To have a dependable
network is not important -
it's everything!

DNWP

Dynanet

Lifetime extension – Keeping customers' networks up and running

DNWP offers Dynanet customers deliveries for network expansions, spare parts, HW repair service, and support services related to the former Nokia Dynanet product family.

Dynanet is a flexible product family for 2 Mbit/s primary access networks. High quality, flexibility, and modularity ensure an ideal fit for both small and large scale deployments. A broad range of interface units for analog voice, Ethernet, slow speed data, copper transport, and optical teleprotection can be used in all Dynanet multiplexers.

DM2 is a primary multiplex equipment for multiplexing analog voice and signaling as well as data channels of different bit rates into a common 2 Mbit/s frame. The heart of the equipment is a multiplexer unit, which is common to all channel and special units of the DM2 system.

DB2 performs branching and drop/insert functions supporting efficient utilization of the 2 Mbit/s connection as well as fault tolerant loop networks. The branch and the main line signal have the same speed and frame structure. Individual channels are connected through or branched, and the operation is completely digital. The DB2 branching equipment supports a full set of interface units for dropping and inserting individual channels.

DN2 provides an efficient three-in-one node for network flexibility and reliability. It provides cross-connect functionality down to 8 kbit/s level with drop/insert and multiplexing capabilities, supporting up to 40 x 2 Mbit/s interfaces. DN2 is highly reliable due to its modular and decentralized design as the cross-connection functions are distributed. DN2 fully supports the implementation of loop and mesh networks

DM2

DB2

DN2

DP10034002 1

Dynanet
Interface units and other components

Dynanet interface units provide interfaces to the 2048 kbit/s transmission systems using Dynanet multiplexers. The data interface units cover the most frequently used interfaces to data terminals and servers: V.35, V.11, V.24/V.28, X.21, and G.703. The voice interface units provide subscriber and exchange access for telephony as well as E&M analogue lines.

TPS64 supports transmission of teleprotection signals in power networks. It is used together with a digital telecommunication network like Dynanet or Connection Master. The alarm information is encoded into a standard 64 kbit/s digital data channel. The equipment consists of a control unit and channel units and it has its own dedicated subrack.

DF2-8 optical line equipment provides digital signal transmission on optical fibers at bit rates of 2 and 8 Mbit/s. The change-over equipment is used to provide an alternative transmission path in case of a line failure. In the transmit direction the change-over equipment sends the signal to two redundant transmission lines. In the receive direction, it selects one of the two incoming signals. The selection is based on the external control data received from the protected systems.

ACL2ti is an SHDSL line terminal for data transmission over copper pairs. It provides nx64 kbit/s up to 2 Mbit/s access over a subscriber line. The user data is conveyed either transparently or in a G.704 frame structure. The ACL2ti line terminal can support alternatively one or two network terminals. The line terminal is a plug-in unit and can be installed in any Dynanet subrack.

TMS Adaptor, Smart Branching Unit, and Supervisory Substation are components of the Transmission Management System. TMS enables remote localization of network faults down to station or plug-in unit level.

In addition to the above, DNWP Dynanet offering includes:

- Subracks
- Power units
- Cables & accessories

Dynanet – Ethernet IU

TPS64

ACL2ti

TMS Adaptor

Dynanet
Management

Network management

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.

Element management

Element management is carried out with Q1 Agent and with element managers for the respective units. With Macro STE, DB2 Manager and DN2 Manager, it is easy to configure and manage all node level settings. Also, a hand-held Service Terminal can be used for management.
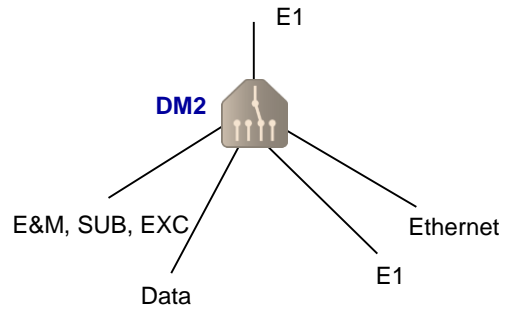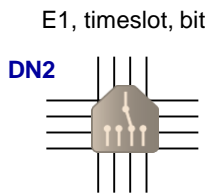
Dynanet
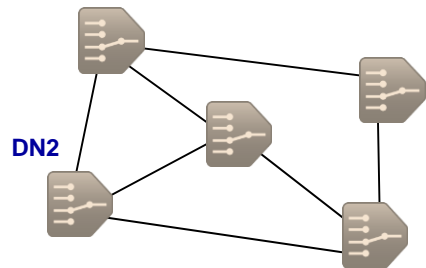## Application examples

Connection between PDH and SDH

DM2
E1
FMX2
DB2
Connection Master
SDH
E1 loop protection

Access multiplexer

E1
DM2
E&M, SUB, EXC
Data
E1
Ethernet
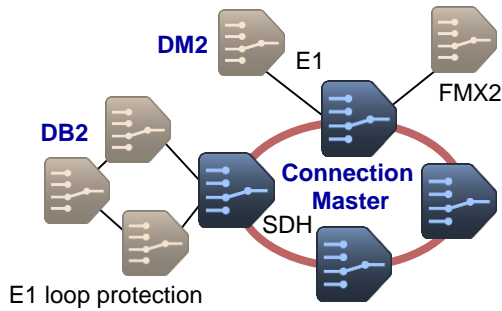
Local cross-connect

E1, timeslot, bit
DN2

Meshed critical networks

DN2

Teleprotection

Power line

Teleprotection system | Teleprotection system

TPS64 | TPS64

64 kbit/s
G.703

64 kbit/s
G.703

ITU-T specified
digital network