d i g i t a l ™

Software Product Description

PRODUCT: TeMIP Access Module for Nortel DMS 300/250 Switch   **SPD 70.56.00**

DESCRIPTION

TeMIP is a family of software products for the management of telecommunications and corporate networks, including fixed wire and mobile/cellular voice and data, multi-vendor, multi-technology networks. TeMIP V3.2 provides comprehensive off-the-shelf fault and trouble management functions such as Alarm Handling, Event Logging and Trouble Ticketing for telecommunications network management.

TeMIP supports the International Standards Organization (ISO) management standards ISO 10164-x and ISO 10165-x, the OMNIpoint 1 standards as defined by NMF and T1M1. TeMIP and its features are applicable in the context of the International Telecommunication Union-Telecom Standard Sector (ITU-T) X.73x and Telecommunications Management Network (TMN) M.3010 and M.3100 Recommendations. It gives network operators a global view of their networks, and enables them to activate management functions and operations from single or multiple workstations.

TeMIP is built on top of the TeMIP Framework and fully benefits from the object oriented and truly distributed software architecture.

The TeMIP DMS 300/250 Access Module (AM) is part of this program and provides an interface to the Nortel DMS 250, DMS 300 and DMS 300/250 Switching Systems (product release load: GWCARR03 CSP07). This Access Module supports fault management capabilities, receiving and processing unsolicited messages.

SOLUTION COMPONENTS

The Nortel DMS 300/250 (or 300, or 250) switch is directly interfaced to TeMIP by means of a combination of Management Modules:

- The RS232 or X.25 (Switched Virtual Circuits) or TCP (IP sockets) Communication Server Access Module, responsible for establishing and maintaining the physical connection to the equipment.

- The DMS 300/250 AM, responsible for the Information Model representing the management capabilities of the equipment as well as all associated semantic translations between its ASCII-based messaging interface and TeMIP data models.

The solution components are shown in Figure 1.

November 1998

Figure 1: Solution Components

TeMIP PM

TeMIP ORB

TeMIP FM

Nortel_DMS300_250_AM

RS232/TCP/X25_CS_AM

Nortel DMS 300/250

DCN
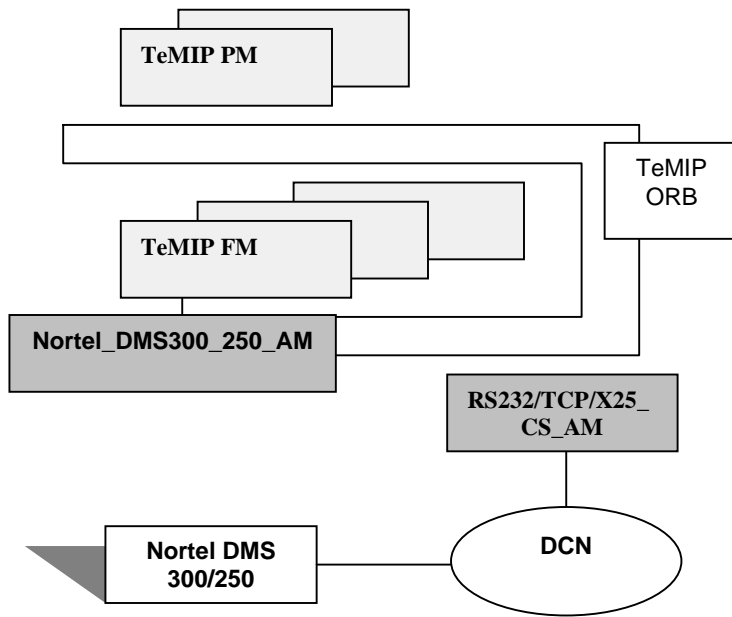
INFORMATION MODEL OUTLINE

The Nortel DMS 300/250 switch is represented by the Information Model given in Table 1.

Table 1: DMS 300/250 Hierarchy Class Description

Class	Child Class	Child Class	Description
IOEquipment			Represents various I/O equipment used for DMS maintenance and administration.
	DDU		Disk Drive Units.
	MTD		Magnetic Tape Drive units.
	IOC		Main processing functionality to manage all I/O equipment.
	DPP		Data Peripheral Processors.
	TC		Interface terminals.
ISDN			Related to the ISDN line cards.
Trunk			Analog trunk module equipment.
EXT			Related to all equipment external to the DMS.
MISC			Miscellaneous functionality not covered by any other class.
Network			Cross-connection functionality.
Core			Computing and memory resources of the DMS-SuperNode.
	SLM		Software Load Module.
	MessageCore		DMS Internal message bus switching functionality.
	ComputingCore		DMS central controller.
CCS7			Common Channel Signalling Number 7.
	LinkSet		Group of CCS #7 links.
		Link	CCS #7 link.
	RouteSet		Group of CCS #7 routes.
		Route	CCS #7 route.
Software			Software applications.
	SupportOS		Operating System support functionality.
	CallProcessing		Call Processing application.
	Billing		Billing application.
Peripheral			Peripheral modules.
	DTC		Digital Trunk Controller.
	LIU7		Line Interface Unit for CCS7 signalling link.

MANAGEMENT CAPABILITIES SUMMARY

Unsolicited Messages Support

A DMS 300/250 switch produces many (several thousand) different messages that are categorized by message-type and message-subtype.

Refer to the *DMS 300/250 Log Reports Reference Manual, Standard 02.02 November 1997* for an explanation of each message-type and subtype as well as the log subsystem that generates it.

Miscellaneous Management Capabilities

Automatic detection and reporting of communication failure using heartbeat monitoring.

Supported Messages

Table 2 indicates the message-types and sub-types that can be handled by the AM. Messages are handled either by default mapping rules, according to the message-type, or by specific mapping and parsing rules determined by the message sub-type.

For a given message type, all sub-types that are not explicitly listed in Table 2 are processed according to the same default rules.

Table 2: DMS 300/250 Supported Messages

	Message Types	Sub-Types
1.	ACG	
2.	ACT	
3.	AFT	
4.	AMA	100 112
5.	AP	324
6.	ATB	100
7.	ATME	200, 202, 203,205-208
8.	ATT	
9.	AUD	101-104, 395, 430, 519
10.	AUDT	100-103, 105-117, 128, 150, 151, 159, 160-162, 168, 169, 179, 189, 191-193, 195, 205-207, 256-258, 260-262, 267, 396, 397, 400, 600, 603, 605
11.	BERT	
12.	BMS	
13.	BOOT	
14.	C7TU	
15.	C7UP	100-102, 107, 109, 111, 112, 114, 118
16.	CAIN	
17.	CCS	101-110, 145-147, 151-178, 186, 189-193, 195-199, 201-243, 245, 246, 248-253, 296, 299, 500-505, 601, 701, 703, 750, 900, 901
18.	CDR	
19.	CDRC	
20.	CDRE	
21.	CM	100, 101, 103-105, 107, 108, 111-130, 133, 134, 137, 140-149, 151-160, 162-175, 178-181
22.	CMSM	
23.	CQ	
24.	DAIS	
25.	DCA	
26.	DCME	103
27.	DCR	
28.	DDIS	
29.	DDM	
30.	DDU	100, 101, 202-205, 208-211
31.	DEV	
32.	DFIL	100, 131
33.	DIRP	101
34.	DISK	301-304
35.	DOM	
36.	DPAC	
37.	DTSR	
38.	DUTL	
39.	EADD	

40.	ECTS	
41.	EIO	
42.	ENCP	
43.	ENET	103-105, 108, 111, 114, 120, 200, 203, 205, 208, 211, 303, 304, 400, 505, 506
44.	EXT	100-103, 107-109
45.	FCDR	
46.	FLCV	
47.	FLEX	
48.	FM	100, 101
49.	FP	
50.	FPRT	
51.	FTR	
52.	FTU	
53.	HEAP	
54.	ICTS	
55.	IDPL	
56.	IOAU	
57.	IOD	102-105, 107-120, 124-127, 202-212, 303-305, 308, 310
58.	IOGA	
59.	ISDN	100, 102, 106-110, 112
60.	ITN	201, 203-206, 301, 302, 304, 310-313, 315
61.	ITOC	101
62.	KTRK	
63.	LMSC	
64.	LOST	101-113
65.	MFC	
66.	MIS	
67.	MM	100, 101, 110, 111
68.	MOD	
69.	MPC	103, 903-905, 908
70.	MS	100-105, 153-155, 208, 248, 260-267, 284-286, 300-306, 313-315, 323-325, 413
71.	MSRT	
72.	MTCB	101, 104
73.	MTD	102, 103
74.	MTS	
75.	NAG	
76.	NCS	
77.	NET	
78.	NETM	104, 115, 116, 122-124, 146
79.	NETS	
80.	NODE	
81.	NOP	101
82.	NPAC	
83.	NSS	
84.	NWM	111
85.	OCC	
86.	OM2	2200
87.	OMPR	
88.	PCH	
89.	PEND	
90.	PM	106, 109-111, 125, 127, 128, 131, 139, 184, 186, 190-194, 230, 235, 270
91.	POOL	
92.	PRFM	
93.	PSN	
94.	PT	
95.	RL	
96.	RO	104
97.	SLM	200, 208, 401-406
98.	SOC	302
99.	SOS	100-102, 110, 130, 603-605
100.	SRC	

101.	SSR	
102.	SST	
103.	STOR	
104.	STR	
105.	SWCT	
106.	SYNC	203
107.	TCAP	
108.	TELN	
109.	TKCV	
110.	TPS	
111.	TRK	101-104, 123, 312, 320-322, 334
112.	TRKT	
113.	TRMS	
114.	TUPL	
115.	UTR	
116.	VAMP	
117.	WB	

HARDWARE REQUIREMENTS

Supported Alpha AXP Processors:

AlphaServer 8200
AlphaServer 8400
DEC/4600, DEC/4700
DEC/7600, DEC/7700
DEC/10600

AlphaServer 2000
AlphaServer 2100
AlphaServer 4000
AlphaServer 4100
AlphaStation 600
DEC/3500, DEC/3500S, DEC/3500X
DEC/3800, DEC/3800S
DEC/3900

AlphaServer 300 (Melmac)
AlphaServer 400
AlphaServer 800

AlphaServer 1000
AlphaStation 200
AlphaStation 250

AlphaStation 255
AlphaStation 400
AlphaStation 500
DEC/2300S
DEC/2500
DEC/3300, DEC/3300L,
DEC/3300X, DEC/3300LX
DEC/3400, DEC/3400S
DEC/3600, DEC/3600S
DEC/3700

PWS 433
PWS 500
PWS 600

Ultimate Workstation 533

Disk Space Requirements:

Disk space required for installation:
Subset copy: 26000 Kbytes
Installation: /usr 95000 Kbytes

Disk Space Required for Use (Permanent):
No specific requirement

Memory Requirements:

The minimum memory supported, due to a TeMIP Framework prerequisite, is 128 Mbytes. However, the use of this software in conjunction with increased memory capability improves performance.

SOFTWARE REQUIREMENTS

DIGITAL UNIX Operating System V4.0D

TeMIP Framework V3.2

OPTIONAL SOFTWARE

TeMIP Graphical ASCII Toolkit V2.0.

GROWTH CONSIDERATIONS

The minimum hardware/software requirements for any future version of this product may be different from the current version requirements.

YEAR 2000 READY

This product is Year 2000 Ready.

The testing used to confirm the Year 2000 readiness of this product included code assessment and system tests to verify transition dates.

DISTRIBUTION MEDIA

This software is available by electronic means, distributed directly by the Engineering Team in NSIS/CIS Telecom, contactable through your local DIGITAL office, which sends an internal e-mail to vbetemipsupp@digital.com (containing customer identification and proof of license purchase).

ORDERING INFORMATION

TeMIP Access Module for Nortel DMS 300/250 Switch

Software License: QL-68CA9-AA

Software Product Services: QT-68C**-**

Notes:

1. * denotes variable fields. For additional information on available services, or hardware platform tiers, refer to the appropriate price book.

2. The QL number corresponding to the TeMIP Graphical ASCII Toolkit V2.0 (Run-Time) must also be purchased (QL-5SMAM-3B).

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