



Software Product Description

PRODUCT NAME: HP Operating Environments for OpenVMS Version 8.4 for Integrity servers
SPD 82.34.21

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 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 currently shipping OE media. This SPD revises with each OE update to track OE component versions and ship dates.

Table 1
OpenVMS Integrity server Operating Environments

OE Component	Version	SPD	Ship Date
Base Operating Environment - Media product BA322A*			
OpenVMS for Integrity Servers Operating System	8.4	82.35	Jul 2010
OpenVMS for Integrity Servers Operating System/Japanese	8.4	25.C4	Nov 2010
Common Data Security Architecture (CDSA)	2.4	82.35	Jul 2010
Common Internet File System (CIFS)	1.2	82.42	Nov 2011
DECnet-Plus for OpenVMS End System	8.4	50.45	Jul 2010
DECnet IV	8.4	48.48	Jul 2010
DECprint Supervisor (DCPS)	2.7-A	44.15	Aug 2011
DECprint Supervisor/Japanese	2.7	48.27	Dec 2012
DECram	8.4	34.26	Jul 2010
DECwindows Motif	1.7	42.19	Sep 2006
DECwindows Motif/Japanese	1.7	28.A8	Nov 2010
Distributed Computing Environment (RT)	3.2	43.05	Mar 2005
J2SE Development Kit (JDK) for the Java Platform	1.5-5	80.58	Jul 2010
Kerberos	3.2	82.35	April 2011
NetBeans Suite			
Distributed NetBeans	7.0.1	80.58	Dec 2012
Plugins ¹		80.58	Mar 2005
OPC Transport for OpenVMS Integrity	1.0	80.58	May 2008
OpenVMS Enterprise Directory	5.6	81.03	Feb 2011
OpenVMS I18N	8.4	82.35	Jul 2010
OpenVMS Management Station	3.3A	82.35	Feb 2007
Performance Data Collector (TDC)	2.3-20	82.35	July 2009
Secure Sockets Layer (SSL)	1.4	80.58	Jul 2010
TCP/IP Services for OpenVMS	5.7	46.46	Jul 2010
WBEM/CIM	2.9-9		Aug 2010
WBEM Providers	2.2-3		Feb 2011
Insight Management Agents	3.4	82.35	Sep 2006
Web Server Suite			
Secure Web Server	2.2	80.58	Dec 2012
Secure Web Browser (based on SeaMonkey)	1.1-12	80.58	Mar 2010
CSWS_Java (Tomcat)	3.2	80.58	Dec 2012
CSWS_Perl (mod_Perl)	2.1	80.58	Mar 2006
CSWS_PHP (mod_PHP)	2.2	80.58	Dec 2012

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	Ship Date
Base Operating Environment - Media product BA322A*			
Perl	5.8-6	80.58	Sep 2006
Firefox	2.0-18	80.58	Jul 2010
Web Services Toolkit			
ANT (Another Neat Tool)	1.7-1	80.58	Feb 2009
AXIS2	1.1-1	80.58	Sep 2012
Simple Object Access Protocol (SOAP) Toolkit	2.0	80.58	Feb 2007
UDDI Client Toolkit	1.0-A	80.58	Nov 2007
Web Services Integration Toolkit (WSIT)	3.4	80.58	Feb 2012
XML C++ (Based on Apache Xerces-C 2.2.0 and Apache Xalan-C 1.5)	2.0-2	80.58	Jul 2010
XML C++ (Based on Apache Xerces C 2.7.0 and Apache Xalan C 1.10)	3.0	80.58	Jul 2010
XML Java	2.0	80.58	Sep 2005
High Availability Operating Environment - Media product BA324A*			
Availability Manager	3.1	82.35	Jul 2010
gWLM Agent	4.1	82.39	Jun 2010
Performance Agent (OVPA)	4.0		Jul 2010
Reliable Transaction Router, Back End	5.2	51.04	May 2007
RMS Journaling for OpenVMS	8.4	27.58	Jul 2010
Volume Shadowing for OpenVMS	8.4	27.29	Jul 2010
VMS Cluster Client	8.4	29.78	Jul 2010
VMS Cluster Software	8.4	29.78	Jul 2010

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 may 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, or find HP software licensing information on the World Wide Web at:

<http://licensing.hp.com/swl/view/slm?page=index>

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 license upgrade options.

**Table 5
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

Note: For information on OE license upgrades for prior version, see the SPD 82.34.18.

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 6 lists the OE license trade-ins.

**Table 6
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 7 lists the media product offerings for the two OEs. Table 8 lists the options available with each media product number.

**Table 7
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 8
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	#0D1

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 #0D1)
- DVD Media and Factory Installation (options #AJR and #0D1)

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 9
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

¹ System Integrated Product (SIP), included on OS Media.
² Asterisk "*" 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 10 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 10
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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