DNWP

Connection Master

Mission critical multiservice access platform for utility, corporate and enterprise customers

Connection Master provides true multiservice capabilities to support a very wide range of legacy voice and data interfaces transported over IP and Next Generation SDH networks. It has the performance capabilities to handle almost any type of applications including IP, POTS (Plain Old Telephony Service) and SCADA (Supervisory Control and Data Acquisition). Very low latency means that time-critical applications, such as teleprotection, are supported.

Connection Master is designed to be backward compatible with your existing network – for example, with Nokia's Dynanet and FMX2 product families. In addition, Connection Master is offered along with a network management solution which also supports legacy equipment. This allows for a flexible migration towards a modern platform.

The internal architecture has a modular structure that uses high-speed, point-to-point buses to meet both current and future needs offering a growth path from PDH to SDH and packet networks.

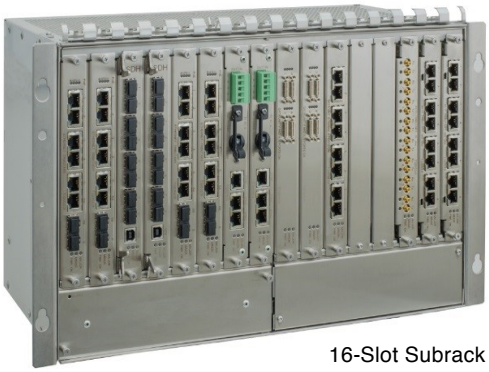
Trunk interfaces: SDH STM-1/4/16
Ethernet 1GE/10GE

Versatility:

- 64 kbit/s cross-connection functionality for legacy TDM services (voice and data) including advanced path protection
- Optimized for strictly time critical, low latency applications
- Power-over-Ethernet functionality
- High capacity IP, TDM and Ethernet based tributary units
- High availability via redundant critical modules

6-Slot Subrack

8+8-Slot CM/Dynanet Subrack



16-Slot Subrack

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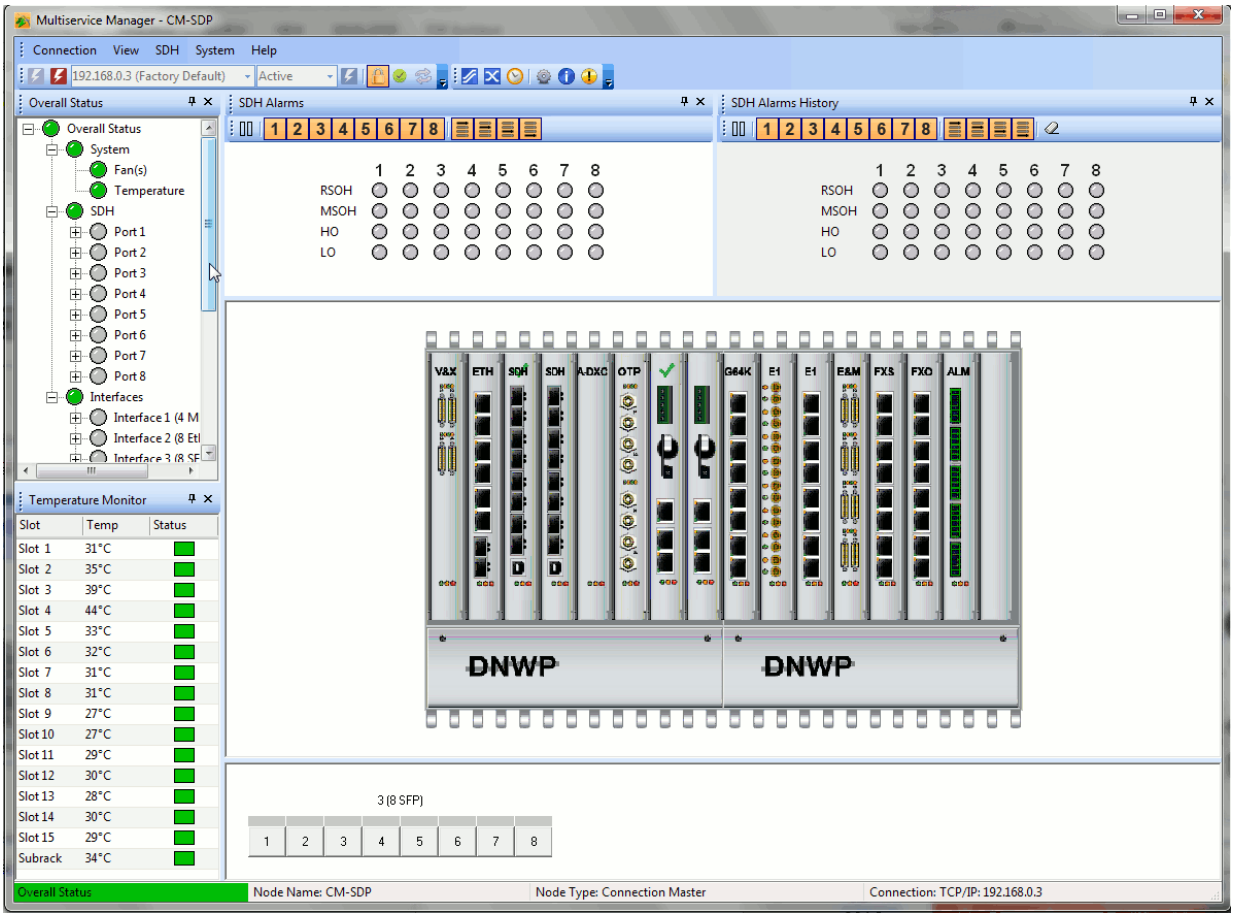
Connection Master

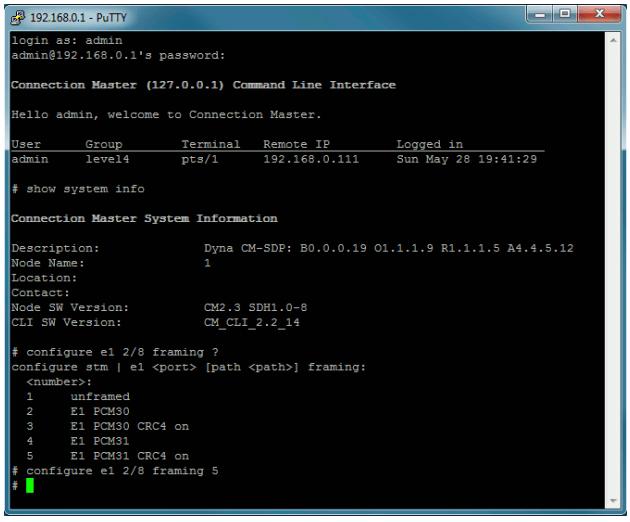
Management



Multiservice Manager and CLI

Connection Master can be managed locally or remotely either with Windows based Multiservice Manager (Local Craft Terminal with graphical user interface) or with Command Line Interface (CLI).

Multiservice Manager allows easy access to all functions of Connection Master while CLI is a text-based interface accessible via SSH or USB for advanced users.



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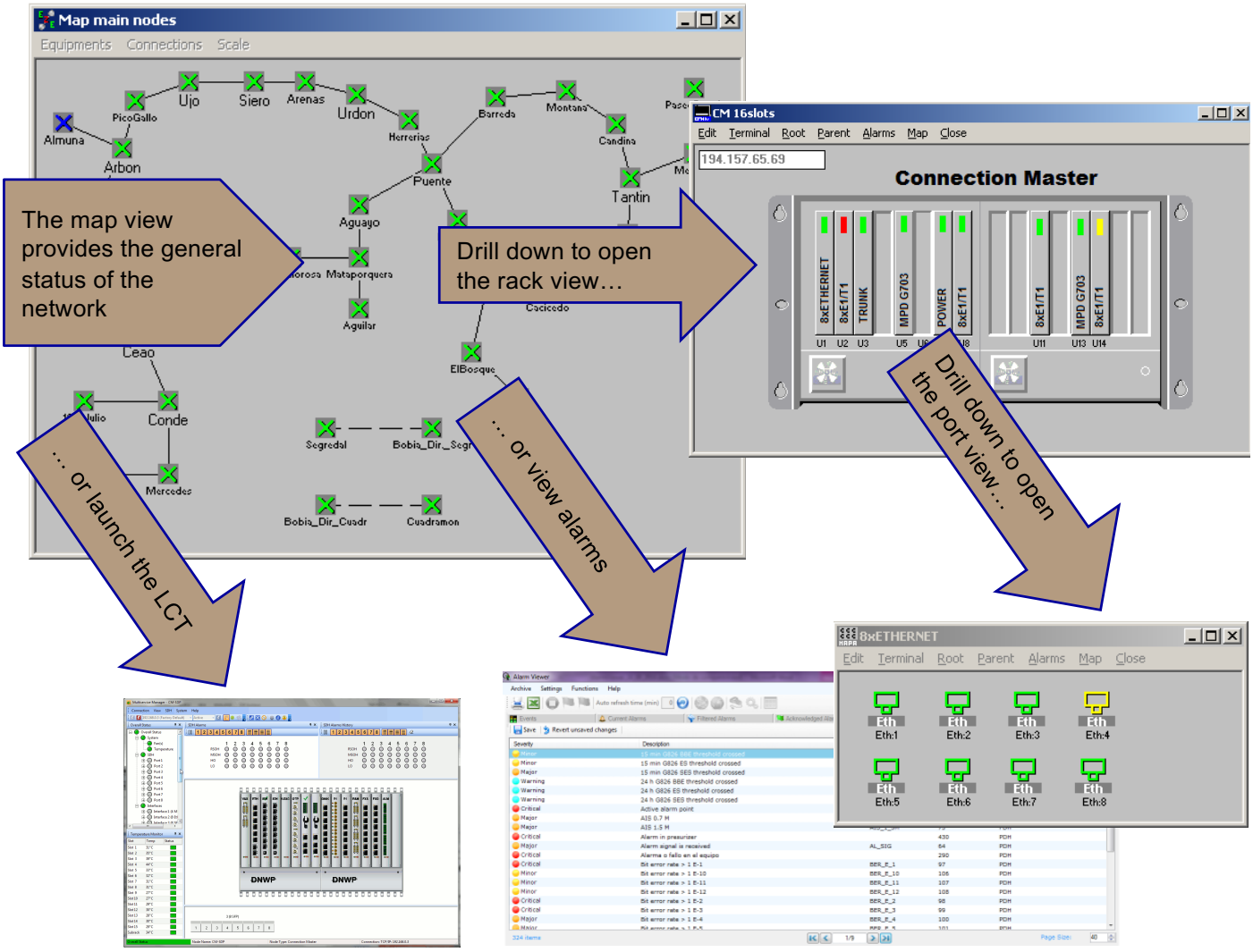
Connection Master

Management



Network Management

Connection Master seamlessly integrates with the DNWP Network Management System.

The DNWP Network Management System is a full featured NMS with FCAPS and a powerful End-to-End circuit provisioning function. End-to-End circuits can be created over PDH, SDH and packet layers and over different generations of network elements.

- Network topology view with map
- Fault management
- Configuration management
- Inventory management
- User management
- Performance management
- End-to-End circuit provisioning

The DNWP NMS enables smooth migration from Dynanet or FMX2 to Connection Master by supporting PDH, SDH and packet networks in the same platform.

Connection Master also interfaces with any Network Management System via its optional NorthBound Interface (NBI) over SNMP. The interface enables users to integrate Connection Master to an existing NMS over a standard interface.

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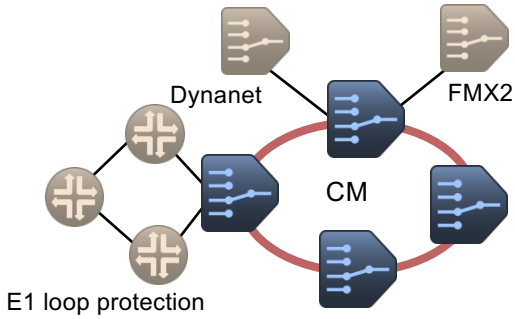
Connection Master

Application examples

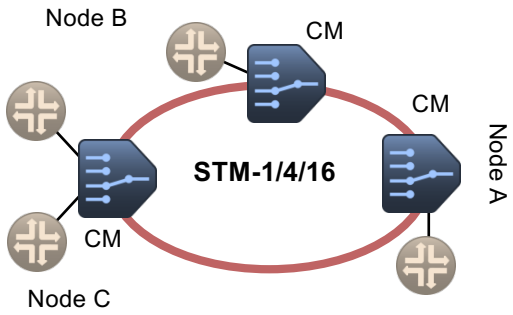
Connection to legacy layer

Compatible with FMX2 and Dynanet. Enables voice and data services between networks.



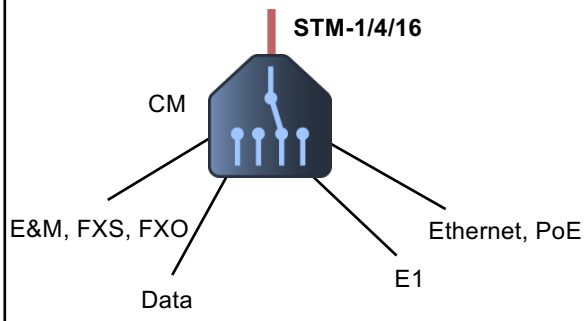
Metro rings

Provide Ethernet transport or SDH connectivity



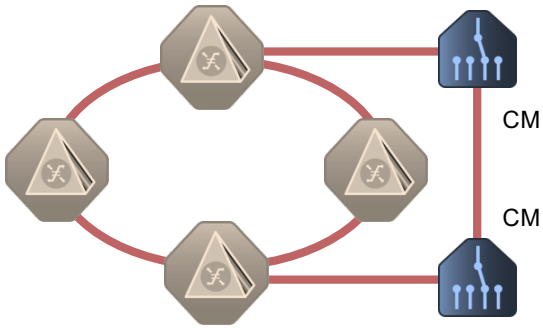
Multiservice access

Multiplexer and SDH layers integrated in one single hybrid node. A large number of E1 links between layers no more needed.



Ring MUX/Partial ring extensions

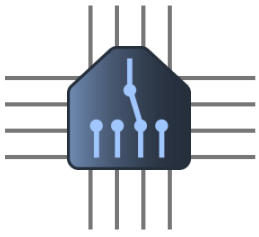
Connectivity to all 3rd party standard SDH equipment



e.g., hiT70xx

Local cross-connect

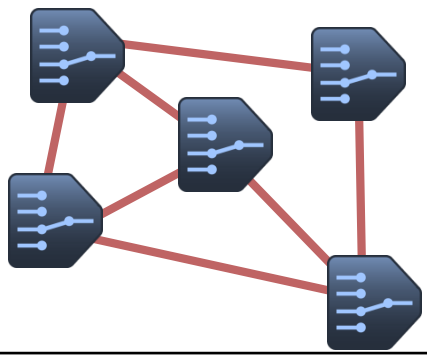
Non-blocking cross-connect matrix 80x80 VC-4 and 230xE1/VC-12 at DS0 level. Optional advanced cross connections like data conferencing and E1 loop protection.



VC-4, VC-3, VC-12, DS0

Meshed critical networks

Mixture of SNCP ring and terminal mux connections. DS0 E2E path protection available for time critical services.



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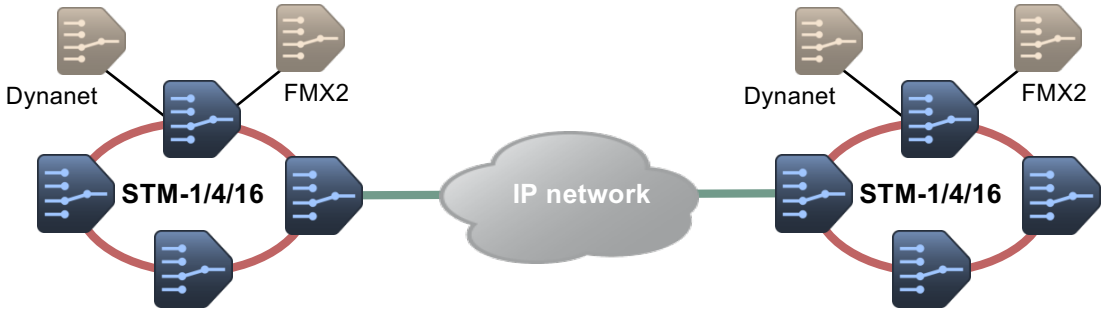
Application examples

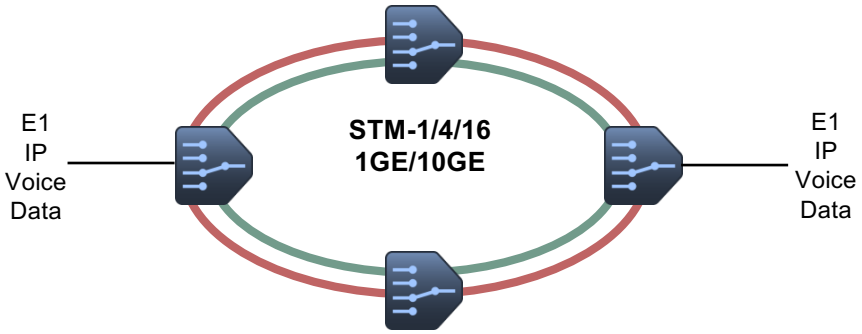
TDM over IP

TDM over Packet pseudowire connection. Channelized SAToP enables transmission of individual E1s or VC-12s and facilitates optimal bandwidth usage and support for P2P and P2MP connections.



Hybrid rings

SDH and IP trunk interfaces in one single node. Native critical TDM services can be carried in SDH ring and native IP services in packet ring without any data transformations.
10GE can fulfill all capacity needs of future utility IP services.



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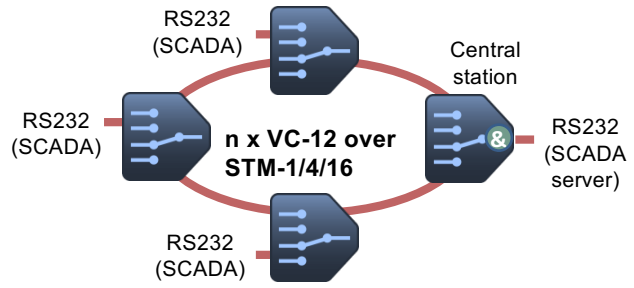
Connection Master

Application examples

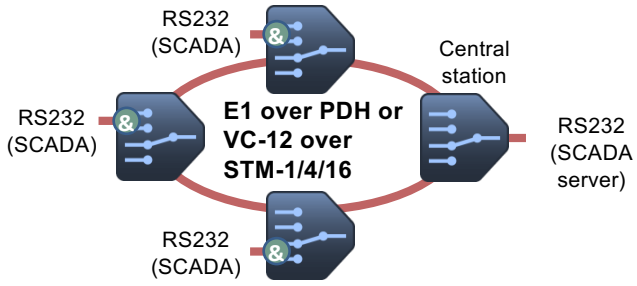
Multipoint-to-point SCADA - centralized summing

Centralized summing point requires only single configuration point and enables easy use of several link protection mechanisms.



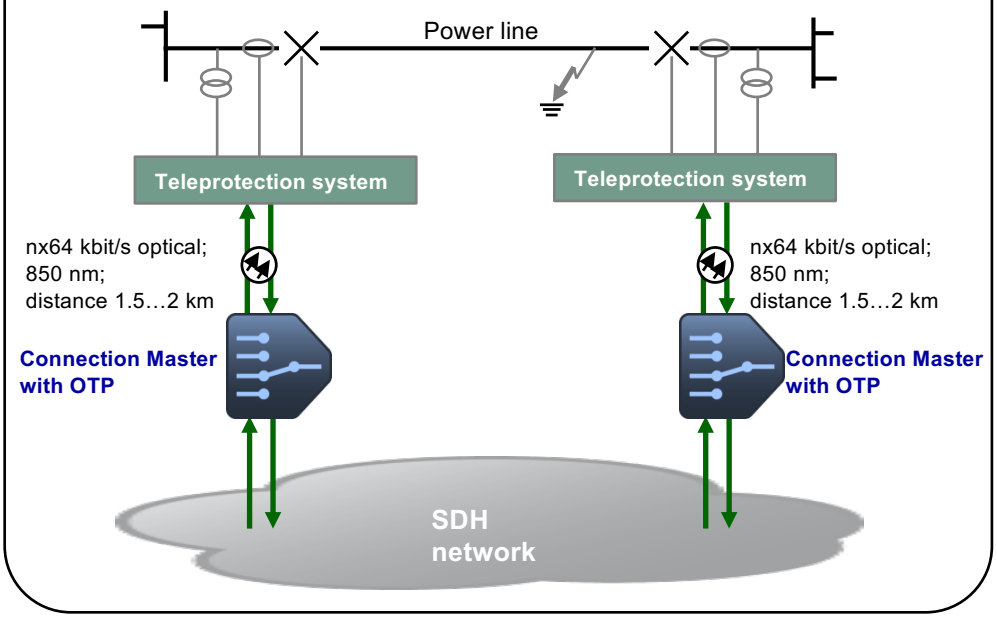
Multipoint-to-point SCADA - distributed summing

Legacy summing architecture in E1 networks for optimized utilization of limited resources. Compatible with Dynanet and FMX2.



Optical teleprotection

Connection Master C37.94 and data interfaces enable reliable and latency optimized connections between teleprotection systems.



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Connection Master

Core units, interface units, mechanics, and power units

Core units	CU SDH STM.1/4/16, 8 ports
	Packet Trunk 10G, 8 ports
	Packet Trunk 10G, 24 ports
	Advanced Cross Connection Unit
Interface units	Ethernet Unit 1000Base, 8 ports
	E1/T1 Unit, 8 ports, 75 ohm
	E1/T1 Unit, 8 ports, 120 ohm
	Data Unit V and X, 4 ports
	Data Unit G.703/64k, 8 ports
	Optical Teleprotection Unit C37.94, 4 ST ports
	Optical Teleprotection Unit C37.94 , 4 SFP ports
	VF/E&M Unit, 8 ports
	FXS Unit, 16 ports
	FXO Unit, 16 ports
	Alarm interface Unit
Mechanics	Subrack 6-Slot
	Subrack 8+8-Slot CM/Dynanet
	Subrack 16-Slot
Power units	Power Adapter DC 48V, for 6-slot Subrack
	Power Adapter DC 24-60/48V, for 6-slot Subrack
	Power Adapter DC 48V Bus Extension, for 16-slot Subrack
	Power Adapter DC 110V Bus Extension, for 16-slot Subrack

Technical details

For technical details, please refer to the Connection Master Datasheet.

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