COMPAQ

Software Product Description

PRODUCT: Compaq TeMIP Access Module for Fujitsu Access Manager   SPD 80.52.00

DESCRIPTION

The Compaq TeMIP FJAM Access Module (AM) provides an interface to the Fujitsu Access Manager. This Access Module is a bi-directional module addressing fault management. It receives and processes unsolicited messages, as well as sends management commands and receives associated responses (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 FJAM is directly interfaced to TeMIP by means of a combination of Management Modules and Applications:

- The TCP Communications Server Access Module

  This module is responsible for establishing and maintaining the physical connection to the equipment.
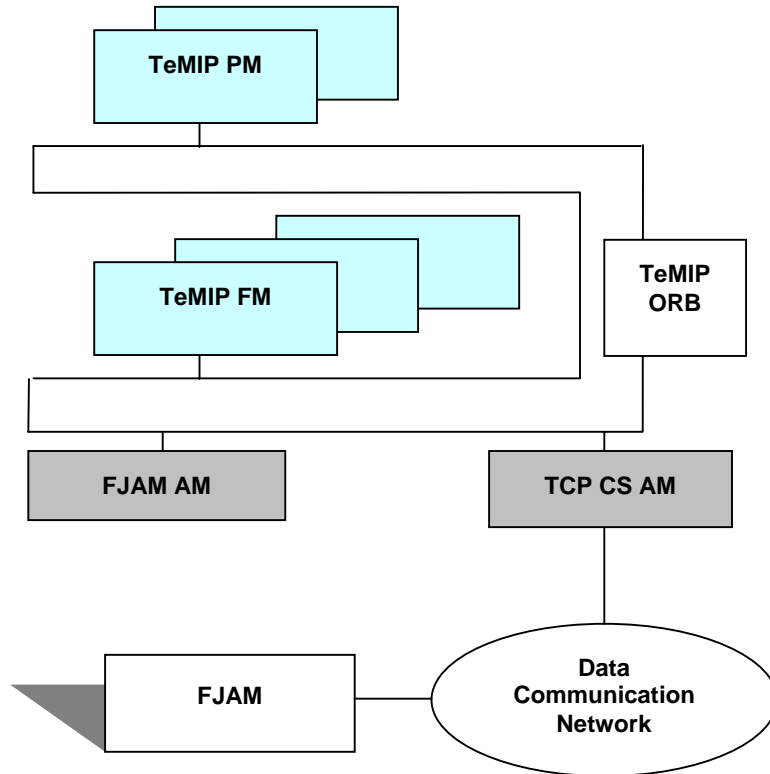
  Either of the X.25 (SVC), RS232 or Telnet Communications Servers are a possible alternative to the TCP Communications Server.

- The Fujitsu Access Manager AM

  This module is responsible for the Information Model that represents the management capabilities of the equipment.

  This AM is also responsible for 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

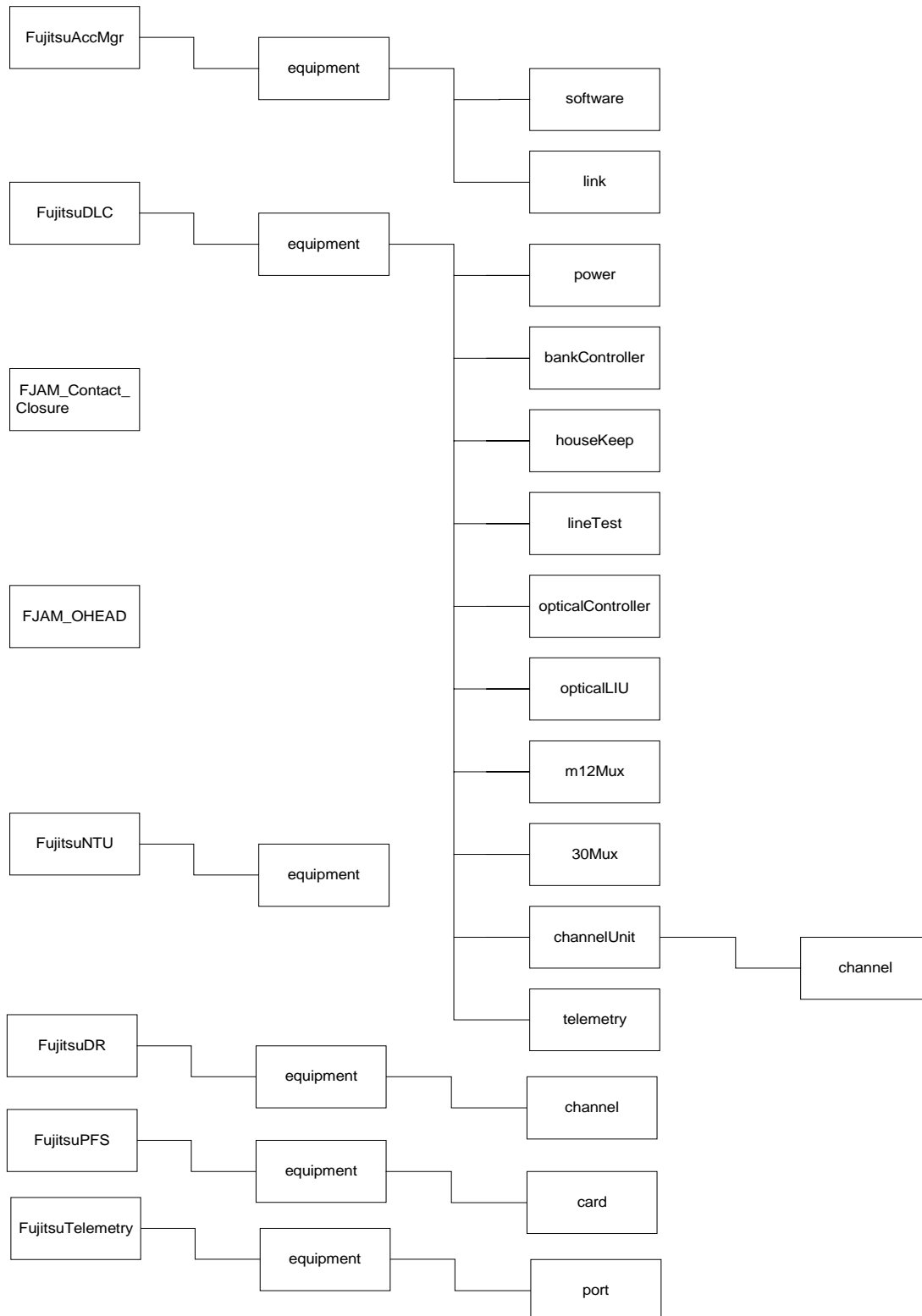The FJAM is represented by the information Model shown in Figure 2.

Figure 2: Information Model

The meaning of each class is described in Table 1.

Table 1: FJAM AM Hierarchy Description

Class	Child Class	Child class	Child class	Description	Cardinality
FujitsuAccMgr				Access Manager Mediation Device	N
	equipment			Physical components of the equipment	N
		sotfware		Set of software process that are running on the Access Manager Meditation Device	N
		link		Link	N
FujitsuDLC				Digital Loop Carrier	N
	equipment			Physical components of the Digital Loop Carrier equipment	N
		Power		Power supply card in common cards group of the equipment	N
		BankController		Bank Controller card in the common cards of the equipment	N
		HouseKeep		House Keeping Card in the common cards group of the equipment	N
		LineTest		Subscriber Line Test card in the common cards group of the equipment	N
		opticalController		Optical Controller card in the high speed group of the equipment	N
		OpticalLIU		Optical Line Interface Unit card in the high speed group of the equipment	N
		m12Mux		M12 MUX card in the high speed group of the equipment	N
		30Mux		30 MUX card in the low speed group section of the equipment	N
		ChannelUnit		Channel unit in the low speed group section in the equipment	N
			channel	A single channel connected to a channel unit in the low speed group section in the equipment	N
		telemetry		Telemetry card in the common cards section of the equipment	N
FujitsuNTU				Network Terminating Unit	N
	Equipment			Physical components of the equipment	N
FujitsuDR				MNI Digital Radio	N

Class	Child Class	Child class	Child class	Description	Cardinality
	Equipment			Physical components of the equipment	N
		Channel		MNI radio channel in the equipment	N
FujitsuPFS				Power Feed Shelf Unit	N
	Equipment			Physical components of the equipment	N
		Card		Line Card in the equipment	N
FujitsuTelemetry				Telemetry Card	N
	Equipment			Physical components of the Telemetry Card equipment	N
		port		Physical interface of the communications ports existing on a Telemetry card	N
FJAM_Contact_Closure				Contact Closures	N
FJAM_OHEAD				These global entities are responsible for signaling received messages that are not assigned to an entity representing an NE, MD or contact closure The messages are not assigned due to one of the following causes: • The message format is corrupt or unrecognized (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).	1

MANAGEMENT CAPABILITIES SUMMARY

Unsolicited Messages Support

The FJAM AM can handle the following unsolicited messages:

- REPT ALM: Report Alarm
- REPT EVT: Report Event
- REPT PM: Report Performance

Commands Support

This is applicable for the following global classes:

- Fujitsu Access Manager
- DLC
- Telemetry
- Power Feed Shelf
- Network Terminating Unit
- Digital Radio

Alarm Clearance

There are two means of processing clearance alarms.

Some alarm messages have a corresponding alarm clear message. The FJAM AM 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.

An alarm can be used to clear a previous alarm if it obeys the following rule (according to ITU-T standards):

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

To clear a previous alarm, the FJAM sends a specific message with the same alarm number in the message body.

The FJAM AM generates a Notification Identifier in every alarm message and in the clear alarm, so the TeMIP Alarm Handling can perform the clear correlation whenever required.

MISCELLANEOUS MANAGEMENT CAPABILITIES

The FJAM AM implements the features listed below:

- Keep-Alive message generation at regular/controllable intervals,
- Start-up Processing
- Shut-down Processing
- Automatic detection and reporting of communication failure

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: 24 Mbytes
    Installation: /usr 78 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 Fujitsu Access Manager (Fault Management)

Software License:

- QM-6KMAA-AA

Software Product Services:

- QT-6KM**-** or QR-SP6KM-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.

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

COMPAQ TRU64 UNIX LICENSE MANAGEMENT

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

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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.

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