COMPAQ

Software Product Description

Product Name: Compaq TeMIP Access Module for HP OpenView NNM   **SPD 80.49.00**

DESCRIPTION

The Compaq TeMIP HP OpenView NNM Access Module (AM) provides an interface to the HP OpenView NNM. The HP OpenView NNM Access Module supports fault management capabilities with a basic Information Model (simple model), receiving and processing unsolicited messages (Basic 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.
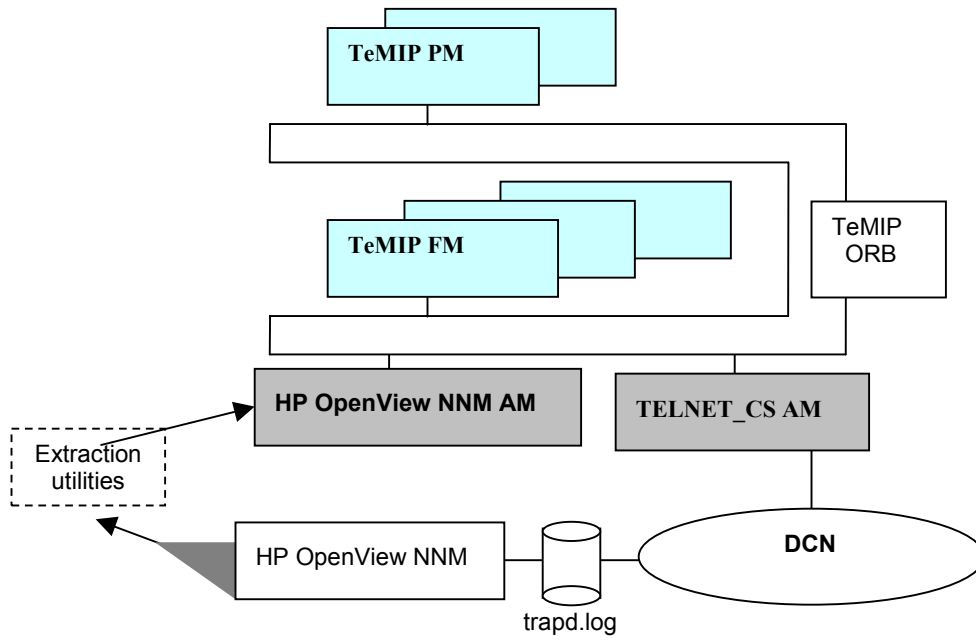
SOLUTION COMPONENTS

The HP OpenView NNM is directly interfaced to TeMIP by means of a combination of Management Modules and Applications:

- The Telnet Communications Server Access Module, responsible for establishing and maintaining the physical connection to an NNM log file (read using *"tail –f"* Unix command).

- The HP OpenView NNM 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.
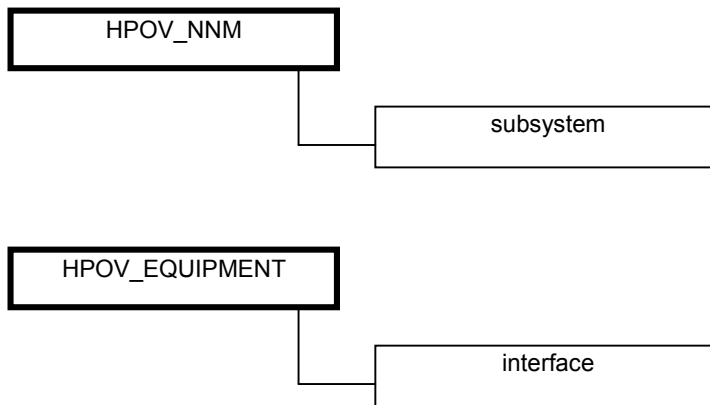
The solution components are shown in Figure 1.

Figure 1: Solution Components

INFORMATION MODEL OUTLINE

The HP OpenView NNM 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: HP OpenView NNM Hierarchy Description

Global Class	Child Class	Description	Cardinality
HPOV_NNM		Global class representing HP OpenView NNM manager (Cardinality can be N when several OV managers exist)	N
	subsystem	Child class representing HP OpenView NNM modules that are identified as software source of messages (default configuration sets up 22 instances per manager)	N
HPOV_EQUIPMENT		Global class representing equipment managed in HP OpenView NNM (nodes), uniquely identified in OV by OV OID. Instance name used is extracted from OV selection name and ASCII name is built as follows: <OV Manager>_OV OID	N
	interface	Child class representing node interfaces managed in HP OpenView NNM, uniquely identified in OV by OV OID. Instance name used is OV selection name and ASCII name is built as follows:<OV Manager>_OV OID	N

MANAGEMENT CAPABILITIES SUMMARY

Unsolicited Messages Support

The HP OpenView NNM AM handles the following unsolicited messages logged in trapd.log file (refer to OV configuration file: trapd.conf file for further details):

- OV messages (184 types),

- rmon messages (3 types without clearance),

- SNMP generic messages (6 types),

- Any other specific messages (but this requires an additional AM customization).

An external mapping file corresponds to each message category. All available messages have their own mapping that can be modified for the following OSI Event arguments: Severity, Event Type, Probable Cause and Specific Problem

Alarm Clearance

Some alarm messages have a corresponding alarm clear message. The HP OpenView NNM AM identifies both of them in external mapping files. In order to clear a previous alarm, the HP OpenView NNM AM sends a similar OSI alarm with severity clear.

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

- An alarm is cleared when another one with severity clear and with same event arguments for **Managed Object**, **Event Type**, **Probable Cause** and **Specific Problem** fields are the same as a previous alarm received.

MISCELLANEOUS MANAGEMENT CAPABILITIES

The HP OpenView NNM AM shall also implement the features listed below:

- Automatic detection and reporting of communication failure,

- Updating of OVStatus attribute (for instances of HPOV_EQUIPMENT or interface). In addition to emitting an OSI alarm, the OV NNM status is updated (i.e. change of IP status), when instance is retrieved.

HARDWARE REQUIREMENTS

Supported Alpha AXP Processors:

DIGITAL Personal Workstation (standard)
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: 12 Mbytes
Installation: /usr 31 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, who 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 HP OpenView NNM

Software License:

- QM-6KEAA-AA

Software Product Services:

- QT-6KE**-T* or QR-SP6KE-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 Shrinkwrap 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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This product uses the FLEXlm Software License Key system.

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