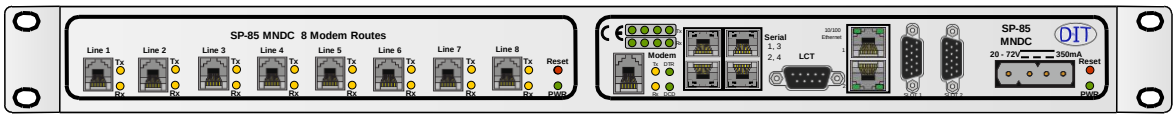
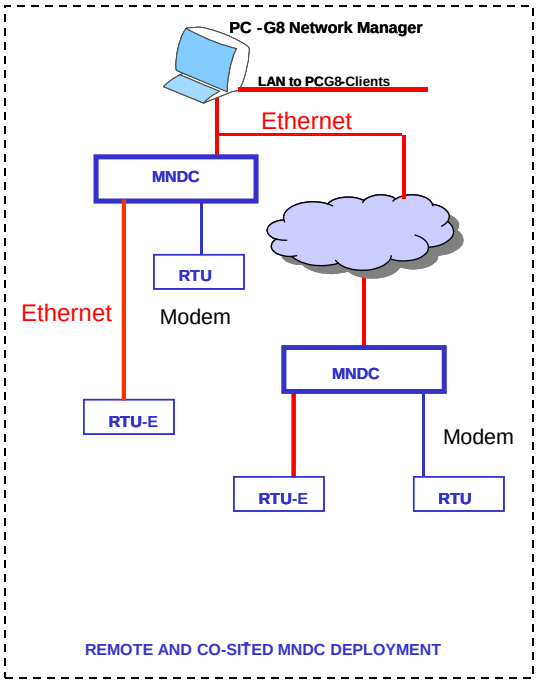
SP-85 Modular Network Data Controller (MNDC) Dial – In option



- Used with PC-G8 NMS
- Co-sited or remote from PC-G8
- 1U Compact Construction
- 19" and ETSI Rack mounting options
- Local Alarm Monitoring and Control
- Modem version for Dial-up Networks
- 8 Modem Interfaces (2 Modem Option available for use with Small NM Package)
- Ethernet Polling



This equipment forms part of Data and Information Technology's network management system. The SP-85 Modular Network Data Controller (MNDC) polls groups of D&IT's range of Multiplexer and RTU products (managed entities), and acts as a proxy to D&IT's network management system, as part of the overall distributed management strategy. There are two versions of MNDC, one supporting polling using 16 x RS232/RS422 serial ports and the version described here which provides modem polling instead of the serial port polling. Both versions support Ethernet Polling.

Product Overview

One limitation of conventional network management systems is the requirement to "poll" each active element in order to request information and check status. The bigger the network becomes, the longer this polling cycle takes and the network manager is tied up and unavailable for other tasks.

This Modular Network Data Controller is an intelligent device that addresses this issue and can support up to 8 Modem Interfaces concurrently – or Ethernet (single port). Up to 160 RTUs can be supported on the Modem ports and a maximum of 100 RTUs on the Ethernet port (with an overall maximum of 200 RTUs when polling is shared between the two types). The Network Management System can control up to 2,200 managed entities, distributed over multiple MNDCs, up to a maximum of 48, each servicing up to a maximum of 200 RTUs.

Geographically separated islands of managed entities can be serviced by deploying remote MNDCs. Moreover, with the inbuilt intelligence of the MNDC, each island of managed entities becomes resilient to failures in the communications infrastructure.

Features

In common with the D&IT range of RTUs, the MNDC supports two slots provided for the fitting of up to two 'Plug-in-Modules' (PIMs). Standard PIMs include the eight channel optically isolated input module, a four relay output module and a secure four relay module.

These modules facilitate control and monitoring of co-sited equipment and the external local representation of network states, for example loss of communications to the network manager, unacknowledged network element alarm etc.

Multi-function ports are provisioned to accommodate communications with a third party manager and associated third party equipment(s).

This enables communications between the third party manager and its remote network entities co-sited with any RTU in the network controlled by the MNDC. The communications route (or association) is set up from the PC-G8 management system.

Ethernet ports support communications with the PC-G8 Network Management system and remote "networked" Ethernet based RTU-Es or network elements. A second Ethernet port is provided to support directly connected (co-located) Ethernet based RTU-Es.

The standard SP-85 is fitted with 8 x modems. There is also a 2 x modem version which is for use with the Small NM Package (see PC-Gx data sheet for details).

Modem access is provisioned via RJ11 connectors

LCT access is provisioned via a front mounted connector.

The LCT can be used to configure the MNDC including the programming of alarm state reporting (i.e. Loss of communications to the manager etc.).

Remote LCT access can be facilitated from the Network Management System via the Ethernet connection.

All communications ports have associated LEDs, indicating connection and traffic path status.

SPECIFICATION

BASE UNIT (RHS)

Enclosure	1U (1.75") Aluminium ventilated enclosure
Rack Practice	19" – alternative brackets for ETSI rack practice also available
Weight	2.0Kg
Connectors	
NMS	2 x RJ45 (Ethernet)
Misc	4 x RJ45 (RS232 or RS422)
LCT	1 x 9-way 'D' male (RS232 only); 9600 baud
Input/Output	As per fitted PIM
Power	4-way Slim-line Trident
Power Supply	48V DC nominal (20V to 68V, 72V without damage), positive or negative ground permitted
Status Indication	LED's

ROUTE POLLING OPTION (LHS)

Connectors	
Routes	8 x RJ11 (for modems)
Status Indication	LED's – 2 per modem port (16 x yellow) + 1 x red (CPU), 1 x green (PSU)
Modem operation	The default setting is for auto-negotiation, however this operation can be overwritten to reflect specific customer requirements, eg using Hayes AT command strings
Environmental	Meets the appropriate requirements of EN300-019
EMC	Meets the appropriate requirements of R&TTE under Directive 1999/5/EC and EMC Directive 89/336/EEC
Safety	Meets the requirements of LVD 73/23/ECC (EN 60950)

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