COMPAQ

Software Product Description

PRODUCT NAME: TeMIP Access Module for Tekelec Eagle STP **SPD 80.31.00**

DESCRIPTION

The TeMIP Tekelec Eagle STP Access Module (AM) provides an interface to the Tekelec Eagle STP. The Tekelec Eagle STP Access Module supports basic fault management capabilities, receiving and processing unsolicited messages (Fault Management).

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. 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.

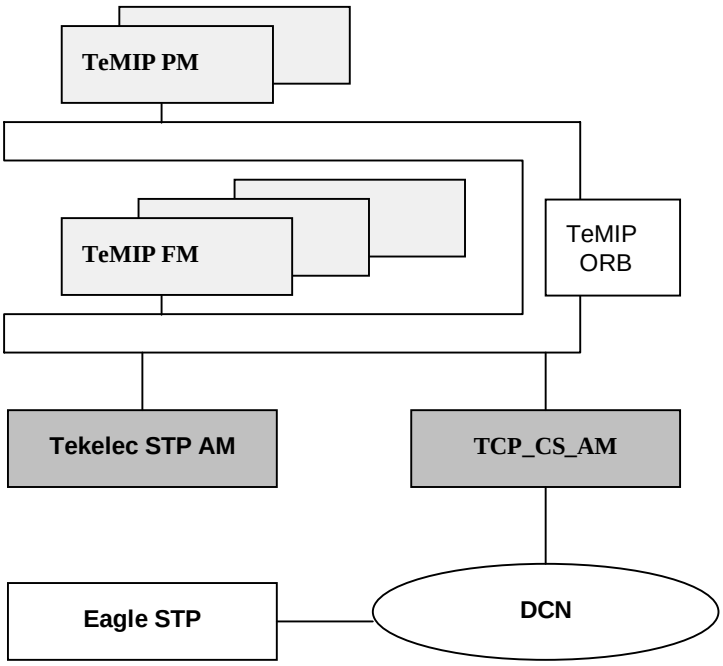
SOLUTION COMPONENTS

The Tekelec Eagle STP equipment is directly interfaced to TeMIP by means of a combination of Management Modules:

- The TCP Communications Server Access Module is responsible for establishing and maintaining the physical connection to the equipment. (As an alternative to the TCP Communications Server, either the X.25 (SVC) or RS232 Communications Servers could also be envisioned),
- The Eagle STP AM is 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.

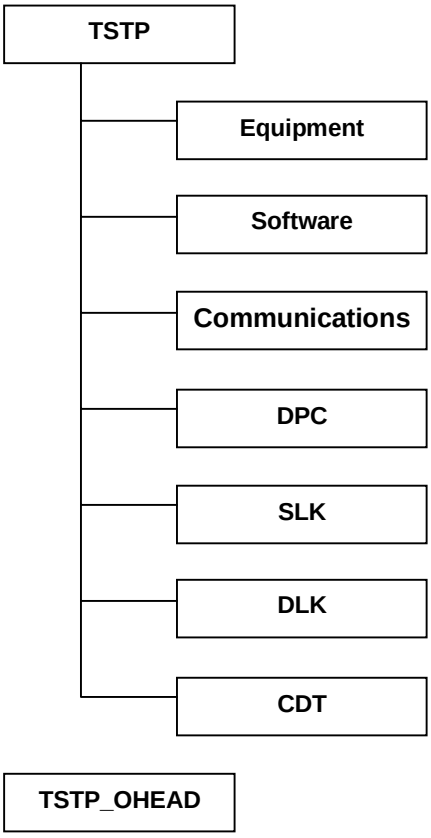
Figure 1: Solution Components



INFORMATION MODEL OUTLINE

The Tekelec Eagle STP 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: Tekelec STP Hierarchy Description

Global Class	Child class	Description	Cardinality
TSTP		Tekelec STP system	N
	EQUIPMENT	Piece of equipment in a Tekelec STP system	N
	SOFTWARE	Software application or sub-system in a Tekelec STP system	N
	COMMUNICATIONS	Communication resource in a Tekelec STP system	N
	DPC	DPC(Destination Point Code) which is the point code of the signalling point that the MSU[1] is routed to. Any valid DPC should be contained in the destination point code table.	N
	SLK	Signaling link for carrying the SS7 MSUs	N
	DLK	TCP/IP data link, which is the transmission path over the Ethernet from the STP to the remote host computer.	N
	CDT	Customer-defined trouble configured in a Tekelec Eagle STP system. The STP allows connection of up to 16 external devices for alarm reporting. These are defined in the STP database as customer defined troubles. These external devices are monitored and any changes in the state of these devices is reported to the user as an unsolicited alarm message with a Customer Trouble ID ranges for 1 to 16.	N
TSTP_OHEAD		These global entities are responsible for signalling received messages that are not assigned to an entity representing a NE, MD or contact closure because: • The message format is corrupt or unrecognised (NOMATCH messages) • The message is valid but the ASCIIName lookup fails, because of failure to provision, provisioning error, or corruption of the data used to construct the ASCIIName (NOSITE messages) • The message relates to the mechanics of establishing and maintaining alarm surveillance (HOUSEKEEPING messages)	N

[1] Message Signalling Unit – The SS7 message that is sent between signalling points in the SS7 network with the necessary information to get the message to its destination. This message contains the following information:

- The forward and backward sequence numbers assigned to the message which indicate the position of the message in the traffic stream in relation to the other messages.
- The length indicator which indicates the number of bytes the message contains.
- The type of message and the priority of the message shown in the signaling information octet of the message.
- The routing information for the message, shown in the message routing label, with the identification of the node that sent the message (origination point code), the identification of the node receiving the message (destination point code), and the signalling link selector that is used by the Eagle to select the linkset and signalling link for routing the message.

MANAGEMENT CAPABILITIES SUMMARY

Unsolicited Messages Support

The Tekelec Eagle STP AM shall handle the following unsolicited messages:

- Terminal Activity Message
- Status Report Message
- Information Message
- Alarm Message

Commands Support

The Tekelec Eagle STP AM provides no specific commands support.

Alarm Clearance

Two processings of clearance exist.

Some alarm messages have a corresponding alarm clear message. The Tekelec Eagle STP switch

provides a specific alarm identifier 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:

- The alarm has severity clear; and the Managed Object, Event Type, Probable Cause and Specific Problem fields are the same as a previous alarm.

According to ITU-T standards, the clearance of an alarm can also be done based on the following rule:

- The alarm has severity clear; the Managed Object is the same of a previous alarm; and the Notification Identifier field is the same as the Notification Identifier of the previous alarm.

In order to clear a previous alarm, the Tekelec Eagle STP sends a specific message with the alarm number in the message body corresponding to same specific problem as the previous alarm. The Tekelec Eagle STP AM generates a Notification Identifier in every alarm message against default entity, and also in the clear alarm, so the TeMIP Alarm Handling can perform the clear correlation whenever required.

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: 21,000 Kbytes
Installation: /usr 71,000 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

Compaq Tru64 UNIX V4.0D or V4.0F

TeMIP Framework V3.2

A TeMIP Graphical ASCII Toolkit run time license per Access Module is also required

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.

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 V3.2 are applicable, as this product was verified as being 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 Compaq TeMIP Engineering Team, 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

TeMIP Access Module for Tekelec Eagle STP Fault Management

Software License:

- QM-6GNAA-AA

Software Product Services:

- QT-6GN**-T* or QR-SP6GN-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 V2.0 (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.

For more information about COMPAQ's licensing terms and policies, contact your local COMPAQ office.

This product uses the FLEXlm Software License Key system.

A FLEXlm key must be obtained using information provided with the license deliverable. An authorization number is provided for each license, which allows the user to obtain license keys from an Internet Web Server according to instructions provided with the License Certificate.

SOFTWARE PRODUCT SERVICES

A variety of service options are available from COMPAQ. For more in formation, contact your local COMPAQ office.

SOFTWARE WARRANTY

This software product is provided by COMPAQ with a 90-day conformance warranty in accordance with the COMPAQ warranty terms and applicable to the license purchase.

The above information is valid at the time of release. Please contact your local COMPAQ office for the most up-to-date information.

TRADEMARK INFORMATION