

DATA SHEET

5142

Service Aggregation Switch



Ciena's 5142 Service Aggregation Switch (SAS) is a compact, high-density packet switch that delivers low Total Cost of Ownership (TCO) in the metro network, enabling profitable delivery of a wide range of synchronization-dependent services.

The 5142 is optimized for compact, dense metro access and aggregation in conditioned or unconditioned environments, including Ethernet business services (E-Line, E-LAN, E-Tree, E-Access), LTE mobile backhaul, synchronization as a service, and utility smart grid networking.

It supports 4 1GE/10GE multi-rate SFP/SFP+ ports and 20 100M/1000M SFP ports. Its form factor complements Ciena's 5150 Service Aggregation Switch, enabling optimization of gigabit aggregation cost and density to suit the needs of each application.

The 5142 is based on the Service-Aware Operating System (SAOS) used in all Ciena packet switches, providing operational efficiency and consistent system attributes. SAOS delivers benefits across all Ethernet access and aggregation applications, including:

- Rapid implementation of the latest advances in Ethernet technologies, as well as new services and standards proposed by the IEEE, IETF, MEF, and ITU
- Improved efficiency and cost savings resulting from a common deployment and service provisioning model
- Service offering ubiquity, permitting rapid rollout of new services across the entire network
- MEF CE 2.0-compliant Ethernet service offerings for E-Line, E-VPLane, EP-LAN, E-VPLAN, E-Tree, E-VPTree, and E-Access

Features and Benefits

- Features dense, low-footprint GE aggregation in a non-blocking, wire-speed architecture with 20 100M/1GbE SFP ports and 4 1GbE/10GbE multi-rate SFP+ ports
- Offers dual AC or DC power in a high-availability, temperature-hardened, 1RU package
- Supports zero-touch provisioning to minimize OPEX and accelerate service turn-up while providing a service 'birth certificate' with built-in service activation testing
- Complies with MEF CE2.0 specifications for E-Line, E-LAN, E-Tree, and E-Access services
- Incorporates flexible transport options, including G.8032 rings, 802.1q VLANs, 802.1ad Provider VLANs (Q-in-Q), IP/MPLS, MPLS-TP, and PBB-TE
- Includes on-board, line-rate performance benchmark testing capabilities for end-to-end SLA verification
- Employs hardware-assisted OAM capabilities for performance and fault management
- Provides for highly accurate synchronization support with SyncE and 1588v2 PTP protocols, backed up by an on-board Stratum 3E oscillator
- Yields sparing efficiencies by sharing common power supplies with Ciena's 3930 and 3932 Service Delivery Switches