MileGate

MileGate COGE6

Core unit for the subrack MileGate 2200

Core unit COGE6

Features & Benefits

+ Uplink with 2 x 1 GbE via SFP modules

+ 2 x 10/100/1000BaseT for uplink, cascading, ring connection

+ Administration of line cards and gateways MIBs (Management Information Base)

+ Distribution of the ESW (Embedded Software)

+ Designed for outdoor deployment

+ Only for Mini-DSLAM subrack MileGate 2200

+ All functions via one network management system

COGE6 is a core unit for the MileGate 2200 subrack. It controls the installed line cards via the backplane and realises the uplink of the Ethernet data. The uplink can be n x 1 GbE optical or electrical.

COGE6 operates as Ethernet switch that provides a wide range of functions like e.g. VLAN services and multicasting.

Interfaces

COGE6 controls the data traffic with all installed line cards and provides the Ethernet uplink. COGE6 comes with two electrical interfaces and two cages for optical SFP modules.

The two electrical interfaces can be used for cascading or ring connection with further MileGates or for the uplink, too.

2-stage multicasting

The 2-stage multicasting feature of the COGE6 and the installed line cards provide efficient data transmission. This is essential for bandwidth consuming applications, in particular for the transmission of TV channels (IPTV).

Topologies

With the interfaces of COGE6 different network topologies can be realised. Beside the star or line topology, redundant 1+1 connections can be built for the

case that a transmission route is interrupted.

Management

All services are managed centrally via the management system UNEM, the local management system MCST or directly via local management access (CLI, XML, SNMP).
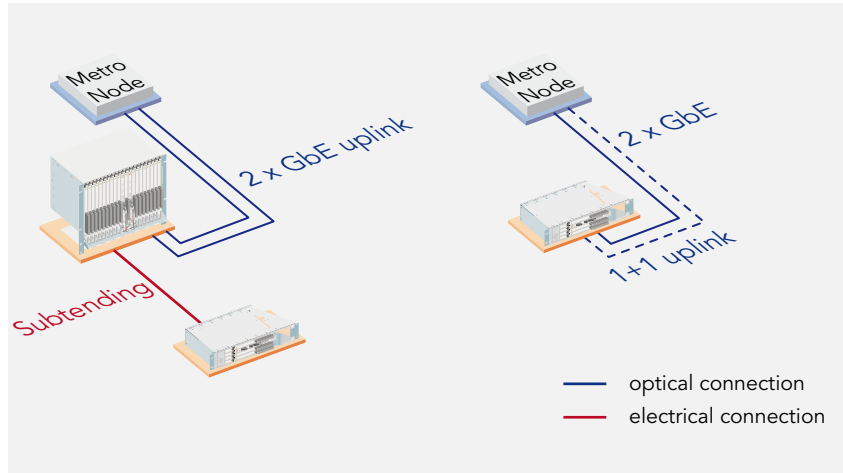

Illustration of COGE6 connections

Technical Data

Interfaces COGE6	
Optical	2 x GbE via SFP (SFP cages)
Electrical	2 x 10/100/1000BaseT (RJ45)
Supported topologies	Star, linear chain and ring
Management	10BaseT/100BaseT and 1000BaseT/SX/LX/EX/ZX and USB (local)
Management COGE6	
Functions	Management and control of MileGate subracks and all plug-in units
	Database with management information
	Embedded software download
	Alarm collection and notification
	External alarm interfacing via backplane and management
Ethernet Functions COGE6	
VLAN services	According to IEEE 802.1Q, 4,096 VLANs supported
	Two VLAN configuration modes (1:1 and n:1) acc. to Broadband Forum TR-101
	VLAN tag stacking (Q-in-Q), according to IEEE 802.1ad
	VLAN QoS with Class of Service (CoS) handling, according to IEEE 802.1p
Spanning Tree Protocol	STP (Spanning Tree Protocol), according to IEEE 802.1D
	RSTP (Rapid Spanning Tree Protocol), based on IEEE 802.1w
Multicast	IGMP v2/v3, supporting IGMPv3 snooping with proxy reporting and message suppression
Link aggregation	LACP, based on IEEE 802.3ad
Security Functions COGE6	
MAC address	MAC address filtering
	Prevention of source MAC spoofing und MAC flooding
Access control list	MAC based access control, according to TR-101
	Multicast access control lists (multicast group restriction)
Further functions	Subscriber isolation per VLAN
	Prevention of L2 peer to peer (hair pin) forwarding
	Broadcast handling
Management	
Local Management System	MCST
Central Management System	UNEM
Power Supply	
Input voltage nominal (min/max)	−48/−60 V DC (−39.5 V DC ... −72 V DC)
Operation Environment	
Temperature range and humidity	According to MileGate environmental specifications