



Software Product Description

PRODUCT NAME: HP Operating Environments for OpenVMS version 8.4 for Integrity servers
SPD 82.34.23

Important:

Please read the HP Software Technical Support section before you proceed further.

DESCRIPTION

This SPD describes the HP Operating Environments for OpenVMS for Integrity Servers, including Operating Environment (OE) license bundles and revised media offerings for the June 2010 release of the OEs, supporting OpenVMS version 8.4.

Operating Environment License Bundles:

Starting with OpenVMS version 8.4, the three tier Operating Environment model which consists of Foundation Operating Environment (FOE), Enterprise Operating Environment (EOE) and Mission Critical Operating Environment (MCOE) is replaced with a two tier Operating Environment model consisting of Base Operating Environment (BOE) and High Availability Operating Environment (HA-OE).

- Base Operating Environment (BOE)

BOE bundle includes all components of FOE which includes the operating system, along with networking and infrastructure software and two components from EOE.

The following component products that were formerly part of the EOE are now part of the BOE:

- DECram for OpenVMS
- HP OpenVMS Management Station

- High Availability Operating Environment (HA-OE)

HA-OE bundle includes all components of Mission Critical Operating Environment (MCOE) including Clusters and HP Reliable Transaction Router, four components of Enterprise Operating Environment (EOE) and Global Work Load Manager (gWLM). The following products

that were formerly part of the EOE are now part of the HA-OE:

- HP Availability Manager
- OpenView Performance Agent (OVPA) for OpenVMS
- RMS Journaling for OpenVMS
- HP Volume Shadowing for OpenVMS

HA-OE component products that are not included in the BOE and can be ordered separately.

For OpenVMS Integrity server customers on prior versions, please refer SPD 82.34.xx for details on the old OE bundling and ordering information.

The Operating Environment media kits deliver the Operating System, the Operating Environment component products, and the Layered Products as follows:

- Media and Online Documentation:

The media offerings (updated quarterly as necessary) include the most recent revision of OE components, Layered Products Library, and Online Documentation Library.

- Operating Environment DVD (binaries)
- Layered Product Library DVD (binaries)
- Online Documentation media for Operating Environments and Layered Products
- Freeware website
- Open Source Tools CD
- Operating Environment Update media (provided as needed for updating OE components)

- Hardcopy Documentation:
 - *HP OpenVMS License Management Utility Manual*
 - *HP OpenVMS version 8.4 New Features and Documentation Overview*
 - *HP OpenVMS version 8.4 Release Notes*
 - *HP OpenVMS version 8.4 Upgrade and Installation Manual*

Table 1 lists the OE component products included with the OpenVMS Operating Environments.

Table 1
OpenVMS Integrity server Operating Environments

| OE Component | version | SPD |
|---|---------|-------|
| Base Operating Environment | | |
| OpenVMS for Integrity Servers Operating System | 8.4 | 82.35 |
| OpenVMS for Integrity Servers Operating System/Japanese | 8.4 | 25.C4 |
| Common Data Security Architecture (CDSA) | 2.4 | 82.35 |
| Common Internet File System (CIFS) | 1.2 | 82.42 |
| DECnet-Plus for OpenVMS End System | 8.4 | 50.45 |
| DECnet IV | 8.4 | 48.48 |
| DECprint Supervisor (DCPS) | 2.7-A | 44.15 |
| DECprint Supervisor/Japanese | 2.7 | 48.27 |
| DECram | 8.4 | 34.26 |
| DECwindows Motif | 1.7 | 42.19 |
| DECwindows Motif/Japanese | 1.7 | 28.A8 |
| Distributed Computing Environment (RT) | 3.2 | 43.05 |
| J2SE Development Kit (JDK) for the Java Platform | 1.5-5 | 80.58 |
| Kerberos | 3.2 | 82.35 |
| NetBeans Suite | | |
| Distributed NetBeans | 7.0.1 | 80.58 |
| Plugins ¹ | | 80.58 |
| OPC Transport for OpenVMS Integrity | 1.0 | 80.58 |
| OpenVMS Enterprise Directory | 5.6 | 81.03 |
| OpenVMS I18N | 8.4 | 82.35 |
| OpenVMS Management Station | 3.3A | 82.35 |
| Performance Data Collector (TDC) | 2.3-20 | 82.35 |
| Secure Sockets Layer (SSL) | 1.4 | 80.58 |
| TCP/IP Services for OpenVMS | 5.7 | 46.46 |
| WBEM/CIM | 2.9-9 | |
| WBEM Providers | 2.2-3 | |
| Insight Management Agents | 3.4 | 82.35 |
| Web Server Suite | | |
| Secure Web Server | 2.2 | 80.58 |
| Secure Web Browser (based on SeaMonkey) | 1.1-12 | 80.58 |
| CSWS_Java (Tomcat) | 7.0.29 | 80.58 |
| CSWS_Perl (mod_Perl) | 2.1 | 80.58 |
| CSWS_PHP (mod_PHP) | 5.2.17 | 80.58 |
| Perl | 5.8-6 | 80.58 |
| Firefox | 2.0-18 | 80.58 |

¹Plugins include BASH, C/C++, CMS Client, COBOL, DCL, EDT Keypad, FORTRAN, MMS

Table 1 (Cont.)
OpenVMS Integrity server Operating Environments

| OE Component | version | SPD |
|--|---------|-------|
| Base Operating Environment | | |
| Web Services Toolkit | | |
| ANT (Another Neat Tool) | 1.7-1 | 80.58 |
| AXIS2 | 1.1-1 | 80.58 |
| Simple Object Access Protocol (SOAP) Toolkit | 2.0 | 80.58 |
| UDDI Client Toolkit | 1.0-A | 80.58 |
| Web Services Integration Toolkit (WSIT) | 3.4-1 | 80.58 |
| XML C++ (Based on Apache Xerces-C 2.2.0 and Apache Xalan-C 1.5) | 2.0-2 | 80.58 |
| XML C++ (Based on Apache Xerces C 2.7.0 and Apache Xalan C 1.10) | 3.0 | 80.58 |
| XML Java | 2.0 | 80.58 |
| High Availability Operating Environment | | |
| Availability Manager | 3.1 | 82.35 |
| gWLM Agent | 4.1 | 82.39 |
| Performance Agent (OVPA) | 4.0 | |
| Reliable Transaction Router, Back End | 5.2 | 51.04 |
| RMS Journaling for OpenVMS | 8.4 | 27.58 |
| Volume Shadowing for OpenVMS | 8.4 | 27.29 |
| VMS Cluster Client | 8.4 | 29.78 |
| VMS Cluster Software | 8.4 | 29.78 |

For information about future additions, please refer to the Software Public Rollout reports at:
<http://h71000.www7.hp.com/openvms/os/swroll/index.html>

Please refer to individual SPDs for details about the OE components.
<http://h71000.www7.hp.com/doc/spd.html>

INSTALLATION

A subset of OE components can be factory installed. Products requiring customized installation are *not* included in factory installation. Binaries and online documentation for uninstalled OE components are provided with the system purchase. Please refer to the "Pre-installed Software Information Sheet" for a list of installed components. This information sheet is delivered with systems when factory installed software is requested.

Customers who are unfamiliar with the OE components can purchase Installation Services through HP Services. These services provide installation of the software product by an experienced HP software specialist.

HARDWARE REQUIREMENTS

For details about the hardware requirements, memory requirements, and disk space requirements, please consult the appropriate sections of the Operating System SPD and component product SPDs.

SOFTWARE REQUIREMENTS

Unless otherwise noted, the OE components support OpenVMS version 8.4. Some components will also support prior OpenVMS versions. For details about software requirements for individual component products, please consult the *Software Requirements* sections of the component SPDs.

GROWTH CONSIDERATIONS

The minimum hardware and software requirements for future versions of the OpenVMS Integrity server OEs might be different from the requirements for the current version.

SOFTWARE LICENSING

OpenVMS OEs are offered with Per Socket licenses (PSLs) on HP Integrity i2 servers (BL8x0c i2 server blades and rx2800 i2 rackmount server) and Per-Processor Core Licenses (PCLs) on HP Integrity servers. One PSL is required for each active physical socket in a system or hard partition. One PCL is required for each active physical processor core in a system or hard partition. If additional processors are later added to the system or hard partition, each processor core or socket requires an additional PCL or PSL respectively.

An OE license grants the right to use all the components included in the specified OE.

For OEs on HP Integrity i2 servers, hardware tiers are defined:

- Maximum of 2 processor sockets (BL860c i2 and rx2800 i2 rackmount server)
- Maximum of 4 processor sockets (BL870c i2)
- Maximum of 8 processor sockets (BL890c i2)

For OEs on HP Integrity servers, hardware tiers are defined:

- Maximum of 2 processor sockets (rx16xx, rx26xx, rx36xx, BL860c)
- Maximum of 4 processor sockets (rx66xx, BL870c)
- Unlimited processor sockets (rx76xx, rx86xx, Superdome)

Note: A socket is a receptacle for microprocessor modules. A single-microprocessor module may contain one or more processor cores.

Other differences from OpenVMS Alpha and OpenVMS VAX licensing practices are as follows:

- User licenses are not required. The BOE license provides for unlimited OpenVMS users.
- Version update licenses are not available. Update services are available only through a Support Agreement.
- Trade-in allowances are offered as license "options" rather than as separate licenses.

For more information about OpenVMS licensing terms and policies, contact your local HP sales office.

SOFTWARE MEDIA

OE media kits include both DVD and CD media. Please see the *Description* section at the beginning of this SPD for a listing of contents, and the *Ordering Information* section for ordering details.

SOFTWARE DOCUMENTATION

Online documentation is included with all product binary offerings. Hardcopy documentation is available for most products. Manuals typically include information about all three OpenVMS platforms (VAX, Alpha, and Integrity servers). See the *Ordering Information* section for details.

ORDERING INFORMATION

Ordering OE licenses

Table 2 lists the licenses for each OE. One license is required for each active socket on HP Integrity i2 servers (BL8x0c i2 server blades and rx2800 i2 rackmount server) and each active processor core on HP Integrity servers. The license type is PSL (Per Socket License) on HP Integrity i2 servers (BL8x0c i2 server blades and rx2800 i2 rackmount server) and PCL (Per-processor Core License) on HP Integrity servers; LTU is License-to-Use.

The old "with and without" licenses will be replaced with option B01 "Ship complete" when the license is ordered with a server.

The option instructs the factory floor to deliver the licenses with the server rather than separately.

Table 2
Operating Environment Software Licenses

| Product Number | Description |
|----------------|--|
| BA991AC | HP OpenVMS Base Operating Environment LTU |
| BA991AC#221 | PCL VMS Integrity servers BOE Max2 Proc LTU |
| BA991AC#241 | PCL VMS Integrity servers BOE Max4 Proc LTU |
| BA991AC#291 | PCL VMS Integrity servers BOE Unltd Proc LTU |
| BA991AC#422 | PSL VMS Integrity servers BOE 2Sk/2C LTU |
| BA991AC#424 | PSL VMS Integrity servers BOE 2Sk/4C LTU |
| BA991AC#442 | PSL VMS Integrity servers BOE 4Sk/2C LTU |

**Table 2 (Cont.)
Operating Environment Software Licenses**

| Product Number | Description |
|----------------|--|
| BA991AC#444 | PSL VMS Integrity servers BOE 4Skt/4C LTU |
| BA991AC#484 | PSL VMS Integrity servers BOE 8Skt/4C LTU |
| BA992AC | HP OpenVMS High Availability Operating Environment LTU |
| BA992AC#221 | PCL VMS Integrity servers HA-OE Max2 Proc LTU |
| BA992AC#241 | PCL VMS Integrity servers HA-OE Max4 Proc LTU |
| BA992AC#291 | PCL VMS Integrity servers HA-OE Unltd Proc LTU |
| BA992AC#422 | PSL VMS Integrity servers HA-OE 2Skt/2C LTU |
| BA992AC#424 | PSL VMS Integrity servers HA-OE 2Skt/4C LTU |
| BA992AC#442 | PSL VMS Integrity servers HA-OE 4Skt/2C LTU |
| BA992AC#444 | PSL VMS Integrity servers HA-OE 4Skt/4C LTU |
| BA992AC#484 | PSL VMS Integrity servers HA-OE 8Skt/4C LTU |

Note: For information on OE licenses for prior version, see the Table 3 and Table 4.

**Table 3
Operating Environment (FOE/EOE/MCOE for V8.3.x) Software Licenses Sold WITH System**

| Common Description | Product no. |
|--|-------------|
| HP VMS I64 FOE PCL LTU Tier C w/ Sys | BA819AC |
| HP VMS I64 FOE PCL LTU Max2 Proc w/ Sys | BA453AC |
| HP VMS I64 FOE PCL LTU Max4 Proc w/ Sys | BA325AC |
| HP VMS I64 FOE PCL LTU Unltd Proc w/ Sys | BA329AC |
| HP VMS I64 EOE PCL LTU Tier C w/ Sys | BA817AC |
| HP VMS I64 EOE PCL LTU Max2 Proc w/ Sys | BA451AC |
| HP VMS I64 EOE PCL LTU Max4 Proc w/ Sys | BA397AC |
| HP VMS I64 EOE PCL LTU Unltd Proc w/ Sys | BA327AC |
| HP VMS I64 MCOE PCL LTU Tier C w/Sys | BA821AC |
| HP VMS I64 MCOE PCL LTU Max2 Proc w/Sys | BA455AC |
| HP VMS I64 MCOE PCL LTU Max4 Proc w/Sys | BA399AC |
| HP VMS I64 MCOE PCL LTU Unltd Proc w/Sys | BA328AC |

**Table 4
Operating Environment (FOE/EOE/MCOE for V8.3.x) Software Licenses Sold WITHOUT System**

| Common Description | Product no. |
|--|-------------|
| HP VMS I64 FOE PCL LTU Tier C w/o Sys | BA818AC |
| HP VMS I64 FOE PCL LTU Max2 Proc w/o Sys | BA452AC |
| HP VMS I64 FOE PCL LTU Max4 Proc w/o Sys | BA338AC |
| HP VMS I64 FOE PCL LTU Unltd Proc w/oSys | BA326AC |
| HP VMS I64 EOE PCL LTU Tier C w/o Sys | BA816AC |
| HP VMS I64 EOE PCL LTU Max2 Proc w/ Sys | BA451AC |
| HP VMS I64 EOE PCL LTU Max4 Proc w/o Sys | BA398AC |
| HP VMS I64 EOE PCL LTU Unltd Proc w/oSys | BA330AC |
| HP VMS I64 MCOE PCL LTU Tier C w/oSys | BA820AC |
| HP VMS I64 MCOE PCL LTU Max2 Proc w/oSys | BA454AC |
| HP VMS I64 MCOE PCL LTU Max4 Proc w/oSys | BA400AC |
| HP VMS I64 MCOE PCL LTU UnltdProc w/oSys | BA331AC |

Ordering OE License Upgrades

The Upgrade License is used when the Operating Environment is upgraded from smaller OE to larger on the same Integrity server.

The BOE to HA-OE License Upgrades deliver a license for HA-OE and the pricing gives credit for the previous purchase of the BOE.

Table 5 lists the OE (BOE/HA-OE) license upgrade options.

**Table 5
OE (BOE/HA-OE) License Upgrade Options**

| Product Number | Description |
|----------------|---|
| BA993AC | HP OpenVMS Integrity servers BOE to HA-OE Upgrade |
| BA993AC#221 | PCL VMS Integrity servers 2Skt upgrade LTU |
| BA993AC#241 | PCL VMS Integrity servers 4Skt upgrade LTU |
| BA993AC#291 | PCL VMS Integrity servers Unltd upgrade LTU |
| BA993AC#422 | PSL VMS Integrity servers 2Skt/2C upgrade LTU |
| BA993AC#424 | PSL VMS Integrity servers 2Skt/4C upgrade LTU |
| IBA993AC#444 | PSL VMS Integrity servers 4Skt/4C upgrade LTU |
| BA993AC#484 | PSL VMS Integrity servers 8Skt/4C upgrade LTU |

Table 6 lists the OE (FOE/EOE/MCOE) license upgrade options.

Table 6
OE (FOE/EOE/MCOE) License Upgrade Options

| Product Number | Description |
|----------------|--|
| BA819ACN#130 | HP Upgr credit VMS FOE 2P/4C Blade LTU |
| BA325ACN#130 | HP Upgr credit from VMS FOE 2 Proc LTU |
| BA326ACN#130 | HP Upgr credit VMS FOE Unltd Proc LTU |
| BA817ACN#130 | HP Upgr credit for VMS EOE 2P/4C Blade LTU |
| BA451ACN#130 | HP Upgr credit from VMS EOE 2 Proc LTU |
| BA397ACN#130 | HP Upgr credit from VMS EOE 4 Proc LTU |
| BA821ACN#130 | HP Upgr credit VMSMCOE 2P/4C Blade LTU |
| BA455ACN#130 | HP Upgr credit from VMS MCOE 2 Proc LTU |
| BA399ACN#130 | HP Upgr credit from VMS MCOE 4 Proc LTU |

Ordering OE License Trade-ins

The Trade-in policy provides software investment protection when the customer is moving to a HP Integrity i2 servers (BL8x0c i2 server blades and rx2800 i2 rack-mount server). To be eligible for credit, the licenses being traded-in must be on a valid support agreement. The old software must be equivalent in function to the new software. The credit allowed cannot exceed 100% of the purchase price of the target license.

Trade-in equivalency for older OEs (FOE, EOE, MCOE):

FOE -> BOE

EOE -> HA-OE

MCOE -> HA-OE

Process:

1. The customer orders the new OE license.
2. The customer provides proof of license and proof of support to the field rep.
3. The field calculates credit and applies it to the order.
4. License keys for the old system should be deleted at least 90 days after the new licenses/new system delivery.

Table 7 lists the OE license trade-ins.

Table 7
OE License Trade-ins

| Product Number | Description |
|----------------|---|
| BA991ACN | HP OpenVMS BOE Trade-in |
| BA991ACN#221 | PCL VMS Integrity servers BOE Max2 Proc Trade-in |
| BA991ACN#241 | PCL VMS Integrity servers BOE Max4 Proc Trade-in |
| BA991ACN#291 | PCL VMS Integrity servers BOE Unltd Proc Trade-in |
| BA991ACN#422 | PSL VMS Integrity servers BOE 2Skt/2C Trade-in |
| BA991ACN#424 | PSL VMS Integrity servers BOE 2Skt/4C Trade-in |
| BA991ACN#442 | PSL VMS Integrity servers BOE 4Skt/2C Trade-in |
| BA991ACN#444 | PSL VMS Integrity servers BOE 4Skt/4C Trade-in |
| BA991ACN#484 | PSL VMS Integrity servers BOE 8Skt/4C Trade-in |
| BA992ACN | HP OpenVMS HA-OE Trade-in |
| BA992ACN#221 | PCL VMS Integrity servers HA-OE Max2 Proc Trade-in |
| BA992ACN#241 | PCL VMS Integrity servers HA-OE Max4 Proc Trade-in |
| BA992ACN#291 | PCL VMS Integrity servers HA-OE Unltd Proc Trade-in |
| BA992ACN#422 | PSL VMS Integrity servers HA-OE 2Skt/2C Trade-in |
| BA992ACN#424 | PSL VMS Integrity servers HA-OE 2Skt/4C Trade-in |
| BA992ACN#442 | PSL VMS Integrity servers HA-OE 4Skt/2C Trade-in |
| BA992ACN#444 | PSL VMS Integrity servers HA-OE 4Skt/4C Trade-in |
| BA992ACN#484 | PSL VMS Integrity servers HA-OE 8Skt/4C Trade-in |

Ordering OE Media and Media Options

Media is offered for Base and High Availability Operating Environments. Purchase of an OE media product requires purchase of a corresponding OE license on the same order.

Table 8 lists the media product offerings for the two OEs. Table 8 lists the options available with each media product number.

Table 8
OpenVMS Integrity server Media Offerings

| Common Description | Product No. |
|--|-------------|
| HP OpenVMS Integrity servers BOE Media | BA322AA |
| HP OpenVMS Integrity servers HA-OE Media | BA324AA |

Table 9
OpenVMS Integrity server Media Options

| Description | Media Option |
|--|--------------|
| HP VMS Integrity servers version 8.4 | #A58 |
| HP VMS Integrity servers version 8.3-1H1 | #A57 |
| HP VMS Integrity servers version 8.3 | #A35 |
| DVD Media | #AJR |
| Factory Installation | #OD1 |

Each media order must include the OE version option. Please specify option #A58 for version 8.4.

For each media order, one of the following must be ordered:

- DVD Media (option #AJR)
- Factory Installation (option #OD1)
- DVD Media and Factory Installation (options #AJR and #OD1)

The purchase of at least one DVD Media option per customer site is strongly advised, because not all items in the DVD Media are included in the Factory Installation.

Product update media are delivered through a Support Agreement.

Ordering OE Components Sold Separately

The OE component products listed in Table 9 can be ordered separately. The license or LTU product number is for the individual OE component license. The initial delivery of product binaries for any OE component is through the purchase of an OE Media Kit. Where the media product number is shown as "SIP", the product is a System Integrated Product and is included on the Operating System media. It is not necessary to order separate media delivery for SIPs. Where the media product number is shown in the table, it must be ordered when Software Updates Service is planned.

Table 10
Operating Environment Components Sold Separately

| Common Description | Product No. |
|--|-------------|
| HP Availability Mgr for V/I 4+ Skt Tier 2CSvr PCL | BA418BC 271 |
| HP Availability Mgr for V/I 4+ Skt Tier 2CSvr Media | SIP |
| HP Availability Manager for V/I 2Skt Tier 2CSvr PCL | BA418BC 221 |
| HP Availability Manager V/I PSL 2 Socket Tier 2 Cores | BA418BC 422 |
| HP Availability Manager V/I PSL 2 Socket Tier 4 Cores | BA418BC 424 |
| HP Availability Mgr V/I PSL 4 Socket & larger Tier 2 Cores | BA418BC 472 |
| HP Availability Mgr V/I PSL 4 Socket & larger Tier 4 Cores | BA418BC 474 |
| HP Availability Manager VMS Integrity servers Media ¹ | SIP |
| HP Cluster Client V/I 2CSvr PCL | BA411BC 201 |
| HP Cluster Client V/I PSL All Tiers 4 Cores | BA411BC 404 |
| HP Cluster Client VMS Integrity servers Media ¹ | SIP |
| HP Clusters for V/I 2Skt Tier 2CSvr PCL | BA412BC 221 |
| HP Clusters for V/I 2Skt Tier 2CSvr Media ¹ | SIP |
| HP Clusters for V/I 4+ Skt Tier 2CSvr PCL | BA412BC 271 |
| HP Clusters V/I PSL 2 Socket Tier 2 Cores | BA412BC 422 |
| HP Clusters V/I PSL 2 Socket Tier 4 Cores | BA412BC 424 |

| | | |
|--|----------------------|-----|
| HP Clusters V/I PSL 4 Socket & larger Tier 2 Cores | BA412BC | 472 |
| HP Clusters V/I PSL 4 Socket & larger Tier 4 Cores | BA412BC | 474 |
| HP Clusters for V/I 4+ Skt Tier 2CSvr Media ¹ | SIP | |
| HP Clusters for V/I 2P/4C Blade Tier 2CSvr PCL | BA412BC | 211 |
| HP Clusters for V/I 2P/4C Blade Tier 2CSvr Media ¹ | SIP | |
| HP Dnet-Plus Ext Funct VMS Integrity servers PCL LTU | BA406AC | 201 |
| HP Dnet-Plus Ext Funct V/I PSL All Tiers 4 Cores | BA406BC | 404 |
| HP Dnet-Plus Ext Funct VMS Integrity servers Media ¹ | SIP | |
| HP Performance Agent (OVPA) LTU | T400*AA ² | |
| HP Ops/Perf 7.x for "nn" Media | B7490nn ³ | |
| HP RTR Back End VMS Integrity servers PCL LTU | BA408BC | 201 |
| HP RTR Back End V/I PSL All Tiers 4 Cores | BA408BC | 404 |
| HP RTR Back End VMS Integrity servers Media | BA416AA | |
| HP RMS Journaling for VMS Integrity servers PCL LTU | BA409BC | 201 |
| HP RMS Journaling for V/I PSL All Tiers 4 Cores | BA409BC | 404 |
| HP RMS Journaling VMS Integrity servers Media ¹ | SIP | |
| HP Volume Shadowing for V/I 2Skt Tier 2CSvr PCL | BA413BC | 221 |
| HP Volume Shadowing for V/I 2Skt Tier 2CSvr Media ¹ | SIP | |
| HP Volume Shadowing for V/I 4+ Skt Tier 2CSvr PCL | BA413BC | 271 |
| HP Volume Shadowing V/I PSL 2 Socket Tier 2 Cores | BA413BC | 422 |
| HP Volume Shadowing V/I PSL 2 Socket Tier 4 Cores | BA413BC | 424 |
| HP Volume Shadowing V/I PSL 4 Socket & larger Tier 2 Cores | BA413BC | 472 |
| HP Volume Shadowing V/I PSL 4 Socket & larger Tier 4 Cores | BA413BC | 474 |
| HP Volume Shadowing for V/I 4+ Skt Tier 2CSvr Media ¹ | SIP | |

¹System Integrated Product (SIP), included on OS Media.

²Asterisk *** denotes license tier. Tier0=1, Tier1=2, Tier2=3, Tier4=5

³"nn" denotes platform. Performance Agent for OpenVMS (OVPA) ships in the following media kits: HP-UX=BA, Sun Solaris=EA. Windows=XA

Ordering Hardcopy Documentation

Hardcopy Documentation offerings are being phased out due to low demand and HP's "Green Technology Initiative". Future updates to manuals will be restricted to major product releases. Release Notes will contain information for minor product releases. Online documentation is delivered on media with all product releases, and may be downloaded from the web. All documentation may be printed by the customer as required.

Table 11 shows hardcopy documentation available for the OEs. The documentation applies to OpenVMS on both Integrity servers and on AlphaServers. Two order numbers are shown. Either order number delivers the same documentation at the same price. Use the BA-MN number if the order includes Integrity servers. Use the QA-GZ number if the same documents are ordered separately or with AlphaServers.

**Table 11
Hardcopy Documentation Sets**

| Description | Integrity Server Order No. | Alpha-Server Order No. |
|--------------------------------|----------------------------|------------------------|
| HP OpenVMS Base Documentation | BA555MN | QA-09SAA-GZ |
| HP OpenVMS Full Documentation | BA554MN | QA-001AA-GZ |
| HP TCP/IP Services for OpenVMS | BA548MN | QA-0LXAA-GZ |

Trade-in Policy

License trade-ins are available for OpenVMS Integrity server Operating Environments. HP sales representatives verify Proof of License, determine how many credits the customer is entitled to receive, and add Trade-in Credits and Support to the order.

SOFTWARE PRODUCT SERVICES

Software services are provided to the OEs as follows:

Base Operating Environment (BOE) - All components listed in the BOE are supported under one BOE service contract. Components of the BOE cannot be purchased or supported independently.

High Availability Operating Environment (HA-OE) - The HA-OE is sold and supported at the package level, and the additional HA-OE component products are available for sale or service at an individual level.

A variety of service options are available from HP. For more information, contact your local HP account representative or distributor. Information is also available at the following website:

<http://h20219.www2.hp.com/services/us/en/business-it-services.html>

SOFTWARE WARRANTY

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

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HP Software Technical Support

Effective **December 1st, 2014**, the HP OpenVMS products listed in the following table will undergo a support status change from Standard Support to Mature Product Support without Sustaining Engineering.

As a result of the support status change, these products will no longer have active engineering development to produce subsequent versions. This change will affect all the supported versions of the products. For more information on the support available, see <http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA2-5741ENW>.

HP OpenVMS products undergoing support status change

| Affected Product | Replacement and workaround |
|--|---|
| Distributed Queuing Service (DQS) | <ul style="list-style-type: none"> - Standard OpenVMS PRINT commands, such as lpr and lpq. With the availability of DECNET over IP, the PRINT command is more comprehensive than DQS. - If you do not want to use DECnet, you can use the telnet Symbiont to access remote queues in addition to lpd. The equivalent commands for telnet Symbiont queues are the standard VMS commands. |
| Software RAID | Controller RAID or Shadowing |
| Debug Clients for Windows (also known as Windex) | DECwindows Motif client interface offers similar features as the Windex. |
| OpenView Operations (OVO) DCE Agent | HP OpenVMS Operations Manager HTTPS Agent and SPI |
| Management Station (also known as Argus) | DCL syntax or command procedures |
| Enterprise Capacity and Performance (ECP) | <ul style="list-style-type: none"> - You can replace ECP Data Collector with Performance Data Collector (TDC). - You can replace ECP Performance Analyzer with TLViz and T4. |