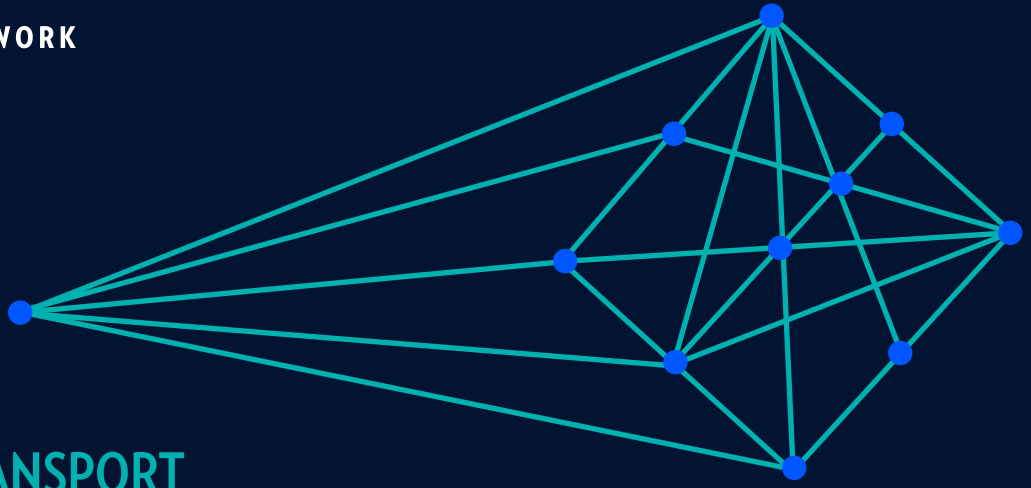


# NEPTUNE NPT-1021

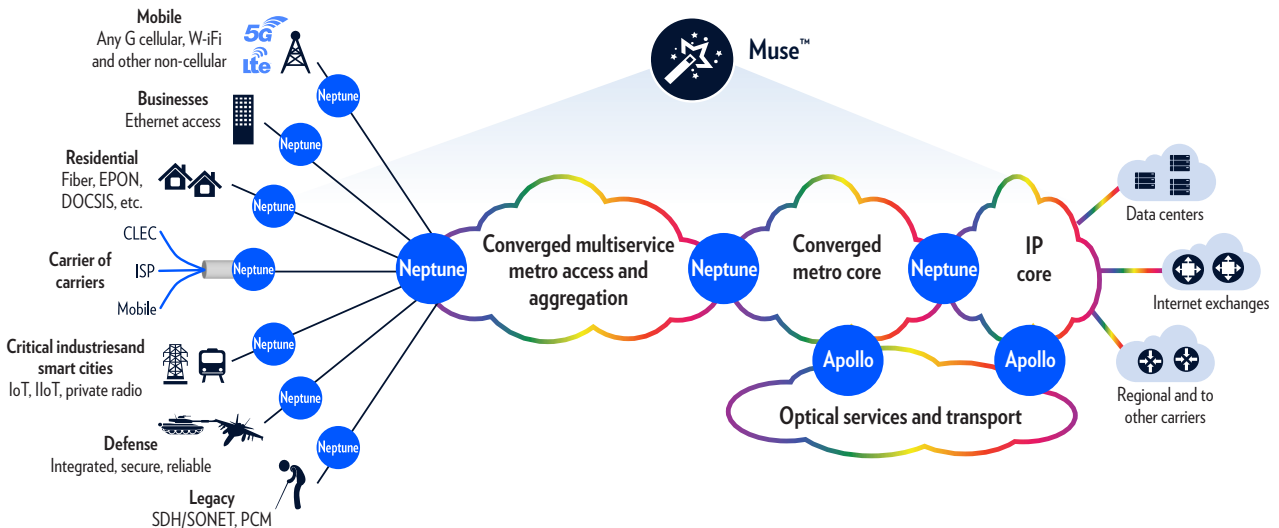
## METRO ACCESS TRANSPORT



Netptune (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-1021 is an extremely compact multiservice packet transport platform, supporting Ethernet, TDM, and MPLS-TP. Its 1RU height and 60Gbps packet switch make it optimized as a high-capacity CPE. Support for TDM over CES/CEP make NPT-1021 ideal for operators looking for a modern packet platform on which to evolve their legacy TDM network. With such a rich and robust feature set, NPT-1021 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 ECI's transport products, NPT-1021 is managed by ECI's Muse™ software suite.



# Technical specifications

Packet	<b>Switch:</b> 60 Gbps (10 GbE based configuration) / 10 Gbps (GbE configuration) <b>Services:</b> MEF CE2.0 (E-Line, E-LAN, E-Tree, E-Access) PN- and VPN-based Ethernet and IP, MPLS-TP Rooted multipoint for multicast and IPTV <b>Max. interfaces:</b> 16 x 10/100/1000 Base-T, 8 x 100/1000 base-X, 4 x 10GE (60 Gbps configuration) 4 x GPON ONU
TDM	<b>Services:</b> CES (SAToP, CESoPSN, and CEP) <b>Max. CES interfaces:</b> 32 x E1/T1, 4 x STM-1/OC-3 1 x STM-4/OC-12
WDM	CWDM, DWDM, muxponder, amplifiers
Timing and synchronization	SyncE with ESMC, 1588v2, 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
Protection and restoration	HW redundancy for power supply units, IO hardware protection (IOP), RSTP/MSTP, G.8032 Ethernet Ring Protection (ERP), MPLS-TP FRR, Dual FRR, 1:1 Linear protection, PW Redundancy (PWR), Multisegment-PW, IEEE 802.3ad Ethernet Link Aggregation(LAG) with LACP, Multichassis LAG (MC-LAG)
OAM	Ethernet OAM (IEEE802.3ah, IEEE 802.1ag and ITU-T Y.1731 PM), MPLS-TP OAM (G8113.2)(CC/AIS/RDI/LB/LT/DM), Bidirectional Forwarding Detection (BFD), RFC 2544 Generator, Y.1564 -Ethernet service activation (SLA)
Traffic management	Traffic classification (based on Port, VLAN, Port+VLAN, IEEE 802.1p, and DSCP), Diffserv-based TM, network Connection Admission Control (CAC), 8 Classes of Service (CoSs)
Topologies	Mesh, dual homing, multi-ring, ring, star, linear
Security	RADIUS (client authentication), SSH 2, SW integrity verification (SHA-2), SFTP, Access Control List (ACL), IEEE802.1x, control channel HMAC-256, public key authentication, port blocked by default
Management	LightSOFT® NMS, EMS-NPT, SNMPv2/v3, LCT, Muse™
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, 110 VAC to 230 VAC
Power dissipation	<b>Typical:</b> 50W
Operating temperature range	-40°C to +70°C (-40°F to 158°F)
Operating RH range	5% to 95%
Environmental standards	NEBS -GR-63 Core, GR-1089 Core, 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	EN60950-1
EMC	EN 300 386
Physical dimensions	H x W x D: 1.7" x 18.3" x 10.4" / 44 x 465 x 263 mm

## EXPANSION UNIT

OTN	<b>Services:</b> Ethernet, storage, video, SDH/SONET <b>Max. Service interfaces:</b> 48 x 1GE, STM-1/4/OC-3/12/FC-1, 24 x STM-16/OC-48/FC-2, 12 x FC-4, 3 x 10GBE/FC-8/FC-12/STM-64/OC-192, 30/24/12xSDI/HD-SDI/HD-SDI3G <b>Max. transport interfaces:</b> 24 x OTU-1, 3 x OTU-2/e
Packet	<b>Max. service interfaces:</b> 36 x 10/100base-T, 36 x 100 base-X
TDM	<b>Max. service interfaces:</b> <ul style="list-style-type: none"> <li>CES: 96 x E11, 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) over packet</li> </ul>
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



### ABOUT ECI

ECI is a global provider of ELASTIC network solutions to CSPs, critical industries, and data center operators. With the advent of 5G, IoT, and smart everything, traffic demands are increasing dramatically, and network operators must make smart choices as they evolve their infrastructure. ECI's Elastic Services Platform leverages our programmable packet and optical networking solutions, along with our service-driven software suite and virtualization capabilities, to provide a robust yet flexible solution for any application. ECI solutions are tailored for the needs of today, yet flexible enough to meet the challenges of tomorrow. For more information, visit us at [www.ecitele.com](http://www.ecitele.com)