



# HP Data Protector 7.0 Virtualization Support Matrix

Version: 3.5

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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 backup clients are supported to run inside guest operating systems on 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, ESX 3.5, ESXi 3.5)</li> <li>VMware vSphere 4 (ESX 4.0, ESX 4.1, ESXi4.0, ESXi4.1)</li> <li>VMware vSphere 5<sup>2,3</sup> (ESXi 5.0, 5.1.0, 5.1.1)</li> </ul>
Microsoft	<ul style="list-style-type: none"> <li>Microsoft Hyper-V</li> <li>Microsoft Hyper-V R2</li> <li>Microsoft Hyper-V Server 2012</li> <li>Microsoft Virtual Server</li> </ul>
Hewlett-Packard	<ul style="list-style-type: none"> <li>HP Integrity Virtual Machines 3.5, 4.x, 6.x</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, 3.0, 3.1.x</li> </ul>
Red Hat	<ul style="list-style-type: none"> <li>RHEL KVM 5.5, 6.0, 6.2</li> <li>RHEV 3.0</li> </ul>
IBM	<ul style="list-style-type: none"> <li>PowerVM 2.2.x</li> </ul>

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

<sup>2</sup> Supports only the features available with vSphere 4.

<sup>3</sup> All updates are supported.

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 7.00 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 <sup>7</sup> :	<ul style="list-style-type: none"> <li>Cell Manager/Installation Server</li> <li>Manager of Managers</li> <li>Disk Agent</li> <li>Media Agent<sup>1</sup></li> <li>Graphical User Interface</li> <li>Online Extension Agents<sup>2</sup></li> <li>HP P9000 XP, SSEA Agent<sup>3</sup></li> <li>HP P6000 EVA, SMI-S Agent<sup>4</sup></li> <li>VSS Agent<sup>5</sup></li> <li>HP StoreOnce Software De-Duplication</li> </ul>
Microsoft Virtual Server	<ul style="list-style-type: none"> <li>Disk Agent</li> <li>Graphical User Interface</li> </ul>

	<ul style="list-style-type: none"> <li>• Online Extension Agents<sup>2</sup></li> </ul>
Microsoft Hyper-V	<ul style="list-style-type: none"> <li>• Cell Manager/Installation Server</li> <li>• Manager of Managers</li> <li>• Disk Agent</li> <li>• Media Agent<sup>1</sup></li> <li>• Graphical User Interface</li> <li>• Online Extension Agents<sup>2</sup></li> <li>• HP P9000 XP, SSEA Agent<sup>3</sup></li> <li>• HP P6000 EVA, SMI-S Agent<sup>4</sup></li> <li>• VSS Agent<sup>5</sup></li> <li>• HP StoreOnce Software De-Duplication</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>6</sup></li> <li>• Manager of Managers</li> <li>• Online Extension Agents<sup>2</sup></li> <li>• HP P9000 XP, SSEA Agent<sup>3</sup></li> </ul>
Citrix XenServer	<ul style="list-style-type: none"> <li>• Cell Manager/Installation Server</li> <li>• Manager of Managers</li> <li>• Disk Agent</li> <li>• Media Agent</li> <li>• Graphical User Interface</li> <li>• Online Extension Agents<sup>2</sup></li> <li>• HP StoreOnce Software De-Duplication</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>• Cell Manager/Installation Server</li> <li>• Manager of Managers</li> <li>• Disk Agent</li> <li>• Media Agent<sup>1</sup></li> <li>• Graphical User Interface</li> <li>• Online Extension Agents<sup>2</sup></li> <li>• HP P9000 XP, SSEA Agent<sup>3</sup></li> <li>• HP P6000 EVA, SMI-S Agent<sup>4</sup></li> <li>• VSS Agent<sup>5</sup></li> <li>• HP StoreOnce Software De-Duplication</li> <li>• Oracle Online Agent</li> </ul>
Red Hat, KVM	<ul style="list-style-type: none"> <li>• Cell Manager/Installation Server</li> <li>• Manager of Managers</li> <li>• Disk Agent</li> <li>• Media Agent</li> <li>• Online Extension Agents<sup>2</sup></li> <li>• StoreOnce Software Deduplication</li> <li>• HP P9000 XP, SSEA Agent<sup>3</sup></li> <li>• HP P6000 EVA, SMI-S Agent<sup>4</sup></li> </ul>
IBM	<ul style="list-style-type: none"> <li>• Disk Agent</li> <li>• Media Agent</li> <li>• Online Extension Agents<sup>2</sup></li> </ul>

<sup>1</sup> Supported for HP StoreOnce Backup Systems with iSCSI and Catalyst, file devices, HP StoreOnce B6200 Backup System using Catalyst, HP Store Once Software, and file libraries only.

- 2 Valid for all applications that are listed as supported in *HP Data Protector 7.00 Platform and Integration Support Matrix* and are supported by respective vendors inside a virtual machine
- 3 Includes application integrations listed in the *HP Data Protector 7.00 Zero Downtime Backup and Instant Recovery Support Matrix for HP P9000 XP Disk Array Family*
- 4 Includes application integrations listed in the *HP Data Protector 7.00 Zero Downtime Backup and Instant Recovery Support Matrix for HP P6000 EVA Disk Array Family Using SMI-S Agent*
- 5 In case of VSS backups, the application host can be a virtual host, but the backup host for FC based arrays (EVA, XP, etc) must be a physical server. For details of the supported VSS configurations, see the *HP Data Protector 7.00 VSS Integration Support Matrix*
- 6 Support includes attached AVIO Devices
- 7 On VMware DP Agents are supported only on VMs and not on the base host, with the below exception
  1. DA on ESX 3.x and 4.x
  2. MA on ESX 4.x

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				
Virtualization application	Array type	Application host operating system (guest OS)	Backup host operating system	Supported components
VMware	HP P6000 EVA Disk Array Family <sup>1</sup>	Windows Server 2003 (32-bit)	Windows Server 2003 (32-bit) (Physical host only)	<ul style="list-style-type: none"> <li>• Filesystem &amp; Raw Device/volume and Application integrations listed in the <i>HP Data Protector 7.00 Zero Downtime Backup and Instant Recovery Support Matrix for HP P6000 EVA Disk Array Family Using SMI-S Agent</i></li> </ul>
		Windows Server 2003 (X64)	Windows Server 2003 (x64) (Physical host only)	
		Windows Server 2008 (32-bit)	Windows Server 2008 (32-bit) (Physical host only)	
		Windows Server 2008 (x64)	Windows Server 2008 (x64) (Physical host only)	
		Windows Server 2008 R2 (x64)	Windows Server 2008 R2 (x64) (Physical host only)	
		Red Hat Enterprise Linux 5.x (64-bit)(x64)	Red Hat Enterprise Linux 5.x (64-bit)(x64) (Physical host only)	
		SUSE Linux Enterprise Server 10 (32-bit)	SUSE Linux Enterprise Server 10 (32-bit) (Physical host only)	
		SUSE Linux Enterprise Server 11 (64-bit)(x64)	SUSE Linux Enterprise Server 11 (64-bit)(x64) (Physical host only)	
VMware	HP P9000 XP Disk Array Family <sup>1</sup>	Windows Server 2003 (32-bit)	Windows Server 2003 (32-bit) (VM & Physical host)	<ul style="list-style-type: none"> <li>• Filesystem &amp; Raw Device/volume</li> <li>• Application integrations listed in the <i>HP Data Protector 7.00 Zero Downtime Backup and Instant Recovery Support Matrix for HP P9000 XP Disk Array Family</i></li> </ul>
		Windows Server 2003 (X64)	Windows Server 2003 (X64) (VM & Physical host)	
		Windows Server 2008 (32-bit)	Windows Server 2008 (32-bit) (Physical host only)	
		Windows Server 2008 (x64)	Windows Server 2008 (x64) (Physical host only)	
		Windows Server 2008 R2 (x64)	Windows Server 2008 R2 (x64) (Physical host only)	
		Red Hat Enterprise Linux 5.x	Red Hat Enterprise Linux 5.x (VM & Physical host)	

HP Integrity Virtual Machines (IVM)	HP P9000 XP Disk Array Family	HP-UX (Itanium) 11.31	HP-UX (Itanium) 11.31	<ul style="list-style-type: none"> <li>• Filesystem &amp; Raw Device/volume</li> <li>• Application integrations listed in the <i>HP Data Protector 7.00 Zero Downtime Backup and Instant Recovery Support Matrix for HP P9000 XP Disk Array Family</i></li> </ul>
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<sup>1</sup> Only the FC Protocol and the prDM configuration are supported.

Supported VSS configurations for virtual environments (inside virtual machines) <sup>1</sup>				
Virtualization application	Array type	HWP version	Application host operating system (guest OS)	Backup host operating system
VMware	HP P6000 EVA Disk Array Family <sup>2</sup>	6.0x.xx	Windows 2008 R2 (x64)	Windows 2008 R2 (X64) (Physical host only)
VMware	HP P4000 SAN Solutions	8.1.x, 8.5.x, 9.0.x	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 3PAR Storage Systems <sup>2</sup>	1.6.2, 2.1.0	Windows 2008 R2 (x64)	Windows 2008 R2 (X64) (Physical host only)
VMware	HP P9000 XP Disk Array Family <sup>2</sup>	5.02.00	Windows 2003 (32-bit)	Windows 2003 (32-bit) (Physical host only)
			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 (x64)	Windows 2008 (x64) (Physical host only)
Microsoft Hyper-V	HP P6000 EVA Disk Array Family <sup>3</sup>	6.0x.xx	Windows Server 2008 R2 (x64)	Windows Server 2008 R2 (x64) (Physical host only)
			Windows Server 2012 (x64)	Windows Server 2012 (x64) (Physical host only)
Microsoft Hyper-V	HP 3PAR <sup>3</sup> Storage Systems	1.6.2, 2.1.0	Windows Server 2008 R2 (x64)	Windows Server 2008 R2 (x64) (Physical host only)
			Windows 2008 (x64)	Windows 2008 (x64) (Physical host only)
			Windows 2008 R2 (x64)	Windows 2008 R2 (x64) (Physical host only)
		2.2.0	Windows 2012 (x64)	Windows 2012 (x64) (Physical host only)

Microsoft Hyper-V	HP P4000 SAN Solutions	9.0.x.x 9.5.x.x	Windows Server 2003 (x64)	Windows Server 2003 (x64)
			Windows 2008 (x64)	Windows 2008 (x64)
			Windows Server 2008 R2 (x64)	Windows Server 2008 R2 (x64)

- 1 For details of supported configurations please see the *HP Data Protector 7.00 VSS Integration Support Matrix*
- 2 Only the FC Protocol and the pRDM configuration are supported.
- 3 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 instant recovery and disaster recovery purposes.

Virtualization application integration support		
Virtualization application	Data Protector component	Supported application components
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</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>1</sup></li> </ul> </li> <li>• VMware Virtual Center 2.0.x, 2.5.x</li> <li>• VMware vCenter Server 4.0, 4.1</li> </ul>
VMware	Virtual Environment Agent	<ul style="list-style-type: none"> <li>• VMware vCenter Server 5.x, 5.1, 5.1.1</li> <li>• VMware ESX 4.0, 4.1</li> <li>• VMware ESXi 4.0, 4.1, 5.0, 5.1, 5.1.1</li> <li>• VMware Virtual RDM 4.0, 4.1, 5.0, 5.1, 5.1.1</li> </ul>
VMware	Media Agent	<ul style="list-style-type: none"> <li>• ESX 3.0.x, 3.5, 4.0, 4.1</li> </ul>
VMware	Disk Agent	<ul style="list-style-type: none"> <li>• ESX 3.0.x, 3.5, 4.0<sup>2</sup>, 4.1<sup>2</sup></li> <li>• ESXi 5.0x<sup>3</sup>, 5.1.x<sup>3</sup></li> </ul>
VMware	VSS_BAR Agent (MS SQL Server 2008 R2 x64) (MS SQL Server 2012 x64)	<ul style="list-style-type: none"> <li>• ESXi 5.0<sup>3</sup>, 5.1<sup>3</sup>, 5.1.1<sup>3</sup></li> </ul>
Microsoft Virtual server	MS Volume Shadow Copy Integration	<ul style="list-style-type: none"> <li>• VSS based snapshots of VMs</li> </ul>
Microsoft Hyper-V / Hyper-V R2	MS Volume Shadow Copy Integration	<ul style="list-style-type: none"> <li>• VSS based snapshots of VMs</li> </ul>
Microsoft Hyper-V R2	Virtual Environment Agent	<ul style="list-style-type: none"> <li>• VSS based snapshots of VMs (cluster aware)</li> </ul>
Microsoft Hyper-V Server 2012 <sup>4</sup>	Virtual Environment Agent	<ul style="list-style-type: none"> <li>• VSS based snapshots of VMs (cluster aware)</li> </ul>

- 1 LAN based VCB image and VCB file backup is not supported. VCB framework does not support IPv6.
- 2 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.
- 3 Data Protector agents are supported only on a guest OS and not on ESXi 5.0 itself.
- 4 Backup of VMs located on SMB V3 share is not supported.

Data Protector 7.0.x VMware Agent platform support		
Data Protector component	VMware component	Supported operating system
VMware Agent	<ul style="list-style-type: none"> <li>• ESX Console based snapshots</li> <li>• VMware Consolidated Backup 1.0.x, 1.1.x</li> <li>• VMware Consolidated Backup 1.5.x</li> </ul>	ESX 3.0.x, 3.5, 4.0, 4.1 <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)
	<ul style="list-style-type: none"> <li>• VMware Virtual Center 2.0.x, 2.5.x</li> <li>• VMware vCenter Server 4.0</li> </ul>	Windows Server 2003 (32-bit) Windows Server 2003 (64-bit) (x64)
	<ul style="list-style-type: none"> <li>• VMware vCenter Server 4.1</li> </ul>	Windows Server 2003 (32-bit) Windows Server 2003 (64-bit) (x64) Windows Server 2008 (64-bit) (x64) Windows Server 2008 R2 (64-bit) (x64)

- 1 ESX console based snapshots are not supported.

### Data Protector 7.0.0 and 7.0.1 Virtual Environment Agent platform support<sup>3, 4</sup>

Data Protector component	VMware component	Supported backup host operating systems
Virtual Environment Agent (vStorage API support for Data Protection) <sup>1, 2</sup>	<ul style="list-style-type: none"> <li>VMware vCenter Server 4.0, 4.1, 5.0.x, 5.1.0; VMware ESX 4.0, 4.1, ESXi 4.0, 4.1 and ESXi 5.0.x, 5.1.0</li> </ul>	Windows Server 2003 SP2 (64-bit) (x64) Windows Server 2008 (64-bit) (x64) Windows Server 2008 R2 (64bit)(x64) Red Hat Enterprise Linux 5.3, 5.4 and 5.5 (64-bit)(x64) SUSE Linux Enterprise Server 11 (64-bit)(x64)
	<ul style="list-style-type: none"> <li>VMware vCloud Director 1.5.0, 1.5.1</li> </ul>	Windows Server 2008 (32-bit) Windows Server 2008 (64bit)(x64) Windows Server 2008 R2 (64bit)(x64)

1 Virtual Environment Agent does not support IPv6. The functionality is only available with native Windows graphical user interface.

2 Raw Disk Mappings is supported with VADP based backups in virtual mode but not supported in physical mode.

3 Data Protector supports all guest Operating Systems that are supported as guest Operating Systems by VMware.

4 For the additional information about supported components, please refer to the VMware VDDK release notes page: <https://www.vmware.com/support/developer/vddk/vddk-501-ReleaseNotes.html>

### Data Protector 7.0.3 Virtual Environment Agent platform support<sup>1</sup>

Data Protector component	VMware component	Supported operating system
Virtual Environment Agent (vStorage API support for Data Protection) <sup>2, 3</sup>	<ul style="list-style-type: none"> <li>VMware vCenter Server 5.0, 5.1.x; VMware ESXi 5.0.x, 5.1.x</li> </ul>	Windows Server 2008 R2 (64bit)(x64) Windows Server 2012 (64bit)(x64) Red Hat Enterprise Linux 6.1 (64-bit)(x64) SUSE Linux Enterprise Server 11 SP2 (64-bit)(x64)
	<ul style="list-style-type: none"> <li>VMware vCloud Director 1.5.0, 1.5.1</li> </ul>	Windows Server 2008 (32-bit) Windows Server 2008 (64bit)(x64) Windows Server 2008 R2 (64bit)(x64)

1 For the additional information about supported components, please refer to the VMware VDDK release notes page: <https://www.vmware.com/support/developer/vddk/vddk-511-releasenotes.html>

2 Virtual Environment Agent does not support IPv6. The functionality is only available with native Windows graphical user interface.

3 Raw Disk Mappings is supported with VADP based backups in virtual mode but not supported in physical mode.

### Data Protector Virtual Environment Agent support for Microsoft Hyper-V<sup>1</sup>

Microsoft Hyper-V Server 2008 R2

Microsoft Hyper-V Server 2012

1 For supported operating system versions, refer to Microsoft Hyper-V support manuals.

### Granular Recovery Extension for VMware vSphere<sup>1</sup>

Data Protector component	VMware component	Supported operating system / version
Granular Recovery Extension for VMware vSphere 5	<ul style="list-style-type: none"> <li>VMware vCenter Server 5.0.x, 5.1.0x</li> </ul>	Windows Server Only
	<ul style="list-style-type: none"> <li>VMware Mount Proxy</li> </ul>	Windows Server 2003 R2 (x64) Windows Server 2008 R2 (x64) Windows Server 2012 (x64) Red Hat Enterprise Linux 6.1 (64-bit)(x64) <sup>2,3,6</sup> SUSE Linux Enterprise Server 11

(64-bit) (x64)<sup>2,3,4,6</sup>

VMware ESX Server

ESX 4.0.4, ESXi 4.0.4  
ESX 4.1.3, ESXi 4.1.3  
ESXi 5.0.x, 5.1.0, 5.1.1

<sup>1</sup> Supported backup types for GRE are

- DP 7.0.3 based CBT full, incremental and differential backups
- DP 7.0.3 based Snapshot Image full, incremental and differential backups.

VCB Backups taken with DP version 6.11 and DP 6.20 VMware Legacy Agent cannot be used for GRE feature.

All versions of Windows guest operating systems with VMware tools version 4.x or later installed are supported.

Dynamic Disks are not supported on Windows Guest OS.

<sup>2</sup>

File System on mount proxy	Operating system		
	Red Hat 5	Red Hat 6	SUSE 11
ext2	✓	✓	✓
ext3	✓	✓	✓
ext4	-	✓	-
reiserfs	-	-	✓
xf	-	✓	✓
ntfs	✓	✓	✓

<sup>3</sup> Supported partition type: Linux partition (ID 83), Linux LVM partition (ID 8E)

<sup>4</sup> For SUSE 11.x Minimal kernel version 2.6.27.21

<sup>5</sup> VMware vCenter Linux Virtual appliance is not supported

<sup>6</sup> LVM on Linux is supported on patch bundle 7.0.3