

SNMP 540EN

ETHERNET-ATTACHED DSU

OVERVIEW The SNMP 540EN is a data service unit (DSU) supporting SNMP commands and responses through a direct Ethernet LAN connection. Since it inherently provides for extensive line monitoring

and measuring capabilities, the SNMP 540EN can be thought of as line test equipment that incorporates CSU/DSU functions. The SNMP 540EN operates in standard digital, gener-

ic digital, and frame relay LAN/WAN networks. Part of a family of SNMP managed DSUs that includes the SNMP 540IFP, the SNMP 540EN is designed with an on-board SNMP agent for cost-effective SNMP management of the digital interface in router based LAN/WAN networks.

The SNMP 540EN can be assigned an Internet Protocol (IP) address, allowing direct addressing from an SNMP manager. The manager may be co-located or remotely located without the need for additional addresses. The SNMP 540EN can be SNMP managed via a SUN or HP workstation supporting HP OpenView with GDC's TEAM 540 or user-developed application software. Users can also employ the TELNET application independent of or in conjunction with a workstation supporting an SNMP event monitor. SNMP traps sent to the event monitor can then be investigated via the TELNET application. The SNMP 540EN is also designed to interoperate with GDC's other SNMP products, including the SpectraComm 5000 Series T1 access central site system and SNMP 553 T1 DSU/CSU Series.

EXTENSIVE MONITORING AND CONTROL Communications between the SNMP 540EN and the SNMP controller provide the input and output status of the DTE EIA interface leads and network status. This includes indications of line signal, frame errors, and bipolar violations, as well as transmit and receive levels, pulse jitter, signal-to-noise ratio,

and signal quality. The SNMP 540EN can also generate Trap messages on critical alarm conditions, including no network signal, DCD loss, network loopback test in process, and data set power-up

reset. For rapid isolation of system troubles, the unit supports SNMP commanded loopback tests, carrier generated DSU and CSU loopback tests, and unit self test.

DIRECT SNMP MANAGEMENT Using

the SNMP 540EN combined with the TEAM 540 network management application, users can now directly monitor and control the critical access point as easily as they do bridges, routers and servers.

The SNMP 540EN interprets and responds to SNMP commands using its innovative, on-board SNMP agent. It supports the industry standard MIB-II (RFC 1213), as well as GDC-defined enterprise specific MIBs. The SNMP 540EN connects directly to the LAN via a 10BaseT or AUI interface. Optioning and IP addressing are accomplished via an ASCII or VT-100 terminal attached to a console port on the unit's front panel.

HIGH VISIBILITY GUI GDC's network management software application, TEAM 540, is fully integrated into HP OpenView and provides a unique GUI for user-transparent, high visibility management of local and remote SNMP 540ENs. Each SNMP 540EN, whatever its geographical location, appears to the application as if connected to one global network and is accessed through its IP address. Although SNMP commands happen in the background and are completely transparent to the user, a full array of management functions supports at-a-glance monitoring and alarm notification, comprehensive tools for configuration, diagnostics, and reports of line measurements and statistics.

DIAL RESTORAL Should either the router, local loop or both fail, the SNMP 540EN has the ability to restore the circuit using external dial restoral



PRODUCT HIGHLIGHTS

*IP addressable
SNMP management
via Ethernet port*

*Non-stop transmission with external
dial restoral device*

*Easy-to-use HP
OpenView/SNMP
Manager application
with custom GUI*

TELNET manageable

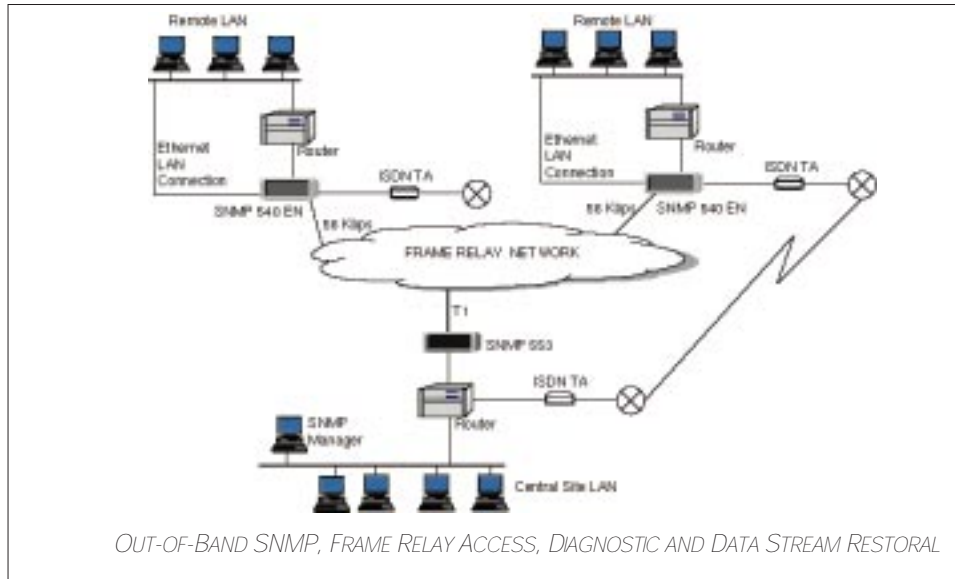
*Software downline
loadable optioning
and upgrades*

*Broad array of line
measurements and
statistics*



devices such as V.34 modems, ISDN basic rate terminal adapters, and Switched 56K dial data sets. The SNMP 540EN supports restoral

through these devices of not only SNMP diagnostic data, but of the data stream as well. In this mode of operation, the 540EN provides non-stop transmission to and from central and remote sites.



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SPECIFICATIONS

LAN Interface:	Ethernet via AUI or 10BaseT
Management Software Application Support:	TEAM 540; TELNET
Management Software Hardware Platform:	SNMP Manager Platform; SUN SPARC workstation (SUN O.S. 4.14) or HP 9000 workstation (HPUX 9.x) using HP OpenView version 3.3.1
Synchronous Data Rates:	56 and 64 Kbps
Data Format:	Synchronous binary, serial
Operating Mode:	DDS full duplex; point-to-point
Data Encoding:	Bipolar, return to zero
Line Requirements:	4-wire, non-loaded metallic circuits
Line Impedance:	135 ohm (nominal)
DTE Interface:	V.35 at 56 Kbps and 64 Kbps; EIA/TIA-232-E at 56 and 64 Kbps under restricted DTE cable length conditions.
Protocol Support:	SNMP, TCP/IP
SNMP Compatibility:	Compliant with SNMP Version 1; RFC 1213 MIB II; enterprise MIB for unit-specific parameters
Transmitter Timing:	Internal, external or network timing
Power Requirements:	100-240 VAC, 50/60 Hz, 7.5 nominal
Humidity:	Up to 95% without condensation
Physical Characteristics	
Height:	99 mm (3.9 in.)
Width:	277 mm (10.9 in.)
Depth:	318 mm (12.5 in.)
Weight:	3.2 kg (7.1 lbs.)
Shipping Weight:	3.6 kg (8.1 lbs.)
Operating Temperature:	0° to 50° C (32° to 122° F)
Storage Temperature:	-40° to 70° C (-40° to 158° F)
Interference Protection:	Verified to comply with FCC Part 15, Class A requirements