



HP Data Protector A.06.00

Instant recovery & zero downtime backup support matrix for HP StorageWorks Enterprise Virtual Array using SMI-S Agent

Version: 3.9

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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.

Following are the Operating System support details:

supported operating systems			
Operating System	Versions	Application Host	Backup Host
HP-UX (PA-RISC)	11.11 (PA-RISC)	PA-RISC	PA-RISC
	11.23 (PA-RISC)	PA-RISC	PA-RISC
	11.31 (PA-RISC)	PA-RISC	PA-RISC
HP-UX (Itanium)	11.23 (Itanium)	Itanium	Itanium
	11.31 (Itanium)	Itanium	Itanium
Windows	2000 (32-bit)	IA-32	IA-32
	2003 (32-bit)	IA-32	IA-32
	2003 (64-bit Itanium)	Itanium	Itanium
	2003 (64-bit X64)	64-bit X64	64-bit X64
Solaris	7, 8, 9, 10 (SPARC)	SPARC	SPARC

Data Protector 6.0 supports the vsnap, snapclone and standard snapshots provided by EVA array. The EVA types supported are EVA 3000, EVA 4000, EVA 5000, EVA 6000 and EVA 8000.

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): 3.x, 4.x, 5.x, 6.0.2, 7.0.x, 8.0.2¹
 Virtual Control Software (VCS/XCS): 3.0.2x, 4.0.x, 5.0.x, 6.0.x, 6.1.x

¹ Following patches are required: SSPNT600_070, SSPUX600_067. SSP's are available on request.

supported SMIS provider versions							
EVA Type	SMIS provider version						
	3.2.0.8/ 3.3.2.5	4.0.1/4.1.0. 10/ 4.1.2.1	4.1.6.2 and 4.1.8.2	5.0.1.x	6.0.2.x and 7.0.0.15	7.0.1.x	8.0.2
EVA 3000	Supported	Supported	Not	Supported	Supported	Not	Not
EVA 5000			Supported				
EVA 4000	-	Supported	Supported	Supported	Supported	Supported	Supported
EVA 6000							
EVA 8000							
EVA 4100	-	Supported	Supported	Supported	Supported	Supported	Supported
EVA 6100							
EVA 8100							

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 – PA-RISC				
integrations on hp-ux 11.11, 11.23	single-host BC	dual-host BC	CA	CA/BC (combined)
Raw disk	ZDB with IR	ZDB with IR	NA	ZDB
Raw logical volume	ZDB with IR	ZDB with IR	NA	ZDB
File system offline	ZDB with IR	ZDB with IR	NA	ZDB
Oracle 8.1.7 RMAN offline or online	ZDB with IR ⁵	ZDB with IR	NA	ZDB
Oracle 9i RMAN offline or online ¹	ZDB with IR ⁵	ZDB with IR	NA	ZDB
Oracle 10g RMAN offline or online ^{1, 4}	ZDB with IR ⁵	ZDB with IR	NA	ZDB
Oracle 11g RMAN offline or online ^{1, 4}	ZDB with IR ⁵	ZDB with IR	NA	ZDB
SAP R/3 4.6x + brbackup 4.6x offline or online ^{2, 3}	Not Supported	ZDB with IR	NA	ZDB
SAP R/3 4.7x + Brtools 6.40 offline or online ³	Not Supported	ZDB with IR	NA	ZDB
SAP Brtools 6.10 & 6.20 offline or online ³	Not Supported	ZDB with IR	NA	ZDB
SAP Brtools 6.40 offline or online ³	Not Supported	ZDB with IR	NA	ZDB
SAP Brtools 7.0 offline or online ³	Not Supported	ZDB with IR	NA	ZDB

- 1 Oracle 9i/10g includes all released versions of 9i/10g e. g. 9.0.x, 9.2.x and 10.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 Oracle 10gRAC based on Oracle ASM is not currently supported in combination with ZDB/IR
- 5 Only using Proxy-Copy Methodology
- 6 To utilize this feature, following patches are needed:
PHSS_36397/PHSS_36398/DPSOL_00276/DPLNX_00022

supported configurations - Itanium				
integrations on hp-ux 11.23	single-host BC	dual-host BC	CA	CA/BC (combined)
Raw disk	ZDB with IR	ZDB with IR	NA	ZDB
Raw logical volume	ZDB with IR	ZDB with IR	NA	ZDB
File system offline	ZDB with IR	ZDB with IR	NA	ZDB
Oracle 9i RMAN offline or online ¹	ZDB with IR ⁴	ZDB with IR	NA	ZDB

Oracle 10g RMAN offline or online ^{1, 3}	ZDB with IR ⁴	ZDB with IR	NA	ZDB
Oracle 11g RMAN offline or online ^{1,3}	ZDB with IR ⁴	ZDB with IR	NA	ZDB
SAP R/3 4.7x + Brtools 6.40 offline or online ²	Not Supported	ZDB with IR	NA	ZDB
SAP Brtools 6.40 offline or online ²	Not Supported	ZDB with IR	NA	ZDB
SAP Brtools 7.0 offline or online ²	Not Supported	ZDB with IR	NA	ZDB

- 1 Oracle 9i/10g/11g includes all released versions of 9i/10g/11g e. g. 9.x.x, and 10.x.x, 11.x.x etc.
- 2 The integration is done using the 'Backint' functionality.
- 3 Oracle 10gRAC/11gRAC based on Oracle ASM is not currently supported in combination with ZDB/IR
- 4 Only using Proxy-Copy Methodology
- 5 To utilize this feature, following patches are needed:
 FS/RD: PHSS_36397/PHSS_36398/DPSOL_00276/DPLNX_00022
 Oracle: PHSS_37147/PHSS_37148/DPSOL_00306/DPLNX_00034
 SAP: PHSS_37745/PHSS_37746/DPSOL_00327/DPLNX_00045

supported configurations				
integrations on hp-ux 11.31 ³ (Itanium & PA-RISC)	single-host BC	dual-host BC	CA	CA/BC (combined)
Raw disk	ZDB with IR	ZDB with IR	NA	ZDB
Raw logical volume	ZDB with IR	ZDB with IR	NA	ZDB
File system offline	ZDB with IR	ZDB with IR	NA	ZDB
Oracle 9i RMAN offline or online ^{5, 6}	ZDB with IR ⁴	ZDB with IR	NA	ZDB
Oracle 10g RMAN offline or online ^{1, 5, 6}	ZDB with IR ⁴	ZDB with IR	NA	ZDB
Oracle 11g RMAN offline or online ^{1, 5}	ZDB with IR ⁴	ZDB with IR	NA	ZDB
SAP Brtools 7.0 offline or online ^{2,4}	Not Supported	ZDB with IR	NA	ZDB
SAP Brtools 7.1 offline or online ^{2,4} (Itanium only)	Not Supported	ZDB with IR	NA	ZDB

- 1 Oracle 10gRAC/11gRAC based on Oracle ASM is not currently supported in combination with ZDB/IR
- 2 The integration is done using the 'Backint' functionality.
- 3 To utilize this feature, following patches are needed:
 FS/RD: PHSS_36397/PHSS_36398/DPSOL_00276/DPLNX_00022
 Oracle: PHSS_37147/PHSS_37148/DPSOL_00306/DPLNX_00034
 SAP: PHSS_37745/PHSS_37746/DPSOL_00327/DPLNX_00045
- 4 For PA-RISC the integration is done using the 'Backint' functionality.
- 5 Oracle 9i/10g/11g includes all released versions of 9i/10g/11g e. g. 9.x.x, and 10.x.x, 11.x.x etc.
- 6 To utilize this feature, following patches are needed: PHSS_37148, DPLNX_0003, PHSS_37147, DPSOL_00306

supported configurations – 32-bit Windows				
integrations on Windows 2000 and Windows 2003	single-host BC	dual-host BC	CA	CA/BC (combined)
Raw disk	ZDB with IR	ZDB with IR	NA	ZDB
NTFS file system	ZDB with IR	ZDB with IR	NA	ZDB
Microsoft Exchange 2000	Not Supported	ZDB with IR	NA	ZDB
Microsoft Exchange 2003	Not Supported	ZDB with IR	NA	ZDB
Microsoft SQL 2000	Not Supported	ZDB with IR	NA	ZDB
Microsoft SQL 2005	Not Supported	ZDB with IR	NA	ZDB
Oracle 9i RMAN offline or online ¹	ZDB with IR ⁴	ZDB with IR	NA	ZDB
Oracle 10g RMAN offline or online ^{1, 3}	ZDB with IR ⁴	ZDB with IR	NA	ZDB

Oracle 11g RMAN offline or online ^{1, 3}	ZDB with IR ⁴	ZDB with IR	NA	ZDB
SAP R/3 4.7x + Brtools 6.40 offline or online ³	Not Supported	ZDB with IR	NA	ZDB
SAP Brtools 6.20 offline or online ²	Not Supported	ZDB with IR	NA	ZDB
SAP Brtools 6.40 offline or online ²	Not Supported	ZDB with IR	NA	ZDB
SAP Brtools 7.0 offline or online ²	Not Supported	ZDB with IR	NA	ZDB

- 1 Oracle 9i/10g/11g covers all released versions of Oracle 9i/10g/11g e. g. 9.x.x and 10.x.x., 11.x.x etc
- 2 The integration is done using the 'Backint' functionality.
- 3 Oracle 10gRAC/11gRAC based on Oracle ASM is not currently supported in combination with ZDB/IR
- 4 Only using Proxy-Copy Methodology

supported configurations				
integrations on Windows 2003 (Itanium)	single-host BC	dual-host BC	CA	CA/BC (combined)
Raw disk	ZDB with IR	ZDB with IR	NA	ZDB
NTFS file system	ZDB with IR	ZDB with IR	NA	ZDB
Microsoft Exchange2000	Not Supported	ZDB with IR	NA	ZDB
Microsoft SQL2000	Not Supported	ZDB with IR	NA	ZDB
Microsoft SQL2005	Not Supported	ZDB with IR	NA	ZDB
Oracle 9i RMAN offline or online ¹	ZDB with IR ⁴	ZDB with IR	NA	ZDB
Oracle 10g RMAN offline or online ^{1, 3}	ZDB with IR ⁴	ZDB with IR	NA	ZDB
SAP R/3 4.7 & Brtools 6.40 offline or online ²	Not Supported	ZDB with IR	NA	ZDB
SAP Brtools 6.20 offline or online ²	Not Supported	ZDB with IR	NA	ZDB
SAP Brtools 6.40 offline or online ²	Not Supported	ZDB with IR	NA	ZDB
SAP Brtools 7.0 offline or online ²	Not Supported	ZDB with IR	NA	ZDB

- 1 Oracle 9i/10g includes all released versions of 9i/10g e. g. 9.0.x, 9.2.x and 10.x etc.
- 2 The integration is done using the 'Backint' functionality.
- 3 Oracle 10gRAC based on Oracle ASM is not currently supported in combination with ZDB/IR
- 4 Only using Proxy-Copy Methodology
- 5 To utilize this feature following Patch is needed: DPWIN_00329

supported configurations				
integrations on Windows 2003 (x64)	single-host BC	dual-host BC	CA	CA/BC (combined)
Raw disk	ZDB with IR	ZDB with IR	NA	ZDB
NTFS file system	ZDB with IR	ZDB with IR	NA	ZDB
Microsoft SQL2005 ⁴	Not Supported	ZDB with IR	NA	ZDB
Oracle 10g RMAN offline or online ^{1, 3}	ZDB with IR ^{4, 5}	ZDB with IR	NA	ZDB
Oracle 10g RMAN offline or online ^{1, 3}	ZDB with IR ^{4, 5}	ZDB with IR	NA	ZDB
SAP Brtools 7.0 offline or online ²	Not Supported	ZDB with IR	NA	ZDB
SAP Brtools 7.1 offline or online ²	Not Supported	ZDB with IR	NA	ZDB

- 1 Oracle 9i/10g and 11g includes all released versions of 9i/10g/11g e. g. 9.0.x, 9.2.x and 10.x, 11.x etc.
- 2 The integration is done using the 'Backint' functionality.

- 3 Oracle 10gRAC and Oracle 11gRAC based on Oracle ASM is not currently supported in combination with ZDB/IR
- 4 To utilize this feature following is required: DPWIN_00319 (SQL2005 agent GR patch)
For ZDB/IR, following MS redistributables for .NET 3.0 framework are needed:
1.Microsoft.VC80.CRT.manifest, 2.msvcm80.dll, 3.msvcp80.dll, 4.msvcr80.dll
These above 4 files should be located in <Omniback Home>\Bin folder on the Windows 2003 x64 client where DP 6.0 SQL binaries are installed.
- 5 Only using Proxy-Copy Methodology

supported configurations – Solaris (SPARC)				
integrations on Solaris 8, 9 and 10	single-host BC	dual-host BC	CA	CA/BC (combined)
Raw Disk	ZDB with IR	ZDB with IR	NA	ZDB
Raw Logical Volume	ZDB with IR	ZDB with IR	NA	ZDB
File System Offline	ZDB with IR	ZDB with IR	NA	ZDB
Oracle 8.1.7 RMAN offline or online	ZDB with IR	ZDB with IR	NA	ZDB
Oracle 9i RMAN offline or online ¹	ZDB with IR ⁵	ZDB with IR	NA	ZDB
Oracle 10g RMAN offline or online ^{1, 4}	ZDB with IR ⁵	ZDB with IR	NA	ZDB
Oracle 11g RMAN offline or online ^{1, 4}	ZDB with IR ⁵	ZDB with IR	NA	ZDB
SAP R/3 4.6x & brbackup 4.6x offline or online ^{2, 3}	Not Supported	ZDB with IR	NA	ZDB
SAP R/3 4.7 & Brtools 6.40 offline or online ³	Not Supported	ZDB with IR	NA	ZDB
SAP Brtools 6.10 & 6.20 offline or online ³	Not Supported	ZDB with IR	NA	ZDB
SAP Brtools 6.40 offline or online ³	Not Supported	ZDB with IR	NA	ZDB
SAP Brtools 7.0 offline or online ³	Not Supported	ZDB with IR	NA	ZDB
SAP Brtools 7.1 offline or online ³	Not Supported	ZDB with IR	NA	ZDB

- 1 Oracle 9i/10g/11g covers all released versions of Oracle 9i / 10g / 11g e. g. 9.x.x and 10.x.x., 11.x.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 Oracle 10gRAC/11gRAC based on Oracle ASM is not currently supported in combination with ZDB/IR
- 5 Only using Proxy-Copy Methodology

supported volume managers			
Operating System	LVM	Volume Manager VxVM	Disk Manager
HP-UX	Supported	Not Supported	Not Applicable
Sun Solaris	Not Applicable	Not Supported	Not Applicable
Windows	Not Applicable	Not Supported	Supported ¹

- 1 Dynamic Disks are not supported

supported secure path versions	
Operating System	Secure Path / MPIO
HP-UX	3.0F/latest available
Sun Solaris	3.0D(SP1)/latest available

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 Support Matrices" for Data Protector 6.0.