



hp OpenView storage data protector 6.1 Zero Downtime Backup & Instant Recovery Support Matrix for HP StorageWorks Virtual Array

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HP Virtual Array stores the data on one set of disks and at a certain point in time can create a snapshot of the data, which can later be used on another server to perform the backup. HP Data Protector uses the Snapshot Agent (SNAPA), which is the Data Protector client for HP Virtual Arrays.

From the operating system level, HP-UX 11.11, Windows 2000, Windows 2003 (32-bit) are supported for the backup and the application host. The operating system must be HP-UX on both or Windows on both hosts.

supported microcode versions	
VA type	minimum microcode version required
VA 7100	hp18
VA 7400	hp18
VA 7410	A000

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

Abbreviations used:

- 1. ZDB : Zero Downtime Backup
- 2. IR : Instant Recovery

supported integrations – hp-ux 11.11 (with instant recovery feature)	
Integrations	HP-UX 11.11
Filesystem: HFS, VxFS ¹	ZDB with IR
Raw Disk	ZDB with IR
Raw Logical Volume	ZDB with IR
Oracle 8.1.7	ZDB with IR
Oracle 9i ³	ZDB with IR
SAP/R3 4.6x ^{2,4}	ZDB with IR
SAP Brtools 6.10 ² & 6.20 ²	ZDB with IR

- 1 VxFS filesystem is supported in conjunction with hp lvm (logical volume manager)
- 2 The integration is done using the 'Backint' functionality.
- 3 Oracle 9i includes all released versions of 9i e. g. 9.0.x, 9.2.x etc.
- 4 This includes all sub-versions. For example, 4.6x includes 4.6B, 4.6C, 4.6D etc.

integrations	supported platforms	
	Windows 2000	Windows 2003 (32-bit)
Filesystem: NTFS	ZDB with IR	Not Supported
Raw Disk	ZDB with IR	Not Supported
MS Exchange 2000	ZDB with IR	Not Supported
MS Exchange 2003	Not Supported	ZDB ⁴
MS SQL 2000	ZDB with IR	Not Supported

Oracle 8.1.7	ZDB with IR	Not Supported
Oracle 9i ²	ZDB with IR	Not Supported
SAP/R3 4.6x ^{1, 3}	ZDB with IR	Not Supported
SAP Brtools 6.10 ¹ & 6.20 ¹	ZDB with IR	Not Supported

- 1 The integration is done using the 'Backint' functionality.
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- 3 This includes all sub-versions. For example, 4.6x includes 4.6B, 4.6C, 4.6D etc.
- 4 Exchange 2003 is supported only using VSS. For the VSS writer & provider details, please refer to the "HP OpenView Storage Data Protector 6.1 VSS Support Matrix"

Following is a list of supported Volume Managers:

supported volume managers			
volume manager	operating system		
	HP-UX		Windows
Logical Volume Manager (LVM)	Supported		Not Applicable
Disk Manager ¹	Not Applicable		Supported

- 1 Dynamic Disks are not supported

Data Protector supports various Alternate Path solutions with that are supported by the HP StorageWorks Virtual Array. Following is a list of Alternate Path/Multipathing solutions that are supported:

Supported Alternate Path solutions			
Alternate Path solutions	Operating System		
	HP-UX		Windows
HP StorageWorks AutoPath	Supported		Supported
HP-UX LVM Alternate Links	Supported		Not Applicable

supported backup topologies

SNAPA is designed to use different backup topology scenarios, without any user interference or special configuration. Supported configurations are listed below:

1. one application Host, one virtual array & one backup host.
2. one application host, multiple virtual arrays & one backup host.
3. multiple application hosts, one or multiple virtual arrays & one backup host – each application has to be backed up in a separate backup session. Multiple application hosts cannot be backed up in the same backup session.
4. single host configuration – both application & backup hosts are on same system.
5. lvm mirror configuration – achieved either using campus cluster concept or by using LVM mirroring on a host outside cluster.

supported connectivity topologies

SNAPA also supports multiple connectivity topologies without a need for special configuration parameters or user intervention. The only limitations for connectivity topologies are HP Virtual array internal connectivity limitations. Supported connectivity topologies are listed below:

supported connectivity topologies	
connectivity	Description
Alternate path	The SAN environment provides multiple paths to storage
Fabric connect	VA is connected to application & backup hosts through FC switch
Public loop connect	FC port on VA is configured for public loop & FC hub or switch has single port loop emulation

Private loop connect FC port on VA is configured for private loop & FC hub or switch has single port loop emulation

high availability support for VA

With Data Protector, Campus Cluster is also supported with VA. There are two supported configurations for backup/restore on VA using hp OpenView Storage Data Protector version 6.1 in a high availability environment. There is a limitation for a high-availability configuration for VA. Both, the Application Host and the Backup Host can't be in the same cluster.

The supported high-availability configurations are:

1. the application host is in the cluster – the backup continues on the backup host in case of a failover.
2. the backup host is in the cluster – the backup session cannot resume, but the configuration is saved in case of a failover. The backup session has to be restarted in this case.

Note: For details on supported versions of Cluster Software, please refer to the "Platform & Integration Matrix" for Data Protector 6.1.

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