HP Data Protector A.06.1x
Zero downtime backup and instant recovery support matrix for HP StorageWorks Virtual Array

Version: 3.7 Date: March 2012

HP StorageWorks 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 backup. Data Protector uses Snapshot Agent (SNAPA), which is the Data Protector client for HP StorageWorks Virtual Arrays.

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

Supported microcode versions	
VA type	**Minimum microcode version required**
VA 7100	hp18
VA 7400	hp18
VA 7410	A000

The following is a list of application integrations supported on various supported platforms:

Abbreviations used:
1. ZDB: Zero Downtime Backup 2. IR: Instant Recovery

Supported integrations – HP-UX 11.11 (with instant recovery feature)	
Integration	**HP-UX 11.11**
Filesystem: HFS, VxFS[1]	ZDB with IR
Raw disk	ZDB with IR
Raw logical volume	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 implemented using the 'backint' functionality.

3 Oracle 9i includes all released versions of 9i for example 9.0.x, 9.2.x, and so on.

4 This includes all revisions. For example, 4.6x includes 4.6B, 4.6C, 4.6D, and so on.

Supported integrations – Windows (with instant recovery feature)		
Integration	**supported platforms**	
	Windows 2000	**Windows Server 2003 (32-bit)**
Filesystem: NTFS	ZDB with IR	not supported
Raw Disk	ZDB with IR	not supported
Microsoft Exchange 2000 Server	ZDB with IR	not supported
Microsoft Exchange Server 2003	not supported	ZDB

Microsoft SQL Server 2000	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 implemented using the 'backint' functionality.

2 Oracle 9i includes all released versions of 9i: 9.0.x, 9.2.x, and so on.

3 This includes all revisions. For example, 4.6x includes 4.6B, 4.6C, 4.6D and so on.

The following is a list of supported volume managers:

Supported volume managers		
Volume manager	**Operating system**	
	HP-UX	**Windows**
Logical volume manager (LVM)	supported	n/a
Disk manager [1]	n/a	supported

1 Dynamic disks are not supported

Data Protector supports various alternate path solutions that are supported by the HP StorageWorks Virtual Array. The following is a list of alternate path and multipathing solutions that are supported:

Supported alternate path solutions		
Alternate path solution	**Operating system**	
	HP-UX	**Windows**
HP StorageWorks AutoPath	supported	supported
HP-UX LVM Alternate Links	supported	n/a

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 system, one Virtual Array and one backup system.
2. One application host, multiple Virtual Arrays & one backup system.
3. Multiple application systems, one or multiple Virtual Arrays and one backup system – each application needs to be backed up in a separate backup session. Multiple application systems cannot be backed up in the same backup session.
4. Single-system configuration – both application and backup systems are the same physical system.
5. LVM mirror configuration – achieved either using campus cluster concept or by using LVM mirroring on a system outside cluster.

Supported connectivity topologies

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

Supported connectivity topologies	
Connectivity topology	**Description**
Alternate path	The SAN environment provides multiple paths to storage.
Fabric connect	VA is connected to the application and backup systems through FC switch.
Public loop connect	FC port on VA is configured for public loop and FC hub or switch has single port loop emulation.
Private loop connect	FC port on VA is configured for private loop and 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 and restore on VA using Data Protector A.06.1x in a high-availability environment. There is a limitation for high-availability configurations for VA. Both the application system and the backup system cannot be in the same cluster.

Supported high-availability configurations are:

1. The application system is in the cluster – the backup continues on the backup system in case of a failover.
2. The backup system 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.

For details on supported versions of clustering software, please see HP Data Protector A.06.1x Platform and integration support matrix.