

# T-Metro 8100



## ALL-IN-ONE 100GE SERVICE AGGREGATION PLATFORM AND CLOUD GATEWAY

### THE NEED

Service application and bandwidth needs continue to grow unabated. A flexible and future-proof **Carrier Ethernet platform** is key to rapidly deployment of high-performance services platform which is critical to meet these demands and diverse requirements.

### THE SOLUTION

T-Metro 8100 is a CE2.0 compliant, modular platform that will evolve at the pace of your changing requirements, expanding service offerings in line with your business strategy.

- Built on a future-proof, ATCA scalable chassis
- Expand-as-you-grow
- Hardware OAM capabilities
- Built-in MPLS functionality
- Expandable function blades

Telco Systems' T-Metro 8100 is a next-generation, high-density, standalone Carrier Ethernet platform providing, MPLS, Layer 3, and SDN. T-Metro 8100 offers service scalability, carrier-class resiliency, and industry-leading features including QoS and OAM.

With the ability to add blades for new capabilities, both the range of future use cases and the lifetime of the platform are extended. T-Metro 8100 is built on future-proof standards-based ATCA chassis, designed to evolve with carriers to expand their services at the pace and in the direction that best meets their business strategy.

**Increase Agility and Flexibility:** Rapidly deploy new services and grow at your own pace, with no need for hardware change with its flexible port count configuration. The solutions' modular design supports multiple use cases, saving on training, support and TCO.

**Reduce OPEX and CAPEX:** Significantly reduce cost of deployment and management with a single, multi-use platform.

#### BUSINESS SERVICES



- Off-net/on-net
- Multi-tenancy support
- Hardware OAM
- Flexible SLA Management

#### E-RATE/EDUCATION



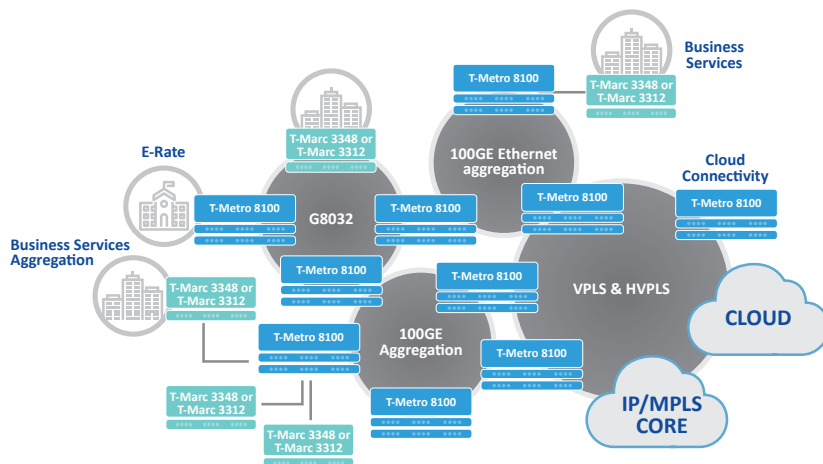
- Campus network interconnectivity and aggregation
- Hardware OAM
- Flexible SLA management modular (configured via software)
- Multi-tenancy support

#### CLOUD & DATA CENTER CONNECTIVITY



- Any cloud
- High bandwidth
- Low latency
- Flexible SLA management

## Telco Systems Service Management System



### HIGH LEVEL SPECIFICATIONS

Interfaces	Service Assurance	Service Support	Resiliency
<p><b>Up to:</b></p> <ul style="list-style-type: none"> <li>• 4x 100GE+8x40GE+16x10GE</li> <li>• 4x100GE+48x10GE</li> <li>• 2x100GE+64x10GE</li> <li>• 80x10GE</li> </ul> <p>With two 100GE blades</p>	<ul style="list-style-type: none"> <li>• Hardware-based CFM</li> <li>• ITU-T Y.1564 and RFC2544 test head and service performance analyzer</li> <li>• In-service testing capabilities</li> <li>• TU-T Y.1731 SLM/DMM Per port/EVC/VLAN/COS</li> <li>• MEF Loopback Latching 46</li> <li>• TWAMP</li> </ul>	<ul style="list-style-type: none"> <li>• IEEE 802.1Q bridging</li> <li>• IEEE 802.1ad Q-in-Q</li> <li>• 2-tag management (push / pop / swap) for c-tag and s-tag</li> <li>• MPLS L2VPN</li> <li>• Full VPLS PE, M, TUHVPLS, VPWS</li> </ul>	<ul style="list-style-type: none"> <li>• Sub-50ms RSVP-TE FRR</li> <li>• Dual-Homing VPLS/ HVPLS</li> <li>• Secondary LSP</li> <li>• ITU-T G.8032, xSTP, resilient links</li> <li>• LAG (Static/IEEE 802.3ad LACP/Multi-chassis)</li> </ul>

## PRODUCT SPECIFICATIONS

<b>Hardware Characteristics</b>	2x100GE + 4x40GE + 8x10GE or 2x100GE + 24x10GE or 32x10GE ports, Wire speed non-blocking 960Gbps full duplex switching capacity in 3RU, support for short and long-haul optical interconnect The Expansion Module supports additional 44x10GE
<b>Services</b>	IEEE 802.1Q bridging, IEEE 802.1ad Q-in-Q (TLS), MPLS L2VPN - Full VPLS PE, MTU HVPLS, VPWS, - OpenFlow support
<b>Timing</b>	SyncE and IEEE 1588v2
<b>Resiliency</b>	Sub-50ms RSVP-TE FRR, secondary LSP ITU-T G.8032, G.8031, xSTP, resilient link, dual homing VPLS/ HVPLS LAG (Static/IEEE 802.3ad LACP/Multi-chassis)
<b>Quality of Service</b>	Per port/EVC/flow single/dual rate limiting Hierarchical rate limit per port/EVC/flow SP, WRR and hybrid frames scheduling, CoS marking and mapping per EVC
<b>Multicast Management</b>	IGMPv1/v2/v3
<b>OAM</b>	Hardware-based IEEE 802.3ah EFM, IEEE 802.1ag CFM
<b>Testing &amp; Monitoring</b>	ITU-T Y.1564 and RFC2544 test head and service performance analyzer In-service testing capabilities, ITU-T Y.1731 SLM/DMM Per port/EVC/VLAN/COS, hardware-based flexible MAC-based loopbacks
<b>Management</b>	Console, Telnet, SSHv2, Radius, TACACS+, SNMP v1/2/3, xFTP, NTP, DNS resolver
<b>Security</b>	ACLs, RADIUS, SSHv2, SNMPv3, SFTP, port security, broadcast storm prevention, secured access
<b>General Specifications</b>	Dimensions 3RU H x 17.64"W x 15.1"D (133.35 x 448 x 385.8mm) Weight: 9kg– 14.5kg Power: Dual redundant, hot-swappable DC 24/-48VDC, Max power consumption: 200W Operating temp: 0°C to 45°C Humidity: Up to 95%, non-condensing Fan: Load sharing, speed controlled, hot-swappable
<b>Regulatory Compliance</b>	European CE marking, EN 55022 Class A, CISPR 22 Class A, EN55024:1998+A1, EMC Immunity, Harmonics: EN 61000-3-2/ IEC 61000-3-2, Voltage fluctuations: EN 61000-3-3/ IEC 61000-3-3, ESD: EN 61000-4-2/ IEC 61000-4-2, RFI-AM: EN 61000-4-3/ IEC 61000-4-3, EFT: EN 61000-4-4/ IEC 61000-4-4, Surges: EN 61000-4-5/ IEC 61000-4-5, Conducted: EN 61000-4-6/ IEC 61000-4-6, Voltage DIP: EN 61000-4-11/ IEC 61000-4-11, EMC Emissions, FCC 47 CFR Part 15 Class A, ICES-003 Issue 4 Class A (Canada), EN 300386, Telcordia GR-1089 issue 4
<b>Environmental Compliance</b>	Full RoHS
<b>Safety Requirements</b>	UL 60950, EN 60950, IEC 60950, IEC 60825-1, CSA 22.2 No. 950, Class I Laser product safety (eye safety)

## ORDERING INFORMATION

Part Number	Description
ATCA3UX-TM-8100-DC	T-Metro8100 service aggregation platform High capacity 3RU in height, 20" in depth, Chassis includes: hot swappable Fan Tray, Hot swappable one (1) DC PSU
ATCA3UX-TM-8100-AC	T-Metro8100 service aggregation platform High capacity 3RU in height, 20" in depth, Chassis includes: hot swappable Fan Tray, Hot swappable one (1) AC PSU
T-ATCA510-TM8100	Ethernet/MPLS 100G aggregation line card with 2x100GE+4x40GE+8x10GE or 2x100GE+24x10GE or 40x10GE
BTI-QSFP+ Extender to 4x SFP+	QSFP+ to 4x SFP+ Extender module, QSFP+ pigtail 100cm
TMC-81xx-BRKT	19" mounting bracket for "BTI-QSFP+ Extender to 4x SFP+ " ( Can accommodate 1-4 units BTI-QSFP+ Extender to 4x SFP+)
ATCA-DCPS	DC Power entry Model (PEM) FRU (field replacement Units)
ATCA-ACPS	110, 220 V AC power supply. FRU (field replacement unit) 110, 220 V AC power supply. FRU (field replacement unit)

## ABOUT TELCO SYSTEMS

Telco Systems delivers a portfolio of carrier Ethernet and MPLS-based demarcation, aggregation, and uCPE solutions that enables service providers to create intelligent, service-assured, CE 2.0-compliant networks for mobile backhaul, business services, and cloud networking. Telco Systems' end-to-end Ethernet, SDN/NFV-ready product portfolio delivers significant advantages to service providers, utilities, and city carriers competing in a rapidly evolving telecommunications market. Telco Systems is a wholly owned subsidiary of BATM Advanced Communications.

To learn more, visit Telco Systems at <http://www.telco.com>

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