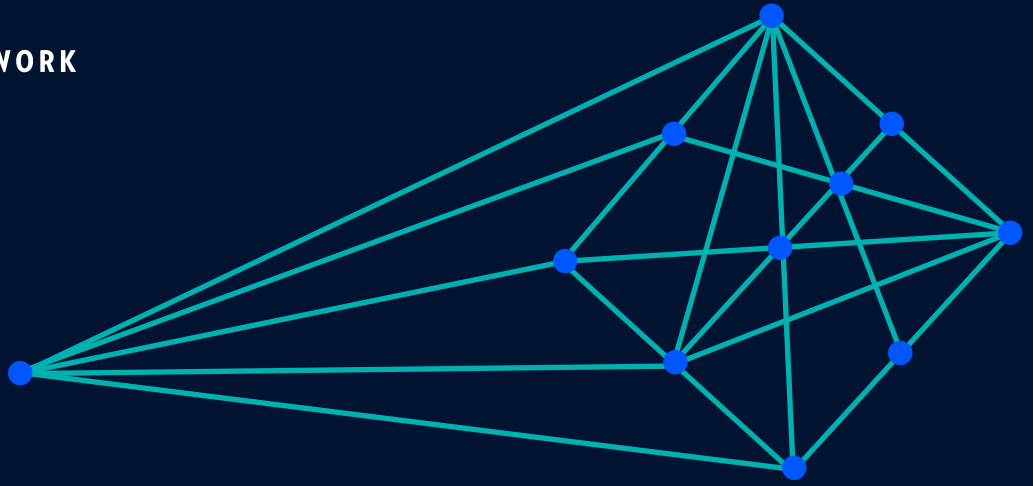


# NEPTUNE NPT-1020

## HYBRID METRO ACCESS TRANSPORT

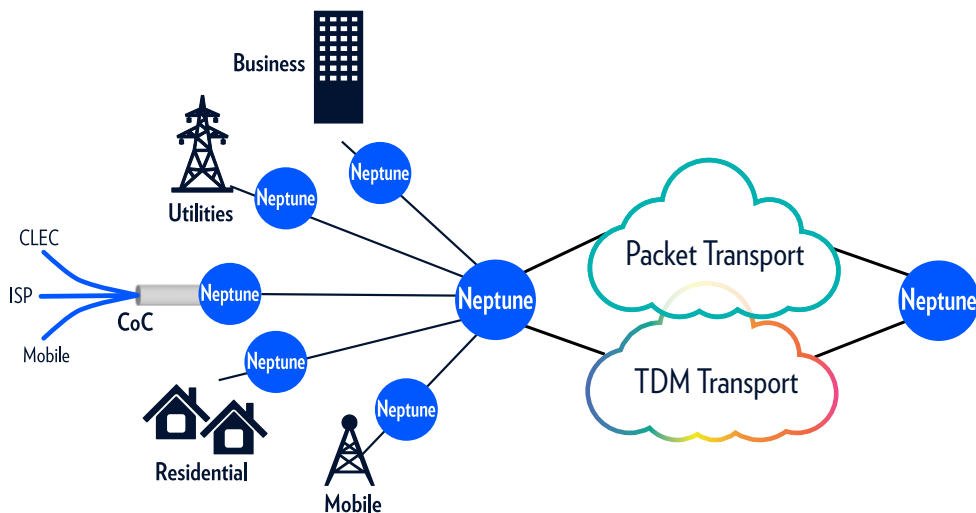


The NPT-1020 is an extremely compact hybrid multiservice transport platform. A member of ECI's Neptune product line, the Hybrid NPT-1020 is only 1RU in height, supports up to 60 Gbps in capacity, and is optimized for metro access nodes. The Neptune product line streamlines end-to-end metro service delivery by combining carrier-grade service assurance, visibility, and control with packet efficiency and unparalleled multiservice support. This includes native TDM, packet, and OTN. It offers a powerful, flexible, and efficient E2E metro solution for high-performance services through convergence of Ethernet (MEF CE2.0 certified), MPLS-TP, OTN, WDM, and TDM. Neptune also supports NFV services and SDN applications, which are compulsory in today's challenging metro environment.



With such a rich and robust feature set, the NPT-1020 is well suited for a wide variety of applications and networking scenarios. These include mobile backhaul, wholesale services, residential multiplay and business VPN connectivity services. Like all of ECI's transport products, NPT-1020 is managed by a unified multilayer NMS.

<p><b>Unmatched multiservice</b> TDM, Ethernet, MPLS-TP, OTN</p>	<p><b>Compact packet and TDM</b> metro access</p>	<p><b>Carrier-grade</b> service assurance</p>	<p><b>Independent native processing</b> both TDM and Ethernet</p>
--	---	---	---



# Technical specifications

<b>Packet</b>	Switch: 60 Gbps (10 GbE based configuration)/10 Gbps (GbE configuration) Services: MEF CE2.0 (E-Line, E-LAN, E-Tree, E-Access) PN- and VPN-based Ethernet and IP, MPLS-TP Routed multipoint for multicast and IPTV Max. Interfaces: 16 x 10/100/1000 Base-T 8 x 100/1000 Base-X 4 x 10GE 4 x GPON ONU
<b>TDM</b>	Matrix: 2.5 Gbps with 4/3/1 connectivity (100% LO granularity) Services: Native TDM, CES (SATO, CESoPSN and CEP) Max. Native Interfaces: 3 x STM-4, 4 x STM-1, 3 x DS3/E3, 84 x E1 Max. CES Interfaces: 32 x E1/T1, 4 x STM-1/OC-3, 1 x STM-4/OC-12
<b>WDM</b>	CWDM, DWDM, muxponder, amplifiers
<b>Timing and Synchronization</b>	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 SATO, TDM bits (T3/T4), and SNTP
<b>Protection and restoration</b>	Hardware redundancy for power supply units, IO 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)
<b>OAM</b>	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)
<b>Traffic management</b>	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 (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), IEEE802.1x, control channel HMAC-256, public key authentication, port blocked by default
<b>Management</b>	LightSOFT® NMS, EMS-NPT, SNMPv2/v3, LCT, Muse™
<b>Power over Ethernet (PoE+)</b>	Up to 30W
<b>Pluggable SFP support</b>	Electrical, colored C/DWDM, tunable, non-colored, Compact SFP (CSFP)SFP+, bidirectional SFPs/SFP+
<b>Power input</b>	-40 VDC to -72 VDC, 110 VAC to 230 VAC
<b>Power dissipation</b>	Typical: 50W
<b>Operating temperature range</b>	-40°C to +70°C (-40°F to 158°F)
<b>Operating RH range</b>	5% to 95%
<b>Environmental standards</b>	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)
<b>Safety</b>	EN60950-1
<b>EMC</b>	EN 300 386
<b>Physical dimensions</b>	H x W x D: 1.7" x 18.3" x 10.4" / 44 x 465 x 263 mm

## EXPANSION UNIT

<b>OTN</b>	Services: Ethernet, storage, video, SDH/SONET Max. service interfaces: 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, 30/24/12 x SDI/HD-SDI/HD-SDI3G, Max. transport interfaces: 24 x OTU-1, 3 x OTU-2/e
<b>Packet</b>	Max. service Interfaces: 36 x 10/100base-T, 36 x 100 base-X, 12x100/1000 Base-X, 24x10/100/1000 Base-T
<b>TDM</b>	Max. service interfaces: <ul style="list-style-type: none"> <li>Native: 189 x E1, 9 x E3/DS3, 12 x STM-1</li> <li>CES: 96 x E1</li> <li>Native or CES: 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 TDM or packet</li> </ul>

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, utilities as well as data center operators. Along with its long-standing, industry-proven packet-optical transport, ECI offers a variety of SDN/NFV applications, end-to-end network management, a comprehensive cyber security solution, and a range of professional services. ECI's ELASTIC solutions ensure open, future-proof, and secure communications. With ECI, customers have the luxury of choosing a network that can be tailor-made to their needs today - while being flexible enough to evolve with the changing needs of tomorrow. For more information, visit us at [www.ecitele.com](http://www.ecitele.com)