



# Software Product Description

**PRODUCT NAME: HP Archive Backup System  
for OpenVMS, Version 4.5**

**SPD 48.16.30**

## DESCRIPTION

HP Archive Backup System (ABS) for OpenVMS, V4.5 is HP's primary OpenVMS archive and backup product. ABS automates backup operations, provides for system archiving, and makes it easy to find files stored on tapes and disks. ABS also provides client backup facilities for Windows 2000/XP, Tru64 UNIX, and remote OpenVMS clients. For license options, see the section titled LICENSE OPTIONS.

### *Features*

ABS provides the following important file archiving and backup capabilities:

- ABS V4.5 is enhanced to support Software Encryption and Key Management. Data encryption is performed using the DES and AES algorithms, thereby securing the data files. This feature is an extension of the Encryption feature available in the OpenVMS BACKUP Utility. Encryption key management, supporting both manually and automatically generated keys, is part of this release of ABS V4.5.
- LT04 drives are qualified on ABS V4.4B or later.
- A Graphical User Interface (GUI) for defining archive and backup policies, save and restore data, and finding data objects and databases that have been backed up or archived using ABS.
- Automatic, flexible scheduling of backup and archive operations for OpenVMS systems and selected Windows 2000/XP, and Tru64 UNIX clients.
- Qualified for OpenVMS client backup and archiving operations directly between disks and tape drives located on different systems using DECnet or DECnet-Plus network protocol.
- Use of Windows 2000/XP and Tru64 UNIX clients backing up to the ABS OpenVMS server using TCP/IP network protocol.
- Integration with HSM for OpenVMS (SPD #46.38.xx) to qualify "Backup via Shelving."
- Online catalog of information about backed up and archived files, disk volumes and databases. This allows for retrieving files or restoring disk volumes without being aware of the tape volumes on which the data was saved.
- Use of OpenVMS Queue Manager to schedule backup requests. ABS also provides integration with other OpenVMS and off-base scheduler products.
- Movement of volume(s) to output(s) without operator's intervention: MDMS independently moves volume(s) to output(s) and considers the Move Volume request as complete when the PORT qualifier is used with the MDMS MOVE VOLUME command.
- Dynamic logicals for pre-processing and post-processing commands.
- Partition mode support implemented for ESL E-Series Libraries using MRU V1.8B.
- Partition mode support implemented for EML E-Series Libraries using MRU V1.8B.
- ABS lookup and hence restore operations are enhanced significantly to use the BEFORE, SINCE, and DATE\_ARCHIVED date qualifiers effectively while searching the Volume\_Set type of catalog for matching entries. (You can also use the existing lookup feature by defining the logical ABS\_V40\_LOOKUP system-wide).

- Cleanup of the VAOE file in the Volume\_Set type of catalog at your convenience by defining the logical ABS\_CATALOG\_VAOE\_CLEANUP, system-wide.
  - Migration from SLS/MDMS V2.X to ABS/MDMS V4.X environment.
  - Error recovery and reporting capability.
  - Compatibility with RMU/BACKUP and RMU/RESTORE, allowing backup and restore operations of Oracle Rdb V7.0-6, V7.0-6.1, V7.0-9, V7.1.0.4, and V7.2 databases.
  - Rdb V7.2 is qualified as well as ported on OpenVMS V8.2-1 or later on Integrity servers. Rdb V7.2 is qualified on OpenVMS V8.2 or later on Alpha.
  - ABS provides "System Backup to Tape" (SBT) feature for Oracle 9i R2 (9.2.0.2.0), Oracle 10g R1 (10.1.0.3.0) database users on Alpha and Oracle 10g R2 (10.2.0.2.0) database users on Alpha and Integrity servers. RMAN must be configured and working prior to SBT implementation. ABS SBT has been qualified to work with jukeboxes, stand-alone and stacker tape devices.
  - Fast tape positioning.
  - Utilizes OpenVMS ODS-2 and ODS-5 disk volumes as provided by OpenVMS.
  - Layers upon a robust and fully tested media manager that provides the following important media and device management capabilities:
    - Effective use of all media capacity by appending multiple save sets of backed up or archived files to the same volume or volume set.
    - Direct positioning to the start of each save set file during a restore operation using saved information about the tape position of each save set file.
    - Customization features to meet a variety of operational and site requirements.
    - Qualified for unattended backup operations using automatic tape cartridge loaders; generic device recognition of some StorageTek. automated cartridge server.
    - Media life cycle control including maintenance of volume retention period, availability status, location, and scheduling dates when volumes are to move offsite and return.
    - Maintenance of counters for each volume, noting the number of times a volume has been mounted and the number of errors associated with the volume.
    - Media allocation control based on customer-defined media pools.
  - Built-in report generation and custom report generation capability.
  - Security features to prevent unauthorized media or device use.
  - In an OpenVMS Cluster environment, automatic failure recovery from the loss of a processor to allow continuous access to the media databases.
- Integration with the Remote Device Facility (RDF).

The RDF software is included within the media management software. RDF allows the media manager to access a tape from other OpenVMS nodes across the DECnet or DECnet-Plus network for ABS backup and archive operations.

RDF makes access to remote tape drives invisible to ABS backup and archive operations by issuing commands as appropriate when a designated tape drive is considered remote. The media manager also manages volume load requests to remote systems for allowing unattended backups or for communicating with a console operator. The media manager makes no direct use of the remote disk capabilities within RDF. RDF includes the following capabilities:

    - RDF servers that execute tape I/O requests on behalf of a remote client. Servers are located on systems that have tape drives attached or that can access drives through the OpenVMS TMSCP server.
    - RDF clients that provide the communications interface between applications reading or writing data to a tape drive and the RDF servers.
- RDF is only qualified when it is being called by ABS. RDF included with ABS is not intended to be run as a stand alone application. RDF as a stand alone application is provided by Computer Associates.
- RDF V4.3I is supported on ABS/MDMS V4.4B or later.

## LICENSE OPTIONS

To qualify a variety of configuration requirements, the following ABS license options are available:

- **ABS for OpenVMS Integrity servers or Alpha:** Pre 4.X should now be referenced as ABS/MDMS server due to policy database functionality in MDMS for V4.X. No changes to license needed.
- **ABS Client for OpenVMS Integrity servers or Alpha:** Pre 4.X should now be referenced as ABS /MDMS client due to policy database functionality in MDMS for V4.X. No changes to license needed.
- **Windows Client:** This is an optional purchase that enables you to add Windows client nodes to your ABS operational environment.

- **Tru64 UNIX Client:** This is an optional purchase that enables you to add Tru64 UNIX client nodes to your ABS operational environment.
- **HP Archive Backup System for OpenVMS Management Tools (ABS OMT):** ABS OMT provides a subset of the full functionality of ABS. ABS OMT is a product offered within the OpenVMS Enterprise Integration Package (EIP) and sold as a separate product.

#### *ABS/MDMS Server for OpenVMS*

ABS/MDMS Server for OpenVMS software provides ABS full operational modes, as previously described, to the nodes or OpenVMS Cluster on which ABS is executing.

A node or OpenVMS Cluster executing ABS/MDMS server software provides backup policy management services for self and for OpenVMS, Windows 2000/XP, and Tru64 UNIX client nodes connected to it. At least one ABS/MDMS server license is required in the network; two are recommended to ensure failover capabilities.

ABS/MDMS server software manages the catalogs that record information about user files backed up or archived under ABS/MDMS control at the local node.

#### *ABS/MDMS Client for OpenVMS*

ABS/MDMS Client for OpenVMS software provides backup and archiving operations for the OpenVMS node or OpenVMS Cluster on which it is executing. It also acts as a client of another node executing ABS/MDMS server software when it requires policy information.

#### *Windows 2000/XP and Tru64 UNIX Client*

A Windows 2000/XP or Tru64 UNIX Client license allows backup scheduling and archiving services for the Windows 2000/XP or Tru64 UNIX client node configured within the ABS software environment.

#### *ABS OMT*

ABS OMT licenses a subset of the ABS features. The following lists the features that are **NOT** implemented for ABS OMT:

- OpenVMS Clients
- Tape devices using RDF
- Creation of storage and environment policies
- Save requests scheduling options except the following:
  - On demand - (ON\_DEMAND)
  - Weekly full/daily incremental - (DAILY\_FULL\_WEEKLY)
  - One time only - (ONE\_TIME\_ONLY)

- StorageTek silos and DCSC Jukeboxes
- Scheduling options:

Scheduler or External

The ABS OMT license includes one ABS OMT server license and one ABS Windows 2000/XP client license. Additional Tru64 UNIX and Windows 2000/XP client licenses are qualified. ABS OMT uses the default archive and execution class that can be modified. Additional archive and execution classes cannot be defined. ABS OMT qualifies only one file catalog.

#### **Qualified Devices**

The following libraries and loaders have been tested and qualified by Storage Management Solutions (SMS) Engineering. However, SMS Engineering does not test each of the devices with every possible combination of controllers and host systems. Because ABS and HP Media Robot Utility (MRU) run in common environments, these combinations are tested first with MRU. Upon successful completion of the MRU tests, ABS is then tested in representative configurations. Note that MRU is not a prerequisite for ABS.

Therefore, to determine if your specific configuration has been qualified, follow these steps:

1. If you have a tape drive that is not software-defined as a jukebox (is not a library or a loader device), reference the OpenVMS Software Product Description (SPD #25.01.xx) to determine if your tape drive is qualified for your platform and controller/adaptor combination.
2. If your device is software-defined as a jukebox (it is a library or loader device), first check the following list to determine if it is tested by the Media Manager. If the device is listed, read the following instructions:
  - a. Check the OpenVMS Software Product Description (SPD #25.01.xx) to make sure the tape drive(s) in your library/loader are qualified for your platform and controller/adaptor combination.
  - b. Check the MRU Software Product Description (SPD #64.44.xx) to make sure your library/loader is qualified by MRU for your specific controller /adaptor combination.
3. Assuming your device is correctly connected and configured, it should then work with ABS and its clients.

For the list of qualified devices, refer to Table 1, List of Qualified Devices. If you have devices that are not listed, they might still have been qualified. HP continually tests its software on additional devices that may have been released since the last publication of this

SPD. If you need any clarification about a particular device, contact HP customer support.

For more information, view the matrix on supported tape libraries and tape drives for ABS at [http://h71000.www7.hp.com/openvms/storage/smstape\\_matrix.html](http://h71000.www7.hp.com/openvms/storage/smstape_matrix.html).

**Note:** SMS Engineering makes every possible effort to be as current and correct in our listing of compatible versions for Operating Systems, hardware, and third party software products. Ultimately, your existing contract with any of these entities will take precedence.

**Table 1**  
**LIST OF QUALIFIED DEVICES**

Secure Key Manager (SKM) V4.7.0	HP StorageWorks Virtual Library System 6000 <sup>1</sup>
EML E-Series	HP 1x8 AutoLoader <sup>2</sup>
ESL630e	ESL712e
ESL9198DLX	ESL9198SL
ESL9322S2	ESL9322L2
ESL9326D	ESL9326DX
ESL9326SL	ESL9595SL
ESL9595S2	ESL9595L2
MSL 8096	
MSL2024	MSL4048
MSL5026DLX	MSL5026S2
MSL5026SL	MSL6030L2
SSL2020	STK ACS <sup>3</sup>
TKZ6x	TL891DLX
TLZ6L	TLZ7L
TLZ9L	TL810
TL812	TL820
TL822	TL826
TL890	TL891
TL892	TL893
TL894	TL895
TL896	TSL10000
TZ857	TZ867
TZ875	TZ875N
TZ877	TZ877N
TZ885	TZ887
VLS 6105 <sup>4</sup>	

<sup>1</sup>volumes should be created with barcode names in uppercase.

<sup>2</sup>ABS supports HP 1/8 Autoloader as a non-vision autoloader.

<sup>3</sup>Requires an optional DCSC V3.2 (or later) license (SPD 33.59.xx).

<sup>4</sup>ABS/MDMS will not make use of the Auto-Migration feature of VLS 6105.

### Device Restrictions

ABS does not provide qualification for:

- QIC (quarter-inch cartridge) devices

### Minimum OpenVMS System Configuration

A minimum system configuration includes:

- 4 MB memory
- One or more tape drives
- A disk drive, recognized by OpenVMS as having a Files-11 structure
- Any other minimum configuration requirements for the OpenVMS operating system

The ABS/MDMS server and ABS/MDMS client software can run on any valid VAXstation configuration with DECnet Phase IV or DECnet-Plus support. Tru64 UNIX and Windows 2000/XP clients can run on any hardware platform that qualifies the operating systems listed in SOFTWARE REQUIREMENTS.

### OpenVMS Cluster ENVIRONMENT

This layered product is fully qualified when installed on any valid and licensed OpenVMS Cluster configuration without restrictions.

OpenVMS Cluster configurations are fully described in the OpenVMS Cluster Software Product Description (SPD #25.01.xx) and include CI, Ethernet, and Mixed Interconnect configurations.

### OpenVMS TAILORING

For OpenVMS systems, the following OpenVMS classes are required for complete functionality of this layered product:

- OpenVMS required save set
- Programming support
- Utilities
- System programming support
- Secure user's environment
- Network support

## HARDWARE REQUIREMENTS

ABS runs on the Integrity servers and Alpha systems qualified by OpenVMS. For a detailed list of the Alpha processors qualified by OpenVMS, refer to *OpenVMS VAX and Alpha Operation System Software Product Description* (SPD #25.01.xx).

For information about the OpenVMS Operating System for Integrity servers and Alpha, refer to the *HP OpenVMS Version 8.3 for Alpha and Integrity servers Software Product Description* (SPD 82.35.xx).

## SOFTWARE REQUIREMENTS

### Operating System

OpenVMS Operating System for:

- Integrity servers V8.2-1, V8.3, and V8.3-1H1
- Alpha V7.3-2, V8.2, and V8.3

OpenVMS provides support for Fibre Channel (FC) connected tape devices. MDR/NSR converts Fibre Channel protocol, which the tape device understands. ABS has qualified this feature in OpenVMS as used with MDR/NSR.

Network Storage Router (NSR) M2402 by HP is a key component in a complete data protection solution. It allows multiple host servers to communicate with a SCSI tape device over a Fibre Channel link making backup speeds five times faster. ABS has been tested and qualified with Network Storage Router (NSR) M2402.

**NOTE:** Storage Management makes every effort to be as current or correct as possible in qualifying our layered products on the Operating System (OS) versions. The use of a particular OS by a customer can only be guaranteed by the customer's contract with OpenVMS or by a specific service contract.

Please refer to OpenVMS for a complete listing of supported tape devices and connected hardware.

### Layered Products

- DECnet Phase IV or DECnet-Plus for OpenVMS Integrity or Alpha. If you use Decnet Plus (Phase V) with ABS, you must define Phase IV synonyms (6 characters or less) for your nodes. ABS cannot use the long node names.

### Optional Software

- HP TCP/IP Services for OpenVMS is a prerequisite for any installation utilizing ABS Tru64 UNIX or Windows 2000/XP clients.
- HP TCP/IP Services for OpenVMS is a prerequisite for ABS media manager GUI.

- The following Java™ versions are qualified for MDMSview GUI:
  - On Windows
    - Java V1.5
  - On OpenVMS
    - Java V1.5
    - eXcursion software to display the GUI
  - DCSC (part number QL-4EUA9-AA for an Alpha system) is required to qualify ACSLS StorageTek silos. Refer to DCSC SPD #33.59.xx

**Note:** Refer to DCSC V3.2 for qualified or recommended use of Fibre Channel (FC) connected tape devices, a new feature of OpenVMS V7.2-2 and later versions.

- HSM for OpenVMS for automatic shelving of OpenVMS files. Refer to SPD #46.38.xx

**Note:** The Storage Management Software organization makes every effort to be as current and correct in our listing of compatible versions for Operating Systems, hardware and third party software products. Ultimately, your existing contract with any of these entities will take precedent.

### Qualified Tru64 UNIX clients

ABS enables you to back up the following Tru64 UNIX clients:

- Tru64 UNIX 4.0F-G, Tru64 UNIX V5.0, V5.0A & V5.1

**Note:** ABS V4.4 or later has elected to qualify only Tru64 UNIX clients.

### Qualified Windows Clients

ABS enables you to back up the following Windows clients:

- Windows 2000 with some restrictions
- Windows XP with some restrictions

## 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

ABS is available as part of the OpenVMS Consolidated Software Distribution for Integrity servers and Alpha systems on optical media distribution.

## **SOFTWARE LICENSING**

This software is furnished only under a license. For more information about HP's licensing terms and policies, contact your HP account representative or distributor.

Note that ABS licensing is specifically called ABS Server or ABS Client. Previous mention in the LICENSE OPTIONS is to clarify that the functionality of the server and client is now ABS/MDMS centric.

### *License Management Facility*

The following software is qualified by the OpenVMS License Management Facility (LMF):

- ABS server for OpenVMS software
- ABS client for OpenVMS software
- ABS Tru64 UNIX and Windows 2000/XP client packages

For more information on the OpenVMS License Management Facility, refer to the OpenVMS Operating System Software Product Description (SPD #25.01.xx) or the OpenVMS License Management Facility manual of the OpenVMS Operating System documentation set.

The Encrypt Utility V1.6 that is available on OpenVMS V8.3 or later is required to be installed on the system.

- On OpenVMS V8.2 no separate license is required but this utility should be installed.
- On OpenVMS V7.3-2, a valid Encrypt Utility license should be purchased.

## **ORDERING INFORMATION**

You can order ABS with the following information:

### *ABS Server for OpenVMS Integrity servers:*

Software Licenses: BA342AC - Per-processor Core (PCL) License

Software Media: BA342AA - included on layered product distribution for Integrity servers

Software Documentation: Online documentation only

### *ABS Server for OpenVMS Alpha:*

Software Licenses: QL-5W2A\*-AA

Software Update Licenses: QL-5W2A\*-RA

### *ABS Client for OpenVMS Integrity servers:*

Software Licenses: BA343AC - Per-processor Core (PCL) License

Software Media: BA343AA - included on layered product distribution for Integrity servers

Software Documentation: Online documentation only

### *ABS Client for OpenVMS Alpha:*

Software Licenses: QL-5W1A\*-AA

Software Product Services: Provided in the services offering for ABS for OpenVMS

Software Update Licenses: QL-5W1A\*-RA

Software Consulting Service: Covered under ABS for OpenVMS Consulting Services

### *Tru64 UNIX Software Licenses:*

Single Tru64 UNIX Client License: QL-5GXAA-3B

5 Tru64 UNIX Client License Package:  
QL-5GXAA-3C

25 Tru64 UNIX Client License Package:  
QL-5GXAA-3E

100 Tru64 UNIX Client License Package:  
QL-5GXAA-3G

### *Windows 2000/XP Software Licenses:*

Single Windows 2000/XP Client License:  
QL-5LSA9-3B

5 Windows 2000/XP Client License Package:  
QL-5LSA9-3C

25 Windows 2000/XP Client License Package:  
QL-5LSA9-3E

100 Windows 2000/XP Client License Package:  
QL-5LSA9-3G

1500 Windows 2000/XP Client License Package:  
QL-5LSA9-3H

ABS V4.4B does not provide separate Windows 2000/XP and Tru64 UNIX client documentation. All client information is included in the ABS documentation set.

### *ABS OMT Software License:*

Software License: QL-5LQA\*-AA

### *ABS OMT Upgrade to ABS Software License:*

Software License: QL-5LTA\*-AA

## **SOFTWARE PRODUCT SERVICES**

A variety of service options are available from HP. For more information, contact your HP account representative or distributor. This information is also available on [www.hp.com/hps/software](http://www.hp.com/hps/software).

**SOFTWARE WARRANTY**

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

The previous information is valid at time of release. Please contact your local HP office for up-to-date information.

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