hp Application Recovery Manager software
Zero Downtime Backup and Instant Recovery Support Matrix

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Application Recovery Manager is an application for managing replication technologies using the VSS framework or direct array control. The main purpose of replication in the product is backup and recovery. It integrates with any backup application in which it would automate the replication control and let the backup application control the tape action. It is based on Data Protector Functionality thus the functionality of both products will be kept in sync with potential small delays. The objective is to provide zero downtime backup & instant recovery for different storage arrays and backup applications based on Microsoft VSS framework and direct array control.

From the operating system level Windows Server 2003 (32-bit, Itanium and x64) is supported for the backup and the application host. The Windows Server 2003 version must either be Itanium on both or IA-32 on both or x64 (64-bit) on both.

Following are the details of platform support:

Server & Client Platform support		
Platform	Cell Manager	Client
Windows 2003 32-bit	Supported	Supported
Windows 2003 64-bit (Itanium)	Not Supported	Supported
Windows 2003 64bit (X64)	Supported	Supported
HP-UX 11.11 (PA-RISC)	Supported	Supported
HP-UX 11.23 (PA-RISC)	Supported	Supported
HP-UX 11.23 (IA64)	Supported	Supported
HP-UX 11.31 (PA-RISC)	Supported	Supported
HP-UX 11.31 (IA64)	Supported	Supported

The EVA and XP VSS and VDS providers have been tested with AppRM and are supported by AppRM. These are required for Windows VSS-based operations

Apart from the hardware providers, Application Recovery Manager also has a dependency on the Command View and firmware versions of the EVA and XP arrays.

Following is a list of Command View, firmware and EVA provider versions supported with Application Recovery Manager:

EVA Supported Firmware & Provider versions			
CV/VCS/XCS (Min)	VSS/VDS Provider		SMI_S Provider
	4.00.01	4.01.04	
CV5.0.3/VCS4.0.x	Supported	Not Supported	5.0.1
CV5.0.3/XCS5.1.x	Supported	Not Supported	5.0.1
CV6.0.2/XCS5.1.x	Not Supported	Supported	6.0.2
CV7.0/XCS6.110.	Not Supported	Supported	7.0.0

Supported microcode & RaidManager HORCM versions			
XP Type	Minimum Microcode version required	Minimum RAID Manager library version required for Windows	Provider version
XP128	21.14.37/00	01.12.04	5.00.00
XP1024	21.14.37/00	01.12.04	5.00.00
XP10000	min. 50.09.41	01.12.04	5.00.00
XP12000	min. 50.09.41	01.12.04	5.00.00
XP20000	60.02.04	01.20.03	5.00.00
XP24000	60.02.04	01.20.03	5.00.00

MPIO software must be installed when dealing with Disk arrays and FC environment, even if multipathing is not active. Compatible HBA drivers are also required.

Minimum version of MPIO	
HP MPIO XP	v.2.00.02
HP MPIO EVA	v.2.01.01

Following hotfixes are required:
For Storport: 940467; for VDS: 936008; for VSS:940349

supported EVA replica types		
Replica Type	Zero Downtime Backup	Instant Recovery
Snapclone	Supported	Supported
Snapshot	Supported	Not Supported

Transportable snapshots are supported with all editions of MS Windows Server 2003, SP2 onwards. The VSS/VDS Hardware Provider must be installed and configured on Application and Backup Server.

Instant recovery can be performed on Windows if a supported VDS Hardware Provider is installed and configured on Application Server (for local backup) and on the Backup Server as well (for transportable backup). Instant recovery is also possible using SMIS or SSE agents on non-windows platforms.

Terminology:
Single Host BC corresponds to Local Backups
Dual Host BC corresponds to Transportable Backups

supported configurations		
integrations on Windows 2003 (32-bit)[1]	single-host BC	dual-host BC

Raw disk	ZDB with IR	ZDB with IR
NTFS & FAT file system	ZDB with IR	ZDB with IR
Microsoft Exchange Server 2003	ZDB with IR	ZDB with IR
Microsoft SQL Server 2000	ZDB with IR	ZDB with IR
Microsoft SQL Server 2005	ZDB with IR	ZDB with IR
Oracle 9i	ZDB with IR	ZDB with IR
Oracle 10g	ZDB with IR	ZDB with IR
SAP Brtools 6.4[2]	Not supported	ZDB with IR
SAP Brtools 7.0	Not Supported	ZDB with IR

[1]   Supported OS levels are: Windows Server 2003 R2 with SP2 and Windows Server 2003 with SP2
[2]   Only supported from patch level 22 onwards.

supported configurations		
integrations on Windows 2003 (64-bit)[1]	single-host BC	dual-host BC
Raw disk	ZDB with IR	ZDB with IR
NTFS & FAT file system	ZDB with IR	ZDB with IR
Microsoft SQL Server 2005	ZDB with IR	ZDB with IR
Microsoft Exchange Server 2007	ZDB with IR	ZDB with IR
Oracle 9i	ZDB with IR	ZDB with IR
Oracle 10g	ZDB with IR	ZDB with IR
SAP Brtools 6.4[2]	Not supported	ZDB with IR
SAP Brtools 7.0	Not supported	ZDB with IR

[1]   Supported OS levels are: Windows Server 2003 R2 with SP2 and Windows Server 2003 with SP2
[2]   Only supported from patch level 22 onwards.

supported configurations		
integrations on Windows 2003 (Itanium)[1]	single-host BC	dual-host BC
Raw disk	ZDB with IR	ZDB with IR
NTFS & FAT file system	ZDB with IR	ZDB with IR
Microsoft SQL Server 2000	ZDB with IR	ZDB with IR
Microsoft SQL Server 2005	ZDB with IR	ZDB with IR
Oracle 9i	ZDB with IR	ZDB with IR
Oracle 10g	ZDB with IR	ZDB with IR
SAP Brtools 6.4[2]	Not supported	ZDB with IR
SAP Brtools 7.0	Not supported	ZDB with IR

[1]   Supported OS levels are: Windows Server 2003 R2 with SP2 and Windows Server 2003 with SP2
[2]   Only supported from patch level 22 onwards.

supported configurations PA-RISC		
integrations on HPUX 11.11, 11.23, 11.31	single-host BC	dual-host BC
Raw disk	ZDB with IR	ZDB with IR
VxFS	ZDB with IR	ZDB with IR
HFS filesystem	ZDB with IR	ZDB with IR
Oracle 9i and Oracle 9i RAC	ZDB with IR	ZDB with IR
Oracle 10g and Oracle 10g RAC	ZDB with IR	ZDB with IR
SAP Brtools 6.4[1]	Not supported	ZDB with IR
SAP Brtools 7.0	Not supported	ZDB with IR

[1]   Only supported from patch level 22 onwards.

supported configurations Itanium		
integrations on HPUX 11.23, 11.31	single-host BC	dual-host BC
Raw disk	ZDB with IR	ZDB with IR
VxFS	ZDB with IR	ZDB with IR
HFS filesystem	ZDB with IR	ZDB with IR
Oracle 9i and Oracle 9i RAC	ZDB with IR	ZDB with IR
Oracle 10g and Oracle 10g RAC	ZDB with IR	ZDB with IR
SAP Brtools 6.4[1]	Not supported	ZDB with IR
SAP Brtools 7.0	Not supported	ZDB with IR

[2]   Only supported from patch level 22 onwards.

Components

supported component HP-UX[1]					
	HP-UX 11.11 PA-RISC	HP-UX 11.23 PA-RISC	HP-UX 11.23 IA64	HP-UX 11.31 PA-RISC	HP-UX 11.31 IA64
Application Clients	Supported	Supported	Supported	Supported	Supported
Cell Manager	Supported	Supported	Supported		
Backup Servers	Supported	Supported	Supported	Supported	Supported

supported components on Windows 2003			
	Windows 2003 32-bit	Windows 2003 x64	Windows 2003 IA64
Application Clients	Supported	Supported	Supported
Cell Manager	Supported	Supported	
Backup Servers	Supported	Supported	Supported

Disk Manager is the Volume Management product that is supported. Dynamic Disks and GPT are not supported.

Supported Backup Topologies

The HP Application Recovery Manager software can be used in different cell configurations, without any user interference or special configuration:

- One application system, one disk array, one backup system
- One application system, multiple disk arrays, one backup system
- Multiple application systems, one or multiple disk arrays, one or more backup systems
- Single system (filesystem, disk image and Oracle backup only)

The supported high-availability/cluster configurations are:

Supported components			
Application / Host	Application	Backup	Application+Backup in the same cluster
VSSBAR	Supported	Supported[1]	Supported[1]
SMISA	Supported	Supported[1]	Not supported
SSEA	Supported	Not supported	Not supported

[1]   Check AppRM 6.1 Product Announcement for limitations.

Clustering

supported clusters		
cluster software	supported cluster software version	
Microsoft Cluster Server	• Microsoft Cluster Server	
HP MC/ServiceGuard	• HP MC/ServiceGuard 11.xx:	HP-UX 11.11
	• HP MC/ServiceGuard 11.xx:	HP-UX 11.23,11.31 (PA-RISC & Itanium)
Majority Node Cluster for Exchange Server 2007	• Majority Node Cluster for Exchange Server 2007	