# HPE Data Protector 10.0x
# Virtualization Support Matrix

Version: 1.2                                                                    Date: January 2018

*Note:* The combinations of Data Protector components with operating systems and/or application versions are supported by Data Protector if the associated operating system and/or application versions are supported by respective vendors.

All guest operating systems supported by the respective vendors are supported with Data Protector if they are listed as supported on physical hosts in the *HPE Data Protector 10.0x Platform and Integration Support Matrix*.

| What's New |
| --- |
| Updated "Table 7: Virtualization application integration support" with Microsoft Hyper-V Server 2008, 2008 R2 |

The following table lists various Data Protector components supported inside the guest operating systems:

*Table 1: Supported components inside virtual machines*

| Supported components inside virtual machines | |
| --- | --- |
| Virtualization application | Supported Data Protector components |
| VMware[1] | <ul><li>Cell Manager/Installation Server</li><li>Manager of Managers</li><li>Disk Agent</li><li>Media Agent[2]</li><li>Graphical User Interface</li><li>Online Extension Agents[3]</li><li>StoreOnce Software Deduplication</li><li>HPE P9000 XP SSEA Agent[4]</li><li>HPE P6000 EVA SMI-S Agent[5] , HPE 3PAR SMI-S Agent[6]</li><li>VSS Agent[7]</li></ul> |
| Microsoft Hyper-V[8] | <ul><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[3]</li><li>StoreOnce Software Deduplication</li><li>HPE P9000 XP SSEA Agent[4]</li><li>HPE P6000 EVA SMI-S Agent[5]</li><li>VSS Agent[7]</li></ul> |
| HPE Integrity Virtual Machines (IVM) | <ul><li>Cell Manager/Installation Server</li><li>Disk Agent</li><li>Media Agent[9]</li><li>Manager of Managers</li><li>Online Extension Agents[3]</li><li>HPE P9000 XP SSEA Agent[4]</li></ul> |
| Solaris Zones | <ul><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><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[3]</li></ul> |

| | |
|---|---|
| | • StoreOnce Software Deduplication |
| | • HPE P9000 XP SSEA Agent[4] |
| | • HPE P6000 EVA SMI-S Agent[5] |
| | • VSS Agent [7] |
| | • Oracle Online Agent |
| Red Hat, KVM | • Cell Manager/Installation Server |
| | • Manager of Managers |
| | • Disk Agent |
| | • Media Agent |
| | • Online Extension Agents[3] |
| | • StoreOnce Software Deduplication |
| | • HPE P9000 XP, SSEA Agent[4] |
| | • HPE P6000 EVA, SMI-S Agent[5] |

1     Includes support for Virtual Infrastructure and vSphere components like vMotion, HA, DRS.

2     Supported for HPE StoreOnce Backup Systems with iSCSI and Catalyst, file devices, HPE StoreOnce B6200 Backup System using Catalyst, HPE Store Once Software, and file libraries only.

3     Valid for all applications that are listed as supported in *HPE Data Protector 10.0x Platform and Integration Support Matrix* and are supported by respective vendors inside a virtual machine

4     Includes application integrations listed in the *HPE Data Protector 10.0x Zero Downtime Backup and Instant Recovery Support Matrix for HPE P9000 XP Disk Array Family*

5     Includes application integrations listed in the *HPE Data Protector 10.0x Zero Downtime Backup and Instant Recovery Support Matrix for HPE P6000 EVA Disk Array Family Using SMI-S Agent.*

6     Includes application integrations listed in the *HPE Data Protector 10.0x 3PAR Support Matrix* for *HPE 3PAR Disk Array Family Using SMI-S Agent.* For more information on instant recovery, see *HPE Data Protector Zero Downtime Backup Integration Guide.*

7     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 *HPE Data Protector 10.0x VSS Integration Support Matrix*

9     Support includes attached AVIO Devices.

8     Individual disk restores are only supported for Windows Hyper-V Server 2012 or later.

*Table 2: Data Protector Virtual Environment Agent platform support*

| Supported platforms for Data Protector and VMware VDDK component[1,2,3] | | |
|---|---|---|
| Data Protector versions | VMware VDDK component | Supported backup / mount proxy operating systems |
| 10.00 | • VDDK 6.0  U2 | Windows Server 2008 R2 (x64)<br>Windows Server 2012, 2012 R2 (x64)<br>RHEL 6.6[4], 7.0 (x64) [5,6,7]<br>SLES 11.3, 12 (x64) [5,6,7] |
| 10.01 | • VDDK 6.5 U1 | Windows Server 2008 R2 (x64)<br>Windows Server 2012, 2012 R2 (x64)<br>Windows Server 2016<br>RHEL 6.7, 6.8, 7.2, 7.3 (x64) [5,6,7]<br>SLES 11.4, 12.1 (x64) [5,6,7] |

1     Data Protector supports guest operating systems that are supported by the respective operating system vendor and are supported as a guest operating system by VMware.

2     GPT disks are supported for Backup and Restore.

3     Data Protector does not support backup of SATA disks.

4     RHEL 6.6 does not support Power On and Live Migrate operation.

5     Supported partition type for GRE: Linux partition (ID 83), Linux LVM partition (ID 8E).

6     Linux mount proxy does not support granular recovery of ownership, ACLs, file attributes, and alternate data streams for files and folder in Windows guest virtual machine.

| File System | Mount Proxy Operating System | | | |
|---|---|---|---|---|
| | RHEL 6.6 | RHEL 7 | SLES 11.3 | SLES 12 |
| ext2 | ✓ | ✓ | ✓ | ✓ |
| ext3 | ✓ | ✓ | ✓ | ✓ |
| ext4 | ✓ | ✓ | - | ✓ |
| reiserfs | - | - | ✓ | ✓ |
| xfs | ✓ | ✓ | ✓ | ✓ |
| ntfs[6] | ✓ | ✓ | ✓ | ✓ |

*Table 3: VMware vCenter support*

| VMware vCenter  support for Data Protector 10.0x[1,2,3,4] |
|---|
| VMware vCenter Server 5.5, 5.5 U1, 5.5 U2, 5.5 U3, 6.0[5], 6.0 U1[5], 6.0 U2[5], 6.0 U3[5],  6.5[5], 6.5 U1[5] |
| VMware Virtual Server Appliance 5.5 U1, 5.5 U2, 5.5 U3, 6.0[5], 6.0 U1[5], 6.0 U2[5], 6.0 U3[5], 6.5[5], 6.5 U1[5] |

1  Data Protector supports only the above mentioned VMware vCenter versions .
   The ESXi Servers supported by these VMware vCenter versions are supported as Data Protector Application clients.
2  For the respective ESX Server support, refer to the VMware Product Interoperability Matrix using the following link:
   https://partnerweb.vmware.com/comp_guide2/sim/interop_matrix.php.
3  Data Protector does not support free ESXi licenses.
4  Raw Disk Mappings is supported with VADP based backups in virtual mode but not supported in physical mode.
5  VMware VVol (Virtual Volumes) are supported for VMs that are hosted on 3PAR VVol only.

*Table 4: Data Protector Virtual Environment Agent platform support*

| Data Protector Virtual Environment Agent platform support[1,2] | | |
|---|---|---|
| Data Protector components | Platforms | Supported backup / mount proxy operating systems |
| Virtual Environment Agent (vStorage API support for Data Protection) | • VMware vCloud  Director 5.5.0 | Windows Server 2008 (x64) Windows Server 2008  R2 (x64) Windows Server 2012 (x64) |
| Virtual Environment Agent (vStorage API  + Cloud method) | • HPE Helion OpenStack 2.1[3] | Windows Server 2008 R2 (x64) Windows Server 2012, 2012 R2 (x64) RHEL 6.6, 7.0 (x64) SLES 11.3, 12 (x64) |

1  Data Protector supports guest operating systems that are supported by the respective operating system vendor and are
   supported as a guest operating system by VMware.
2  GPT disks are supported for Backup and Restore.
3  Backup and restore of Nova Instance VMs and Cinder Volume disks (Shadow VMs) are supported  in vCenter context.

*Table 5: Supported MS applications for Quiescence enabled backups*

| Supported MS applications for Quiescence enabled backups | | |
|---|---|---|
| Environment | Supported applications | Supported operating systems |
| Standalone | • Microsoft SQL Server 2008 R2 • Microsoft SQL Server 2012 R2 • Microsoft SQL Server 2014 | Windows Server 2008 R2 (x64) Windows Server 2008 R2 (x64) Windows Server 2008 R2 (x64) Windows Server 2012 R2 (x64) |
| | • Microsoft Office SharePoint Server 2010 • Microsoft Office SharePoint Server 2013 | Windows Server 2008 R2 (x64) Windows Server 2008 R2 (x64) |
| | • Microsoft Exchange 2010 | Windows Server 2008 R2 (x64) Windows Server 2012 (x64) |
| | • Microsoft Exchange 2013 | Windows Server 2008 R2 (x64) |

| Supported MS applications for Quiescence enabled backups | | |
| --- | --- | --- |
| Environment | Supported applications | Supported operating systems |
| | • Oracle 11g R2<br>• Oracle 12c R1 | Windows Server 2008 R2 (x64)<br>Windows Server 2008 R2 (x64)<br>Windows Server 2012 R2 (x64) |
| Cluster | • Microsoft Exchange 2010<br>• Microsoft Exchange 2013 | Windows Server 2008 R2 (x64)<br>Windows Server 2012 R2 (x64) |

*Table 6: Granular Recovery Extension for VMware vSphere*

| Granular Recovery Extension (GRE) for VMware vSphere [1, 2] | | |
| --- | --- | --- |
| Data Protector component | VMware component | Supported VMware versions[3] |
| Granular Recovery Extension for VMware vSphere Web Client [4] | • VMware vCenter Server[5]<br>• VMware Server Appliance (VSA)[4] | 5.5 U2, 5.5 U3, 6.0, 6.0 U1, 6.0 U2, 6.0 U3, 6.5 U1<br>5.5 U2, 5.5 U3, 6.0, 6.0 U1, 6.0 U2, 6.0 U3, 6.5 U1 |

1    For Cached GRE using Smart Cache, mount proxy and backup server should be the same host (for NAS devices).
2    Cached GRE is supported for 3PAR snapshots with Advanced GRE Web Plug-in on Windows vCenter and Linux VSA.
3    Data Protector Advanced GRE Web Plug-in is supported only on vCenter Server / VSA version 5.5.1 or higher.
4    VMware Virtual Server Appliance is not supported for vCenter releases prior to 5.5.1. For the supported mount proxy operating systems, see  Table 2.
5    Supported only for vSphere Web Client 5.5, 6.0 and 6.5.

Data Protector supports the following virtualization application-specific features, which enable VSS snapshots for instant recovery without an agent inside the VMs.

*Table 7: Virtualization application integration support*

| Virtualization application integration support | | |
| --- | --- | --- |
| Virtualization application | Data Protector component | Supported application components |
| Microsoft Hyper-V Server 2008, 2008 R2[1] | MS Volume Shadow Copy Integration | • VSS based snapshots of VMs |
| Microsoft Hyper-V Server 2008, 2008 R2[1] | Virtual Environment Agent | • VSS based snapshots of VMs (cluster aware) |
| Microsoft Hyper-V Server 2012[1], 2012 R2[1] | Virtual Environment Agent | • VSS based snapshots of VMs (cluster aware) |
| Microsoft Hyper-V Server 2016 | Virtual Environment Agent | • VSS based snapshots of VMs (cluster aware) |

1    Instant recovery for Hyper-V VSS snapshots is done using the SMIS-A agent.

The VSS transportable backups are supported by installing the respective array agent (SMI-S / SSEA) and VSS agents inside the virtual machines running the applications. For all supported VSS configurations for virtual environments (inside virtual machines), refer to the respective *HPE Data Protector 10.0x VSS Integration Support Matrix.* [1,2,3]

1    For VMware  application on HPE  P6000 EVA Disk Array Family, HPE P9000 XP Disk Array Family and HPE 3PAR Storage Systems, only the FC Protocol and the RDM configuration are supported.
2    For Microsoft Hyper-V  application on HPE P6000 EVA Disk Array Family and HPE 3PAR Storage Systems, only the FC Protocol and the Hyper-V pass through configuration are supported.
3    For VMware application on HPE 3PAR Storage Systems, IR is not supported.