

# Neptune NPT-1030

## Metro Access Transport for Packet and TDM

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



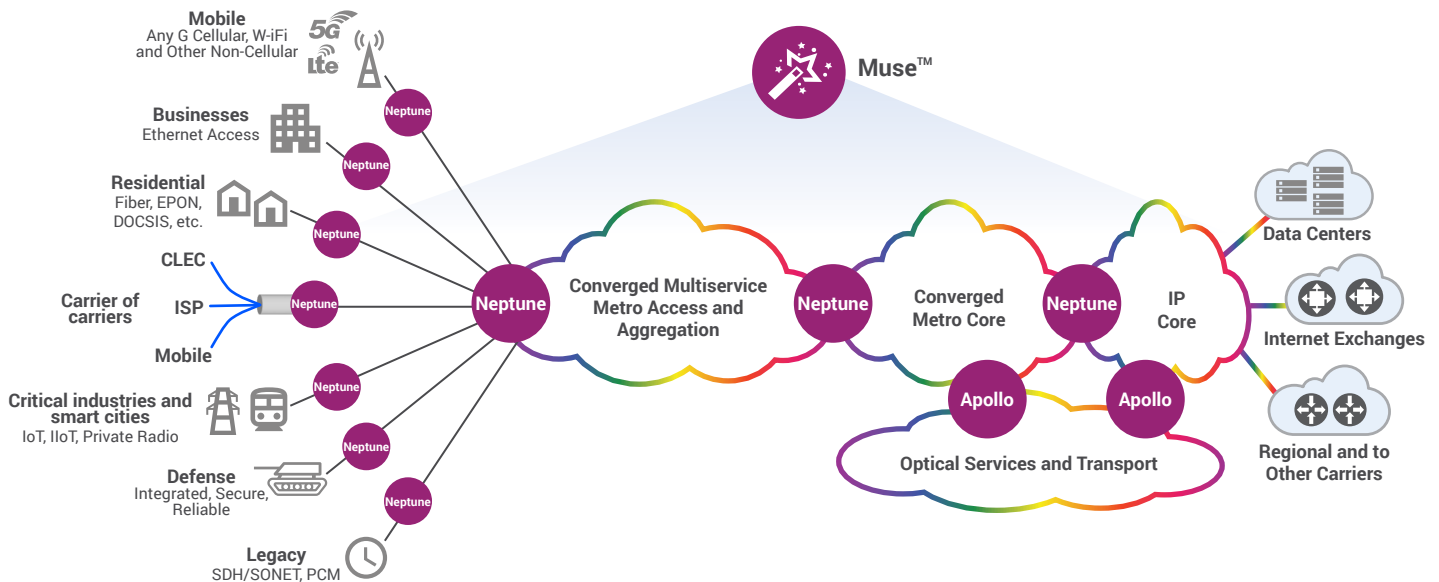
NPT-1030 is a compact, fully-redundant, modular, multiservice packet transport platform, which is 1RU in height and supports Ethernet, TDM, and MPLS-TP with a 60Gbps packet switch and a 15Gbps TDM matrix. Support for native TDM and TDM over CES/CEP make NPT-1030 ideal for operators looking for a modern-metro access packet platform on which to evolve their legacy TDM network. With such a rich and robust feature set, the NPT-1030 is well-suited for a wide variety of applications and networking scenarios. These include; CES for TDM migration, mobile backhaul, wholesale services, residential multiplay, business VPNs, and mission-critical service delivery. Like all Ribbon's transport products, NPT-1030 is managed by Ribbon's Muse™ software suite.

**Elastic Multiservice**

**Carrier-Grade Service Assurance**

**Fully-Managed Across TDM and Packet**

**Elastic Scalability**




## Technical Specifications

<b>Packet</b>	Switch: 60 Gbps Services: MEF CE2.0 (E-Line, E-LAN, E-Tree, E-Access) PN and VPN based Ethernet and MPLS -TP, Ethernet over PDH (EoP) Ethernet over SDH (EoS) , MPLS over Transport (MoT), MPLS over Ethernet (MoE) Max. Interfaces: 12/8 x 100/1000 FX, 4 x 10GBE
<b>TDM</b>	Matrix: 15 Gbps with 4/3/1 connectivity (100% Low order granularity) Services: Native TDM, CES (SATO <sub>P</sub> , CESoPSN) Max. Native Interfaces: 5 x STM-16, 20 x STM-4, 20 x STM-1, 9 x DS3/E3, 189 x E1 Max. CES Interfaces: 12 x STM-1, 3 x STM-4
<b>WDM</b>	CWDM, DWDM, amplifiers
<b>Timing and Synchronization</b>	SyncE with ESMC, 1588v2, Internal Stratum 3 clock (holdover state), Primary and secondary sources (supports SSM bits), ACR, DCR, loop timing on SAToP, TDM bits (T3/T4)
<b>Protection and restoration</b>	Hardware redundancy for common units, IO Hardware protection (IOP), RSTP/MSTP, G.8032 Ethernet Ring Protection (ERPS), MPLS-TP FRR, Dual FRR, 1:1 Linear protection, PW Redundancy (PWR, IEEE 802.3ad Ethernet Link Aggregation(LAG) with LACP
<b>OAM</b>	Ethernet OAM (IEEE802.3AH,IEEE 802.1ag and ITU-T Y.1731 PM), LSP Ping, MPLS-TP OAM (G8113.2) (CC/AIS/RDI/LB/LT/DM), Bidirectional Forwarding Detection (BFD), RFC 2544 Generator
<b>Traffic management</b>	Traffic Classification (based on Port, VLAN, Port+VLAN, IEEE 802.1p, IPv4/IPv6 TOS and DSCP), Diffserv based TM, Network wide Call Admission Control (CAC), 8 Classes of Service (CoS)
<b>Topologies</b>	Mesh, Dual homing, multi-ring, ring, star, linear
<b>Security</b>	RADIUS (client authentication), SSH 2, SW integrity verification (SHA-2), SFTP, Access Control List (ACL), Public key authentication, Port blocked as default
<b>Management</b>	MUSE Lightsoft NMS, EMS-NPT, SNMPv2/v3, LCT
<b>Power over Ethernet (PoE+)</b>	Up to 30W
<b>Pluggable SFP/ SFP+ / support</b>	Electrical, Colored C/DWDM, Tunable, SFP+, bidirectional SFPs/SFP+
<b>Maximum distance</b>	600 km, Single span 330 km
<b>Power input</b>	-40 VDC to -75 VDC, 220V
<b>Power dissipation</b>	Typical: 70W
<b>Operating temperature range</b>	-25°C to +70°C (-13°F to 158°F)
<b>Operating RH range</b>	5% to 95%
<b>Environmental standards</b>	ETS 300 019-1-3 Class 3.3 ETS 300 019-1-1 Class 1.2 ETS 300 019-1-2 Class 2.
<b>Safety</b>	EN 60950/2000, according to LVD Directive 72/23/EEC EN 60825 -1&2
<b>Physical dimensions</b>	44 (H) x 465 (W) x 263 (D)

## Expansion Unit

<b>Packet</b>	Max. service interfaces: 12 x 100/1000Base-X, 36 x 10/100/1000 Base-T
<b>TDM</b>	Max. Service interfaces: <ul style="list-style-type: none"> <li>Native: 189 x E1/T1, 9 x E3/DS, 12 x STM-1/OC-3</li> <li>CES: 96 x E1</li> <li>72 x (n x 64kbps, FXO, FXS, 2/4W E&amp;M, V24 (RS232), V35, V36, V11, RS422, RS449, C37.94, OMNI, CODIR, G.703 64K)</li> </ul>
<b>Physical dimensions</b>	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**  Contact us to learn more about Ribbon solutions.