

## Apollo 9914

## High Capacity OTN/Packet Switching

Apollo 9914 switching and grooming provides future-proof capability to address changing mixes of Layer 1 transparent transport and Layer 2 packet switching traffic, while ensuring a maximum fill of premium 100G, 200G, and 400G network interfaces. It also delivers the highest level of network availability through service-specific ASON restoration, using either centralized SDN or peer GMPLS signaling.

With ample 5.6T switching capacity in an energy-efficient, half-height rack, Apollo 9914 excels at medium-scale applications. Apollo 9914 interworks seamlessly with the other members of the Apollo family to construct basic to complex optical networks, for the broadest range of clients at the lowest cost per bit.

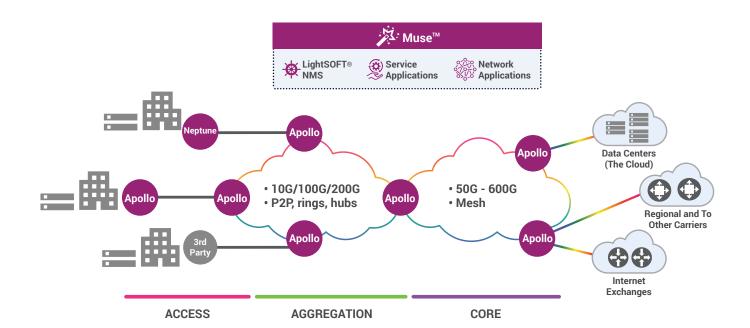


Grooming and restoration of OTN services

Integrated packet services

**Self-aware** for E2E visibility and operability

**Open**for modular
disaggregated solutions





## **Technical Specifications**

Topologies	Mesh, hub, ring
Spectrum	Extended C-band Fixed grid: 50GHz/96ch and 100GHz/48ch Flexible spectrum at 12.5GHz resolution Super-channel at 6.25Ghz resolution up to 128 channels
Capacity	Shelf: 14 slots for blades interchangeable across Apollo 99XX platforms Card: 400G single slot density, 1T ready Switching: 5.6T, universal fabric for OTN switching (ODUk cross-connect 0, 1, 2, 2e, 3, 4, Flex) and packet switching (L2 and MPLS-TP)
Hybrid service cards: mix of Layer 1 and Layer 2 services	HI0500: 400G capacity  • 5 x D-CFP2 supporting 200G/OTUC2 configurable for 16QAM/8QAM/(QPSK future), 100G/OTU4, 100GbE; and L2 ODUflex up to OTU4  HI0100_2: 200G capacity  • 2 x CFP supporting 100G/OTU4, 100GbE; and L2 ODUflex up to OTU4  HI010_40: 400G capacity  • 10 x QSFP+ supporting 100G/OTU4, 100GbE, 40GbE, with MPO fan-out for 10G OTU2e, 10GbE, STM-64/OC-192, and L2 ODUflex up to OTU4  HI010_20: 200G capacity  • 20 x SFP+ supporting 10GbE, OTU2/2e, STM-64/OC-192, FC8, FC10, FC1200; and L2 10GbE/OTU2e  • 2 x QSFP+ supporting 40GbE  TIOMR_32: 80G capacity  • 32 x SFP supporting GbE, STM-1/OC-3, STM-4/OC-12, STM-16/OC-48, FC1/2/44
Restoration	Spectrum Switched Optical Network (SSON) - spectrum level Wavelength Switched Optical Network (WSON)- wavelength level Automatic Switched Optical Network (ASON) — service level ODU SNC-N protection, LAG
HW redundancy	3+1 switching fabric redundancy Power supply and fan redundancy modules High availability RCP main shelf controller
Dimensions	ANSI 19" rack, ETSI 600 x 300 mm, 1000mm height Front access to all cards
Power input	40.5 VDC to -75 VDC
Environmental	Operating temperature: -5°C to +45°C Relative humidity: 5% to 90% (non-condensing)
SDN	Muse™ applications (e.g. Bandwidth on Demand, Scheduled Service
Network management	LightSOFT <sup>®</sup> end-to-end, point-and-click network management
Performance monitoring	LightPULSE™ integrated real-time OSNR and other parameters
Control interfaces	Netconf/Yang complying with OpenROADM MSA

Specifications subject to change without notice

## **About Ribbon**

Ribbon Communications (Nasdaq: RBBN) delivers communications software, IP and optical networking solutions to service providers, enterprises and critical infrastructure sectors globally. We engage deeply with our customers, helping them modernize their networks for improved competitive positioning and business outcomes in today's smart, always-on and data-hungry world. Our innovative, end-to-end solutions portfolio delivers unparalleled scale, performance, and agility, including core to edge software-centric solutions, cloud-native offers, leading-edge security and analytics tools, along with IP and optical networking solutions for 5G. To learn more about Ribbon visit rbbn.com.

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