COMPAQ

Software Product Description

PRODUCT NAME: Compaq OSAP/AP Version 3.1 (Compaq OMNI Services for SINEC Automation Protocols /SINEC AP Services) **SPD 47.96.07**

DESCRIPTION

Compaq OSAP/AP is a network communication product. It provides a solution to connect Compaq applications with shop floor devices based on Siemens® SINEC® Automation Protocol (AP) communication protocol. Although mainly oriented to the manufacturing environment, SINEC AP addresses generic applications and is intended to provide a common communication method between different Siemens automation devices— Programmable Logic Controllers (PLCs), numeric control machines, robots, personal computers and minicomputers.

Siemens SINEC AP is layered on top of the SINEC H1 network and provides proprietary Session, Presentation, and Application layers. The result offers an integrated Siemens Level 1 solution with an associated value of a consistent and uniform view to the plant floor applications.

Compaq OSAP/AP fully supports the SINEC AP communication protocol.

Features

Compaq OSAP/AP provides the support for SINEC AP Application, Presentation, and Session layers. As this communication protocol is defined on top of the ISO OSI Transport Layer, Compaq OSAP/AP relies upon Compaq DECnet/OSI to complete the communication stack. For more information, refer to the DECnet/OSI *Software Product Description* (SPD 41.92.xx)

Because of the functional compatibility between Siemens SINEC AP and MMS (Manufacturing Messaging Services), ISO International Standard 9506, Parts 1 and 2, Compaq OSAP is integrated with the software architecture of the Compaq OMNI API product to supply the Application Programming Interface (API). For more information, refer to the Compaq OMNI API *Software Product Description* (SPD 47.88.xx).

Components

- Compaq OSAP/AP Services

This component adds support for SINEC AP functionality under the Compaq OMNI API. Supported services are listed at the end of this *Software Product Description* and are divided into the following categories:

  Environmental Management, VMD Support, Variable Access, Serial Transfer, Program Invocation, and Domain Services.

- Configuration and Management Facilities
  Compaq OSAP/AP uses the Compaq OMNI API facility ODSCL.

On OpenVMS platforms, the following Compaq OMNI API facilities are supported:

  — ODF (OMNI Definition Facility)

  — OMNIView

- Support for the Device Access Services of BASEstar Open
- Installation Verification Procedure (IVP)

The Compaq OSAP IVP performs a series of tests to verify proper installation.

Documentation

Compaq OSAP/AP includes the following documentation:

- A platform-specific Network Manager's and Programmer's Guide that provides an overview of SINEC H1 (see the Compaq OSAP/AP *Software Product Description*— SPD 47.95.06) and SINEC AP concepts and terminology. It includes a description of the services that are available through Compaq OMNI API and features of Compaq OSAP. It also describes the use of the Compaq OMNI API utility ODSCL.
- A platform-specific Installation Guide that explains how to prepare for installation, how to install the product, and what to do after Compaq OSAP is installed.

INSTALLATION

Before attempting to install the software, the customer must have all pre-requisite hardware and software. Compaq Computer Corporation recommends that a customer's first purchase include Compaq Installation Services.

Connectivity to all other nodes within the network is the responsibility of the customer.

SUPPORTED VERSIONS

This SPD covers the following versions of the Compaq OSAP product:

- Compaq OSAP/AP and Compaq OSAP/H1 for OpenVMS VAX
- Compaq OSAP/AP and Compaq OSAP/H1 for OpenVMS Alpha
- Compaq OSAP/AP and Compaq OSAP/H1 for Tru64 Unix

ORDERING INFORMATION

Compaq OSAP/AP for OpenVMS VAX:

Software Licenses (unlimited use): QL-5BP**-**
Software Documentation: QA-5BP**-**
Software Product Services: QT-5BQ**-**

Compaq OSAP/AP for OpenVMS Alpha:

Software Licenses (unlimited use): QL-2XVA*-**
Software Documentation: QA-2XVAA-GZ
Software Product Services: QT-2XVA*-**

Compaq OSAP/AP for Tru64 Unix:

The Compaq OSAP/AP product kit is included in the BASEstar Open Server for Tru64 Unix Consolidated Software Distribution:

Software Media: QA-5SRAA-H8

Software Licenses (unlimited use): QL-0Z8A*-**
Software Documentation: QA-0Z8A*-GZ
Software Product Services: QT-0Z8A*-**

* Denotes variant fields. For additional information on available licenses, services, and media refer to the appropriate price book.

SOFTWARE LICENSING

This software is furnished under the licensing provisions of Compaq Computer Corporation's Standard Terms and Conditions. For more information about the Compaq licensing terms and policies, contact your local Compaq office.

License Management Facility Support:

This layered product supports the Compaq License Management Facility.

Two types of license are available:

- "Unlimited system use" license–available for a processor
- "Concurrent use" license–available for a device connection (not available with OpenVMS VAX)

SOFTWARE PRODUCT SERVICES

A variety of service options are available from Compaq. For more information, contact your local Compaq office.

SOFTWARE WARRANTY

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

Warranty Limitations

Compaq has developed this product according to SINEC AP Protocol Specification produced by Siemens. Not all Siemens Communication Processors (CP) support the full range of SINEC AP services. The services supported by each CP are listed at the end of this document. To minimize the risk of interworking problems, Compaq has tested this product against selected Siemens devices to prove interoperability.

HARDWARE REQUIREMENTS

Processors Supported:

- Alpha processors supporting either:
  - — OpenVMS Alpha Version 6.1 to 7.1, 7.2
  - — Tru64 Unix Version 3.2 or 4.0
- VAX processors supporting:
  - — OpenVMS VAX Version 6.1 to 7.1, 7.2

DISK SPACE REQUIREMENTS

OpenVMS Alpha:

- 42 Mb (installation)
- 26 Mb (permanent use)

OpenVMS VAX:

- 40 Mb (installation)
- 18 Mb (permanent use)

Tru64 Unix:

- 26 Mb (installation)
- 10 Mb (permanent use)

Note: A configuration with at least 16 MB of memory is recommended.

These values refer to the disk space required on the system disk. The sizes are approximate; actual sizes may vary depending on the user's system environment, configuration, and software options.

SOFTWARE REQUIREMENTS

YEAR 2000 READY

YEAR 2000 READY This product is Year 2000 Ready. Year 2000 Ready is defined: "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 product documentation and provided that all hardware, firmware and software used in combination with such products properly exchange accurate date data with the products. *Compaq OSAP /AP for OpenVMS Alpha:*

- OpenVMS Alpha Version 6.1 to 7.1, 7.2
- DECnet/OSI for OpenVMS Alpha Version 6.3 to 7.1, 7.2
- Either:
  - — Compaq OMNI API V3.1 for OpenVMS Alpha, or
  - — BASEstar Open Server V3.2for OpenVMS Alpha
- ORACLE Rdb Version 5.1[1]
- OpenVMS DECwindows Motif Version 1.2[2]

Compaq OSAP/AP for OpenVMS VAX:)

- OpenVMS VAX Version 6.1 to 7.1, 7.2
- DECnet/OSI for OpenVMS VAX Version 6.3 to 7.1, 7.2
- Either:
  - — Compaq OMNI API for OpenVMS VAX V3.1, or
  - — BASEstar Open Server for OpenVMS VAX V3.2
- ORACLE Rdb Version 6.0 or 6.1[1]
- OpenVMS DECwindows Motif Version 1.2[2]

Compaq OSAP/AP for Tru64 Unix:

- Tru64 Unix Version 3.2 or 4.0
- Either:
  - — Compaq OMNI API V3.1 for Tru64 Unix, or
  - — BASEstar Open Server V3.2 for Tru64 Unix

GROWTH CONSIDERATIONS

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

DISTRIBUTION MEDIA

This product is available on CD-ROM for the supported operating system, and on TK50 media for OpenVMS VAX.

[1] Only necessary if you are using Compaq OMNI API with the ODF component.

[2] Only necessary if you are using Compaq OMNI API with the OMNIView component.

APPENDIX A - SINEC AP Functionality Cross Reference Tables

The following tables list the Conformance Building Block (CBB) services and parameters that are supported by Compaq OSAP/AP Version 3.1. They are compared to the services provided within the first version. The level of support depends upon the level of functionality provided by the target Siemens® communication processors.

Table 1
Siemens SINEC AP CBB Services Cross Reference Table

	Compaq OSAP/AP Version 3.1	CP143	CP231A CP231B	CP141	KS100
Environment Management					
Initiate	B	B	N	B	N
Conclude	B	B	N	B	N
Abort	B	B	N	N	N
Cancel	C	N	N	N	N
VMD Support Services					
Status	B	B	N	B	N
GetNameList	C	S	N	B	N
Identify	B	B	N	B	N
GetCapabilityList	C	S	N	B	N
UnsolicitedStatus	B	B	N	B	N
Variable Access Services					
Read	B	B	N	B	N
Write	B	B	N	B	N
InformationReport	B	B	N	B	N
GetVariableAccessAttributes	C	S	N	B	N

Table 1 (Cont.)
Siemens SINEC AP CBB Services Cross Reference Table

	Compaq OSAP/AP Version 3.1	CP143	CP231A CP231B	CP141	KS100
Domain Management Services					
InitiateDownloadSequence	C	S	N	C	N
DownloadSegment	C	S	N	C	N
TerminateDownloadSequence	C	S	N	C	N
InitiateUploadSequence	C	S	N	C	N
UploadSegment	C	S	N	C	N
TerminateUploadSequence	C	S	N	C	N
RequestDomainDownload	C	S	N	C	N
RequestDomainUpload	C	S	N	C	N
LoadDomainContent	N	S	N	C	N
StoreDomainContent	N	S	N	C	N
DeleteDomain	C	S	N	C	N
GetDomainAttributes	C	S	N	C	N
Program Invocation Services					
CreateProgramInvocation	C	B	N	N	N
DeleteProgramInvocation	C	B	N	N	N
Start	C	B	N	N	N
Stop	C	B	N	N	N
Resume	C	B	N	N	N
Reset	C	B	N	N	N
Kill	C	B	N	N	N
GetProgramInvocationAttributes	C	B	N	N	N
Serial Transfer Services					
Read	B	B	B	B	B
Write	B	B	B	B	B
Send	B	B	B	B	B
Exchange	B	B	B	B	B

Where the following symbols apply:

B = Client and Server
C = Client only
S = Server only
N = Not supported

Table 2
Siemens SINEC AP CBB Parameters Cross Reference Table

Parameters	Compaq OSAP/AP Version 3.1
STR1	TRUE
STR2	TRUE
NEST	10
VNAM	TRUE
VADR	TRUE
VALT	TRUE
VSCA	FALSE
TPY	FALSE
VLIS	FALSE
REAL	FALSE
AKEC	FALSE
CEI	FALSE

Supported Siemens Communication Processors (CP) are:

- CP143: for Simatic® S5 PLC family
- CP231A/B: for Sinumerik NC 800 and Sirotec Robot Controllers
- CP141, CP1412, CP1413: for Sicomp PC 32-xx (PC AT® Compatible)
- KS100: for Sicomp M70 (with IOSY-H1 software providing SINEC AP)

© 2000 Compaq Computer Corporation.

™ The Compaq logo, Alpha, AXP, BASEstar, Bookreader, Compaq OMNI, Compaq OSAP, DECstation, DECsystem, Compaq DECnet, Compaq, MicroVAX, TK, VAX, VAXstation, OpenVMS are trademarks of Compaq Computer Corporation.

All other trademarks and registered trademarks are the property of their respective holders. Compaq shall not be liable for technical or editorial errors or omissions contained herein. The information in this document is subject to change without notice.

® Intel is a trademark of Intel Corporation.

® Motif is a trademark of the Open Software Foundation, Inc.

® MS–DOS, Microsoft and Windows 95 are trademarks of Microsoft Corporation.

™ Windows NT is a registered trademark of Microsoft Corporation.

® UNIX is a registered trademark in the United States and other countries, licensed exclusively through X/Open Company Ltd.

® ORACLE is a trademark of Oracle Corporation.