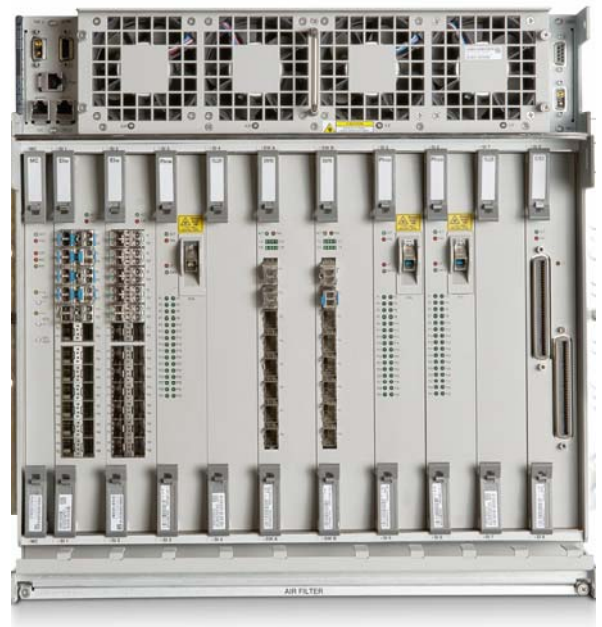**LG-ERICSSON**

EA 1100

ETHERNET ACCESS SERVICES SWITCH
OPTICAL LINE TERMINAL

EA 1100 MULTISERVICE ETHERNET ACCESS PORTFOLIO

- Multiservice aggregation, switching and transmission platform

- Carrier-grade high availability NEBS-compliant system

- 100M/1G/10G Ethernet, T1/E1 TDM CES and POTS telephony services

- WDM-PON and Ethernet Point-to-Point networking

- Complete Network Management OAM solution

The EA 1100 Optical Line Terminal (OLT) is the centerpiece of the LG-Ericsson multiservice Ethernet optical access portfolio.
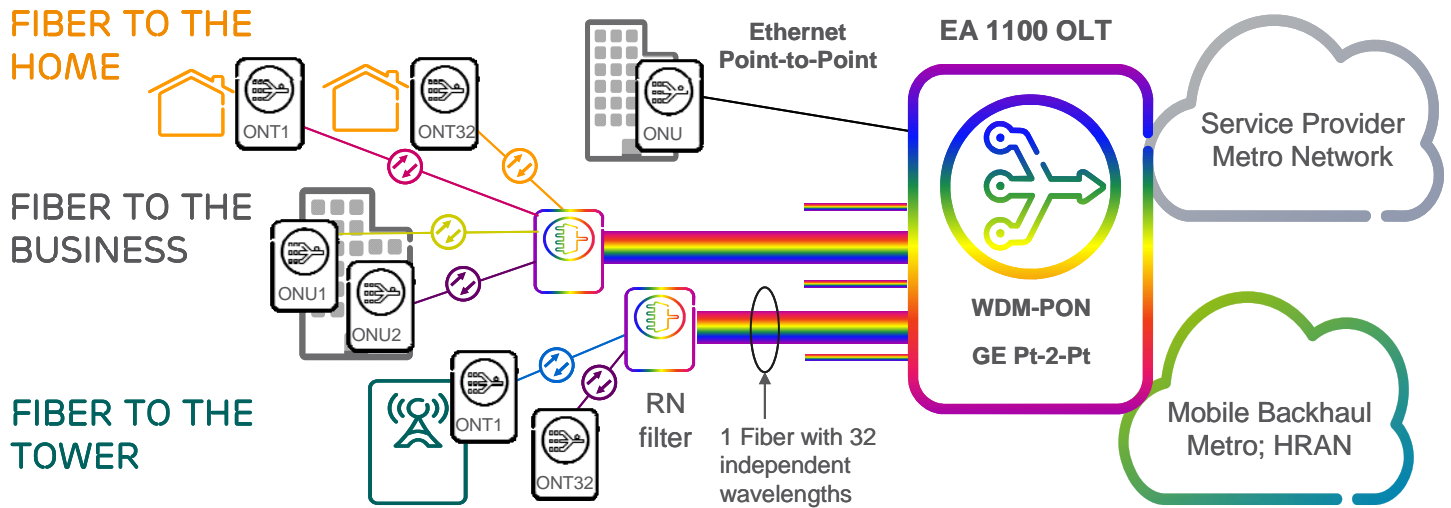
The solution consists of the EA 1100 Optical Line Terminal (OLT) shelf and a variety of residential Optical Network Terminals (ONTs) and business Optical Network Units (ONUs).   Together they provide Ethernet, POTS telephony and TDM services over fiber optics to the subscriber's local point of service.

The EA 1100 OLT is a 19" wide 10U high 11-slot shelf with eight network service interface slots.

A variety of service interfaces, including Point-to-Point, WDM-PON and T1/E1 circuit-mode TDM are supported on a single chassis.

The EA 1100 solution delivers independent subscriber services over secure dedicated optical lightpaths. These optical circuits are transported using either point-to-point Ethernet with dedicated fiber or WDM-PON utilizing common fiber infrastructure.

In particular, the WDM-PON solution is unique in its use of a single common "colorless" laser device in all access ONT devices.   This enables a simple "Connect and Go" residential installation and allows for simplified inventory management and sparing by the service provider.

FIBER TO THE HOME

FIBER TO THE BUSINESS

FIBER TO THE TOWER

Ethernet Point-to-Point

EA 1100 OLT

Service Provider Metro Network

WDM-PON
GE Pt-2-Pt

Mobile Backhaul Metro; HRAN

RN filter

1 Fiber with 32 independent wavelengths

EA 1100 SPECIFICATIONS

SHELF
- 11 slot front access shelf system
- Front or rear air exhaust fan tray
- Breaker Interface Panel (BIP)
- 19" (W) x 10U (H) x 18.9" (D)
  - 482 (438) x 443 x 480 mm
  - Weight   26.1 kg (shelf alone)
- 4 shelves per 7' (2.2m) rack

POWER SUPPLY
- Split power feed and return
- Dual (A&B) feed -42 to -75 Vdc

OPERATING ENVIRONMENT
- Temperature: 5°C to 40°C
- Humidity: 5% to 90% relative humidity

EQUIPMENT CAPACITY
- 1 Maintenance Control (MC) card
- 1 Switch & Network Interface (SW/NI) card
  - 1 additional for redundancy
- Up to 8 PON Interface cards
- Up to 8 Ethernet Interface cards
- Up to 4 T1/E1 TDM CES cards

NETWORK MANAGEMENT AND SECURITY
- Comprehensive fault, configuration, accounting, performance and security
- EA Manager off-switch GUI system
  - PC/Windows or Unix server options
  - Multiple northbound OSS options
- Radius Authentication; SNMP v1, v2, v3
- DHCP server, relay agent, filtering, option 82, snooping, IP/ARP anti-spoofing

MAINTENANCE CONTROL CARD
- Shelf/system monitoring and control
- Network management interface

SWITCH AND NETWORK INTERFACE CARD
- Integrated network interface connections and services traffic switching/forwarding
- 240 Gbps 1+1protected fabrics
- Non-blocking switching/forwarding
- 8 network interfaces at GE or 10GE
- **Clock synchronization**

PON INTERFACE (PI) CARDS
- WDM-PON filtering and transmission via SC/APC connector
- BLS light source for injection locking
- Faceplate LEDs for each wavelength
- PI 100 M:
  - Mux/demux of 32 100 Mbit wavelengths
- PI 100 M High Performance (HP):
  - Higher output for longer reach
  - Supports cascaded RNs for increased fan-out to ONTs
- PI 1G 32:
  - Mux/demux of 32 Gigabit wavelengths
- PI 1G 16:
  - Mux-demux of 16 Gigabit wavelengths

ETHERNET INTERFACE (EI) CARD
- Provides Point-to-Point Ethernet connectivity to subscriber ONTs/ONUs
- 48 Gigabit or 100 Mbit interfaces; supports C-SFP and SFP

CES INTERFACE (CEI) CARD
- 32 T1/E1 ports of TDM Circuit Emulation
- Circuit Emulation main services :
  - Structure-Agnostic TDM over Packet
  - CES over PSN
  - TDM over IP

ETHERNET SERVICES SUMMARY
- Complete Ethernet switching functionality
- Support for multiple L2 private line and VLAN options; MEF E-LINE and E-LAN
- Multiple topology options for diverse paths and rings
- Routing and Multicast support
- Carrier-class L2 traffic management and QoS in support of stringent SLA
- Packet classification, marking, policing and congestion management options
- Ethernet OAM: 802.3ah, 802.1ag

SAFETY AND REGULATORY
- UL/CAN CSA-C22.2 No. 60950-1
- Telcordia GR-1089-CORE
- IEC/EN 60950-1
- Laser safety: class 1 laser product
  - IEC EN 60825-1:
  - IEC EN 60825-2:
  - FDA 21 CFR 1040.10
- Emission: EN 55022, Class A
- Immunity: EN 55024
- EN 300 386 V1.3.3, Class A
- FCC part 15 (CFR 47) (Class A)

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