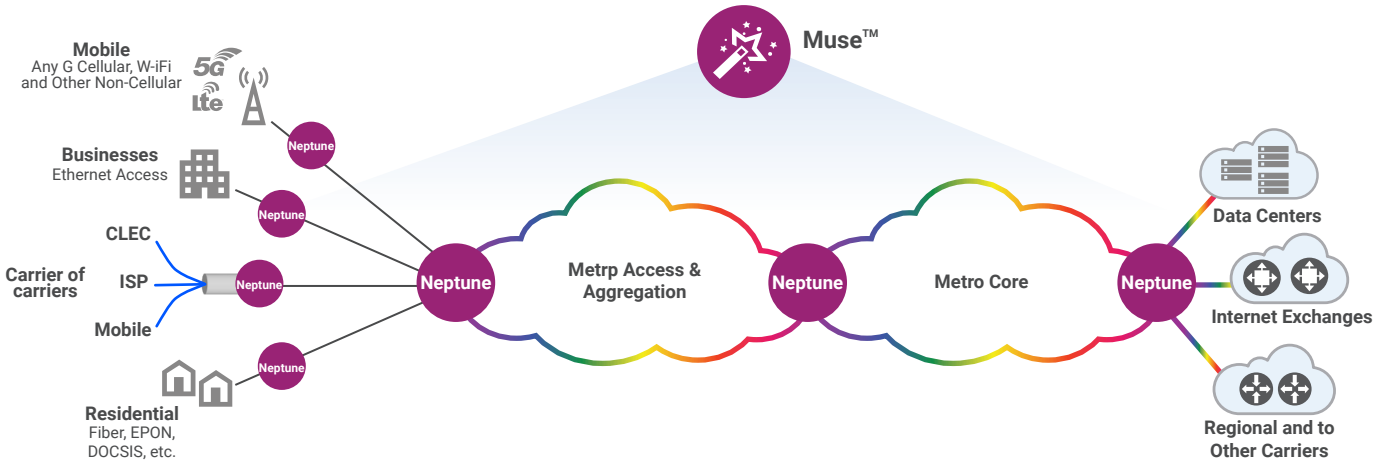
Neptune NPT-1050R

PE Router for L1 to L3 Metro Access Transport

Neptune (NPT) is a family of carrier-class MPLS-based multiservice solutions. Neptune streamlines end-to-end metro service delivery by combining carrier-grade service assurancy, visibility and control, with packet efficiency and unparallel L1 to L3 multiservice support. Neptune offers converged support of Ethernet and MPLS to provide a powerful, flexible solution for high-performance services. SDN and NFV capabilities allow Neptune to evolve to meet the rapidly-changing metro environment.

NPT-1050R is a compact PE Router, fully-redundant, modular, IP/MPLS multiservice packet transport platform. It has high packet switching capabilities of 300G full-duplex, with 100G interface support, and a port fan-out of 380G, housed in 1RU. Ethernet support, TDM (CES/CEP), and IP/MPLS make NPT-1050R ideal for operators seeking a converged transport platform for new and legacy services. With such a rich and robust feature set, NPT-1050R is well-suited for a wide variety of applications and networking scenarios. These include CES/CEP for TDM migration, mobile backhaul, wholesale services, residential multiplay, business VPNs, and mission-critical utility service delivery. Like all ECI's transport products, NPT-1050R is managed by ECI's Muse™ software suite.

Elastic Multiservice | **Carrier-Grade Service Assurance** | **Fully-Managed, Open, Interoperable** | **Elastic Scalability**



Technical Specifications

Packet	Switch: 300 Gbps Max. Interfaces (300 Gbps configuration): 23 x 10/100/1000 Bas-T, 38 x 100/1000 Base-X, 20/12 x 10GE/10GBE OTN
Routing	PE-CE, IGP (OSPF & ISIS) – IPv4 & IPv6, LDP, Multi-Level & Multo-Instance IS-IS, BGP-LU, IS-IS SR, and PIM (IPv4 & IPv6)
Services	MEF CE2.0 (E-Line, E-LAN, E-Tree, E-Access) PN and VPN based Ethernet and IP, IP/MPLS, L2VPN, L3VPN, PHT (Pseudo wire Headend Termination), 6VPE &IPv6
Protection and restoration	Hardware redundancy for common units, IO Hardware protection (IOP), RSTP/MSTP, G.8032 Ethernet Ring Protection (ERP), IP BFD, LDP FRR with LFA (local and remote), PW Redundancy (PWR), Virtual Router Redundancy Protocol (VRRP), IGP & eBGP ECMP, BGP-PIC, IP LFA / TI LFA
OAM	Ethernet OAM (IEEE802.3ah, IEEE 802.1ag and ITU-T Y.1731 PM), IP/MPLS OAM ((link BFD, Ping, Trace-route), RFC 2544 Generator, Y.1564 -Ethenet service activation (SLA), RFC 5357 Two-Way Active Measurement Protocol (TWAMP) Y.1564 -Ethernet service activation (SLA), RFC 5357 Two-Way Active Measurement Protocol (TWAMP)
Traffic management	Traffic classification (based on Port, VLAN, Port+VLAN, IEEE 802.1p, IPv4/IPv6 TOS and DSCP), Diffserv based TM, network Connection Admission Control (CAC), 8 Classes of Service (CoS)
TDM	Services: CES (SAToP , CESoPSN and CEP)
Timing and Synchronization	SyncE with ESMC, 1588v2 (Class B), External timing 1PPS and TOD, Internal Stratum 3 clock (holdover state), Primary and secondary sources (supports SSM bits), ACR, DCR, loop timing on SAToP, TDM bits (T3/T4), and SNTP
Topologies	Mesh, dual homing, multiring, ring, star, linear
Security	RADIUS (client authentication), SSH 2 SW integrity checking (SHA-2), SFTP, Access Control List (ACL), IEEE802.1x, control channel HMAC-256, Public key authentication, port blocked by default, MACsec
Management	Muse™ software suite (SDN orchestration and control), LightSOFT® NMS, EMS-NPT, SNMPv2/v3, LCT, CLI, NETCONF/YANG, PCEP, BGP-LS NETCONF/YANG
Power over Ethernet (PoE+)	Up to 30W
Pluggable+ support	Electrical, Colored C/DWDM, Tunable, non-colored, Compact SFP (CSFP), SFP+, bidirectional SFPs/SFP+ and QSFP28
Power input	-40 VDC to -72 VDC, 110 VAC to 230 VAC
Power dissipation	Typical: 150W
Operating temperature range	300G configuration: -5°C to +50°C (-23°F to 122°F) -300G
Operating RH range	5% to 95%
Environmental standards	ETS 300 019-1-3 Class 3.3, ETS 300 019-2-3 Class 3.3, IEEE 1613 (electric utility substations), IEC 61850-3 (electric utility substations), EN 61000-6-5 (Immunity for substations
Safety	EN 60950/2000, according to LVD Directive 72/23/EEC, EN 60825-1&2
EMS	EN 300 386-2,FTZ 1TR9, EN55032 radiation
Physical dimensions	H x W x D: 1.7" x 18.3" x 10.4" / 44 x 465 x 263 mm

Expansion Unit

OTN	Max. service interfaces: CES: 96 x E1 72 x (n x 64Kbps, FXO, FXS, 2/4W E&M, V24 (RS232), V35, V36, V11, RS422, RS449, C37.94, OMNI, CODIR, G.703 64K) over packet
Physical dimensions	H x W x D: 3.5" x 17.4" x 9.6" / 88 x 443 x 243 mm

Specifications subject to change without notice

Contact us to find out how our ELASTIC networks can help your business grow at rbbn.com