

## DATA SHEET

# 5140

## Service Aggregation Switch



Ciena's 5140 Service Aggregation Switch is a next-generation Ethernet access system that cost-effectively delivers sophisticated business, transport, and residential services via fiber or copper connections. The 5140 features a high-capacity switching fabric with 24 Gigabit Ethernet (GbE) ports in a compact 2RU form factor that allows front access to power and all system interfaces.

The 5140 has an extended temperature range (-40 to +65C) and a robust physical design that supports deployment in a wide variety of unconditioned environments, including GR-487 and ETSI-compliant outdoor cabinets. Because the switch provides both SFP and RJ-45 connectors for each of its 24 GbE interface ports, the 5140 can support service aggregation, transport, and demarcation applications in a wide variety of network topologies, including fiber and microwave rings, point-to-point fiber, microwave mesh, fiber or copper to subscriber, MTU/ MDU/FTTx, and more.

The 5140 is based on Ciena's field-proven packet networking technology, deployed by dozens of network operators in tens of thousands of businesses, homes, and mobile base station cell sites. The switch combines the low cost and high capacity of Ethernet with the reliability, management, and service quality usually associated with SONET/SDH networking systems. The 5140 software architecture is based on the common service-aware operating system used in all Ciena service delivery and aggregation switches to provide operational efficiency and consistent system and service attributes.

The core of the 5140 is a high-performance switching platform that incorporates the latest innovations in Ethernet switching technology, control plane protocols, and encapsulation techniques, and Carrier Ethernet Operations, Administration, and Maintenance (OAM) mechanisms. The result of these combined capabilities is a state-of-the-art design that enables the 5140 to deliver the sophisticated Quality of Service (QoS)

### Features and Benefits

- Offers the bandwidth and scalability to support thousands of Carrier Ethernet business, residential, and transport applications, including wireless backhaul, on a single, all-GbE system
- Features state-of-the-art hardware design, including copper and optical interfaces for all interface ports, a wirespeed 24 Gb/s full duplex switching fabric, enhanced CPU and system memory, redundant fans, high-capacity extended temperature, and integrated DC power in an ETSI cabinet-compliant form factor
- Supports operational efficiency and advanced Ethernet features within a modular service-aware operating system, for high-end business and transport services including PBB-TE and Ethernet Virtual Private Line/ LAN/Tree and G.8032
- Provides MAC address and VLAN scalability, interworking flexibility between disparate encapsulation formats, and improved security for customer L2VPNs through sophisticated virtual switching software architecture
- Helps ensure SLAs with carrier-class, MEF-14 compliant QoS features for broad service stratification and robust bandwidth allocation