Technical Bulletin

Metrodata Product Management Options

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This document outlines the Management options available for the DSU series of Metrodata products that include:

FM4000
FM4200
FM4500
FM4800
FM4850
FM4900
FM4950

EMUX

WCM1000

MetroLAN1000
MetroLAN2000

PA1000

MetroRack

ATM DSUs

Introduction

One of the features that differentiate Metrodata DSUs from other manufacturers' products is the comprehensive management functionality which allows the full range of monitoring and configuration control via either local or remote management.
There are three basic ways of managing these Metrodata products:

1. Local terminal port
2. Remote access via an IP network
3. In-band management

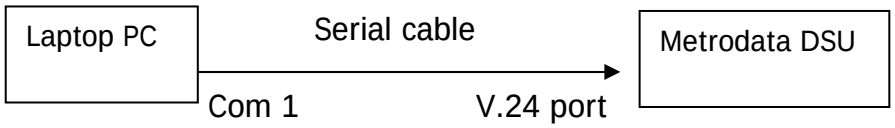
These options are described in detail below

1. Local terminal port

This mechanism is generally used by an engineer on site to control a DSU using a laptop PC connected into the V.24 (RS-232) port on the DSU.

Access in this way is via a terminal session (e.g. Hyperterm) where the user is presented with a menu based User Interface and has the opportunity to both monitor the status as well as change the configuration of the unit dependant on the password used.

A serial cable from a serial port on the laptop PC to the V.24 port on the DSU enables the PC running a terminal emulator to manage the DSU.



2. Remote access via an IP network

This mechanism is used by an engineer to remotely control a DSU either using a Telnet session or an SNMP management system. Extra security can be provided by configuring specific IP routing table entries to limit access to the unit.

Telnet Overview
Telnet access provides exactly the same User Interface as the maintenance engineer would get via the local terminal port and allows the user to both monitor the status as well as change the configuration of the unit dependant on the password used.

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SNMP Overview

SNMP access provides an alternative method of management access whereby critical events are notified by SNMP Traps and SNMP commands allowing the user to both monitor the status as well as change the configuration of the unit. Extra security can be provided by setting specific SNMP Community names to restrict access.

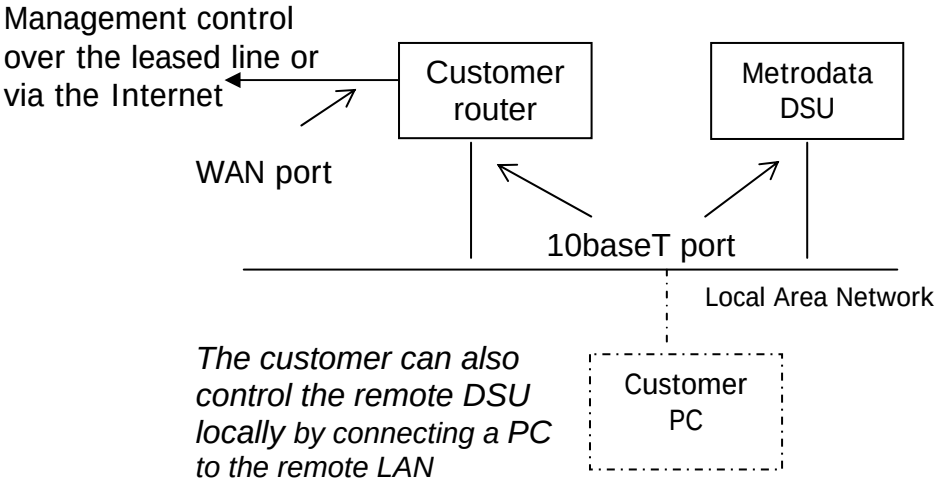
SNMP management systems such as HP Openview or Castlerock SNMPc usually offer a graphical management system that allows the user to simultaneously manage a large number of Metrodata DSUs as well as other SNMP compatible devices in a network from a single network management station.

The DSU is able to send information (Traps) to the server controlling the network and these can be interpreted by HP OpenView and relevant alarms are raised to indicate a problem.

10baseT management port

Some Metrodata DSUs have an integrated 10baseT management port such as ***MetroLAN, WCM1000, EMUX*** *and* ***PA1000,*** whereas other products such as the **FM** range can have an optional ***LM1100*** SNMP enabler module fitted to provide the same 10baseT connectivity function.

The ***LM1100*** SNMP enabler is usually factory fitted on ordering of the DSU but it can also be retro fitted into the unit by an engineer, again providing a 10baseT (RJ45) management port which is given an IP address via the V.24 terminal port.



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3. In-band management

Several of the DSUs manufactured by Metrodata (***FM4000***, ***FM4200***, ***FM4500***, ***FM4850***, ***FM4900, FM4950 and MetroLAN***) have the capability of in-band management between pairs of DSUs.

In-band management requires a management channel to be configured between a pair of units.

For the E1 products (***FM4000***, ***FM4200***, ***FM4500***) this requires a dedicated 64K timeslot to be reserved.

For the ***FM4850*** and ***FM4900*** products then they need to be operating in framed mode for there to be bandwidth available for a management channel.

The ***MetroLAN*** series has a management channel permanently available via the SDH overhead.

Once a management channel has been established the local unit can be directly logged into the remote unit and vice versa, and thereby status and configuration setups can be compared and network issues resolved.

The in-band management functionality can also be used to manage a far end DSU (without a ***LM1100*** SNMP enabler module installed) by connecting remotely to local end DSU (with a ***LM1100*** SNMP enabler module installed) i.e. a far end DSU can be managed remotely via a local DSU that has a ***LM1100*** SNMP enabler module fitted.

NOTE: When remotely managing units, care must be taken to ensure that the remote management functionality or data path is not disabled by any configuration changes

If a ***LM1100*** SNMP enabler module is not fitted to the DSU it can be ordered from Metrodata (order code 80-05-112) and retro-fitted by a qualified engineer.

For further information then call Metrodata UK on:
+44 1784 744700
(within UK working hours 9am – 5:30pm Monday to Friday)

Alternatively you can send a Support Request by visiting the web site www.metrodata.co.uk and go to Contact Us

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