



Neptune NPT-1022R

PE Router for 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 accuracy, visibility, and control, with packet efficiency and unparalleled 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 environment.



NPT-1022R is an extremely compact high-capacity access PE router, for multiservice packet transport. With a 1RU profile, it supports up to 64 Gbps switching capacity, providing a generous fan-out 10G/GE interface, optimized for high-capacity CSR and Access PE applications. Support for Ethernet, TDM (CES/CEP), and IP/MPLS makes NPT-1022R ideal for operators seeking a converged transport platform for new and legacy services.

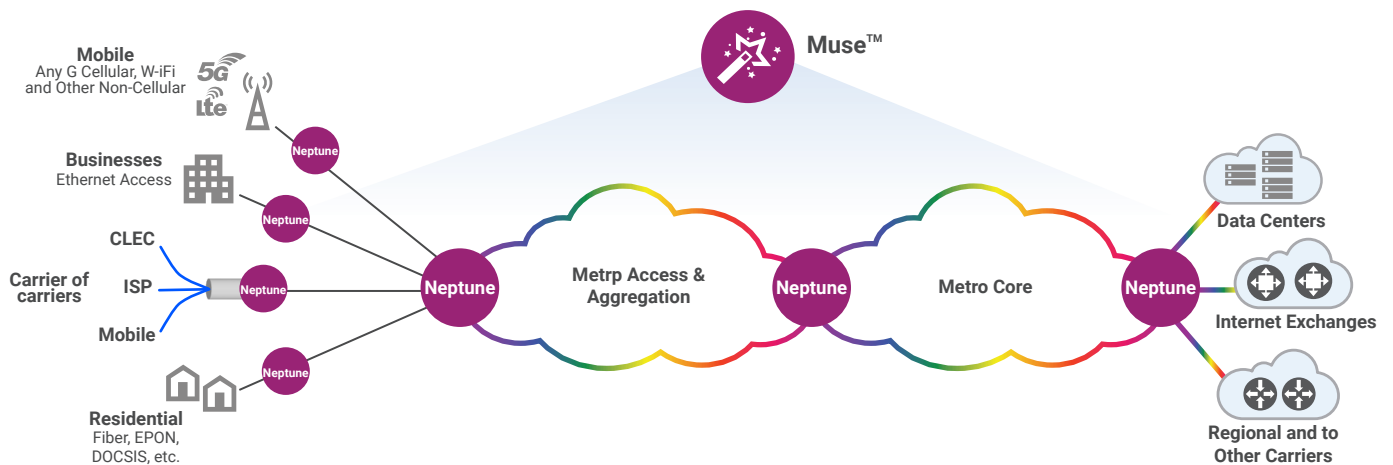
With such a rich and robust feature set, NPT-1022R is well-suited for a wide variety of applications and networking scenarios. These include CES/CEP for TDM migration, mobile backhauling, wholesale services, residential multiplay, business VPNs, and mission-critical utility service delivery. Like all of ECI's transport products, NPT-1022R is managed by ECI's Muse™ software suite.

**Elastic
Multiservice**

**Carrier-Grade
Service Assurance**

**Fully-Managed, Open,
Interoperable**

**Elastic
Scalability**



Technical Specifications

Packet	Switch: 64 Gbps Max. Interfaces (64 Gbps configuration): 25 x 100/1000 Bas-T, 30 x 100/1000 Base-X, 6 x 10GE
Routing	PE-CE, IGP (OSPF and IS-IS), IPv4 and IPv6, LDP, multi-level and multi-instance IS-IS, BGP-LU, IS-IS SR, and PIM (IPv4 & IPv6)
Services	L2VPN, L3VPN, PHT (Pseudowire Headend Termination), 6VPE, MEF CE2.0 (E-Line, E-LAN, E-Tree, E-Access) PN- and VPN-based Ethernet and IP/MPLS
Protection and restoration	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 and eBGP ECMP, BG-PIC, IP LFA/TI LFA
OAM	Ethernet OAM (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)
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 (SATO, CESoPSN and CEP) Max. Interfaces: 32 x E1/T1, 4 x STM-1/OC-3, 1 x STM-4/OC-12
Timing and Synchronization	SyncE with ESMC, 1588v2 (Class C), 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	MACsec, RADIUS (client authentication), SSH 2, SSA SW integrity checking (SHA-2), SFTP, Access Control List (ACL), IEEE802.1x, control channel HMAC-256, public key authentication, port blocked by default
Management	Muse™ software suite (SDN), LightSOFT® NMS, EMS-NPT, SNMPv2/v3, LCT, Muse Network and Service Apps, CLI, NETCONF/YANG, PCEP, BGP-LS
Power over Ethernet (PoE+)	Up to 30W
Pluggable SFP/CSFP/SFP+ support	Electrical, Colored C/DWDM, Tunable, non-colored, Compact SFP (CSFP), SFP+, and bidirectional SFPs/SFP+
Power input	-40 VDC to -72 VDC, 110VAC to 230VAC
Power dissipation	Typical: 100W
Operating temperature range	-25°C to +70°C (-13°F to 158°F)
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
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: 48 x E1 (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: 1.7" x 17.4" x 9.6" / 44.5 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