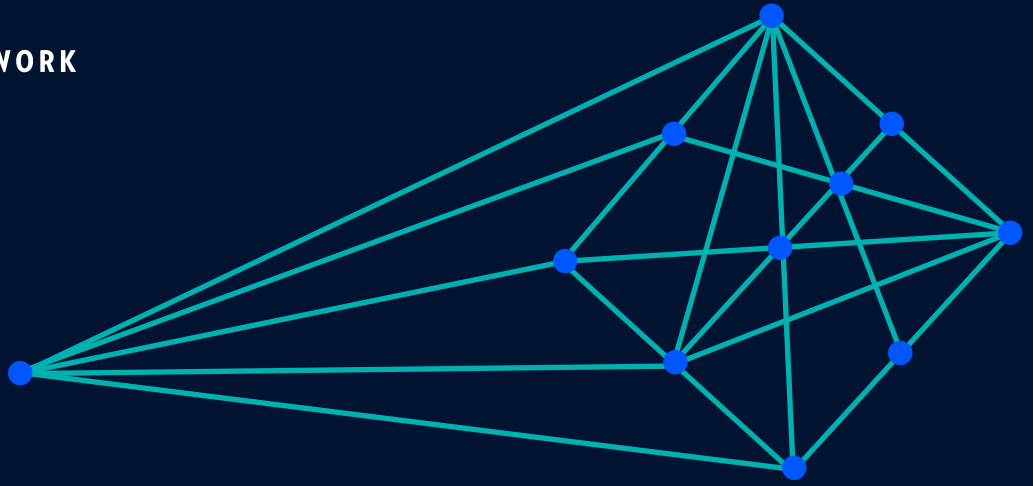


NEPTUNE NPT-1050

L1 TO L3 METRO ACCESS TRANSPORT



NPT-1050 is an extremely compact, high-capacity MPLS-based (IP and TP) multiservice packet transport platform, optimized for high-capacity metro access applications. A member of ECI's Neptune (NPT™) product line, NPT-1050 is only 1RU in height and is fully redundant. It provides 100G interfaces with a port fan-out of 380G and up to 300G in switching processing capacity. Neptune products streamline end-to-end metro service delivery by combining carrier-grade service assurance, visibility, and control with packet efficiency and unparalleled multiservice support. Neptune offers a powerful, flexible, and efficient end-to-end metro solution for high-performance L1, L2 and L3 services. It achieves this by converging IP, Elastic MPLS (IP and TP), Ethernet (MEF CE2.0 certified), OTN, WDM, and TDM. Neptune also provides NFV services and SDN applications, which are compulsory in today's rapidly evolving metro environment.



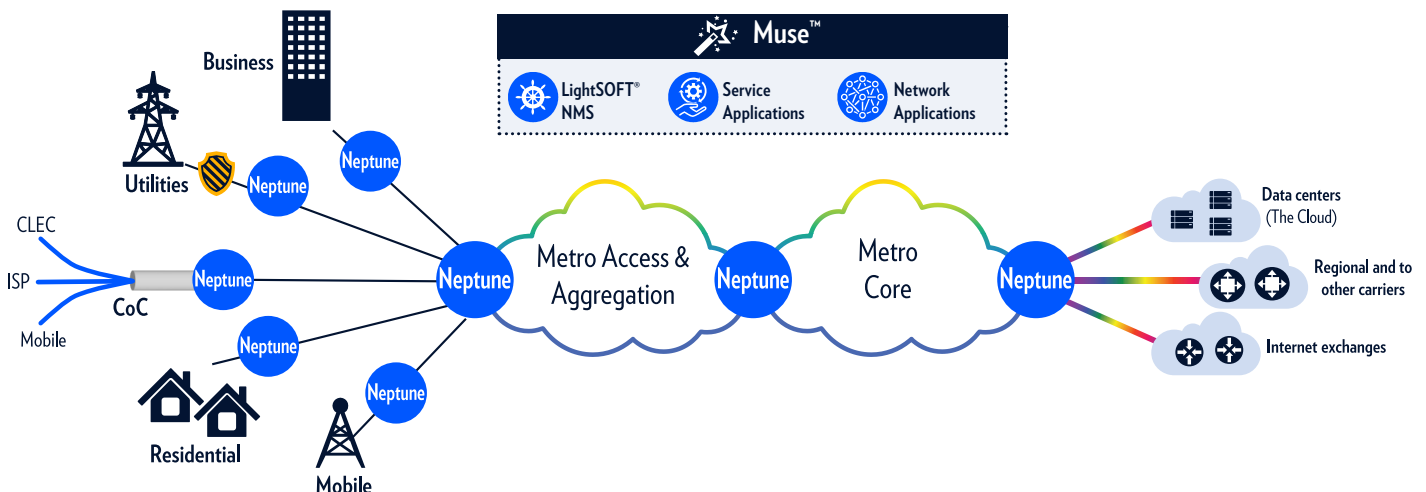
With such a rich and robust feature set, the NPT-1050 is well suited for a wide variety of applications and networking scenarios. These include mobile backhaul, wholesale service delivery, residential multi-play, mission-critical and business VPN connectivity services. As with all ECI's transport products, NPT-1050 is managed by ECI's Muse™ software suite.

Unmatched multiservice
from L1 to L3

Compact and high-capacity
metro access

Carrier-grade
redundancy and service assurance

Elastic MPLS
both IP and TP



Technical specifications

Packet	Switch: 100 Gbps/300 Gbps Services: MEF CE2.0 (E-Line, E-LAN, E-Tree, E-Access) PN and VPN based Ethernet and IP, MPLS (TP and IP), multicast and IPTV Max. Interfaces (100 Gbps configuration): 20 x 10/100/1000 Base-T, 40 x 100/1000 Base-X, 10 x 10GE Max. Interfaces (300 Gbps configuration): 23 x 10/100/1000 Base-T, 38 x 100/1000 Base-X, 20 x 10G or 12 x 10G OTN, 3 x 100G
TDM	Services: CES (SAToP, CESoPSN and CEP) Max. Interfaces: 96 x E1/T1, 12 x STM-1/OC-3, 3 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	Hardware redundancy for common units, IO Hardware protection (IOP), RSTP/MSTP, G.8032 Ethernet Ring Protection (ERP), MPLS-TP FRR, Dual FRR, 1:1 Linear protection, FRR with LFA (local and remote), PW Redundancy (PWR), Virtual Router Redundancy Protocol (VRRP), Multisegment-PW, IEEE 802.3ad Ethernet Link, Link Aggregation(LAG) with LACP, Multi Chassis LAG (MC-LAG) Aggregation(LAG) with LACP, Multi Chassis LAG (MC-LAG)
OAM	Ethernet OAM (IEEE802.3ah, IEEE 802.1ag and ITU-T Y.1731 PM), IP/MPLS OAM ((link BFD, Ping, Trace-route), MPLS-TP OAM (G8113.2, RFC5860, Bidirectional Forwarding Detection (BFD),LDI, LSP ping, LSP trace route), RFC 2544 Generator, 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)
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 SFP/CSFP/SFP+ 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	100G/300G configuration: -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, 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	Services: Ethernet, storage, video, SDH/SONET Max. service interfaces: <ul style="list-style-type: none"> • 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
Packet	Max. service interfaces: 36 x 10/100base-T, 36 x 100 base-X
TDM	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



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