Veritas™ Resiliency Platform 3.2 Hardware and Software Compatibility List

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Resiliency Platform Compatibility List

This document includes the following topics:

Common limitations

Common limitations lists the features that are not supported in one or more environments using Resiliency Platform.

Table 1-1 Common limitations

Feature not supported	Applicable to
VMware fault tolerant virtual machines	VMware environment using third-party replication VMware environment using Resiliency Platform Data Mover replication
Virtual SAN datastore	VMware environment using Resiliency Platform Data Mover replication
Shared Raw Device Mapping (RDM)	VMware environment using Resiliency Platform Data Mover replication
EFI (Extensible Firmware Interface) enabled VMware or Hyper-V virtual machines	VMware or Hyper-V environment using Resiliency Platform Data Mover replication

Compatibility matrix for virtual appliances

Table 1-2 lists the compatibility matrix for virtual appliances.

Table 1-2 Compatibility matrix for virtual appliances

Virtualization Technology	Versions
VMware	vCenter Server 5.1, 5.5, 6.0, 6.0U1, 6.0U2, 6.0 U3, 6.5, 6.5U1 ESXi 5.1, 5.5, 6.0, 6.0U1, 6.0U2, 6.0 U3, 6.5, 6.5U1
Hyper-V	Windows Server 2012 Windows Server 2012 R2

Compatibility matrix for disaster recovery of virtual machines to Azure

Table 1-3 lists the compatibility matrix for disaster recovery of virtual machines to Azure.

Table 1-3 Compatibility matrix for disaster recovery of virtual machines to Azure

Virtualization Technology	Versions	Supported guest operating systems
VMware	vCenter Server 5.5, 6.0, 6.0U1, 6.0U2, 6.0 U3, 6.5, 6.5U1 ESXi 5.5, 6.0, 6.0U1, 6.0U2, 6.0 U3, 6.5, 6.5U1	RHEL 6.5, 6.6, 6.7, 6.8, 6.9, 7.0, 7.1, 7.2, 7.3 Windows Server 2008 R2, 2012, 2012 R2, 2016
Hyper-V	Windows Server 2012 R2	Windows Server 2008 R2, 2012, 2012 R2, 2016

Notes:

[1]. Linux virtual machines are not supported for Hyper-V virtualization technology.

[2]. The replication technology for recovery to Azure is Veritas Resiliency Platform Data Mover.

[3]. For Windows workload virtual machines, PowerShell version 2.0 is supported with .Net version 3.5 and PowerShell version 3.0 is supported with .Net version 4.5.

[4]. RHEL hosts (version 7.0 and above) having multiple NICs need to have `NetworkManager-config-routing-rules` package installed on them.

[5]. RDM disk is supported in virtual and physical mode.

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See “Browser compatibility matrix” on page 17.

See “Compatibility matrix for virtual appliances” on page 5.

Compatibility matrix for disaster recovery of virtual machines to AWS

Table 1-4 lists the compatibility matrix for disaster recovery of virtual machines to AWS.

Table 1-4 Compatibility matrix for disaster recovery of virtual machines to AWS

Virtualization Technology	Versions	Supported guest operating systems
VMware	vCenter Server 5.5, 6.0, 6.0U1, 6.0U2, 6.0 U3, 6.5,6.5U1 ESXi 5.5, 6.0, 6.0U1, 6.0U2, 6.0 U3, 6.5,6.5U1	RHEL 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 7.0, 7.1, 7.2, 7.3 Windows Server 2008 R2, 2012, 2012 R2, 2016
Hyper-V	Windows Server 2012 R2	Windows Server 2008 R2, 2012, 2012 R2, 2016

Notes:

[1]. Linux virtual machines are not supported for Hyper-V virtualization technology.

[2]. The replication technology for recovery to AWS is Veritas Resiliency Platform Data Mover.

[3]. AWS paravirtual drivers version 7.4.3 or 7.4.6 needs to be installed on Windows virtual machines.

[4]. For Windows workload virtual machines, PowerShell version 2.0 is supported with .Net version 3.5 and PowerShell version 3.0 is supported with .Net version 4.5.

[5]. RHEL hosts (version 7.0 and above) having multiple NICs need to have `NetworkManager-config-routing-rules` package installed on them.

[6]. Using China region for recovery to AWS is supported, but not qualified.

[7]. RDM disk is supported in virtual and physical mode.

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See "Compatibility matrix for virtual appliances" on page 5.

Compatibility matrix for disaster recovery of virtual machines to vCloud Director

Table 1-5 lists the compatibility matrix for disaster recovery of virtual machines from on-premises data center to vCloud Director.

Table 1-6 lists the compatibility matrix for disaster recovery of virtual machines from vCloud Director to vCloud Director.

Table 1-5 Compatibility matrix for disaster recovery of virtual machines from on-premises data center to vCloud Director

Virtualization Technology	Versions	Supported guest operating systems
VMware	vCenter Server 5.5 U2 to 6.0 U3, 6.5 U1 ESXi 5.5 U3 to 6.0 U3, 6.5 U1	RHEL 6.5, 6.6, 6.7, 6.8, 6.9, 7.0, 7.1, 7.2, 7.3 Windows Server 2008 R2, 2012, 2012 R2, 2016
Hyper-V	Windows Server 2012 R2	Windows Server 2012, 2012 R2, 2016

Notes:

[1]. vCloud Director versions 8.0.2 and 8.20 are supported.

[2]. The replication technology for recovery to vCloud Director is Veritas Resiliency Platform Data Mover.

[3]. Linux virtual machines are not supported for Hyper-V virtualization technology.

[4]. For Windows workload virtual machines, PowerShell version 2.0 is supported with .Net version 3.5 and PowerShell version 3.0 is supported with .Net version 4.5.

[5]. RHEL hosts (version 7.0 and above) having multiple NICs need to have `NetworkManager-config-routing-rules` package installed on them.

[6]. Rehearse and cleanup rehearsal operations are not supported for recovery to vCloud Director.

[7]. Virtual machines with NIC type E1000E are not supported for the use case of recovering VMware virtual machines to vCloud Director without adding vCenter Server.

[8]. Takeover from vCloud Director to production (on-premises) data center is not supported, if virtual machines are configured for protection without adding Hyper-V Server or vCenter Server.

[9]. RDM disk is supported in virtual and physical mode.

[10]. Starting and stopping of resiliency groups is not supported for the use case of recovery of virtual machines to vCloud Director without adding the vCenter server or Hyper-V server.

Table 1-6 Compatibility matrix for disaster recovery of virtual machines from vCloud Director to vCloud Director

Cloud Technology	Versions	Supported guest operating systems
vCloud Director	8.0.2 , 8.20	RHEL 6.5, 6.6, 6.7, 6.8, 6.9, 7.0, 7.1, 7.2, 7.3 Windows Server 2008 R2, 2012, 2012 R2, 2016

Notes:

[1]. The replication technology for recovery to vCloud Director is Veritas Resiliency Platform Data Mover.

[2]. RHEL hosts (version 7.0 and above) having multiple NICs need to have NetworkManager-config-routing-rules package installed on them.

[3]. For Windows workload virtual machines, PowerShell version 2.0 is supported with .Net version 3.5 and PowerShell version 3.0 is supported with .Net version 4.5.

[4]. Rehearse and cleanup rehearsal operations are not supported for recovery to vCloud Director.

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See "Compatibility matrix for virtual appliances" on page 5.

Compatibility matrix for disaster recovery of virtual machines to OpenStack

Table 1-7 lists the compatibility matrix for disaster recovery of virtual machines to Openstack.

Table 1-7 Compatibility matrix for disaster recovery of virtual machines to Openstack

Virtualization Technology	Versions	Supported guest operating systems
VMware	vCenter Server 5.5, 6.0, 6.0U1, 6.0U2, 6.0 U3, 6.5, 6.5U1 ESXi 5.5, 6.0, 6.0U1, 6.0U2, 6.0 U3, 6.5, 6.5U1	RHEL 6.5, 6.6, 6.7, 6.8, 6.9, 7.0, 7.1, 7.2, 7.3 Windows Server 2008 R2, 2012, 2012 R2, 2016

Table 1-7 Compatibility matrix for disaster recovery of virtual machines to Openstack *(continued)*

Virtualization Technology	Versions	Supported guest operating systems
Hyper-V	Windows Server 2012 R2	Windows Server 2008 R2, 2012, 2012 R2, 2016

Notes:

[1]. Linux virtual machines are not supported for Hyper-V virtualization technology.

[2]. The replication technology for recovery to OpenStack is Veritas Resiliency Platform Data Mover.

[3]. Mitaka and Newton are the supported release series for recovery to OpenStack.

[4]. For Windows workload virtual machines, PowerShell version 2.0 is supported with .Net version 3.5 and PowerShell version 3.0 is supported with .Net version 4.5.

[5]. RHEL hosts (version 7.0 and above) having multiple NICs need to have `NetworkManager-config-routing-rules` package installed on them.

[6]. Resync and Takeover operations and migrating back from target to source data center are not supported for recovery to OpenStack.

[7]. RDM disk is supported in virtual and physical mode.

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Compatibility matrix for disaster recovery using NetBackup images

Table 1-8 and Table 1-9 lists the compatibility matrix for disaster recovery using NetBackup Images.

Table 1-8 Virtualization technology compatibility matrix

Virtualization Technology	Version
VMware	vCenter Server 6.0, 6.0U1, 6.0U2, 6.5, 6.5U1 ESXi 5.5, 6.0, 6.0U1, 6.0U2, 6.5, 6.5U1

Table 1-9 NetBackup component compatibility matrix

Component	Version
NetBackup Master Server [2]	8.1, 8.1.1
NetBackup Auto Image Replication (AIR)	Targeted Auto Image Replication
NetBackup Appliance	Appliance 3.1 and 3.1.1 Appliance Model 52xx

Notes:

[1]. Virtual SAN data store is supported for the operation Restore using NetBackup images.

[2]. NetBackup Master Server 8.1 and 8.1.1 are supported with secure communication.

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Compatibility matrix for disaster recovery of VMware virtual machines to on-premises data center using Resiliency Platform Data Mover

Table 1-10 lists the compatibility matrix for disaster recovery of VMware virtual machines to on-premises data center using Resiliency Platform Data Mover.

Table 1-10 Compatibility matrix for disaster recovery of VMware virtual machine to on-premises data center using Resiliency Platform Data Mover

Virtualization Technology	Version
VMware	vCenter 6.0U2, 6.0 U3, 6.5, 6.5U1 ESXi 6.0U2, 6.0 U3, 6.5, 6.5U1

Notes:

[1]. RDM disk is supported in virtual mode.

[2]. Refer to the VMware Compatibility Guide for information about the VMware approved Resiliency Platform Data Mover replication filter.

[3]. Refer to the VMware Product Interoperability Matrices to ensure that the vCenter server version supports the VMware vSphere Hypervisor version.

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Compatibility matrix for disaster recovery of virtual machines using third-party replication technology

Table 1-11 lists the compatibility matrix for VMware and Hyper-V virtual machines, to be used for disaster recovery using third-party replication technology.

Table 1-12 lists the compatibility matrix for third-party replication technology used with the virtual machines.

Table 1-11 Compatibility matrix for virtual machines

Virtualization Technology	Versions
VMware [14]	vCenter Server 5.1, 5.5, 6.0, 6.0U1, 6.0U2, 6.0 U3, 6.5 ESXi 5.1, 5.5, 6.0, 6.0 U1, 6.0 U2, 6.0 U3, 6.5
Hyper-V [12], [13]	Windows Server 2012 R2

Table 1-12 Compatibility matrix for third-party replication technology for virtual machines

Replication Technology	Array software / Vendor component API/ CLI Version	Storage Model	VMware	Hyper-V
EMC SRDF [4]	EMC Solution Enabler 8.3 or lower version	Symmetrics DMX, VMAX	Supported	Supported

Table 1-12 Compatibility matrix for third-party replication technology for virtual machines *(continued)*

Replication Technology	Array software / Vendor component API/ CLI Version	Storage Model	VMware	Hyper-V
NetApp SnapMirror [1],[2],[3]	ONTAP 7.x and above (Netapp 7 mode), ONTAP 8.2.1, 8.3.2, 9.1 (Netapp cluster mode)	Netapp FAS series	Supported	Supported
Hitachi True Copy/Hitachi Universal Replicator	Command Control Interface (CCI) - 01-46-03/02, HiCommand - 7.x and above	Hitachi USP, VSP	Supported	Supported
EMC Recover Point [9],[10],[11]	RecoverPoint 4.1, 4.4.1, 5.0, 5.1	VMX/Symmetrix, VNX/Clariion, EMC Unity	Supported	Supported
HPE 3PAR Remote Copy [5],[6]	V3.1 and 3.2	N/A	Supported	Supported
IBM XIV [7],[8]	XCLI version 4.1 to 4.8	N/A	Supported	Supported
IBM SVC [8]	7.1 and 7.3	N/A	Supported	Supported
Hyper- V Replica	N/A	N/A	N/A	Supported

Notes:

[1]. Hyper-V is supported with NetApp LUNs but NetApp CIFS is not supported.

[2]. The NetApp SnapMirror replication technology is supported with Async mode only.

[3]. NFS, FC LUN, and iSCSI storage exported from NetApp arrays are supported.

[4]. The EMC SRDF replication technology is supported with Sync and Async modes.

[5]. Only non-shared RDM is supported for HPE 3PAR Remote Copy.

[6]. The HPE 3PAR Remote Copy replication technology is supported only in periodic mode with the mirror_config policy.

[7]. IBM XIV Command Line Interface (XCLI) utility version 4.6 on a Linux system is not supported.

[8]. Using IBM SVC and XIV replication technologies with Hyper-V virtual machines in Microsoft Failover Clustering environment is not qualified.

[9]. VPLEX storage is not supported for EMC RecoverPoint.

[10]. Only continuous remote replication (CRR) is supported for EMC RecoverPoint. Continuous data protection (CDP) and concurrent local and remote (CLR) replication are not supported.

[11]. Shared and non-shared Raw Device Mapping (RDM) is supported for EMC RecoverPoint.

[12]. Minimum Powershell version supported on Hyper-V Servers is 3.0.

[13]. Microsoft Failover Cluster (MSFoC) environment is supported.

[14]. VMware HA is supported.

[15]. Combination of storage from multiple array technologies is not supported.

[16]. Combination of replicated and non-replicated storage to virtual machines is not supported.

[17]. Raw device mapping (RDM) mapped replicated LUNs are not supported for virtual machine disaster recovery.

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Compatibility matrix for disaster recovery of applications using third-party replication technology

Table 1-13 lists the compatibility matrix for applications along with the supported platforms under physical, VMware, and Hyper-V environments.

Table 1-14 lists the compatibility matrix for third-party replication technology used with applications.

Table 1-13 Compatibility matrix for applications along with the supported platforms in physical, VMware, and Hyper-V environments

Applications	Version	Linux platforms	Windows platforms
Oracle RDBMS [1],[2],[11]	11g r2 12C r1	RHEL 6.5, 6.6, 6.7, 6.8, 7.0, 7.1, 7.2	Not supported
Microsoft SQL Server [3]	2012 2014	Not supported	Windows 2008 R2 SP1 Windows 2012 R2
Custom App	N/A	RHEL 6.5, 6.6, 6.7, 6.8, 7.0, 7.1, 7.2	Windows 2008 R2 SP1 Windows 2012 R2

Table 1-14 Compatibility matrix for third-party replication technology for applications

Replication Technology	Array software / Vendor component API/ CLI Version	Storage Model
EMC SRDF [7]	EMC Solution Enabler 8.3 or lower version	Symmetrics DMX, VMAX
NetApp SnapMirror [4],[5],[13]	ONTAP 7.x and above (Netapp 7 mode), ONTAP 8.2.1 and above (Netapp cluster mode)	Netapp FAS series
Hitachi True Copy/Hitachi Universal Replicator	Command Control Interface (CCI) - 01-46-03/02, HiCommand - 7.x and above	Hitachi USP, VSP
EMC Recover Point [8]	RecoverPoint V4.1, 4.4.1, 5.	VMX/Symmetrix, VNX/Clariion, EMC Unity
HPE 3PAR Remote Copy [6],[13]	V3.1 and 3.2	N/A

Notes:

[1]. Oracle RAC is not supported.

[2]. Oracle 12C is supported in traditional mode.

[3]. MSSQL 2012 and MSSQL 2014 are supported without AlwaysOn.

[4]. For NetApp arrays, only the NFS and FC LUNs are supported, CIFS is not supported.

[5]. The NetApp SnapMirror replication technology is supported with Async mode only.

[6]. The HPE 3PAR Remote Copy replication technology is supported only in periodic mode with the mirror_config policy.

[7]. The EMC SRDF replication technology is supported with Sync and Async modes.

[8]. For EMC RecoverPoint, only continuous remote replication (CRR) is supported. continuous data protection (CDP) and concurrent local and remote (CLR) replication is not supported.

[9]. VMware HA environment is supported.

[10]. Minimum Powershell version supported on Windows Servers is 3.0.

[11]. Database user authentication is not supported for Oracle applications.

[13]. Rehearse and cleanup rehearsal operations is not supported for applications inside virtual machines having data on raw disks mapped to virtual machines and data replicated through 3PAR RemoteCopy or NetApp SnapMirror through fibre channel.

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See "Compatibility matrix for virtual appliances" on page 5.

Compatibility matrix for disaster recovery of InfoScale applications

Table 1-15 lists the compatibility matrix for disaster recovery of InfoScale applications.

Table 1-15 Compatibility matrix for disaster recovery of InfoScale applications

Component	Version	Details
Veritas InfoScale Operations Manager [3]	7.0, 7.1, 7.2, and 7.3 HF1 onwards	Supported on Linux and Windows Supported in standalone and HA configuration
Veritas Cluster Server (VCS) [1],[2]	6.0 and above	Supported on AIX, Linux, Solaris, and Windows operating systems

Notes:

[1]. All VCS supported configurations are supported for both Application and Replication technology.

[2]. The GCO failover policy must be manual.

[3]. Veritas InfoScale Operations Manager 7.3 version is not supported.

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Browser compatibility matrix

Table 1-16 lists the browser compatibility matrix.

Table 1-16 Browser compatibility matrix

Browser	Versions	Comments
Microsoft Internet Explorer	11, or later	**JavaScript:** Enabled **Cookies:** Enabled
Mozilla Firefox	33.x, or later	**JavaScript:** Enabled **Cookies:** Enabled
Google Chrome	38.x, or later	**JavaScript:** Enabled **Cookies:** Enabled

Note:

When Popup blockers are turned on, make sure that the filter level set to is medium or lower.

System resource requirements for Resiliency Platform

The amount of virtual CPUs, memory, and disk space that Veritas Resiliency Platform requires are listed in this section.

Table 1-17 Minimum configurations

Component	Minimum configuration
Resiliency Manager	Disk space 60 GB RAM 32 GB Virtual CPU 8
Infrastructure Management Server (IMS)	Disk space 60 GB RAM 16 GB Virtual CPU 8
Replication Gateway	Disk space 40 GB RAM 16 GB Virtual CPU 8
YUM repository server	Disk space 60 GB RAM 4 GB Virtual CPU 2
Hosts to be added to Veritas Resiliency Platform: ■ Windows Install host ■ Application host ■ Resiliency Platform Data Mover host ■ Storage discovery host ■ Hyper-V host	Disk space 15 GB RAM 4 GB Dual processor CPU If you are using a single host for multiple purposes, add the disk space and RAM required for each purpose. For example, if you are using a single host as Windows Install host and as application host, then you need to have at least 30 GB disk space and 8 GB RAM. Note that you cannot use a single host as a Windows Install host as well as Resiliency Platform Data Mover host.

Note: You need to reserve the resources for Resiliency Manager and IMS to ensure that these resources do not get swapped in case of hypervisors getting overloaded.

If the virtual appliance does not meet the minimum configuration, you get a warning during the bootstrap of the virtual appliance and you are required to confirm if you want to continue with the current configuration.

If you plan not to use the YUM virtual appliance, you need a Linux server with a minimum of 50-GB disk space, to be configured as the repository server. Provisioning for the repository server is optional, it is required to install the Veritas Resiliency Platform patches or updates in the future.

If you want to enable dynamic memory on Hyper-V, make sure that the following prerequisites are met:

- Startup memory and minimal memory should be equal to or greater than the amount of memory that the distribution vendor recommends.
- If you are using dynamic memory on a Windows Server 2012 operating system, specify Startup memory, Minimum memory, and Maximum memory parameters in multiples of 128 megabytes (MB). Failure to do so can lead to dynamic memory failures, and you may not see any memory increase in a guest operating system.
  Even if you are using dynamic memory, the above mentioned minimum configuration should be met.

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