HPE Data Protector 8.10
Zero Downtime Backup and Instant Recovery Support Matrix
for HPE P6000 EVA Disk Array Family Using SMI-S Agent

Version: 1.8   Date: November 2016

Main feature of HPE P6000 Enterprise Virtual Array (EVA) 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 most important benefit of the snapshot integration is in backup window reduction, lowering the load on the production server.

The details of the supported operating systems are specified in the individual tables below. The operating system, its version and the hardware architecture must be same on both application and backup hosts.

Data Protector 8.10 supports vsnap, snapclone, standard snapshots and mirrorclone snapshots available on EVA. Supported EVA models are listed in the table below.

HPE Data Protector components running in a combination with application versions and operating system versions which are not supported by the respective vendors are limited to a best effort support from HPE. At any time HPE can decide to remove those combinations from the DP support matrix.

Updates/changes to individual fields within the Matrix will be highlighted in RED.

What's New

There are no updates for this version.

Table 1 : Supported agent functionalities

Supported agent functionalities		
Agent functionality	Zero downtime backup	Instant recovery
Snapshot, vsnap	supported	supported
Snapclone	supported	supported
Mirrorclone snapshots [1]	supported	supported

[1]   Support for Mirrorclone snapshots is dependent on the EVA firmware. Please consult the EVA product documentation for using this functionality.

HPE P6000 EVA Disk Array Family runs Command View (CV) and Virtual Control Software (VCS or XCS) to control the array. The XCS version support is driven by supported EVA model and CV version. Data Protector supports all XCS versions for the EVAs which are supported by certified CV versions. Following CV versions are tested and certified by Data Protector:

Command View (CV):   10.0, 10.1, 10.2, 10.3[1]

Table 2: Supported SMI-S provider versions

Supported SMI-S provider versions			
SMI-S provider version	EVA Type		
	EVA 4100 / 6100/ 8100	EVA 4400/ 6400 / 8400	P6300 / P6350 P6500 / P6550
10.0	supported	supported	supported
10.1	supported	supported	supported
10.2	supported	supported	supported
10.3	supported	supported	supported

For details on supported CV ports and their updating, please see *"Setting the login information for SMI-S EVA Array Provider"* section in *HPE Data Protector Zero Downtime Backup Administrator's Guide.*

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

Table 3 : Supported configurations – HP-UX on PA-RISC

Supported configurations – HP-UX on PA-RISC				
Integration on HP-UX 11.31[1]	Single-host BC	Dual-host BC	CA	CA and BC[2] (combined)
Raw disk	ZDB with IR	ZDB with IR	n/a	ZDB with IR
Raw logical volume	ZDB with IR	ZDB with IR	n/a	ZDB with IR
File system [6]	ZDB with IR	ZDB with IR	n/a	ZDB with IR
Oracle 11g RMAN offline or online [3]	ZDB with IR	ZDB with IR	n/a	ZDB with IR
SAP BR*Tools 7.2 offline or online [4]	not supported	ZDB with IR	n/a	ZDB with IR

1   For HP-UX 11.31, new device special files (DSF) are supported for LVM only. cDSF is not supported.
2   When performing Data Replication enabled backups, ensure that only one SMI-S provider manages the arrays involved.
3   Oracle 11g includes all released versions of 11g and11gR2: 11.x.x
4   The integration is implemented using "backint" functionality.
6   HFS is not supported.

Table 4 : Supported configurations – HP-UX on Itanium

Supported configurations – HP-UX on Itanium				
Integration on HP-UX 11.23 and 11.31[1]	Single-host BC	Dual-host BC	CA	CA and BC[2] (combined)
Raw disk	ZDB with IR	ZDB with IR	n/a	ZDB with IR
Raw logical volume	ZDB with IR	ZDB with IR	n/a	ZDB with IR
File system [6]	ZDB with IR	ZDB with IR	n/a	ZDB with IR
Oracle 11g, 12c RMAN offline or online [3]	ZDB with IR	ZDB with IR	n/a	ZDB with IR
SAP BR*Tools 7.2, 7.4 offline or online [4]	not supported	ZDB with IR	n/a	ZDB with IR

1   For HP-UX 11.31, new device special files (DSF) are supported for LVM only. cDSF is not supported.
2   When performing Data Replication enabled backups, ensure that only one SMI-S provider manages the arrays involved.
3   Oracle 11g includes all released versions of 11g and11gR2: 11.x.x
4   The integration is implemented using "backint" functionality.
6   HFS is not supported.

Table 5: Supported configurations – Windows 32-bit

Supported configurations –Windows 32-bit[6]				
Integration on Windows Server 2003 and Windows Server 2008[2]	Single-host BC	Dual-host BC	CA	CA and BC[1] (combined)
Raw disk	ZDB with IR	ZDB with IR	n/a	ZDB with IR
NTFS file system	ZDB with IR	ZDB with IR	n/a	ZDB with IR
Microsoft SQL Server 2005	not supported	ZDB with IR	n/a	ZDB with IR
Microsoft SQL Server 2008	not supported	ZDB with IR	n/a	ZDB with IR
Oracle 11g RMAN offline or online [3]	ZDB with IR	ZDB with IR	n/a	ZDB with IR
SAP BR*Tools 7.2 offline or online [4]	not supported	ZDB with IR	n/a	ZDB with IR
MaxDB 7.6	not supported	ZDB only	n/a	n/a

1   When performing Data Replication enabled backups, ensure that only one SMI-S provider manages the arrays involved.
2   Following Windows hotfixes are required for Windows Server 2008 support: KB952790, KB971254
3   Oracle 11g includes all released versions 11g and11gR2: 11.x.x.
4   The integration is implemented using "backint" functionality.
6   GPT partitions are not supported.

Table 6 : Supported configurations –Windows 64-bit (Itanium)

Supported configurations – Windows 64-bit (Itanium) [6]				
Integration on Windows Server 2003, Windows Server 2008[1] and Windows Server 2008 R2	Single-host BC	Dual-host BC	CA	CA and BC[2] (combined)
Raw disk	ZDB with IR	ZDB with IR	n/a	ZDB with IR
NTFS file system	ZDB with IR	ZDB with IR	n/a	ZDB with IR
Microsoft SQL Server 2005	not supported	ZDB with IR	n/a	ZDB with IR
Microsoft SQL Server 2008	not supported	ZDB with IR	n/a	ZDB with IR
Oracle 11g RMAN offline or online [3]	ZDB with IR	ZDB with IR	n/a	ZDB with IR
SAP BR*Tools 7.2 offline or online [4]	not supported	ZDB with IR	n/a	ZDB with IR

1   Following Windows hotfixes are required for Windows Server 2008 support: KB952790, KB971254
2   When performing Data Replication enabled backups, ensure that only one SMI-S provider manages the arrays involved.
3   Oracle 11g includes all released versions of 11g and11gR2: 11.x.x.
4   The integration is implemented using "backint" functionality.
6   GPT partitions are not supported.

Table 7: Supported configurations- Windows 64-bit (x64)

Supported configurations – Windows 64-bit (x64) [6]				
Integration on Windows Server 2003, Windows Server 2008 [1] and Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2	Single-host BC	Dual-host BC	CA	CA and BC[2] (combined)
Raw disk	ZDB with IR	ZDB with IR	n/a	ZDB with IR
NTFS file system	ZDB with IR	ZDB with IR	n/a	ZDB with IR
Microsoft Exchange Server 2007 [3]	-	-	-	-
Microsoft Exchange Server 2010 [3]	-	-	-	-

Microsoft Exchange Server 2013 [3]	-	-	-	-
Microsoft SQL Server 2005	not supported	ZDB with IR	n/a	ZDB with IR
Microsoft SQL Server 2008	not supported	ZDB with IR	n/a	ZDB with IR
Microsoft SQL Server 2008 R2	not supported	ZDB with IR	n/a	ZDB with IR
Oracle 11g, 12c RMAN offline or online [4]	ZDB with IR	ZDB with IR	n/a	ZDB with IR
SAP BR*Tools 7.2, 7.4 offline or online [5]	not supported	ZDB with IR	n/a	ZDB with IR

1   Following Windows hotfixes are required for Windows Server 2008 support: KB952790, KB971254
2   When performing Data Replication enabled backups, ensure that only one SMI-S provider manages the arrays involved.
3   Microsoft Exchange Server ZDB and IR backups are supported using VSS. For details such as supported array types, writer GUID etc. refer to HPE Data Protector 8.10 VSS Integration Support Matrix.
4   Oracle 11g includes all released versions of 11g and11gR2: 11.x.x.
5   The integration is implemented using "backint" functionality.
6   GPT partitions are not supported.

Table 8: Supported configurations-Solaris (SPARC)

Supported configurations – Solaris (SPARC)				
Integrations on Solaris 9, 10, 11	Single-host BC	Dual-host BC	CA	CA and BC[1] (combined)
Raw Disk	ZDB with IR	ZDB with IR	n/a	ZDB with IR
Raw Logical Volume	ZDB with IR	ZDB with IR	n/a	ZDB with IR
File System	ZDB with IR	ZDB with IR	n/a	ZDB with IR
Oracle 11g RMAN offline or online [2]	ZDB with IR	ZDB with IR	n/a	ZDB with IR
SAP BR*Tools 7.2 offline or online [3]	not supported	ZDB with IR	n/a	ZDB with IR

1   When performing Data Replication enabled backups, ensure that only one SMI-S provider manages the arrays involved.
2   Oracle 11g includes all released versions of 11g and11gR2: 11.x.x.
3   The integration is implemented using the "backint" functionality.

Table 9: Supported configurations-Linux (x86)

Supported configurations – Linux (x86)				
Integrations on RHEL[1] 5.5, SLES 10/11and OEL 5.x	Single-host BC	Dual-host BC	CA	CA and BC[2] (combined)
Raw Disk	not supported	ZDB with IR	n/a	ZDB with IR
Raw Logical Volume	not supported	ZDB with IR	n/a	ZDB with IR
File System	not supported	ZDB with IR	n/a	ZDB with IR
SAP BR*Tools 7.2 offline or online [3,4]	not supported	ZDB with IR	n/a	ZDB with IR

1   Includes support for Red Hat Enterprise Linux Advanced Workstation and Enterprise Server if applicable.
2   When performing Data Replication enabled backups, ensure that only one SMI-S provider manages the arrays involved.
3   The integration is implemented using the "backint" functionality.
4   Support is available on RHEL 5.6 also.

Table 10: Supported configurations – Linux (x64)

Supported configurations – Linux (x64)					
	RHEL[1] / SLES versions	Single-host BC	Dual-host BC	CA	CA and BC[2] (combined)
Raw Disk	RHEL 5.x, 6.1, 6.2, 6.3 SLES 10, 11 OEL 5.x, 6.2, 6.3	not supported	ZDB with IR	n/a	ZDB with IR
Raw Logical Volume	RHEL 5.x, 6.1, 6.2, 6.3 SLES 10, 11	not supported	ZDB with IR	n/a	ZDB with IR

	OEL 5.x, 6.2, 6.3					
File System	RHEL 5.x, 6.1, 6.2, 6.3 SLES 10, 11 OEL 5.x, 6.2, 6.3	not supported	ZDB with IR	n/a	ZDB with IR
Oracle 11g, 12c RMAN offline or online [3]	RHEL 5.x, 6.1, 6.3 SLES 10, 11 OEL 5.x	not supported	ZDB with IR	n/a	ZDB with IR
SAP BR*Tools 7.2, 7.4 offline or online [5]	RHEL 5.x, 6.1, 6.3 SLES 10, 11 OEL 5.x, 6.3	not supported	ZDB with IR	n/a	ZDB with IR

1   Includes support for Red Hat Enterprise Linux Advanced Workstation and Enterprise Server if applicable.
2   When performing Data Replication enabled backups, ensure that only one SMI-S provider manages the arrays involved.
3   Oracle 11g includes all released versions of 11g and11gR2: 11.x.x.
5   The integration is implemented using the "backint" functionality.

Table 11: Supported volume managers

Supported volume managers					
Operating system	Volume manager				
	LVM	LVM2	LVM 2.1	VxVM	Disk manager
HP-UX[2]	supported	supported	supported	supported	n/a
Sun Solaris	n/a	n/a	n/a	supported	n/a
Windows	n/a	n/a	n/a	not supported	supported [1]
Linux	not supported	supported[3]	not supported	not supported	n/a

1   Dynamic disks are not supported
2   For HP-UX 11.31, new device special files (DSF) are supported for LVM & LVM2 only. cDSF is not supported.
3   The LVM2 2.02 is supported.

Table 12: Supported Secure Path versions

Supported Secure Path versions	
Operating system	Secure path / MPIO
HP-UX	3.0F (newest available version recommended)
Sun Solaris	3.0D(SP1) (newest available version recommended)
Windows	4.01(SP2) (newest available version recommended)
Linux	4.4.0 (newest available version recommended)

Supported backup topologies

The HPE P6000 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 HPE P6000 Enterprise Virtual Array integration is not supported on the following backup topology scenarios on Linux:

- One application and backup system, one or multiple disk arrays. Due to Linux LVM design and its dependency on UUIDs, single-host BC configuration is not possible with LVM objects.

For cluster support related information, please refer to *HPE Data Protector 8.10 Zero Downtime Backup Administrator's Guide.*

For details on supported versions of clustering software, see the HPE Data Protector 8.10 Platform and Integration Support Matrix.