DATASHEET

OVERTURE

Overture 6100

Multi-Service Carrier Ethernet Edge and Aggregation for Copper and TDM

The Overture 6100 is a carrier class multi-service access and aggregation platform used to deliver Carrier Ethernet over Copper (EoC), Ethernet over TDM (EoTDM) as well as legacy TDM services via T1/E1 or DS3. This modular platform offers a fully redundant switch fabric, timing, power, and cooling solution to ensure it meets the high availability requirements for carrier class services.

PRODUCT SNAPSHOT

- **Multi-service edge and aggregation for EoC, EoTDM, and TDM Services**
- **Modular redundant architecture**
- **Supports up to 80 copper pairs, up to 15 DS3s , up to 80 T1/E1 ports, and bonding support for up to 420 T1s or 330 E1s (EoDS3)**
- **PWE3-Plus technology enables Ethernet and TDM services for backhaul applications**
- **Comprehensive service OAM suite**
- **Temperature hardened**

AGGREGATION FOR OVERTURE 400, 500, AND 600

The 6100 supports Ethernet over Copper customer premises equipment (CPE) via Overture's 400 Series, Ethernet over Time Division Multiplexing (TDM) and Ethernet over DS3 and NxT1/E1 via the 500 Series and TDM over Ethernet CPE via the 600 Series with Pseudowire-Plus (PWE3-Plus), Overture's revolutionary patented method of simultaneously transporting native Ethernet and native TDM over copper for Mobile Backhaul solutions.

PATENTED PWE-PLUS & SYNCHRONIZATION

The 6100 can flexibly be configured as an aggregator or in back-to-back mode where it delivers up to 480Mbps over a bonded link of up to 32 copper pairs. With the patented PWE3-Plus technology both Ethernet services and T1/E1 services can be delivered over the same link. Bandwidth is dynamically assigned between services, so if coppers pairs go down or degrade, the T1/E1 services are not impacted allowing for even greater T1/E1 resiliency.

The 6100 addresses the synchronization issues that are prevalent with emulated T1/E1 services by delivering a solution that is fast, reliable, and accurate. Stratum 3 and 4 holdover options, and a BITS input are available. All interface ports can be synchronized to a reference clock or serve as a clock source to provide a flexible and resilient sync-in sync-out architecture. The T1/E1 resiliency and flexible clocking options make the 6100 a powerful solution Carrier Ethernet and mobile or DSLAM backhaul applications.

FLEXIBLE AND RAPID SERVICE DEPLOYMENT

Environmentally hardened, the 6100 is designed to be flexibly deployed in the central office or remote Outside Plant (OSP) applications. As an aggregator, the 6100 provides advanced trouble shooting and operational efficiencies that translate into faster service delivery and lower maintenance costs. Tone Generation and the built in Time Domain Reflectometer (TDR) help technicians identify pairs, measure loop distance, analyze loop quality and detect CPE presence (powered or unpowered).

Provisioning is fast and easy because the 6100 supports Overture's Zero Touch capability. This enables the provider to pre-configure CPE on the 6100. When the remote CPE is connected, the 6100 will automatically connect the OAM channel, upgrade firmware and push the correct configuration. Field technicians only need to physically install the remote CPE. Everything else is automatic.

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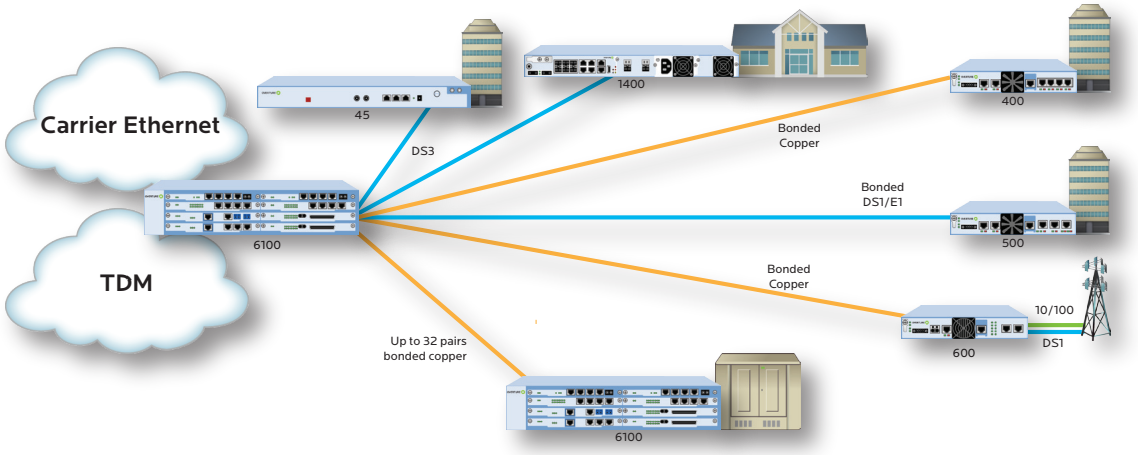

The Overture 6100 delivers Ethernet over bonded copper, Ethernet over TDM and TDM over Ethernet solutions

FEATURE	BENEFIT
Multi-service platform	Supports EoC, EoTDM, EoDS3, and TDM services all from one platform
PWE3-Plus	Enables both Ethernet services and T1/E1 services to be delivered over the same link with greater resiliency than traditional TDM circuits
15Mbps per copper	A single copper pair can deliver over 7 times the bandwidth of a T1 or E1 service at much lower costs
Copper pair management	Robust trouble shooting features like Time Domain Reflectometer and Tone Generation to detect pairs and prequalify loops help speed up service delivery
Cross-card bonding	Ensures high availability services and eliminates stranded copper pairs

TECHNICAL SPECIFICATIONS

INTERFACES

- Service cards:
  - Switch control processor cards:
    - 2 port 1000Base-X(SFP) or 100/1000Base-TX
    - RS-232 and 10/100 management
  - 16 pair EoC card
  - 16 port T1/E1 card
  - 3 port DS3 card
- Auxiliary Cards:
  - DS1/E1 BITS/SETS input
  - Stratum 3 or 4 options, SyncE
  - 3 alarm inputs and 2 outputs
  - Metallic loop test IN/OUT

ETHERNET SERVICES

- MEF E-LINE, E-LAN, and E-TREE
- 802.1d STP and 802.1w RSTP
- 802.3ad link aggregation
- 802.3x flow control and pause frames
- 802.1q VLAN tagging, stacking (Q-in-Q), stripping, re-writing and bundling
- 802.1p prioritization
- 256 EVCs, each supporting up to 4095 UNI bindings
- Unique SLA per EVC
- CoS: WFQ, SP, and combo based on VLAN, p-bits or ToS/DSCP
- Hierarchical policing/shaping

MANAGEMENT

- Local RS-232 management interface
- Web GUI, familiar CLI
- Pre-provision and store CPE configs
- Zero Touch provisioning
- 802.3ah OAM
- 802.1ag CFM
- Y.1731 ETH-OAM
- FTP, SSHv2, HTTPS, SSL
- TACACS+ and RADIUS
- Management IP ACLs
- SNMPv1, v2 and v3, Traps, Alarms
- Syslog
- Copper pair management
  - Time domain reflectometer
  - Tone generation
  - Auto-bonding
  - Cross-box bonding

PHYSICAL

- 3.47H" x 817.45W" x 9.88D" (88 mm x 444 mm x 251 mm)
- Mounting: 2RU in 19" and 23" WECO and ETSI racks
- Weight: 30 lbs (13.6 kg) max
- Rear or side exhaust options
- Field replaceable fan
- Full front access
- Operating temperature: -40° to +149°F (-40° to +65°C)
- Humidity: up to 85% non-condensing relative humidity
- Power consumption: 150w max Redundant power feeds
- Optional AC/DC 120/240 power supply
- Input voltage: -48VDC and +24VDC, nominal

COMPLIANCE

- IEEE 802.3ah, 2BASE-TL, ITU-T G.991.2.bis (Annex A, B, F, & G) TCPAM16/32/64/128
- RFC 791 IP, RFC 792 ICMP, RFC 793 TCP, RFC 768 UDP, RFC 826 ARP, RFC 1122
- RoHS
- Spectral compliance

CERTIFICATIONS

- C-Tick
- CE Mark
- EN 55022 Class A
- ETSI 300 386, 300 019, T1.2, T2.2, T3.5
- FCC Part 15 Class A
- GR-3108 Class 2
- ITU K.20/K.21
- MEF 9, 14
- NEBS Level 3

OVERTURE

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RoHS compliant

CARRIER ETHERNET MEF Certified Compliant