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EDX1006sync
Gigabit Ethernet Demarcation

- ✘ Provider Bridge with QinQ support
- ✘ Bandwidth Limitation per port
- ✘ Performance monitoring on all ports
- ✘ Hardened version
- ✘ Remote flash software update
- ✘ SNMP Agent onboard
- ✘ Secure configuration via SSHv2 (Secure Shell) terminal
- ✘ Permanent remote in-band management

The EDX1006sync is designed as synchronous media converter and aggregation devices in provider's network and edge. A wide bunch of different optical interfaces are supported on LAN and WAN side of the unit. All types of SFPs are supported and so an universal synchronous converter/repeater for wavelength, fibre-mode, distance and speed can be setup. The clocking information provided on one WAN-link can be derived on the EDX1006sync and forwarded to all the other ports.

Introduction

The EDX1006sync is a fully managed compact Gigabit-Ethernet demarcation and aggregation device for Synchronous Ethernet applications. arcutronix technology is a powerful way to enable the delivery of high quality broadband services throughout the entire CSA (carrier servicing area). When acting on the provider's edge the EDX1006sync is terminating the optical Metro Ethernet or EFM-network towards the customer's CPE. Provider's VLAN tagging (acc. to 802.1ad) makes it possible to transparently interconnect networks of different customers and keep full privacy of data traffic.

The EDX1006sync offers full local and remote management access to give carrier class performance monitoring and a wide range of SLA settings via SNMP, CLI and web-based management. EDX1006sync can be housed in small footprint single-slot housings as well as 19" racks with central management access.
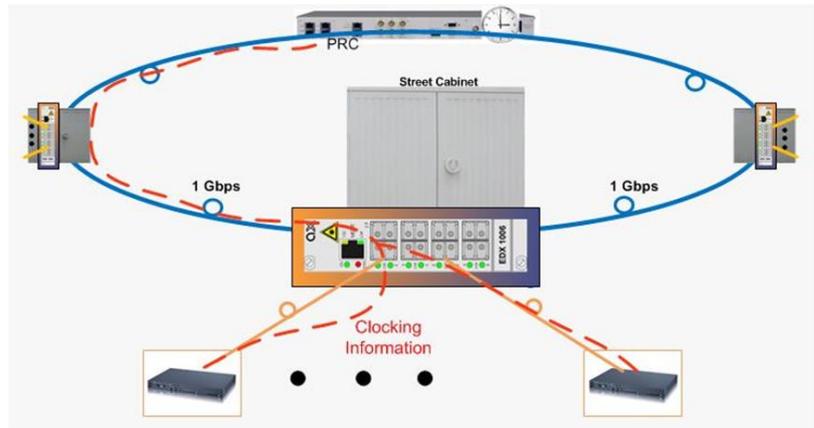
Features

- ■ Carrier-class Gigabit-Ethernet conversion from
  - ⌒ 10/100/1000BaseT to 1000Base-X or
  - ⌒ 100BaseFX to 1000Base-X or
  - ⌒ optical GigE extension or
  - ⌒ optical GigE media conversion

- ■ 2x GbE network ports for pluggable SFP

- ■ 6x FastE network ports for pluggable SFP

- ■ SyncE supported
  - ⌒ Derive clock from GigE-port
  - ⌒ Provide clock towards downlinks
  - ⌒ Support ESMC messages
  - ⌒ Switchover to internal oscillator in case of LOS or bad SSM-level

- ■ SFP transceiver for short, long haul and WDM applications are supported
  - ⌒ Copper SFP (10/100/1000BaseT) supported
  - ⌒ No limitation for SFP usage

- ■ Compact 3RU design

Application Example

EDX1006sync as part of a synchronous ring. The device extracts the clock information and distributes it towards its clients, e.g. remote MSAN. The provider's network is fully synchronous and the clock-information is transparently forwarded to the clients. The media conversion function of the EDX1006sync can be used to adopt the distance and fibre-mode on all interfaces.

Technical Specifications

Network I/F (WAN)

- 1(2) x 1000Base-X
  - Pluggable SFP types

Service I/Fs (LAN)

- 1 x 1000Base-X
  - Pluggable SFP types
- Connector: SFP 6 x 100BaseFX
  - Pluggable SFP types

Features

- Synchronous Ethernet
  - LAN ports synchronous to WAN port
  - No packet loss due to frequency mismatch
  - Mobile backhaul support
- Traffic classification/priority based on TOS/DSCP/802.1P/802.1Q
- 4 priority queues for traffic management
- Low latency handling of VoIP/video services
- 802.1Q VLAN: forwarding, stacking (802.1Q-in-Q)

- 16 port based VLANs with tagging acc. IEEE802.1Q
- Remote Failure detection with LPT and RFD
- 8k MAC addresses supported
- Jumbo-Frames supported

Management

- CLI, HTTP/GUI and SNMPv1 and v2c
- Serial and Ethernet ports for local management
- SSH and Telnet support
- Software download via TFTP
- DHCP support

Environmental

- Operating: -25 to +70°C (ETS300019-1-3; class3.3)
- Transport: -25 to +70°C (ETS300019-1-2; class2.2)
- Storage: -25 to +55°C (ETS300019-1-1; class1.2)
- Humidity: 10 to 90%, non-condensing
- Safety-Norm: acc. to EN60950

- Emission: EN55022 class B

Power

- Supply Voltage: +5 VDC via Backplane
- Power consumption: < 10 VA, over current protected
  - Total power consumption depends on SFPs
- Power supply via system rack SRX or housing SHX

Physical

- Weight: < 250g
- Dimensions:
  - 130mm H x 30mm W x 190mm D
  - 45mm H x 145mm W x 260mm D (in SHX3)
- 19" rack: 10 slots available in 3RU rack