



## HP Data Protector A.06.1x Virtualization support matrix

Version: 4.6

Date: September 2012

*Note:* The combinations of Data Protector Component + operating system and/or application versions listed in this support matrix are only supported by Data Protector as long as the associated operating system and/or application versions are supported by respective vendors.

Data Protector supports the following Virtualization Applications:

supported virtualization applications	
Vendor	Supported application
VMware <sup>1</sup>	<ul style="list-style-type: none"> <li>VMware Virtual Infrastructure (ESX 3.0.x, 3.5)</li> <li>VMware Virtual Infrastructure (ESXi3.5)<sup>2</sup></li> <li>VMware vSphere4 (ESX 4.0, ESXi4.0, ESX 4.1, ESXi 4.1)<sup>2</sup></li> </ul>
Microsoft	<ul style="list-style-type: none"> <li>Microsoft Hyper-V</li> <li>Microsoft Hyper-V R2<sup>2</sup></li> <li>Microsoft Virtual Server</li> </ul>
Hewlett-Packard	<ul style="list-style-type: none"> <li>HP Integrity Virtual Machines 1.5, 2.0, 3.0, 3.5, 4.0, 4.1,4.2</li> </ul>
Citrix	<ul style="list-style-type: none"> <li>Citrix XenServer 4.1, 5.0, 5.5, 5.6, 6.0</li> </ul>
Sun	<ul style="list-style-type: none"> <li>Sun Solaris Zones : Solaris 10</li> </ul>
Oracle	<ul style="list-style-type: none"> <li>Oracle VM 2.1.2, 2.1.5, 2.2.1</li> </ul>
Red Hat	<ul style="list-style-type: none"> <li>RHEL 5.5 KVM</li> <li>RHEL 6.0 KVM</li> <li>RHEV 3.0</li> </ul>

<sup>1</sup> Includes support for Virtual Infrastructure components like vMotion, HA, DR.

<sup>2</sup> Supported with Data Protector 6.11 only

All guest operating systems supported by the respective vendors are supported with Data Protector as long as they are listed as supported on physical hosts in the HP Data Protector A.06.1x Platform and integration support matrix.

Following table lists various Data Protector Components supported on the Guest operating systems:

Supported components inside Virtual Machines	
Virtualization Application	Supported Data Protector components
VMware :	<ul style="list-style-type: none"> <li>Cell Manager/Installation Server/Manager-of-Managers (MoM)</li> <li>Disk Agent</li> <li>Media Agent <sup>6</sup></li> <li>Graphical User Interface</li> <li>Online Extension Agents<sup>1</sup></li> <li>HP StorageWorks XP, SSEA Agent<sup>2</sup></li> <li>HP StorageWorks EVA, SMIS Agent<sup>3</sup></li> </ul>
Microsoft Virtual Server	<ul style="list-style-type: none"> <li>Disk Agent</li> <li>Graphical User Interface</li> <li>Online Extension Agents<sup>1</sup></li> </ul>
Microsoft Hyper-V / Hyper-V	<ul style="list-style-type: none"> <li>Cell Manager/Installation Server/Manager-of-Managers (MoM)</li> <li>Disk Agent</li> </ul>

R2 <sup>5</sup>	<ul style="list-style-type: none"> <li>• Media Agent</li> <li>• Graphical User Interface</li> <li>• Online Extension Agents<sup>1</sup></li> </ul>
HP Integrity Virtual Machines (IVM)	<ul style="list-style-type: none"> <li>• Cell Manager/Installation Server</li> <li>• Disk Agent</li> <li>• Media Agent<sup>4</sup></li> <li>• MoM</li> <li>• Graphical User Interface</li> <li>• Online Extension Agents<sup>1</sup></li> </ul>
Citrix XenServer	<ul style="list-style-type: none"> <li>• Disk Agent</li> <li>• Media Agent</li> <li>• Graphical User Interface</li> <li>• Online Extension Agents<sup>1</sup></li> </ul>
Solaris Zones	<ul style="list-style-type: none"> <li>• Disk Agent (Global and Local Zones)</li> <li>• Media Agent (Global Zone)</li> <li>• Oracle Online Agent (Global and Local Zones)</li> </ul>
Oracle VM	<ul style="list-style-type: none"> <li>• Disk Agent</li> <li>• Media Agent</li> <li>• Oracle Online Agent</li> </ul>
RHEL KVM	<ul style="list-style-type: none"> <li>• Disk Agent</li> </ul>
RHEV 3.0	<ul style="list-style-type: none"> <li>• Disk Agent</li> <li>• Media Agent</li> </ul>

- 1 Valid for all applications that are listed as supported in HP Data Protector A.06.1x Platform and integration support matrix and are supported by respective vendors inside a Virtual Machine
- 2 Includes application integrations listed in the HP Data Protector A.06.1x Zero downtime (split-mirror) backup and instant recovery support matrix for HP StorageWorks Disk Array XP
- 3 Includes application integrations listed in the HP Data Protector A.06.1x Zero downtime backup and instant recovery support matrix for HP StorageWorks Enterprise Virtual Array using SMI-S Agent
- 4 Support includes Attached AVIO Devices
- 5 Supported with Data Protector 6.11 only
- 6 Supported for Data Protector file devices and Data Protector file libraries only

The Zero Downtime Backup and Instant Recovery feature in virtual environments is enabled by installing the respective array and application agents inside the Virtual machines running the Applications. Following is a listing of supported configurations:

Supported ZDB/IR configurations for virtual environments (inside virtual machines)				
Virtualization Application	Array Type	Application host operating system (Guest OS)	Backup host operating system	Supported components
VMware	HP StorageWorks P6000 <sup>1</sup>	Windows 2003 (32-bit)	Windows 2003 (32-bit) (Physical host only)	<ul style="list-style-type: none"> <li>• Filesystem &amp; Raw Device/volume</li> <li>• Application integrations listed in the Data Protector EVA support matrix</li> </ul>
		Windows 2003 (X64)	Windows 2003 (X64) (Physical host only)	
		Windows 2008 (32-bit)	Windows 2008 (32-bit) (Physical host only)	
		Windows 2008 (x64)	Windows 2008 (X64) (Physical host only)	
		Windows 2008 R2 (x64)	Windows 2008 R2 (X64) (Physical host only)	
		Red Hat Enterprise Linux 5.5 (32-bit)	Red Hat Enterprise Linux 5.5 (32-bit) (Physical host only)	
		SuSE Linux Enterprise	SuSE Linux Enterprise Server	

		Server 10 (32-bit)	10 (32-bit) (Physical host only)	
		Red Hat Enterprise Linux 5.5 and 5.6 (64-bit)(x64)	Red Hat Enterprise Linux 5.5 and 5.6 (64-bit)(x64) (Physical host only)	
		SuSE Linux Enterprise Server 10 and 11 (64-bit)(x64)	SuSE Linux Enterprise Server 10 and 11 (64-bit)(x64) (Physical host only)	
VMware	HP StorageWorks XP <sup>1</sup>	Windows 2003 (32-bit)	Windows 2008 (32bit) (VM & Physical host)	<ul style="list-style-type: none"> <li>Filesystem &amp; Raw Device/volume</li> <li>Application Integrations listed in the Data Protector XP support matrix</li> </ul>
		Windows 2003 (X64)	Windows 2003 (X64) (VM & Physical host)	
		Windows 2008 (32-bit)	Windows 2008 (32bit) (VM & Physical host)	
		Windows 2008 (x64)	Windows 2008 (X64) (VM & Physical host)	
		Windows 2008 R2 (x64)	Windows 2008 R2 (X64) (VM & Physical host)	

<sup>1</sup> Only the FC Protocol and the Physical RDM configuration are supported

Supported VSS configurations for virtual environments (inside virtual machines) <sup>1,2</sup>				
Virtualization Application	Array Type	HWP Version	Application host operating system (Guest OS)	Backup host operating system
VMware	HP StorageWorks P6000 <sup>3</sup>	6.0.4, 6.05.x	Windows 2008 R2 (x64)	Windows 2008 R2 (X64) (Physical host only)
VMware	HP StorageWorks P4000 Series	8.1.x, 8.5.x, 9.0	Windows 2003 (32-bit)	Windows 2003 (32-bit)
			Windows 2003 (x64)	Windows 2003 (x64)
			Windows 2008 (32-bit)	Windows 2008 (32-bit)
			Windows 2008 (x64)	Windows 2008 (x64)
VMware	HP StorageWorks XP <sup>3</sup>	7.02.00	Windows 2008 R2(x64)	Windows 2008 R2(x64) (Physical host only)
			Windows 2008 R2 (x64)	Windows 2008 R2 (x64) (Physical host only)
VMware	3 PAR Array <sup>3</sup>	1.6.2.3	Windows 2008 R2 (x64)	Windows 2008 R2 (x64) (Physical host only)
Microsoft Hyper-V/Hyper-V R2	HP StorageWorks P4000 Series	9.5.x.x	Windows 2003 (x64)	Windows 2003 (x64)
			Windows 2008 (x64)	Windows 2008 (x64)
Microsoft Hyper-V/Hyper-V R2	3 PAR Array <sup>4</sup>	1.6.2.3	Windows 2008 R2 (x64)	Windows 2008 R2 (x64) (Physical host only)

<sup>1</sup> For limitations please refer to the VSS integration support matrix

<sup>2</sup> Only ZDB to tape is supported

<sup>3</sup> Only the FC Protocol and the Physical RDM configuration are supported

<sup>4</sup> Only the FC Protocol and the Hyper-V pass through configuration are supported.

Data Protector also supports Virtualization Application specific features that enable snapshots for recovery and DR purposes.

Virtualization application integration support		
Virtualization Application	Data Protector Component	Supported application components
VMware	Virtual Environment Agent <sup>1</sup>	<ul style="list-style-type: none"> <li>ESX 4.0, 4.1</li> <li>ESXi 4.0, 4.1</li> <li>VMware vCenter Server 4.0, 4.1</li> </ul>
VMware	VMware Agent	<ul style="list-style-type: none"> <li>ESX Console based snapshots               <ul style="list-style-type: none"> <li>ESX 3.0.x, 3.5, 4.0, 4.1 <sup>9</sup></li> </ul> </li> <li>VCB (VMware Consolidated Backup)               <ul style="list-style-type: none"> <li>VCB 1.0.x, 1.1.x, 1.5.x<sup>2</sup></li> </ul> </li> <li>VMware Virtual Center 2.0.x, 2.5.x</li> <li>VMware vCenter Server 4.0<sup>2</sup>, 4.1<sup>3, 8, 9</sup></li> </ul>
VMware	Media Agent	<ul style="list-style-type: none"> <li>ESX 3.0.x, 3.5</li> </ul>
VMware	Disk Agent	<ul style="list-style-type: none"> <li>ESX 3.0.x, 3.5, 4.0<sup>10</sup>, 4.1<sup>10</sup></li> <li>ESXi 5.0<sup>11</sup></li> <li>ESXi 5.0<sup>11</sup></li> </ul>
VMware	VSS_BAR Agent <sup>7</sup> (MS SQL Server 2008 R2 x64)	<ul style="list-style-type: none"> <li>ESXi 5.0<sup>11</sup></li> </ul>
Citrix XenServer <sup>4</sup>	Scripts based on Disk Agent	<ul style="list-style-type: none"> <li>Virtual Machine snapshots               <ul style="list-style-type: none"> <li>XenServer 5.0, 5.5, 5.6, 6.0</li> </ul> </li> </ul>
Microsoft Virtual server	VSS_BAR Agent <sup>7</sup>	<ul style="list-style-type: none"> <li>VSS based snapshots of VMs</li> </ul>
Microsoft Hyper-V/Hyper-V R2 <sup>5, 6</sup>	VSS_BAR Agent <sup>7</sup>	<ul style="list-style-type: none"> <li>VSS based snapshots of VMs</li> </ul>

- <sup>1</sup> Supported with Data Protector 6.11 with following patch: DPWIN\_00494  
 In addition following patches are required:  
 Cell Manager patches: DPWIN\_00499 / PHSS\_41875 / PHSS\_41876 / DPLNX\_00146  
 Core patches: DPWIN\_00475 / PHSS\_41363 / PHSS\_41364 / DPLNX\_00133  
 Cell Console patches: DPWIN\_00493 / PHSS\_41455 / PHSS\_41456 / DPLNX\_00135

The functionality added by this patch is available only in Data Protector native Windows graphical user interface. Using Data Protector Java GUI client is not supported.

- <sup>2</sup> LAN based VCB backup is not supported
- <sup>3</sup> Supported with Data Protector 6.11 with following patches: DPWIN\_00475, DPWIN\_00467
- <sup>4</sup> This integration requires a set of scripts to be used. These scripts and the whitepaper for the same can be downloaded at the following location: <http://www.hp.com/go/dataprotector> Please click "patches and utilities", then select desired Data Protector version and click "cross operating systems" thereafter.
- <sup>5</sup> Supported with Data Protector 6.11 only
- <sup>6</sup> Cluster Shared Volumes are supported with DP 6.11 with the following patch: DPWIN\_00508.
- <sup>7</sup> For limitations please refer to the VSS integration support matrix
- <sup>8</sup> Supported with Data Protector 6.11 with following site specific patch: SSPNT611\_027.
- <sup>9</sup> Snapshot backup method is not supported.
- <sup>10</sup> With Disk Agent, the mount point /vmfs will be backed up as an empty directory. Using Data Protector VMware (Legacy) integration agent or Virtual Environment integration agent is the appropriate way to backup virtual machines on ESX 4.x.
- <sup>11</sup> Data Protector agents are supported only on a guest OS and not on ESXi 5.0 itself.

Data Protector 6.1x VMware Agent / Virtual Environment Agent platform support		
Data Protector Component	Supported operating system	
VMware Agent	<ul style="list-style-type: none"> <li>ESX Console based snapshots               <ul style="list-style-type: none"> <li>ESX 3.0.x, 3.5, 4.0, 4.1 <sup>3</sup></li> </ul> </li> </ul>	ESX 3.0.x, 3.5, 4.0, 4.1 <sup>3</sup>
	<ul style="list-style-type: none"> <li>VMware Consolidated Backup 1.0.x, 1.1.x</li> </ul>	Windows Server 2003 (32-bit)
	<ul style="list-style-type: none"> <li>VMware Consolidated Backup 1.5.x</li> </ul>	Windows Server 2003 (32-bit) Windows Server 2003 (64-bit) (x64) Windows Server 2008 (32-bit) Windows Server 2008 (64-bit) (x64) <sup>1</sup> Windows Server 2008 R2 (64bit)(x64) <sup>1</sup>
	<ul style="list-style-type: none"> <li>VMware Virtual Center 2.0.x, 2.5.x</li> </ul>	Windows Server 2003 (32-bit)
	<ul style="list-style-type: none"> <li>VMware vCenter Server 4.0<sup>1</sup>, 4.1<sup>1, 2, 3</sup></li> </ul>	Windows Server 2003 (32-bit) Windows Server 2003 (64-bit) (x64) <sup>1</sup>

Virtual Environment Agent (vStorage API support for data protection) <sup>4</sup>	<ul style="list-style-type: none"> <li>VMware vCenter Server 4.0, 4.1</li> <li>VMware ESX 4.0, 4.1 and ESXi 4.0, 4.1</li> </ul>	Windows Server 2008 (64-bit) (x64)
		Windows Server 2008 R2 (64bit)(x64) <sup>1</sup>
		Windows Server 2003 (32-bit)
		Windows Server 2003 (64-bit) (x64)
		Windows Server 2008 (32-bit)
		Windows Server 2008 (64-bit) (x64)
		Windows Server 2008 R2 (64bit)(x64)

1 Supported with Data Protector 6.11 with following patches: DPWIN\_00475, DPWIN\_00467

2 Supported with Data Protector 6.11 with following site specific patch: SSPNT611\_027.

3 Snapshot backup method is not supported.

4 Supported with Data Protector 6.11 with following patch: DPWIN\_00494

In addition following patches are required:

Cell Manager patches: DPWIN\_00499 / PHSS\_41875 / PHSS\_41876 / DPLNX\_00146

Core patches: DPWIN\_00475 / PHSS\_41363 / PHSS\_41364 / DPLNX\_00133

Cell Console patches: DPWIN\_00493 / PHSS\_41455 / PHSS\_41456 / DPLNX\_00135

The functionality added by this patch is available only in Data Protector native Windows graphical user interface. Using Data Protector Java GUI client is not supported.

Raw Disk Mappings in physical and virtual mode are not supported with VADP based backups.