb/s of capacity in less than half a rack and 12Tb/s per rack scaling to double the nodal capacity in the future

- Leverages fully non-blocking ODU0 granular switching, with ODUFlex capabilities, to quickly respond to on-demand bandwidth needs with the most efficient use of network resources

- Supports a modular photonic architecture, providing lowest first-in costs and pay-as-you-grow benefits

- Provides fully flexible wavelength routing without restrictions using Ciena's WaveLogic Photonics with flexible grid CDC ROADM

- Enables programmability with multilayer control plane offering ease-of-management advantages as well as a wide breadth of SLA offerings