



Software Product Description

PRODUCT: Compaq TeMIP Access Module for Nokia OMC-R NMS/2000

SPD 80.54.00

DESCRIPTION

The Compaq TeMIP Nokia OMC-R NMS/2000 Access Module (AM) provides an interface to the OMC-R NMS/2000 version T11. The OMC-R NMS/2000 Access Module supports fault management capabilities. It receives and processes unsolicited messages (Fault Management).

TeMIP for Tru64 UNIX® 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 V4.0 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. TeMIP 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.

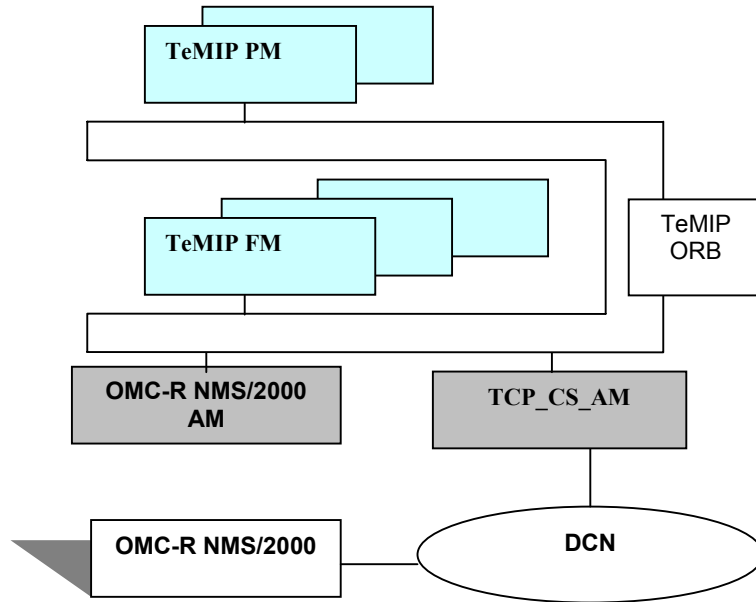
SOLUTION COMPONENTS

The OMC-R NMS/2000 is directly interfaced to TeMIP by means of a combination of Management Modules:

- The TCP Communications Server Access Module, responsible for establishing and maintaining the physical connection to the equipment. (As an alternative to the TCP Communications Server, either the X.25 (SVC), RS232 or Telnet Communications Servers could also be envisioned,
- The OMC-R NMS/2000 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.

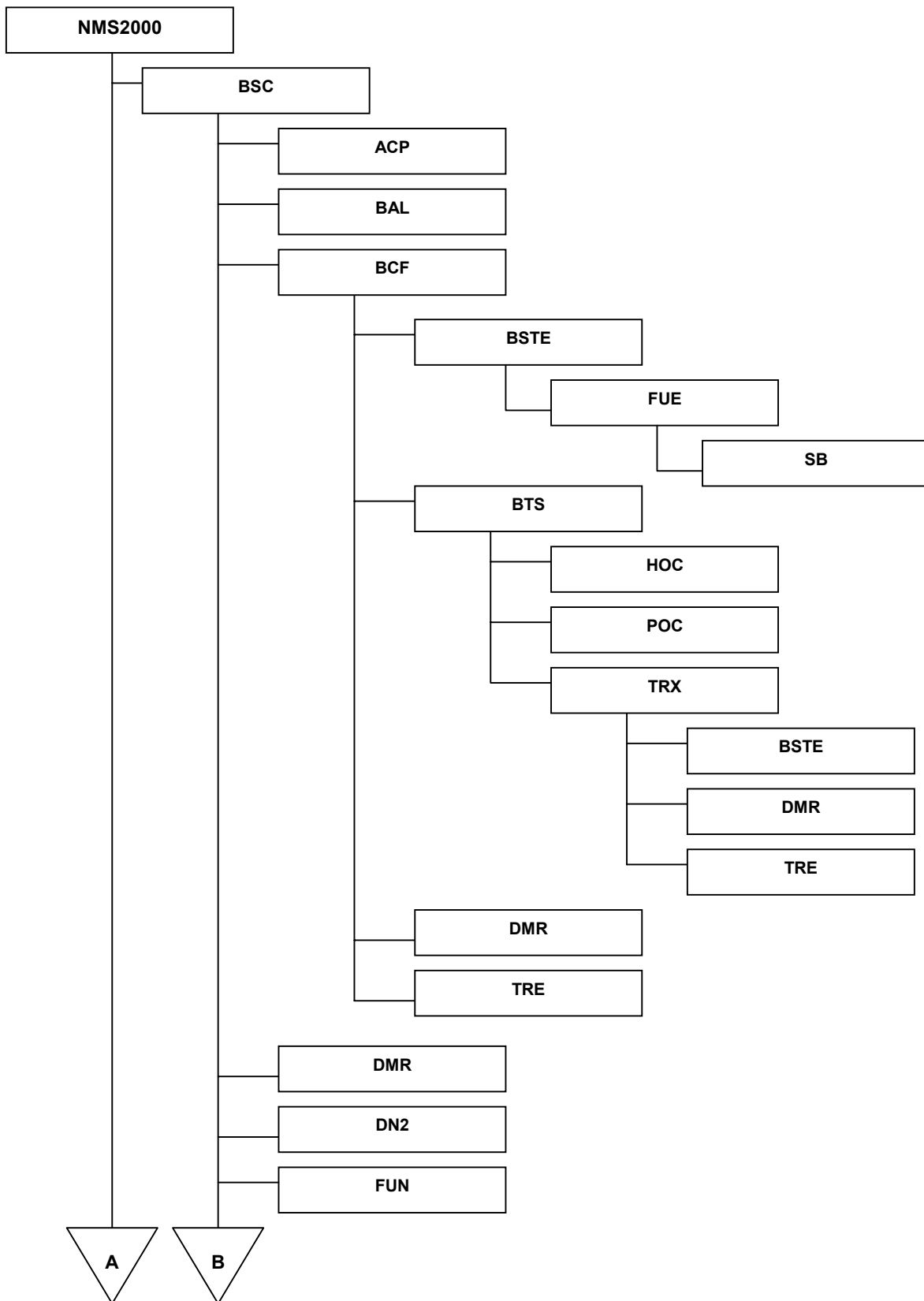
The solution components are shown in Figure 1

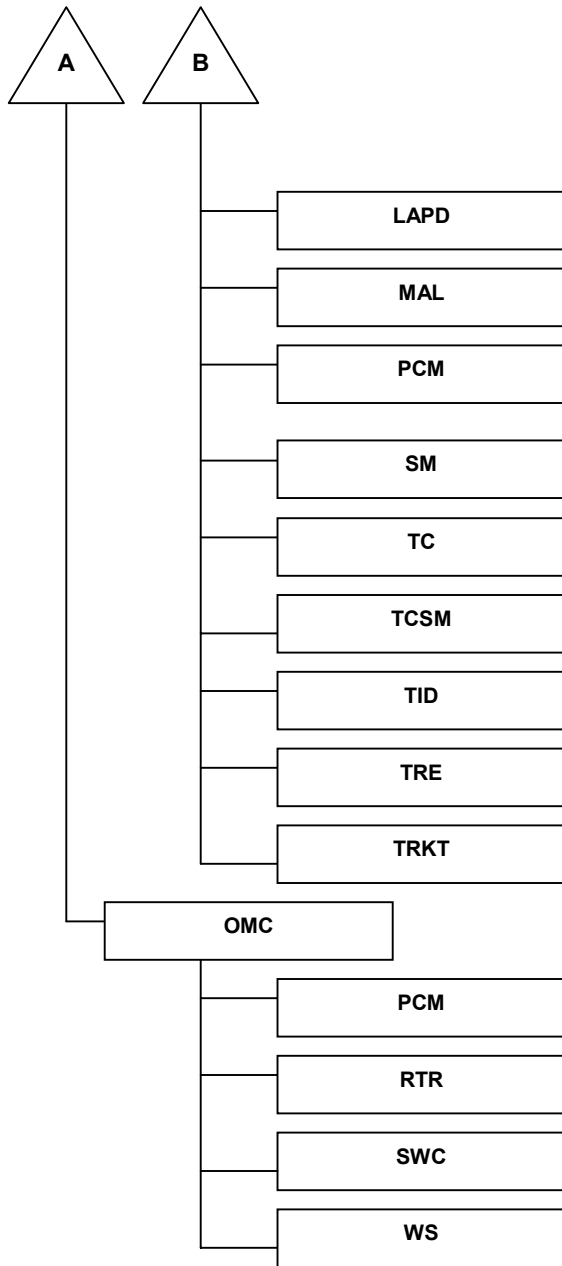
Figure 1: Solution Components



The OMC-R NMS/2000 is represented by the information Model shown in Figure -2

Figure -2: Information Model





The meaning of each class is described in Table 1

Table 1: OMC-R NMS/2000 Hierarchy Description

Class	Child Class	Child Class	Child Class	Child Class	Child Class	Description	Cardinality
NMS2000						Nokia System in the Version T11	1
	BSC					Base Station Controller	N
		ACP				Application Call Processing	N
		BAL				Balance network test	N
		BCF				Base Control Function	N
			BSTE			Base Station Transmission Equipment	N
				FUE		Functional Entity	N
					SB	Supervision Block	N
			BTS			Base Transceiver Station	N
				HOC		Hand Over Control	N
				POC		Power Control	N
				TRX		Transceiver	N
					BSTE	Base Station Transmission Equipment	N
					DMR	Digital Multiplexing Radio	N
					TRE	Transmission Equipment	N
			DMR			Digital Multiplexing Radio	N
			TRE			Transmission Equipment	N
		DMR				Digital Multiplexing Radio	N
		DN2				Dynamic Node Equipment	N
		FUN				Functional Unit	N
		LAPD				Link Access Protocol - D Channel	N
		MAL				Mobile Allocation List	N
		PCM				Pulse Code Modulation	N
		SM				Submultiplexer	N
		TC				Transcoder	N
		TCSM				Transcoder-Submultiplexer	N
		TID				Text ID	N
		TRE				Transmission Equipment	N
		TRKT				Trunk Table	N
	OMC					Operations and Maintenance Center	N
		PCM				Pulse Code Modulation	N
		RTR				Router	N
		SWC				Switch	N
		WS				Work Station	N

MANAGEMENT CAPABILITIES SUMMARY

Unsolicited Messages Support

The OMC-R NMS/2000 AM handles the unsolicited messages (Please refer to *Nokia NMS-NMC Interface – ASCII Alarm Forwarding, Issue 5.5*. for further details)

Commands Support

The OMC-R NMS/2000 AM provides no specific commands support.

Alarm Clearance

The OMC-R NMS/2000 provides a specific alarm identifier (Notification Id) to allow the correlation of the alarm with its clear message. So, alarm clearing is performed based on some fields in the message, according to ITU-T standards.

According to ITU-T standards, the clearance of an alarm is therefore done based on the following rule:

- An alarm is cleared when another one with severity clear and with same event arguments for **Managed Object** and **Notification Id** is received.

MISCELLANEOUS MANAGEMENT CAPABILITIES

The OMC-R NMS/2000 AM shall also implement the features listed below:

- Automatic detection and reporting of communication failure (Heartbeat detection on Nokia OMC-R).

HARDWARE REQUIREMENTS

Supported Alpha AXP Processors:

DIGITAL Personal Workstation au series
DIGITAL Ultimate Workstation
AlphaStation 600
AlphaServer 800, 1000A, 1200
Compaq AlphaServer DS10, DS20

AlphaServer 2000, 2100, 4000, 4100
Compaq AlphaServer ES40

AlphaServer 8200, 8400
Compaq AlphaServer GS60, GS140

Disk Space Requirements:

Disk space required for installation:

Subset copy: 16 Mbytes
Installation: /usr 54 Mbytes

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

Compaq Tru64 UNIX® Operating System V4.0F

TeMIP Framework V4.0

OPTIONAL SOFTWARE

TeMIP Graphical ASCII Toolkit V4.0

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.

"Year 2000 Ready" products are defined by Compaq as products capable of accurately processing, providing, and/or receiving date data from, into and between the twentieth and the twenty-first centuries, and the years 1999 and 2000, including leap year calculations, when used in accordance with the associated Compaq product documentation and provided that all hardware, firmware and software used in combination with such Compaq products properly exchange accurate date data with the Compaq products.

For additional information visit Compaq's Year 2000 Product Readiness web site located at <http://www.compaq.com/year2000>

To ensure that this product is Year 2000 Ready, code assessment and system tests to verify the transition between December 31st 1999 and January 1st 2000 were utilized.

To ensure that this product interoperates properly with other hardware and software, the system tests involving Compaq's TeMIP V4.0 are applicable, as this product was verified as being Year 2000 Ready.

DISTRIBUTION MEDIA

This software is available by electronic means, distributed directly by Compaq TeMIP Engineering Team in Sophia Antipolis, France. The team can be contacted through your local Compaq office, which sends an internal e-mail to vbetemipsupp@compaq.com (containing customer identification and proof of license purchase).

ORDERING INFORMATION

Compaq TeMIP Access Module for Nokia OMC-R NMS/2000 (Fault Management)

Software License:

- QM-6L8AA-AA

Software Product Services:

- QT-6L8**-** or QR-SP6L8-A9

Notes:

1. * denotes variable fields. For additional information on available services, or hardware platform tiers, refer to the appropriate price book.
2. The QM number corresponding to the TeMIP Graphical ASCII Toolkit V4.0 (Run-Time) must also be purchased (QM-5SMAA-AA).

SOFTWARE LICENSING

This software is furnished under the licensing provisions of Compaq Computer Corporation's Shrink-wrap Terms and Conditions. The license is a Corporate wide license, i.e. can be copied as many times as necessary on systems using the same TeMIP Namespace.

However, one Graphical ASCII Toolkit runtime license per copy of the Access Module is required.

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