



# hp OpenView storage data protector 5.5 Instant Recovery & Zero Downtime Backup Support Matrix for HP StorageWorks Enterprise Virtual Array using SMI-S agent

Version: 5.6

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The main feature of HP StorageWorks Enterprise Virtual Array is the ability to create snapshots of data stored on the disk arrays. These snapshots can be used to back up the data using a different server (backup system), and thus reduce the backup load from the production server (application system), allowing the production applications to run uninterrupted. The largest benefit of the snapshot integration is that the backup window is reduced, lowering the load on the production server.

supported operating systems			
Operating System	Versions	Application Host	Backup Host
HP-UX	11.11 (PA-RISC)	PA-RISC	PA-RISC
	11.23 (PA-RISC)		
	11.23 (Itanium)	Itanium	Itanium
Windows	2000 (32-bit)	IA-32	IA-32
	2003 (32-bit)		
	2003 (64-bit Itanium)	Itanium	Itanium
	2003 (64-bit X64)	64-bit X64	64-bit X64
Solaris	7, 8, 9 (SPARC)	SPARC	SPARC

Data Protector 5.5 supports the vsnap, snapclone and standard snapshots provided by EVA array. The EVA types supported are:

- EVA3000, EVA5000: Supported on HP-UX, Windows and Solaris
- EVA4000, EVA6000 and EVA8000: Currently supported on Windows with following patch DPWIN\_00273 and  
PHSS\_36290 – HP-UX 11.x (PA) Cell Manager / Installation Server  
PHSS\_26291 – HP-UX 11.23 (IPF) Cell Manager / Installation Server  
DPSOL\_00269– Solaris 2.x Cell Manager / Installation Server

supported agent functionalities		
Agent Functionality	Zero Downtime Backup	Instant Recovery
Snapshot / vsnap	Supported	Not Supported
Snapclone	Supported	Supported

HP StorageWorks Enterprise Virtual Array runs Command View (CV) and Virtual Control Software (VCS or XCS) to control the array. Following are the versions tested and certified by Data Protector:

Command View (CV)<sup>1</sup>: 3.x, 4.x, 5.x , 6.0.2, 7.0.x  
Virtual Control Software (VCS/XCS): 3.0.2x, 4.0.x, 5.0.x, 5.1.x, 6.0.x, 6.1.x

<sup>1</sup> CV 7.0.x is not supported on Solaris.

supported SMIS provider versions							
EVA Type	SMIS provider version						
	3.2.0.8 / 3.3.2.5 <sup>1</sup>	4.0.1 <sup>1</sup>	4.1.0.10 <sup>1</sup> / 4.1.2.1 <sup>1</sup>	4.1.6.2 <sup>1</sup>	4.1.8.2 <sup>3,4</sup>	5.0.1 <sup>2</sup> / 6.0.2.x	7.0.0..x
EVA3000/ EVA5000	Supported	Supported	Supported	Not Supported	Not Supported	Supported	Supported
EVA4000/ EVA6000/ EVA8000	Not Applicable	Supported	Supported	Supported	Supported	Supported	Supported

- 1 To utilize this feature the following patches are required:  
PHSS\_35363 - HP-UX 11.x (PA) Cell Manager / Installation Server  
PHSS\_35364 - HP-UX 11.23 (IPF) Cell Manager / Installation Server  
DPSOL\_00243 - Solaris 2.x Cell Manager / Installation Server  
DPWIN\_00235 and DPWIN\_00273 for Windows
- 2 Supported on HP-UX with the site specific patch SSPUX550\_104
- 3 Supported on Windows and HP-UX
- 4 Supported on HP-UX with the site specific patch SSPUX550\_133

For details on supported CV ports and their updating, please refer to the "Setting the Login Information for CV EVA" section in the HP OpenView Storage Data Protector Zero Downtime Backup Administrator's Guide.

Following is the list of Application Integrations supported on the various supported platforms:

supported configurations					
integrations on HP-UX 11.11 and 11.23 (PA-RISC) <sup>5</sup>	single-host BC	dual-host BC	CA	CA/BC (combined)	
Raw disk	ZDB with IR	ZDB with IR	NA	NA	
Raw logical volume	ZDB with IR	ZDB with IR	NA	NA	
File system offline	ZDB with IR	ZDB with IR	NA	NA	
Oracle 8.1.x RMAN offline or online	ZDB with IR <sup>4</sup>	ZDB with IR	NA	NA	
Oracle 9i RMAN offline or online <sup>1</sup>	ZDB with IR <sup>4</sup>	ZDB with IR	NA	NA	
Oracle 10g RMAN offline or online <sup>6</sup>	ZDB with IR <sup>4</sup>	ZDB with IR	NA	NA	
SAP R/3 4.6x + brbackup 4.6x offline or online <sup>2, 3</sup>	Not Supported	ZDB with IR	NA	NA	
SAP R/3 4.7x + Brtools 6.40 offline or online <sup>2, 3</sup>	Not Supported	ZDB with IR	NA	NA	
SAP BRTOOLS 6.10 and 6.20 offline or online <sup>3</sup>	Not Supported	ZDB with IR	NA	NA	
SAP BRTOOLS 6.40 offline or online <sup>3</sup>	Not Supported	ZDB with IR	NA	NA	
SAP BRTOOLS 7.0 offline or online <sup>3</sup>	Not Supported	ZDB with IR	NA	NA	

- 1 Oracle 9i covers all released versions of 9i e.g. 9.0.x, 9.2.x etc.
- 2 This includes all sub-versions. For example, 4.6x includes 4.6B, 4.6C, 4.6D etc.
- 3 The integration is done using the 'Backint' functionality.

- 4 Only using Proxy-Copy Methodology
- 5 To utilize this feature following patches are required:  
PHSS\_35363 - For HP-UX (PA-RISC) Cell Manager / Installation Server  
PHSS\_35364 - For HP-UX (Itanium) Cell Manager / Installation Server  
DPSOL\_00243 - For Solaris Cell Manager / Installation Server
- 6 Oracle 10g covers all released versions of Oracle 10.x.x.x. Restore from DP GUI is not supported. Only the functionality supported in Oracle 9i and backup and restore to Flash Recovery Area are currently supported. Backup and restore of Flash Recovery Area itself is not supported. New features released in Oracle 10g will be supported at a later date.

supported configurations				
integrations on hp-ux 11.23 (Itanium) <sup>1</sup>	single-host BC	dual-host BC	CA	CA/BC (combined)
Raw disk	ZDB with IR	ZDB with IR	NA	NA
Raw logical volume	ZDB with IR	ZDB with IR	NA	NA
File system offline	ZDB with IR	ZDB with IR	NA	NA
Oracle 9i RMAN offline or online <sup>3, 6</sup>	ZDB with IR <sup>5</sup>	ZDB with IR	NA	NA
Oracle 10g RMAN offline / online <sup>4, 6</sup>	ZDB with IR <sup>5</sup>	ZDB with IR	NA	NA
SAP BRTOOLS 6.40 offline or online <sup>2</sup>	Not Supported	ZDB with IR	NA	NA
SAP BRTOOLS 7 offline or online <sup>2, 7</sup>	Not Supported	ZDB with IR	NA	NA

- 1 To utilize this feature following patches are required:  
PHSS\_35363 - For HP-UX (PA-RISC) Cell Manager / Installation Server  
PHSS\_35364 - For HP-UX (Itanium) Cell Manager / Installation Server  
DPSOL\_00243 - For Solaris Cell Manager / Installation Server
- 2 The integration is done using the 'Backint' functionality.
- 3 Oracle 9i covers all released versions of Oracle 9.x.x.x.
- 4 Oracle 10g covers all released versions of Oracle 10.x.x.x. Restore from Data Protector GUI is not supported. Only the functionality supported in Oracle 9i and backup and restore to Flash Recovery Area are currently supported, however backup and restore of Flash Recovery Area itself is not supported. New features released in Oracle 10g will be supported at a later date.
- 5 Only using Proxy-Copy Methodology
- 6 To utilize this feature following patches are required:  
PHSS\_37382 and PHSS\_37572 - For HP-UX (PA-RISC) Cell Manager / Installation Server  
PHSS\_37383 and PHSS\_37573 - For HP-UX (Itanium) Cell Manager / Installation Server  
DPSOL\_00321 and DPSOL\_00323 - For Solaris Cell Manager / Installation Server
- 7 To utilize this feature following patches are required:  
PHSS\_37747 - For HP-UX (PA-RISC) Cell Manager / Installation Server  
PHSS\_37748 - For HP-UX (Itanium) Cell Manager / Installation Server  
DPSOL\_0328 - For Solaris Cell Manager / Installation Server

supported configurations				
integrations on Windows 2000 and Windows 2003 (32-bit) <sup>4</sup>	single-host BC	dual-host BC	CA	CA/BC (combined)
Raw disk	ZDB with IR	ZDB with IR	NA	NA
NTFS file system	ZDB with IR	ZDB with IR	NA	NA
Microsoft Exchange2000	Not Supported	ZDB with IR	NA	NA
Microsoft Exchange2003 <sup>6</sup>	Not Supported	ZDB with IR	NA	NA

Microsoft SQL2000	Not Supported	ZDB with IR	NA	NA
MS SQL 2005	Not Supported	ZDB with IR	NA	NA
Oracle 9i RMAN offline or online <sup>1</sup>	ZDB with IR <sup>3</sup>	ZDB with IR	NA	NA
Oracle 10g RMAN offline or online <sup>5</sup>	ZDB with IR <sup>3</sup>	ZDB with IR	NA	NA
Oracle 11g RMAN offline or online <sup>5</sup>	ZDB with IR <sup>3</sup>	ZDB with IR	NA	NA
SAP R/3 4.7x + brbackup 4.7x offline or online <sup>2</sup>	Not Supported	ZDB with IR	NA	NA
SAP BRTOOLS 6.20 offline or online <sup>2</sup>	Not Supported	ZDB with IR	NA	NA
SAP BRTOOLS 6.40 offline or online <sup>2</sup>	Not Supported	ZDB with IR	NA	NA
SAP BRTOOLS 7.0 offline or online <sup>2</sup>	Not Supported	ZDB with IR	NA	NA

- 1 Oracle 9i covers all released versions of 9i e.g. 9.0.x, 9.2.x etc.
- 2 The integration is done using the 'Backint' functionality.
- 3 Only using Proxy-Copy Methodology
- 4 To utilize this feature, following site specific patches are needed: DPWIN\_00235 (SMISA), DPWIN\_00359 (Core).
- 5 Oracle 10g covers all released versions of Oracle 10.x.x.x. Only the functionality supported in Oracle 9i and backup and restore to Flash Recovery Area are currently supported, however backup and restore of Flash Recovery Area itself is not supported. New features released in Oracle 10g will be supported at a later date.
- 6 Exchange 2003 is supported only on Windows 2003

<b>supported configurations</b>				
<b>integrations on Windows 2003 (Itanium)<sup>1</sup></b>	<b>single-host BC</b>	<b>dual-host BC</b>	<b>CA</b>	<b>CA/BC (combined)</b>
Raw disk	ZDB with IR	ZDB with IR	NA	NA
NTFS file system	ZDB with IR	ZDB with IR	NA	NA
Oracle 9i RMAN offline or online <sup>2</sup>	ZDB with IR <sup>5</sup>	ZDB with IR	NA	NA
Oracle 10g RMAN offline or online <sup>2,3</sup>	ZDB with IR <sup>5</sup>	ZDB with IR	NA	NA
SAP R/3 4.7x + brbackup 4.7x offline or online <sup>4</sup>	Not Supported	ZDB with IR	NA	NA
SAP BRTOOLS 6.20 offline or online <sup>4</sup>	Not Supported	ZDB with IR	NA	NA
SAP BRTOOLS 6.40 offline or online <sup>4</sup>	Not Supported	ZDB with IR	NA	NA
SAP BRTOOLS 7.0 offline or online <sup>4</sup>	Not Supported	ZDB with IR	NA	NA
MS SQL2000	Not Supported	ZDB with IR	NA	NA
MS SQL 2005 <sup>6</sup>	Not Supported	ZDB with IR	NA	NA

- 1 To utilize this feature following site specific patches are needed: DPWIN\_00235 (SMISA), DPWIN\_00359 (Core)
- 2 Oracle 9i, 10g covers all released versions of 9i, 10g e.g. 9.0.x, 10.0.x etc.
- 3 Oracle 10g covers all released versions of Oracle 10.x.x.x. Only the functionality supported in Oracle 9i and backup and restore to Flash Recovery Area are currently supported, however backup and restore of Flash Recovery Area itself is not supported. New features released in Oracle 10g will be supported at a later date.
- 4 The integration is done using the 'Backint' functionality.
- 5 Only using Proxy-Copy Methodology.
- 6 To utilize this feature following site specific patche is needed: DPWIN\_00366

supported configurations				
integrations on Windows 2003 (x64) <sup>1</sup>	single-host BC	dual-host BC	CA	CA/BC (combined)
Raw disk	ZDB with IR	ZDB with IR	NA	NA
NTFS file system	ZDB with IR	ZDB with IR	NA	NA
MS SQL 2005 <sup>2</sup>	Not Supported	ZDB with IR	NA	NA
Oracle 10g RMAN offline or online <sup>3</sup>	ZDB with IR	ZDB with IR	NA	NA

1 To utilize this feature following site specific patches is needed: DPWIN\_00235

2 To utilize this feature following patche should be used: DPWIN\_00366

3 To utilize this feature following site specific patch is required: DPWIN\_00333

supported configurations				
integrations on Solaris 8 and Solaris 9 <sup>5</sup>	single-host BC	dual-host BC	CA	CA/BC (combined)
Raw Disk	ZDB with IR	ZDB with IR	NA	NA
Raw Logical Volume	ZDB with IR	ZDB with IR	NA	NA
File System Offline	ZDB with IR	ZDB with IR	NA	NA
Oracle 8.1.x RMAN offline or online	ZDB with IR <sup>4</sup>	ZDB with IR	NA	NA
Oracle 9i RMAN offline or online <sup>1</sup>	ZDB with IR <sup>4</sup>	ZDB with IR	NA	NA
Oracle 10g RMAN offline or online <sup>6</sup>	ZDB with IR <sup>4</sup>	ZDB with IR	NA	NA
SAP R/3 4.6x & brbackup 4.6x offline or online <sup>2, 3</sup>	Not Supported	ZDB with IR	NA	NA
SAP R/3 4.7x & Brtools 6.40 offline or online <sup>2, 3</sup>	Not Supported	ZDB with IR	NA	NA
SAP BRTOOLS 6.10 & 6.20 offline or online <sup>3</sup>	Not Supported	ZDB with IR	NA	NA
SAP BRTOOLS 6.40 offline or online <sup>3</sup>	Not Supported	ZDB with IR	NA	NA
SAP BRTOOLS 7.0 offline or online <sup>3</sup>	Not Supported	ZDB with IR	NA	NA

1 Oracle 9i covers all released versions of 9i e.g. 9.0.x, 9.2.x etc.

2 This includes all sub-versions. For example, 4.6x includes 4.6B, 4.6C, 4.6D etc.

3 The integration is done using the 'Backint' functionality.

4 Only using Proxy-Copy Methodology

5 To utilize this feature following patches are required:

PHSS\_35363 - For HP-UX (PA-RISC) Cell Manager / Installation Server

PHSS\_35364 - For HP-UX (Itanium) Cell Manager / Installation Server

DPSOL\_00243 - For Solaris Cell Manager / Installation Server

6 Oracle 10g covers all released versions of Oracle 10.x.x.x. Restore from Data Protector GUI is not supported. Only the functionality supported in Oracle 9i and backup and restore to Flash Recovery Area are currently supported, however backup and restore of Flash Recovery Area itself is not supported. New features released in Oracle 10g will be supported at a later date.

### supported volume managers

Operating System	Volume Manager		
	LVM	VxVM	Disk Manager
HP-UX	Supported <sup>1</sup>	Not Supported	Not Applicable
Sun Solaris	Not Applicable	Not Supported	Not Applicable
Windows	Not Applicable	Not Supported	Supported <sup>2</sup>

To use LVM Mirroring following patches are required:

PHSS\_35363 - For HP-UX (PA-RISC) Cell Manager / Installation Server

PHSS\_35364 - For HP-UX (Itanium) Cell Manager / Installation Server

<sup>1</sup> DPSOL\_00243 - For Solaris Cell Manager / Installation Server

The whitepaper describing the configuration in this environment is available at:

<http://www.hp.com/support/manuals/> Please select "Storage Software" and the appropriate Data Protection version thereafter.

<sup>2</sup> Dynamic Disks are not supported

### supported secure path versions

Operating System	Secure Path
HP-UX	V3.0f
Sun Solaris	V3.0d
Windows	V-4.0C-7

### Supported Backup Topologies

The HP StorageWorks Enterprise Virtual Array integration can be used in different backup topology scenarios, 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 backup system
- Single system (filesystem, disk image and Oracle backup only)

The supported high-availability configurations are:

1. Clustered Application hosts, stand-alone backup host.
2. Clustered Application hosts and clustered backup hosts
3. Stand-alone Application hosts and clustered backup hosts

Note: For details on supported versions of the Clustering Software, please refer to the "Platform & Integration Matrix" for Data Protector 5.5.