

# Zerto

## Zerto Virtual Replication Guide to Alarms, Alerts and Events

VMware vSphere Environment

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VR-ALRV-4.5U4-01-10-10-16

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## CHAPTER 1: ZERTO VIRTUAL REPLICATION ALARMS

Alarms in VMware vSphere are notifications that occur in response to selected events, conditions, and states that occur with objects in the inventory. You can use the vSphere Client to create and modify alarms.

All of the Zerto Virtual Replication alarms defined to vSphere are prefixed with `com.zerto.event`. During an installation of Zerto Virtual Replication, the vCenter Server specified as part of the installation is accessed and the Zerto Virtual Replication alarms are defined in the vCenter Server.

The following topics are described in this chapter:

- [“Alarms and Alerts”, below](#)
- [“Customized Alarms After an Upgrade”, on page 4](#)
- [“Alarms”, on page 4](#)

### Alarms and Alerts

Zerto Virtual Replication is configured with a set of predefined alarms that monitor the software, including problems with resources such as journals, recovery storage, and connectivity between Zerto Virtual Replication. When an ongoing problem is identified by Zerto Virtual Replication, an alert is issued. This alert also results in the appropriate Zerto Virtual Replication alarm being triggered in the vCenter Server. The same vCenter Server alarm can be triggered by more than one Zerto Virtual Replication alert.

**Note:** Disabling an alarm in vCenter Server will not stop Zerto Virtual Replication alert being fired.

Any Zerto Virtual Replication alarm will only be turned off when all instances of the alert are turned off. For example, if you pause two VPGs, a vCenter Server alarm is raised. If you resume just a single VPG the alarm remains on. Only when no VPGs are paused is the alarm stopped.

For details about Zerto Virtual Replication alerts, refer to [“Zerto Virtual Replication Alerts”, on page 11](#).

### Customized Alarms After an Upgrade

During an upgrade of Zerto Virtual Replication, any customization of Zerto Virtual Replication alarms is maintained during an upgrade except for the `send a notification email` action which is removed.

**Note:** Email notifications for alarms configured in the Zerto User Interface, in the `Advanced Settings` dialog, are maintained during an upgrade.

For fuller information about alarms, refer to the relevant VMware documentation.

### Alarms

COM.ZERTO.EVENT.<alarm>	DESCRIPTION IN VCENTER SERVER	EXPANDED DESCRIPTION	RELATED ZERTO VIRTUAL REPLICATION ALERTS
<a href="#">AssertAlert</a>	Internal problem in Zerto Virtual Manager	An internal error has occurred.	<a href="#">ZVM0009</a>
<a href="#">AwsBucketRemoved</a>	Trying to replicate into an AWS bucket that was removed	The S3 bucket used to recover the VPG virtual machines no longer exists.	<a href="#">AWS0001</a>

COM.ZERTO.EVENT.<alarm>	DESCRIPTION IN VCENTER SERVER	EXPANDED DESCRIPTION	RELATED ZERTO VIRTUAL REPLICATION ALERTS
BacklogError	Journal history problem. The amount of history is less than it should be	A journal history problem. The amount of history is between 15% and 25% less than it should be, probably because of a synchronization that overwrote some of the checkpoints.	VPG0004, VPG0038, VPG0046, VPG0048
BacklogWarning	Journal history problem. The amount of history is less than it should be	A journal history problem. The amount of history is at least 25% less than it should be, probably because of a synchronization that overwrote some of the checkpoints.	VPG0003, VPG0037, VPG0045, VPG0047,
BackupFailsConstantlyError	Scheduled offsite backup failed for the last 7 days	An offsite backup was scheduled but the initial job and retries failed for the last 7 days.	BCK0002
BackupFailsConstantlyWarning	Scheduled offsite backup failed for the last 3 days	An offsite backup was scheduled but the initial job and retries failed for the last 3 days.	BCK0001
BackupTargetDisconnected	The repository is not accessible by the VBA	The repository cannot be found.	BCK0005
BackupTargetIsNone	The repository cannot be found	The repository is not accessible by the VBA.	BCK0007
CheckHost	A host is unavailable, possibly due to incompatible version or native state	The host is not accessible. Two possible explanations are an incompatible version or native state.	ZVM0011, ZVM0013
CloudConnector	A problem with the Zerto Cloud Connector, for example, it is powered off	A problem with the Zerto Cloud Connector, for example, it is powered off. For details about Zerto Cloud Connectors, refer to <i>Zerto Virtual Replication Zerto Cloud Manager Installation</i> .	ZCC0002
CriticalCheckpoint	Critical checkpoint: Only a few minutes of checkpoints are left in the journal for the VPG	The checkpoints available in the journal are decreasing, and that there are only a few minutes worth left. This can occur due to a prolonged <code>Bitmap Sync</code> , or a general WAN disconnect due to storage or network issues. The replication/sync has been proactively paused so as not to lose all of the history. After the configured pause timeout expires, replication/sync will continue and checkpoints will be lost.	VPG0007
Datastore	The datastore is not accessible	The datastore is not accessible.	STR0001
DisconnectedAWSName	A disconnection to AWS	A disconnection to AWS.	ZVM0001
DisconnectedVCenter	vCenter Server disconnection	A vCenter Server disconnection.	ZVM0001
DuplicateMacAddress	MAC Address conflict	A MAC Address conflict.	VRA0037, VRA0038

COM.ZERTO.EVENT.<alarm>	DESCRIPTION IN VCENTER SERVER	EXPANDED DESCRIPTION	RELATED ZERTO VIRTUAL REPLICATION ALERTS
FlrZeusDriverNotAvailable	The file level recovery driver is not available.	The file level recovery driver was not installed or is not available.	FLR0001
GhostCloudConnector	A Zerto Cloud Connector was deleted, leaving a ghost cloud connector	A Zerto Cloud Connector was deleted, leaving a ghost cloud connector. For details about Zerto Cloud Connectors, refer to <i>Zerto Cloud Manager Administration Guide</i> .	ZCC0001
GhostLogVolume	A journal volume was deleted	A journal volume was deleted.	VRA0027
GhostMirrorVolume	A recovery disk was deleted	A recovery disk was deleted.	VRA0026
GhostSystemDisk	A disk on a VRA cannot be found	Zerto Virtual Manager does not find a system disk on a VRA.	VRA0053
GhostUnknownVolume	A disk on a VRA is not recognized.	Zerto Virtual Manager sees a disk on a VRA that it does not recognize.	VRA0052
GhostVm	A VRA or shadow VRA was deleted, leaving a ghost VRA	A VRA or shadow VRA was deleted, leaving a ghost VRA.	VRA0024
HostPasswordChanged	The password used by the VRA to access the host ESX/ESXi is no longer valid	The password used by the VRA to access the host ESX/ESXi is no longer valid.	VRA0050
JournalLimitReached	The journal or scratch volumes used in testing and before committing have reached the hard limit set for the journal	The journal or scratch volumes used in failover testing and moves and failovers before committing the moves or failovers have reached the hard limit set for the journal in the VPG definition.	VRA0039, VRA0040
LastTest	The VPG has not been tested or was tested a long time ago	The VPG has not been tested or was tested a long time ago.	VPG0011, VPG0012
License	There is a problem with the license	There is a problem with the license.	LIC0001, LIC0002, LIC0003, LIC0004, LIC0005, LIC0006, LIC0007, LIC0008
LowDiskFreeSpace	The disk on which the Zerto Virtual Manager is installed is low on space	The disk on which the Zerto Virtual Manager is installed is low on space.	ZVM0005
MisconfiguredSanPolicyOnCrossReplicatedWinVm	The Microsoft default SAN policy might cause some protected volumes to become offline upon recovery	The Microsoft default SAN policy might cause some protected volumes to become offline upon recovery.	VPG0043
MissingNetworksForVMsInVPG	The recovery network does not exist	The network required for the recovery operation does not exist.	VPG0042
MissingOrgVdcNetworkMapping	A network mapping for Org vDC for the VPG is missing	A network mapping for Org vDC for the VPG is missing.	VPG0025
MissingRecoveryOrgVdcNetworkMapping	A network mapping for the recovery site provider Org vDC is missing	A network mapping for the recovery site provider Org vDC is missing.	VPG0028

COM.ZERTO.EVENT.<alarm>	DESCRIPTION IN VCENTER SERVER	EXPANDED DESCRIPTION	RELATED ZERTO VIRTUAL REPLICATION ALERTS
NewVersionAvailable	The paired remote Zerto Virtual Manager is a different version that cannot work with the local Zerto Virtual Manager	A new version of Zerto Virtual Replication is available.  Pairing of incompatible Zerto Virtual Managers is prevented, but upgrading a Zerto Virtual Manager to an incompatible version with a paired remote Zerto Virtual Manager is possible.	ZVM0006, ZVM0007
NoMatchingStorageProfile	Could not find matching recovery storage profile	Specific to vCD targets: A VPG is replicating to an Org vDC, and some VMs within the VPG have no recovery storage profile configured, and no enabled storage profile in the recovery site contains their recovery datastores.	VPG0018
PeerZvmCompatibility	The paired remote Zerto Virtual Manager is a different version that cannot work with the local Zerto Virtual Manager	The paired remote Zerto Virtual Manager is a different version that cannot work with the local Zerto Virtual Manager.  <b>Note:</b> Pairing of incompatible Zerto Virtual Managers is prevented, but upgrading a Zerto Virtual Manager to an incompatible version with a paired remote Zerto Virtual Manager is possible.	ZVM0008
ProtectedVmScsiMismatch	Values collected from the hypervisor and the VM manager do not match	The Zerto Virtual Manager cannot collect SCSI adapter information from the host for the virtual machine in the VPG.	ZVM0012
ProtectedVolumeSizeChanged	For internal use only	For internal use only	—
ProtectionGroupError	The VPG has an error, for example, if a storage error occurs while recovering from a VRA crash	The VPG has an error. This only happens in rare cases, for example, if a storage error occurs while recovering from a VRA crash.	VPG0005
ProtectionGroupMissingConfiguration	The VPG has a missing configuration	The VPG has a missing configuration.	VPG0006
ProtectionGroupPaused	The VPG protection has been paused	The VPG protection has been paused.	VPG0017
RdmWithOddNumberOfBlocks	The RDM has an odd number of blocks	The RDM has an odd number of blocks.	VPG0039
RecoveryBeforeCommit	The VPG is waiting to be committed or rolled back	The VPG is waiting to be committed or rolled back.	VPG0014
RecoveryDataStoreFull	The recovery datastore is full	The recovery datastore is full.	STR0002
RecoveryDataStoreLowFreeSpace	The recovery datastore has less than xGB of free space	The recovery datastore is running out of free space.	STR0004
RecoveryDatastoresNotInStorageProfile	Missing recovery datastores in recovery storage profile	The storage profile does not include the recovery datastores.	VPG0024

COM.ZERTO.EVENT.<alarm>	DESCRIPTION IN VCENTER SERVER	EXPANDED DESCRIPTION	RELATED ZERTO VIRTUAL REPLICATION ALERTS
RecoveryProviderVDCStorageProfileDisabled	Recovery provider vDC storage profile is disabled	The recovery provider vDC storage profile is disabled.	VPG0022
RecoveryProviderVDCStorageProfileNotFound	Recovery provider vDC storage profile is not found	The recovery provider vDC storage profile could not be found.	VPG0021
RecoveryStorageProfileDisabled	Recovery storage profile is disabled	The recovery storage profile is disabled.	VPG0019
RecoveryStorageProfileNotFound	Recovery storage profile is not found	The recovery storage profile could not be found.	VPG0020
RecoveryVcenterStorageProfileMissing	Storage profile not found in underlying vCenter Server	A storage profile was not found in the underlying vCenter Server.	VPG0018, VPG0023
ResourcePoolInsufficientError	Resource Pool does not have enough resource to support VPG	A resource Pool does not have enough resource to support VPG.	VPG0015
ResourcePoolMissingError	Target resource pool cannot be found for VPG	The recovery resource pool for the VPG can no longer be found.	VPG0016
RpoError	The recovery RPO is not being met. The current RPO is more than the target RPO	The target RPO is not being met. The current RPO is at least 25% more than the target RPO.	VPG0010
RpoWarning	The recovery RPO is not being met. The current RPO is more than the target RPO	The recovery RPO is not being met. The current RPO is between 15% and 25% more than the target RPO.	VPG0009
ServiceProfileMissing	The service profile for the VPG cannot be found	The service profile for the VPG cannot be found.	VPG0026
UndoRollbackFailed	A rollback failed	A rollback failed.	VPG0008, VRA0049
UninstalledHost	The host has no VRA installed	The host has no VRA installed.	VRA0001
UnprotectedVMsError	One or more of the virtual machines in the VPG are not protected, for example a VM was vMotioned to a host without a VRA	One or more of the virtual machines in the VPG are not protected, for example a virtual machine was vMotioned to an ESX/ESXi host without a VRA.	VPG0027
VbaDisconnected	The VBA service is not connected to the Zerto Virtual Manager	The VBA service is not connected to the Zerto Virtual Manager.	BCK0006
VCDConnector	vCloud Director connection problem	A vCloud Director connection problem.	VCD0014, VCD0015, VCD0018
VCDReflection	A problem collecting the vCloud Director metadata	There is a problem collecting the vCloud Director metadata.	VCD0001, VCD0002, VCD0003, VCD0004, VCD0005, VCD0006, VCD0007, VCD0010, VCD0016, VCD0017, VCD0020, VCD0021
VirtualMachine	For internal use only	For internal use only.	—
VirtualMachineHardwareVersionMismatch	The hardware version of one or more of the protected VMs is not supported by the recovery host	The hardware version of one or more of the protected virtual machines is not supported by the recovery host.	VPG0040
VirtualMachineHasZeroSizeVolume	VM has at least one volume of size 0	The virtual machine has one or more volumes of size zero.	VPG0044

COM.ZERTO.EVENT.<alarm>	DESCRIPTION IN VCENTER SERVER	EXPANDED DESCRIPTION	RELATED ZERTO VIRTUAL REPLICATION ALERTS
VPGOutOfZorgOnProtected	The VPG belongs to a ZORG but contains resources outside of the ZORG	The VPG has been defined as belonging to a ZORG but contains resources outside of the ZORG.	VPG0035
VPGOutOfZorgOnRecovery	The VPG belongs to a ZORG but requires resources outside of the ZORG	The VPG has been defined as belonging to a ZORG but contains resources outside of the ZORG.	VPG0036
VraBallooning	On 4.x host: VRA on host does not have enough resources. On 5.x host: VRA on host does not have enough reserved memory	On 4.x host: VRA on host does not have enough resources. On 5.x host: VRA on host does not have enough reserved memory.	VRA0029
VraCloneVolume	A VRA clone volume error	AVRA clone volume error.	VRA0014, VRA0015, VRA0016, VRA0017
VraDidntReceiveIp	The VRA didn't receive an IP	The VRA didn't receive an IP.	VRA0002
VraIpChanged	The VRA IP changed	The VRA IP changed.	VRA0003, VRA0004
VraLogVolume	VRA journal volume error	A VRA journal volume error.	VRA0006, VRA0007
VraPoweredOff	VRA is powered off	A VRA is powered off.	VRA0028
VraProtectedVolume	VRA protected volume error	A VRA protected volume error.	VRA0018, VRA0019, VRA0020, VRA0021, VRA0022, VRA0025
VRARegistrationFailed	Problem with an ESX/i upgrade	A problem with an ESX/ESXi upgrade.	VRA0023, VRA0015, VRA0016, VRA0017
VRAsReconciliation	The Zerto Virtual Manager is synchronizing all of its VRAs	The Zerto Virtual Manager is synchronizing all of its VRAs. It can happen if there was a site disconnect and the Zerto Virtual Managers detected that a change was made while the sites were disconnected. For example, executing a failover while the sites are disconnected and then they reconnect.	VRA0035
VraTargetVolume	Recovery volume error for a VRA	A recovery volume error for a VRA.	VRA0008, VRA0009, VRA0010, VRA0011, VRA0012, VRA0013
VraToVraConnection	A VRA is not connected to a remote site VRA	A VRA is not connected to a remote site VRA.	VRA0006
Win2003VmDuringReplicationToVCD	Windows 2003 VM in VPG that is recovering to vCD	The VPG includes a Windows 2003 virtual machine which cannot be recovered in vCD.	VPG0041
ZertoGenericAlert	Zerto generic alert - check Zerto UI for details.	An alert is issued when none of the specific alerts are valid for the situation.	VRA0030
ZvmToVraConnection	The Zerto Virtual Manager is not connected to a VRA	The Zerto Virtual Manager is not connected to a VRA.	ZVM0002

COM.ZERTO.EVENT.<alarm>	DESCRIPTION IN VCENTER SERVER	EXPANDED DESCRIPTION	RELATED ZERTO VIRTUAL REPLICATION ALERTS
ZvmToZvmConnection	The Zerto Virtual Manager is not connected to a remote site Zerto Virtual Manager	The Zerto Virtual Manager is not connected to a remote site Zerto Virtual Manager.	ZVM0003, ZVM0004
ZvmToZvmSync	The Zerto Virtual Managers are syncing with each other	The Zerto Virtual Manager is synchronizing with the remote site.	ZVM0010

## CHAPTER 2: ZERTO VIRTUAL REPLICATION ALERTS

When a problem is identified by Zerto Virtual Replication, an alert is issued.

The following topics are described in this chapter:

- “Monitoring Alerts”, below
- “Amazon Web Services (AWS) Alerts”, on page 12
- “Backup Alerts”, on page 13
- “File Level Restore Alerts”, on page 14
- “Licensing Alerts”, on page 15
- “Storage Alerts”, on page 17
- “vCloud Director Alerts”, on page 18
- “VPG Alerts”, on page 23
- “VRA Alerts”, on page 38
- “Zerto Cloud Connector Alerts”, on page 51
- “Zerto Cloud Manager Alerts”, on page 52
- “Zerto Virtual Manager Alerts”, on page 53

### Monitoring Alerts

All alerts issued by Zerto Virtual Replication are displayed in the Zerto User Interface. An alert status indicator is displayed in the top left of the display and specific details of all issued alerts are displayed in the *ALERTS* tab under the top *MONITORING* tab.

Alert ID	Entity	Site Name	VPGs	ZORG	Timestamp	Description
ZVM002	VRA	Site2-CSP-R			22/04/2015 14:46:33	Zerto Virtual Manager is not connected to VRA with IP 172.20.99.79 on Zerto Virtual Manager is not connected to VRA with IP 172.20.99.73 on
ZVM002	VRA	Site2-CSP-R			27/04/2015 08:56:42	Zerto Virtual Manager is not connected to VRA with IP 172.20.99.73 on Zerto Virtual Manager is not connected to VRA with IP 172.20.99.81 on
ZVM002	VRA	Site3-Ent1	HR		28/04/2015 15:14:41	Zerto Virtual Manager is not connected to VRA with IP 172.20.99.81 on
VRA0005	VRA	Site1-CSP-P	HR		28/04/2015 15:31:21	Connection between local site VRA, 172.20.99.88 (on host 172.20.99.2
VPG0010	VPG	Site1-CSP-P	HR		28/04/2015 15:20:31	VPG HR exceeds configured RPO of 5 minutes by more than 25%.

The information displayed in the *ALERTS* tab includes the VPG name, entity name that triggered the alert, the date and time the alert was issued and a description of the alert.

### Alert Status

The alert status indicator in the bottom left shows the number of alerts and the color for the most severe alert that is currently valid. After the alert has been resolved, the alert is removed from the *ALERTS* tab and the alert status indicator changes, if appropriate, to show the new alert status.

Warnings are indicated by the orange icon and alerts by the red icon.

## Working With the Alert Tab

You can dismiss alerts by selecting the relevant alerts and clicking the *ACKNOWLEDGE* button. The number of alerts displayed in the title bar alerts indicator is the number of unacknowledged alerts.

If the description of the alert is truncated, hover over the alert to display a tooltip with the complete description.

Alerts from previous versions are displayed with an *Unknown* link.

Click *EXPORT* to save the alerts as a Microsoft Excel worksheet.

The Zerto Virtual Replication alerts are grouped into categories where the first three characters of the alert identifies the category:

**AWS** - Alerts relating to the recovery site being Amazon Web Services (AWS).

**BCK** - Alerts relating to offsite backup and VBA issues.

**LIC** - Alerts relating to licensing issues.

**STR** - Alerts relating to storage issues.

**VCD** - Alerts relating to issues with vCloud Director.

**VPG** - Alerts relating to the VPGs and the virtual machines being protected.

**VRA** - Alerts relating to VRA issues.

**ZCC** - Alerts relating to Zerto Cloud Connectors used by cloud service providers.

**ZCM** - Alerts relating to the Zerto Cloud Manager.

**ZVM** - Alerts relating to the Zerto Virtual Manager.

## Amazon Web Services (AWS) Alerts

AWS alerts are triggered when there is a problem with the AWS recovery site.

### AWS0001

**Alert Name** AWS S3 bucket removed

**Alert Category** AWS

**Severity** Error

**Message Displayed** The Zerto bucket in S3 cannot be found. Re-install the Zerto Cloud Appliance (ZCA) in AWS.

**Description** The S3 bucket used for the replicated data managed by the VRA in AWS is not found.

**Alarm in vCenter Server** [AwsBucketRemoved](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The data replicated from the protected site is saved in an AWS S3 bucket which cannot be found.	Reinstall the Zerto Cloud Appliance (ZCA) in AWS.

## Backup Alerts

Offsite backup alerts are triggered when there is a problem with the Zerto Virtual Backup Appliance (VBA).

### BCK0001

**Alert Name** Offsite backup fails

**Alert Category** Offsite backup

**Severity** Warning

**Message Displayed** The scheduled backup on VPG {vpg\_name} has failed for the last 3 days.

**Description** The VPG is defined with extended recovery but backups have failed for the last 3 days, including attempted retries.

**Alarm in vCenter Server** [BackupFailsConstantlyWarning](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
No room on the disk where the repository is defined.	Check the amount of space on the disk where the repository is located.
Access permissions to the repository have changed and the backup job no longer has permission to write to the repository.	Check the authorization required to access the repository.
Network problems.	Check the network is working properly.

### BCK0002

**Alert Name** Offsite backup fails

**Alert Category** Offsite backup

**Severity** Error

**Message Displayed** The scheduled backup on VPG {vpg\_name} has failed for the last 7 days.

**Description** The VPG is defined with extended recovery but backups have failed for the last 7 days, including attempted retries.

**Alarm in vCenter Server** [BackupFailsConstantlyError](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
No room on the disk where the repository is defined.	Check the amount of space on the disk where the repository is located.
Access permissions to the repository have changed and the backup job no longer has permission to write to the repository.	Check the authorization required to access the repository.
Network problems.	Check the network is working properly.

### BCK0005

**Alert Name** Offsite backup repository disconnected.

**Alert Category** Offsite backup

**Severity** Error/Warning

**Message Displayed** Repository {repository\_name} is disconnected. Your backups for VPGs: {vpg\_names} are at risk.

**Description** The repository is not accessible by the VBA. If the repository stored backup jobs then an error alert is issued, otherwise, a warning is issued.

**Alarm in vCenter Server** [BackupTargetDisconnected](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Network problems.	Check the network is working properly.

**BCK0006**

**Alert Name** Offsite backup repository disconnected.

**Alert Category** Offsite backup

**Severity** Error

**Message Displayed** Virtual Backup appliance is disconnected. Your backup for VPGs: {vpg\_names} are at risk.

**Description** The VBA is not accessible. If there are VPGs that are affected, these VPGs are listed.

**Alarm in vCenter Server** [VbaDisconnected](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The VBA is not running.	Check that the VBA service is running.
Network problems.	Check the network is working properly.

**BCK0007**

**Alert Name** Offsite backup repository not defined.

**Alert Category** Offsite backup

**Severity** Warning

**Message Displayed** Extended DR is defined for VPG {vpg\_name} but a backup repository is specified as 'None'.

**Description** The VPG is defined with extended recovery but a repository cannot be found to specify for the VPG and therefore backups cannot be performed.

**Alarm in vCenter Server** [BackupTargetIsNone](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
A repository is not defined.	Define a repository in the Zerto User Interface.

**File Level Restore Alerts**

File level restore alerts are triggered when there is a problem performing a file or folder level restore.

**FLR0001**

**Alert Name** Files cannot be restored

**Alert Category** File Level Restore

**Severity** Error

**Message Displayed** The file restore component is not available.

**Description** The file level restore component is not available or cannot be found so it is not possible to recover files.

**Alarm in vCenter Server** [FlrZeusDriverNotAvailable](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
There was a problem installing the file level restore component.	Contact Zerto support.
There is a problem running the file level restore component.	

## Licensing Alerts

Licensing alerts are triggered when there is a problem with the Zerto Virtual Replication license, for example it is about to expire or has already expired.

### LIC0001

**Alert Name** License exceeded

**Alert Category** Licensing

**Severity** Warning

**Message Displayed** You are licensed to protect a maximum of {n} VMs until {date}. Currently {m} VMs are protected. Contact your account manager to extend your license. Note: Protection of virtual machines continues.

**Description** Your license restricts you to protecting a maximum number of virtual machines and you have reached 80% of this number or have exceeded this number.

**Note:** All protected virtual machines will continue to be protected.

Alarm in vCenter Server [License](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Too many virtual machines are protected.	Contact your Zerto account manager to resolve the issue.

### LIC0002

**Alert Name** License exceeded

**Alert Category** Licensing

**Severity** Warning

**Message Displayed** You are licensed to use Zerto Virtual Replication with a maximum of {n} CPU sockets until {date}. Currently {m} sockets are in use. Contact your account manager to extend your license. Note: Protection of virtual machines continues.

**Description** Your license restricts you to protect virtual machines using a maximum number of CPU sockets and you are close to or have exceeded this number.

**Note:** All protected virtual machines will continue to be protected.

Alarm in vCenter Server [License](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Too many CPU sockets are used in the protection of virtual machines.	Contact your Zerto account manager to resolve the issue.

### LIC0003

**Alert Name** License about to expire

**Alert Category** Licensing

**Severity** Warning

**Message Displayed** Your license is due to expire in {days}. Contact your account manager to extend your license. Note: Protection of virtual machines continues.

**Description** Your license is close to its expiration date.

**Note:** All protected virtual machines will continue to be protected.

## Alarm in vCenter Server License

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Your license is close to its expiration date.	Contact your Zerto account manager to extend the license life.

**LIC0004**

**Alert Name** License expired and exceeded

**Alert Category** Licensing

**Severity** Warning

**Message Displayed** Your license has expired and you are also protecting more VMs than the license allows. Contact your account manager to replace your license. Note: Protection of virtual machines continues.

**Description** Your license is passed its expiration date and you are protecting more virtual machines than the license permits.

**Note:** All protected virtual machines will continue to be protected.

## Alarm in vCenter Server License

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Your license has expired and more virtual machines than permitted are being protected.	Contact your Zerto account manager to extend the license life and increase the number of virtual machines that can be protected.

**LIC0005**

**Alert Name** License expired and exceeded

**Alert Category** Licensing

**Severity** Warning

**Message Displayed** Your license has expired and you are also using Zerto Virtual Replication with more sockets than the license allows. Contact your account manager to replace your license. Note: Protection of virtual machines continues.

**Description** Your license is passed its expiration date and you are using more CPU sockets than the license permits.

**Note:** All protected virtual machines will continue to be protected.

## Alarm in vCenter Server License

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Your license has expired and more CPU sockets than permitted are being used.	Contact your Zerto account manager to extend the license life and increase the number of CPU sockets that can be used.

**LIC0006**

**Alert Name** License expired

**Alert Category** Licensing

**Severity** Warning

**Message Displayed** Your license has expired. Contact your account manager to renew your license. Note: Protection of virtual machines continues.

**Description** Your license is passed its expiration date.

**Note:** All protected virtual machines will continue to be protected.

## Alarm in vCenter Server License

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Your license has expired.	Contact your Zerto account manager to extend the license life.

**LIC0007**

**Alert Name** License exceeded

**Alert Category** Licensing

**Severity** Warning

**Message Displayed** You are licensed to protect a maximum of {n} VMs. Currently {m} VMs are being protected. Contact your account manager to extend your license. Note: Protection of virtual machines continues.

**Description** You are protecting more virtual machines than the license permits.

**Note:** All protected virtual machines will continue to be protected.

Alarm in vCenter Server [License](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
More virtual machines than permitted are being protected.	Contact your Zerto account manager to increase the number of virtual machines that can be protected.

**LIC0008**

**Alert Name** License exceeded

**Alert Category** Licensing

**Severity** Warning

**Message Displayed** You are licensed to use Zerto Virtual Replication with a maximum of {n} CPU sockets. Currently {m} sockets are in use. Contact your account manager to extend your license. Note: Protection of virtual machines continues.

**Description** You are using more CPU sockets than the license permits.

**Note:** All protected virtual machines will continue to be protected.

Alarm in vCenter Server [License](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
More CPU sockets than permitted are being used.	Contact your Zerto account manager to increase the number of CPU sockets that can be used.

**Storage Alerts**

Storage alerts are triggered when there is a problem with a datastore specified in a VPG.

**STR0001**

**Alert Name** Datastore not accessible

**Alert Category** Storage

**Severity** Error

**Message Displayed** The storage {storage\_name} is not accessible. Reason {reason}.

**Description** The hypervisor manager reports that the specified storage holding either a recovery disk or a journal disk is inaccessible.

Alarm in vCenter Server [Datastore](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The hypervisor manager has reported a problem accessing the storage.	Refer to the hypervisor manager, VMware vCenter Server or Microsoft SCVMM, documentation to resolve the issue.

**STR0002**

**Alert Name** Datastore full

**Alert Category** Storage

**Severity** Error

**Message Displayed** The storage {storage\_name} is close to full capacity and further protection of VMs in VPGs using this storage cannot continue until you increase the storage size. The minimum free space required is {n}GB.

**Description** The storage has too little free space remaining. Until the issue is resolved further protection of the virtual machines being recovered to this storage cannot continue.

This alert is triggered when the free space falls below 30GB or 15% of the storage, whichever is smaller. Thus, with large storage where 30GB is less than 15%, the alert will be triggered when the amount of free space is less than 30GB of the total size. With small storage where 30GB is more than 15%, the alert will be triggered when the amount of free space is less than 15% of the total size.

Recovery operations can still be performed to the last checkpoint written to the journal, before protection was halted.

**Alarm in vCenter Server** [RecoveryDataStoreFull](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Storage is too small.	Increase the size of the storage.
	Change the recovery storage being used in the VPG definition.

**STR0004**

**Alert Name** Datastore low in space

**Alert Category** Storage

**Severity** Warning

**Message Displayed** The storage {storage\_name} is close to the minimum {n} GB free space required to continue protection of VMs in VPGs using this storage.

**Description** The storage is close to its minimum of free space. If the issue is not resolved, protection of the virtual machines being recovered to this storage will stop when the limit is reached.

This alert is triggered when the free space falls below 45GB or 25% of the storage, whichever is smaller.

Recovery operations can still be performed.

**Alarm in vCenter Server** [RecoveryDataStoreLowFreeSpace](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Storage is too small.	Increase the size of the storage.
	Change the recovery storage being used in the VPG definition.

**vCloud Director Alerts**

vCloud Director alerts are triggered when there is a problem with the vCD specified in a VPG.

**VCD0001**

**Alert Category** vCloud Director

**Severity** Error

**Message Displayed** Cannot obtain backing vCenter Servers for Org vDC {orgvdc\_name}.

**Description** The underlying vCenter Server for the Org vDC is not found.

Alarm in vCenter Server [VCDReflection](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Org vDC not found in vCenter.	Contact the vSphere/vCD administrator.

**VCD0002**

Alert Category vCloud Director

Severity Error

Message Displayed Found multiple backing vCenter Servers for Org vDC {orgvdc\_name}, server IDs {identifier}.

Description The Org vDC is defined in more than one underlying vCenter Server.

Alarm in vCenter Server [VCDReflection](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Org vDC is defined to more than one vCenter.	Contact the vSphere/vCD administrator.

**VCD0003**

Alert Category vCloud Director

Severity Error

Message Displayed Cannot find Org vDC storage profile {sp\_name} in vCenter. It exists in vCD.

Description The Org vDC storage profile specified exists in vCD but cannot be found in the underlying vCenter Server.

Alarm in vCenter Server [VCDReflection](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Org vDC storage profile not found in vCenter.	Contact the vSphere/vCD administrator.

**VCD0004**

Alert Category vCloud Director

Severity Error

Message Displayed Cannot find provider vDC storage profile {sp\_name} in vCenter. It exists in vCD.

Description The provider vDC storage profile specified exists in vCD but cannot be found in the underlying vCenter Server.

Alarm in vCenter Server [VCDReflection](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Provider vDC storage profile not found in vCenter.	Contact the vSphere/vCD administrator.

**VCD0005**

Alert Category vCloud Director

Severity Error

Message Displayed Cannot extract Org vDC information for Org vDC network {network}, message is {msg}.

Description The network information required by Zerto Virtual Replication cannot be retrieved.

The exception should give more information. For example, vCD 1.5 doesn't let Zerto Virtual Replication retrieve information on specific types of networks.

Alarm in vCenter Server [VCDReflection](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
vCD 1.5 is being used.	Refer to the exception message. Contact the vSphere/vCD administrator.
vCD 5.1 and higher is being used.	Refer to the exception message. Contact the vSphere/vCD administrator or Zerto support.

**VCD0006**

Alert Category vCloud Director

Severity Error

**Message Displayed** Provider vDC {pvdc\_name} of Org vDC {orgvdc\_name} wasn't found in reflection. Ignoring this Org vDC.

**Description** A problem occurred with Zerto Virtual Replication accessing the provider vDC metadata it has in the recovery site. The problem should fix itself in a few minutes.

Alarm in vCenter Server [VCDReflection](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Zerto Virtual Replication access difficulty.	Wait a few minutes for the problem to resolve itself.

**VCD0007**

Alert Category vCloud Director

Severity Error

**Message Displayed** Cannot obtain resource pools for Org vDC {orgvdc\_name}, exception is {exception}.

**Description** The connection to vCD was dropped, so the required resource pools for the Org vDC could not be retrieved.

Alarm in vCenter Server [VCDReflection](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Disconnection with vCD.	Contact the vSphere/vCD administrator.

**VCD0010**

Alert Category vCloud Director

Severity Error

**Message Displayed** Failed to fetch orgNetwork due to exception is {exception}, orgNetwork is {network}.

**Description** The network information required by Zerto Virtual Replication cannot be retrieved.

The exception should give more information. For example, vCD 1.5 doesn't let Zerto Virtual Replication retrieve information on specific types of networks.

Alarm in vCenter Server [VCDReflection](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
vCD 1.5 is being used.	Refer to the exception message. Contact the vSphere/vCD administrator.
vCD 5.1 and higher is being used.	Refer to the exception message. Contact the vSphere/vCD administrator or Zerto support.

**VCD0014**

**Alert Name** vCD disconnection

**Alert Category** vCloud Director

**Severity** Error

**Message Displayed** No connection to vCD {vcd\_id}.

**Description** Access to vCD could not be established.

**Alarm in vCenter Server** [VCDConnector](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Wrong credentials.	Check the credentials.
vCD is down.	Check whether vCD is up or not.
Network problems.	Check the network is working properly.

**VCD0015**

**Alert Name** AMQP-server disconnection

**Alert Category** vCloud Director

**Severity** Error

**Message Displayed** Connected to vCloud {vcd\_id} but failed to connect to AMQP-server for notifications. Last connection error: "{error}".

**Description** The connection to the AMQP server in vCD failed, even though the connection to vCD itself succeeded.

**Alarm in vCenter Server** [VCDConnector](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Network problems.	<p>Refer to the exception message. Contact the vSphere/vCD administrator.</p> <p>In the RabbitMQ GUI has been installed:</p> <ol style="list-style-type: none"> <li>1. Verify that the Zerto Virtual Manager is unable to connect to the AMQP server.</li> <li>2. Verify that the IP address credentials for the AMQP are correct.</li> <li>3. Verify that there is no proxy, either in Internet Explorer's LAN settings, or DNS settings, that might be blocking the connection.</li> <li>4. Login to the vCD interface and in <i>Administration &gt; Blocking Tasks &gt; Settings</i> verify <i>AMQP Broker Settings</i> are configured properly via the <i>Test AMQP Connection</i> button.</li> </ol>
Configuration problems.	<p>Refer to the exception message. Contact the vSphere/vCD administrator.</p> <p>Verify that the Exchange and Queue previously created by the Zerto Virtual Replication AMQP Installer are listed properly in RabbitMQ:</p> <ol style="list-style-type: none"> <li>1. Login to the RabbitMQ web-based GUI (<a href="http://server-name:55672/mgmt">http://server-name:55672/mgmt</a> credentials are <i>guest/guest</i>).</li> <li>2. Click the <i>Exchanges</i> tab.</li> <li>3. If the exchange <i>vCD</i> does not exist, create it manually, and check to see if the connectivity issue is resolved.</li> </ol>

**VCD0016**

**Alert Name** Provider vDC datastore not found

**Alert Category** vCloud Director

**Severity** Error

**Message Displayed** Datastore {ds\_name} for provider vDC {pvdc\_name} not found in vCD datastore query.

**Description** Access to the datastore cannot be established for the provider vDC.

**Alarm in vCenter Server** [VCDReflection](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The datastore was not found.	Contact the vCD administrator.

## VCD0017

**Alert Category** vCloud Director

**Severity** Error

**Message Displayed** Failed extracting metadata for Org vDC {orgvdc\_name}. Exception {exception}.

**Description** The metadata for the Org vDC in vCD could not be extracted. The Org vDC is ignored.

**Alarm in vCenter Server** [VCDReflection](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The Org vDc metadata was not found.	Contact the vCD administrator.

## VCD0018

**Alert Name** Duplicated MAC addresses

**Alert Category** vCloud Director

**Severity** Error

**Message Displayed** VM {vm\_name} has NICs with duplicate MACs: nic and nic have MAC {mac}.

**Description** The same MAC address is used by more than one NIC for the virtual machine.

**Alarm in vCenter Server** [VCDConnector](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Duplicate MAC addresses.	Contact the system administrator to change the duplicate MAC addresses.

## VCD0020

**Alert Name** VM inconsistency in vApp

**Alert Category** vCloud Director

**Severity** Error

**Message Displayed** Number of entities {entity\_list} in startup section is different from the number of VMs {vm\_name} in vApp {vapp\_name}.

**Description** The list of virtual machines registered to the vApp does not match the actual virtual machines in the vApp.

**Alarm in vCenter Server** [VCDReflection](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Number of virtual machines in the vApp doesn't match the number in the startup section.	Check if a virtual machine was removed from the vCenter Server.

**VCD0021**

**Alert Name** VM inconsistency in vApp

**Alert Category** vCloud Director

**Severity** Error

**Message Displayed** Unknown entity {entity\_name} in startup section of vApp {vapp\_name}.

**Description** One of the entities registered to the vApp does not exist.

**Alarm in vCenter Server** [VCDReflection](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Unknown entity in the startup section.	Check if a virtual machine was removed from the vCenter Server.

**VPG Alerts**

VPG alerts are triggered when there is a problem with a VPG.

**VPG0003**

**Alert Name** VPG has low journal history

**Alert Category** VPG and protected virtual machines

**Severity** Warning

**Message Displayed** VPG {vpg\_name} journal history is less than {x}% of the configured {n}. {sync\_explanation}

**Description** During a synchronization, the latest changes in the protection site are added to the journal and older data in the journal is moved to the mirror virtual disk managed by the VRA for the virtual machine. As the synchronization continues and more old data is moved out of the journal, the checkpoints associated with the data are also removed from the journal and new checkpoints are not added to the journal.

This alert is triggered when the journal history configured for the VPG is at least one hour and the journal contains less than 75% of the configured history.

The message specifies that the amount of history is a percentage less than the configured amount.

This alert will automatically be resolved when the journal history is fully populated.

**Alarm in vCenter Server** [BacklogWarning](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
A synchronization (but not a bitmap synchronization, see the next cause) has caused the journal to include less time than defined.	Nothing to do. With time the journal will fill up to the defined time.
A bitmap synchronization has caused the journal to include less time than defined.	If the amount of time left in the journal is too small, the ability to recover if a disaster occurs is impaired. If the advanced settings, <i>Replication Pause Time</i> has been defined, the synchronization will pause to enable the situation to be resolved, for example, by creating a clone.

**VPG0004**

**Alert Name** VPG has low journal history

**Alert Category** VPG and protected virtual machines

**Severity** Error

**Message Displayed** VPG {vpg\_name} journal history is less than {x} of the configured {n}. {sync\_explanation}

**Description** During a synchronization, the latest changes in the protection site are added to the journal and older data in the journal is moved to the mirror virtual disk managed by the VRA for the virtual machine. As the synchronization continues and more old data is moved out of the journal, the checkpoints associated with the data are also removed from the journal and new checkpoints are not added to the journal.

This alert is triggered in either of the following situations:

- When the journal history configured for the VPG is at most one hour and the journal contains less than 75% of the configured history.
- When the journal history configured for the VPG is at least one hour and the journal contains less than 75% of the configured history or one hour of history.

The message specifies that the amount of history is a large percentage less than the configured amount.

This alert will automatically be resolved when the journal history is fully populated.

Alarm in vCenter Server [BacklogError](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
A synchronization (but not a bitmap synchronization, see the next cause) has caused the journal to include less time than defined.	Nothing to do. With time the journal will fill up to the defined time.
A bitmap synchronization has caused the journal to include less time than defined.	If the amount of time left in the journal is too small, the ability to recover if a disaster occurs is impaired. If the advanced settings, <i>Replication Pause Time</i> has been defined, the synchronization will pause to enable the situation to be resolved, for example, by creating a clone.
The MTU value is too big to enable transfer over VPN.	Reduce the MTU. Zerto recommends reducing the MTU by increments of 10 until pinging the remote site is successful, using the following ping command: <code>ping URL -f -l MTU_value</code> . Start with an MTU value of 1500. When the MTU value is too big, the ping will return strings similar to the following: <code>Packet needs to be fragmented but DF set.</code>

## VPG0005

**Alert Name** VPG in error state

**Alert Category** VPG and protected virtual machines

**Severity** Error

**Message Displayed** An unresolvable error has occurred with VPG {0}. The VPG must be deleted {1}.

**Description** The VPG has entered an error state which cannot be fixed.

Alarm in vCenter Server [ProtectionGroupError](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The VPG is in an error state.	Delete the VPG and then reprotect the virtual machines.

## VPG0006

**Alert Name** VPG missing configuration details

**Alert Category** VPG and protected virtual machines

**Severity** Error

**Message Displayed** VPG {vpg\_name} is missing configuration details.

**Description** Some of the VPG configuration is not valid and has to be updated.

## Alarm in vCenter Server ProtectionGroupMissingConfiguration

POSSIBLE CAUSE	POSSIBLE RESOLUTION
A virtual machine was added to a VPG or vApp and the added virtual machine has no matching datastore or not enough room on the recovery datastore.	Edit the VPG to define the datastore to use for the virtual machine and the test and failover networks.
A volume was added to a protected virtual machine and the added volume has no matching datastore or not enough room on the recovery datastore.	Edit the VPG to specify a suitable datastore for the added volume.
The VPG settings were not updated because of a site disconnection or hypervisor manager, VMware vCenter Server and Microsoft SCVMM, error.	Check the connectivity between the Zerto Virtual Manager and hypervisor manager, such as VMware vCenter Server and Microsoft SCVMM, and between the protected and recovery sites and if there is a disconnection, fix it.
When performing a Failover or Move operation, you do not specify reverse protection.	If you do not want reverse protection you can remove the VPG, otherwise edit the VPG and save it with the required settings. The default settings are displayed for the missing configuration settings.
An Org vDC network is removed from the recovery site that has a VPG replicating to it.	Edit the VPG to use a different Org vDC network.
A protected volume was resized and the recovery site is VMware vCenter Server is version 4.0.	Edit the VPG to cause the recovery site volumes to be resized.
A source volume associated with an RDM as a target for replication is resized.	<ol style="list-style-type: none"> <li>1. If the VPG contains more than one virtual machine, remove the source virtual machine from the VPG, and save the changes. If the VPG contains only one virtual machine, delete the VPG. If the virtual machine recovery disks are of VMDK format, make sure to choose to keep the recovery disks.</li> <li>2. Resize the RDM (both local and remote) as described in the VMware <a href="#">Expanding the size of a Raw Device Mapping (RDM)</a> knowledge base article.</li> <li>3. Protect the virtual machine again after resizing the RDM.</li> </ol> <p>The VPG will go through a <code>Delta Sync</code>.</p>

**VPG0007**

**Alert Name** VPG replication paused

**Alert Category** VPG and protected virtual machines

**Severity** Error

**Message Displayed** Replication of VPG {vpg\_name} has paused to enable creating a clone. It will resume in {n} minutes.

**Description** A VPG is being synchronized and if the synchronization continues it will cause all the checkpoints in the journal to be removed. During the synchronization, the latest changes in the protection site are added to the journal and older data in the journal was moved to the mirror virtual disk managed by the VRA for the virtual machine. As the synchronization continues and more old data is moved out of the journal, the checkpoints associated with the data are also removed from the journal and new checkpoints are not added. If the synchronization continues for too long, all the checkpoints can be removed from the journal meaning all recovery operations can no longer be performed.

The message is issued when there are 200 or fewer checkpoints present in the journal and the `Replication Pause Time` is set in the `Advanced Settings` dialog. Zerto recommends configuring a replication pause time. The synchronization is paused for the time specified in the `Replication Pause Time` is set in the `Advanced Settings` dialog, to enable resolving this situation so that recovery can be performed if necessary.

## Alarm in vCenter Server CriticalCheckpoint

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The VPG replication paused during a synchronization when the number of checkpoints in the journal was so small that continuing the synchronization would mean losing all the checkpoints making recovery impossible.	Clone the VPG using the last checkpoint, so that if all the VPG checkpoints are lost and recovery is required before new checkpoints are added to the journal, the clone can be used.
	Resume the synchronization. In this case, the longer the time left to complete the synchronization, the greater the risk of not being able to recover in case of a disaster. As soon as the synchronization completes, new checkpoints are added to the journal and recovery is again possible.

**VPG0008**

**Alert Name** VPG rollback failed

**Alert Category** VPG and protected virtual machines

**Severity** Error

**Message Displayed** VPG {vpg\_name} rollback failed. Error is {exception}.

**Description** During a Failover or Move operation, before committing the recovery the decision was taken to roll back the recovery, either manually or automatically.

Alarm in vCenter Server UndoRollbackFailed

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The connection between the hypervisor manager, such as VMware vCenter Server and Microsoft SCVMM, and the Zerto Virtual Manager is down.	Check the connectivity between the hypervisor manager, and Zerto Virtual Manager.
The connection between the Zerto Virtual Manager and the VRA is down.	Check the connectivity between the Zerto Virtual Manager and the VRA
An internal error occurred.	Contact Zerto support.

**VPG0009**

**Alert Name** VPG target RPO exceeded

**Alert Category** VPG and protected virtual machines

**Severity** Warning

**Message Displayed** VPG {vpg\_name} exceeds configured RPO of {n} by more than {m}%.

**Description** The IOs are not being replicated fast enough and this is causing the current RPO for the VPG to be between 15% and 25% more than the target RPO specified in the VPG SLA settings.

This alert is triggered when the actual RPO, the time between writing checkpoints to the journal, is more than 15%, but less than 25% more than the target RPO specified for the VPG.

**Note:** When the RPO is being met, after this warning, the following alert is issued: VPG {vpg\_name} meeting configured RPO of {n}.

Alarm in vCenter Server RpoWarning

POSSIBLE CAUSE	POSSIBLE RESOLUTION
IO burst.	After the IO burst the RPO should return to under the target RPO setting.
VRA is a bottleneck.	Increase the reserved RAM for the protection and recovery site VRAs.

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The network is slow.	Check the network rate to see if this is the problem.
The recovery storage is slow.	Check the IO rate for the recovery storage to see if this is the problem.

## VPG0010

**Alert Name** VPG target RPO exceeded

**Alert Category** VPG and protected virtual machines

**Severity** Error

**Message Displayed** VPG {vpg\_name} exceeds configured RPO of {n} by more than {m}%.

**Description** The IOs are not being replicated fast enough and this is causing the current RPO for the VPG to be at least 25% more than the target RPO specified in the VPG SLA settings.

This alert is triggered when the actual RPO, the time between writing checkpoints to the journal, is more than 25% of the target RPO specified for the VPG.

**Note:** When the RPO is being met, after this error, the following alert is issued: VPG {vpg\_name} meeting configured RPO of {n}.

Alarm in vCenter Server [RpoError](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
IO burst.	After the IO burst the RPO should return to under the target RPO setting.
VRA is a bottleneck.	Increase the reserved RAM for the protection and recovery site VRAs.
The network is slow.	Check the network rate to see if this is the problem.
The recovery storage is slow.	Check the IO rate for the recovery storage to see if this is the problem.

## VPG0011

**Alert Name** VPG test overdue

**Alert Category** VPG and protected virtual machines

**Severity** Warning

**Message Displayed** VPG {vpg\_name} is overdue to be tested. It is configured for testing every {n}.

**Description** In order to ensure that the definitions provided for a VPG meet the DR plan, the VPG should be tested every-so-often. The test time specified in the VPG has elapsed and the VPG has still not been tested.

This alert is triggered when the a test has never been performed and it is past the time specified for the testing frequency for the VPG.

Alarm in vCenter Server [LastTest](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The VPG was never tested.	Test the VPG.

## VPG0012

**Alert Name** VPG test overdue

**Alert Category** VPG and protected virtual machines

**Severity** Warning

**Message Displayed** VPG {vpg\_name} was last successfully tested {n} days ago. It is configured for testing every {m}.

**Description** In order to ensure that the definitions provided for a VPG meet the DR plan, the VPG should be tested every-so-often. The testing time is stipulated as part of the VPG definition and this time has elapsed since a test was performed.

This alert is triggered when the last test performed is further in the past than the time specified for the testing frequency for the VPG.

Alarm in vCenter Server [LastTest](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The VPG was tested in the past more than the specified value in the VPG SLA settings.	Test the VPG.

## VPG0014

**Alert Name** VPG waiting for commit or rollback

**Alert Category** VPG and protected virtual machines

**Severity** Warning

**Message Displayed** VPG {vpg\_name} is waiting for commit/rollback.

**Description** A Failover or Move operation has been performed and the VPG is waiting for the operation to either be committed or rolled back.

Alarm in vCenter Server [RecoveryBeforeCommit](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The VPG is waiting for the recovery operation to be committed or rolled back.	Commit or rollback the recovery operation.

## VPG0015

**Alert Name** Resources not enough to support VPG

**Alert Category** VPG and protected virtual machines

**Severity** Error

**Message Displayed** {resource\_pool} does not have enough resources to support VPG {vpg\_name}. Recovery is disabled until this issue is resolved. Details: {details}

**Description** The resource pool used for the recovery for the VPG does not have enough resources to recover all the virtual machines in the VPG.

Alarm in vCenter Server [ResourcePoolInsufficientError](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The recovery host resource pool does not have enough resources to recover all the virtual machines in the VPG.	Edit the VPG and change the recovery host for one or more of the VPGs so that there are available resources.
	If write-order fidelity is not required by all the virtual machines in the VPG, remove the virtual machines that don't require write-order fidelity from the VPG and create a new VPG for these virtual machines.
	Increase the resource pool resources.

## VPG0016

**Alert Name** Resources pool not found

**Alert Category** VPG and protected virtual machines

**Severity** Error

**Message Displayed** Recovery resource pool cannot be found for VPG {vpg\_name}.

**Description** The recovery resource pool has been removed and there is nowhere for the VPG to recover to.

Alarm in vCenter Server [ResourcePoolMissingError](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The recovery host resource pool cannot be found.	Edit the VPG and change the recovery host for one or more of the VPGs so that there are available resources.
	If write-order fidelity is not required by all the virtual machines in the VPG, remove the virtual machines that don't require write-order fidelity from the VPG and create a new VPG for these virtual machines.

**VPG0017**

**Alert Name** VPG protection paused

**Alert Category** VPG and protected virtual machines

**Severity** Warning

**Message Displayed** VPG {vpg\_name} is paused.

**Description** During periods when the WAN bandwidth is utilized to its maximum, you can pause the protection of a VPG, to free-up some of this bandwidth. After pausing the protection, the VPG can still be recovered, to the last checkpoint written to the journal before the pause operation.

Alarm in vCenter Server [ProtectionGroupPaused](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Pause was clicked to pause the VPG protection.	Click <i>Resume</i> to resume the protection. After resuming protection, a <code>Bitmap Sync</code> will most probably be performed to synchronize the protection and recovery sites.

**VPG0018**

**Alert Name** VMs in VPG not configured with a storage profile

**Alert Category** VPG and protected virtual machines

**Severity** Error

**Message Displayed** VPG {vpg\_name} is replicating to Org vDC {orgvdc\_name}. Some VMs in the VPG have no recovery storage profile configured, and no enabled storage profile in the recovery site contains their recovery datastores.

**Description** The storage profile that was originally available to the Org vDC is no longer available. Any storage profile that is currently available to the Org vDC does not include the relevant recovery datastores.

Alarm in vCenter Server [NoMatchingStorageProfile](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
No storage profile that includes relevant recovery datastores can be found.	In VMware vSphere create a new storage profile, or enable an existing storage profile with the relevant datastores.

**VPG0019**

**Alert Name** VPG recovery storage profile disabled

**Alert Category** VPG and protected virtual machines

**Severity** Error

**Message Displayed** Storage profile {sp\_name} is disabled in Org vDC {orgvdc\_name}, but it serves as the recovery storage profile for VPGs.

**Description** The storage profile that was originally available to the Org vDC has been disabled. The VPGs cannot be recovered.

Alarm in vCenter Server [RecoveryStorageProfileDisabled](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The specified storage profile has been disabled.	In VMware vSphere create a new storage profile, or enable an existing storage profile with the relevant datastores.

**VPG0020**

**Alert Name** VPG recovery storage profile not found

**Alert Category** VPG and protected virtual machines

**Severity** Error

**Message Displayed** Storage profile with ID {sp\_id} is not found in Org vDC {orgvdc\_name}, but it serves as the recovery storage profile for VPGs.

**Description** The storage profile that was originally available to the Org vDC is no longer available. Any storage profile that is currently available to the Org vDC does not include the relevant recovery datastores. The VPGs cannot be recovered.

Alarm in vCenter Server [RecoveryStorageProfileNotFound](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
No storage profile that includes relevant recovery datastores can be found.	In VMware vSphere create a new storage profile, or enable an existing storage profile with the relevant datastores.

**VPG0021**

**Alert Name** VPG recovery storage profile not found

**Alert Category** VPG and protected virtual machines

**Severity** Error

**Message Displayed** Storage profile {sp\_name} is not found in Provider vDC {pvd\_name}, but it serves as the recovery storage profile for VPGs.

**Description** The storage profile that was originally available to the Provider vDC is no longer available. Any storage profile that is currently available to the Provider vDC does not include the relevant recovery datastores. The VPGs cannot be recovered.

Alarm in vCenter Server [RecoveryProviderVDCStorageProfileNotFound](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
No storage profile that includes relevant recovery datastores can be found.	In VMware vSphere create a new storage profile, or enable an existing storage profile with the relevant datastores.

**VPG0022**

**Alert Name** VPG recovery storage profile disabled

**Alert Category** VPG and protected virtual machines

**Severity** Error

**Message Displayed** Storage profile {sp\_name} is disabled in the Provider vDC {pvd\_name}, but it serves as the recovery storage profile for VPGs.

**Description** The storage profile that was originally available to the Provider vDC has been disabled. The VPGs cannot be recovered.

Alarm in vCenter Server [RecoveryProviderVDCStorageProfileDisabled](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The specified storage profile has been disabled.	In VMware vSphere create a new storage profile, or enable an existing storage profile with the relevant datastores.

**VPG0023**

**Alert Name** VPG recovery storage profile not found

**Alert Category** VPG and protected virtual machines

**Severity** Error

**Message Displayed (vSphere environment)** Storage profile {sp\_name} of Provider vDC {pvdc} is not found in the underlying vCenter, but it serves as the recovery storage profile for VPGs.

**Message Displayed (Hyper-V environment)** Storage profile {sp\_name} of Provider vDC {pvdc} is not found in the underlying SCVMM, but it serves as the recovery storage profile for VPGs.

**Description** The storage profile that was originally available to the Provider vDC cannot be found. The VPGs cannot be recovered.

**Alarm in vCenter Server** [RecoveryVcenterStorageProfileMissing](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The specified storage profile cannot be found.	In VMware vSphere create a new storage profile, or enable an existing storage profile with the relevant datastores.

**VPG0024**

**Alert Name** VPG recovery storage profile does not include active datastores

**Alert Category** VPG and protected virtual machines

**Severity** Error

**Message Displayed (vSphere environment)** The VPG is replicating to Org vDC {orgvdc\_name}, but it cannot be recovered because active recovery datastores have been removed from recovery storage profiles: {sp}

**Message Displayed (Hyper-V environment)** The VPG is replicating to Org vDC {orgvdc\_name}, but it cannot be recovered because active recovery storages have been removed from recovery storage profiles: {sp}

**Description** The storage profile that is used for recovery no longer includes the datastores that were being used.

**Alarm in vCenter Server** [RecoveryDatastores NotInStorageProfile](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Recovery datastore not found in the storage profile.	Add the datastore back to the storage profile.
	Change the recovery datastore of the affected virtual machines in the VPG.

**VPG0025**

**Alert Name** vApp network mapping not defined

**Alert Category** VPG and protected virtual machines

**Severity** Warning

**Message Displayed** The VPG {vpg\_name} is protecting the vApp {vapp}. Some vApp networks of this vApp are connected to Org vDC networks for which no mapping is defined. The NICs connected to these vApp networks will be disconnected on failover. Configure network mapping for all networks {networks}.

**Description** The VPGs are being recovered in vCD but there is no mapping for the vApp networks. During recovery, the vApps will be created but will not be accessible.

**Alarm in vCenter Server** [MissingOrgVdcNetworkMapping](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Network mapping for one or more vApp networks has not been configured.	Configure the vApp network mapping.

**VPG0026**

**Alert Name** VPG recovery storage profile changed

**Alert Category** VPG and protected virtual machines

**Severity** Warning

**Message Displayed** The service profile you use in VPG {vpg\_name} has been changed by your cloud provider.

**Description** The service profile used to determine the VPG SLA no longer exists. The existing SLA values in the VPG will continue to be used, for example the default journal history and test frequency reminder until you edit the VPG to use a valid service profile.

**Alarm in vCenter Server** [ServiceProfileMissing](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Service profile specified in the VPG no longer exists.	Consult with the cloud service provider about what service profile to use and edit the VPG to use another service profile.

**VPG0027**

**Alert Name** VPG includes VMs that are no longer protected

**Alert Category** VPG and protected virtual machines

**Severity** Warning

**Message Displayed** VPG {vpg\_name} includes the following VMs which are no longer protected: {vm\_list}.

**Description** One or more of the virtual machines in the VPG is no longer being protected. This can occur due to a number of reasons, such as the VRA on the host of a specific virtual machine was removed, or the virtual machine was moved to a different host without a VRA installed.

**Alarm in vCenter Server** [UnprotectedVMsError](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The host for the virtual machine does not have a VRA installed.	Install a VRA on the host.
	vMotion the virtual machines to a host that does have an installed VRA.

**VPG0028**

**Alert Name** Corrupted Org vDC network mapping

**Alert Category** VPG and protected virtual machines

**Severity** Error

**Message Displayed** An Org vDC network mapping setting for networks {networks} in VPG {vpg\_name} has become corrupted.

**Description** The network mapping settings for the Org vDC defined in the VPG has become corrupted.

**Alarm in vCenter Server** [MissingRecoveryOrgVdcNetworkMapping](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Corrupted network mappings.	Edit the VPG to fix the mapping.

**VPG0035**

**Alert Name** VPG protected resources not in ZORG

**Alert Category** VPG and protected virtual machines

**Severity** Warning

**Message Displayed** Protected Virtual datacenter {0}, is not part of the ZORG.

Or,

VPG {vpg\_name} contains resources that are not assigned to the ZORG {zorg\_name}.

resources: {list\_of\_resources}

**Description** The VPG is defined for a specific Zerto Organization, ZORG, but the resources specified for this ZORG in the Zerto Cloud Manager do not include the resources used by the protected virtual machines in the VPG.

**Alarm in vCenter Server** [VPGOutOfZorgOnProtected](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The VPG is defined for a ZORG but the protected resources used in the VPG are not assigned to the ZORG in the Zerto Cloud Manager.	Update the resources available to the ZORG in the Zerto Cloud Manager to include the required resources. If a mistake was made specifying the ZORG for the VPG, edit the VPG to correct the ZORG value.

### VPG0036

**Alert Name** VPG recovery resources not in ZORG

**Alert Category** VPG and protected virtual machines

**Severity** Warning

**Message Displayed** VPG {vpg\_name} contains resources that are not assigned to the ZORG {zorg\_name}.

resources: {list\_of\_resources}

**Description** The VPG is defined for a specific Zerto Organization, ZORG, but the resources specified for this ZORG in the Zerto Cloud Manager do not include the resources assigned for the recovery of the virtual machines in the VPG.

**Alarm in vCenter Server** [VPGOutOfZorgOnRecovery](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The VPG is defined for a ZORG but the recovery resources used in the VPG are not assigned to the ZORG in the Zerto Cloud Manager.	Update the resources available to the ZORG in the Zerto Cloud Manager to include the required resources. If a mistake was made specifying the ZORG for the VPG, edit the VPG to correct the ZORG value.

### VPG0037

**Alert Name** Journal history is compromised

**Alert Category** VPG and protected virtual machines

**Severity** Warning

**Message Displayed** VPG {vpg\_name} has been protected for {x} but the journal history is only {y}.

**Description** When a virtual machine journal becomes full, Zerto Virtual Replication starts to move data to the recovery disks. Once this begins, the maintained history begins to decrease. If the journal history falls below 75% of the value specified for the `Default Journal History` parameter, a warning alert is issued in the GUI.

If the journal is not big enough to store all the data for the time specified, as defined in the `Journal Size Hard Limit` parameter, the time frame for storing data is reduced. When the journal reaches the limit specified in the `Journal Size Warning Threshold` parameter, an alert is issued.

**Alarm in vCenter Server** [BacklogWarning](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The journal is not big enough to store all the data for the time specified.	The <code>Journal Size Hard Limit</code> parameter needs to be manually adjusted.

**VPG0038**

**Alert Name** Journal history is compromised

**Alert Category** VPG and protected virtual machines

**Severity** Error

**Message Displayed** VPG {vpg\_name} has been protected for {x} but the journal history is only {y}.

**Description** The amount of time specified for the journal is more than the current amount of time, in minutes.

When a virtual machine journal becomes full, Zerto Virtual Replication starts to move data to the recovery disks. Once this begins, the maintained history begins to decrease. If the journal history falls below one hour, an error is issued, or, if the amount of history defined is only one hour, an error is issued if it is less than 45 minutes.

**Alarm in vCenter Server** [BacklogError](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The journal is not big enough to store all the data for the time specified.	The <code>Journal Size Hard Limit</code> parameter needs to be manually adjusted.

**VPG0039**

**Alert Name** RDM has an odd number of blocks

**Alert Category** VPG and protected virtual machines

**Severity** Error

**Message Displayed** The RDM {rdm} for the VM {vm\_name} in VPG {vpg\_name} has an odd number of blocks, which can only be replicated to a target RDM and not to a VMDK.

**Description** RDM disks with an odd number of blocks can only replicate to RDM disks of the same size with an odd number of blocks and not to VMDKs.

**Alarm in vCenter Server** [RdmWithOddNumberOfBlocks](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
A virtual machine in the VPG includes at least one RDM with an odd number of blocks, defined to be recovered to an RDM with an even number of blocks or to a VMDK.	Recover the RDM to an RDM of the same size.

**VPG0040**

**Alert Name** Virtual machine hardware mismatch with recovery site

**Alert Category** VPG and protected virtual machines

**Severity** Error

**Message Displayed** Hardware version of protected VMs [{vm\_names}] are not supported on the recovery site {sitename}. The VPG cannot be recovered.

**Description** The hardware version of one or more of the protected virtual machines is not supported by the version of the recovery host on the recovery site. These virtual machines cannot be powered on in the recovery site after a recovery operation.

**Alarm in vCenter Server** [VirtualMachineHardwareVersionMismatch](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The hypervisor managers, such as VMware vCenter Server and Microsoft SCVMM, in both the protected and recovery sites support different virtual machine hardware versions.	Upgrade the recovery host to a version that supports the protected virtual machine hardware version.
	Change the recovery host to one that supports the protected virtual machine hardware version.

**VPG0041**

**Alert Name** Virtual machine running Windows 2003

**Alert Category** VPG and protected virtual machines

**Severity** Error

**Message Displayed** VPGs {vpg\_names} include VMs running Windows 2003 operating system. These VMs drop their domains since guest customization is enabled.

**Description** Virtual machines with the Windows Server 2003 operating system being replicated to vCD version 5.5, when guest customization is specified for the VPG, lose the domain setting the virtual machine to be dropped from the domain.

**Alarm in vCenter Server** [Win2003VmDuringReplicationToVCD](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The VPG includes virtual machines running the Windows Server 2003 operating system and guest customization is enabled for the VPG and the VPG is being replicated to vCD version 5.5.	Manually join the VM to the domain following a recovery operation.

**VPG0042**

**Alert Name** Recovery network not found

**Alert Category** VPG and protected virtual machines

**Severity** Error

**Message Displayed** Failover/Move or Failover Test networks do not exist for the following VMs {vm\_names}.

**Description** The network to use during a recovery operation is not found.

**Alarm in vCenter Server** [MissingNetworksForVMsInVPG](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The recovery network was not found.	Check the network.

**VPG0043**

**Alert Name** Cross-replication

**Alert Category** VPG and protected virtual machines

**Severity** Warning

**Message Displayed** The Microsoft default SAN policy might cause VM '{vm\_name}' (VPG '{vpg\_name}') volumes to become offline upon recovery.

**Description** Due to Microsoft default SAN policy, the volumes for the virtual machine in the VPG might become offline upon recovery.

**Alarm in vCenter Server** [MisconfiguredSanPolicyOnCrossReplicatedWinVm](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The Microsoft default SAN policy.	Follow the instructions in <a href="http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&amp;cmd=displayKC&amp;externalId=2000767">http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&amp;cmd=displayKC&amp;externalId=2000767</a> so that during a recovery, these volumes are online. The instructions are valid for all operating systems, for example, Windows Server 2012, when either the protected or recovery site is a vSphere environment.

**VPG0044**

**Alert Name** Cross-replication

**Alert Category** VPG and protected virtual machines

**Severity** Error

**Message Displayed** VM in VPG has volume of size 0 : {0}.

Or:

VM in VPG has several volumes of size 0 : {0}.

**Description** One or more of the virtual machines in the VPG has a disk with size 0.

**Alarm in vCenter Server** [VirtualMachineHasZeroSizeVolume](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
One of the virtual machines in the VPG has a disk with size 0	Remove the virtual machine from the VPG to enable protecting the other virtual machines in the VPG.

**VPG0045**

**Alert Name** VPG has low journal history

**Alert Category** VPG and protected virtual machines

**Severity** Warning

**Message Displayed** VPG {vpg\_name} journal history is less than {x}% of the configured {n}. {sync\_explanation}

**Description** During a synchronization, the latest changes in the protection site are added to the journal and older data in the journal is moved to the mirror virtual disk managed by the VRA for the virtual machine. As the synchronization continues and more old data is moved out of the journal, the checkpoints associated with the data are also removed from the journal and new checkpoints are not added to the journal.

This alert is triggered when the journal history configured for the VPG is at least one hour and the journal contains less than 75% of the configured history.

The message specifies that the amount of history is a percentage less than the configured amount.

This warning alert is issued if the alert [VPG0003](#) becomes persistent.

This alert will automatically be resolved when the journal history is fully populated.

**Alarm in vCenter Server** [BacklogWarning](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
A synchronization (but not a bitmap synchronization, see the next cause) has caused the journal to include less time than defined.	Nothing to do. With time the journal will fill up to the defined time.
A bitmap synchronization has caused the journal to include less time than defined.	If the amount of time left in the journal is too small, the ability to recover if a disaster occurs is impaired. If the advanced settings, <i>Replication Pause Time</i> has been defined, the synchronization will pause to enable the situation to be resolved, for example, by creating a clone.

**VPG0046**

**Alert Name** VPG has low journal history

**Alert Category** VPG and protected virtual machines

**Severity** Error

**Message Displayed** VPG {vpg\_name} journal history is less than {x} of the configured {n}. {sync\_explanation}

**Description** During a synchronization, the latest changes in the protection site are added to the journal and older data in the journal is moved to the mirror virtual disk managed by the VRA for the virtual machine. As the synchronization continues and more old data is moved out of the journal, the checkpoints associated with the data are also removed from the journal and new checkpoints are not added to the journal.

This alert is triggered in either of the following situations:

- When the journal history configured for the VPG is at most one hour and the journal contains less than 75% of the configured history.
- When the journal history configured for the VPG is at least one hour and the journal contains less than 75% of the configured history or one hour of history.

The message specifies that the amount of history is a large percentage less than the configured amount.

This error alert is issued if the alert [VPG0004](#) becomes persistent.

This alert will automatically be resolved when the journal history is fully populated.

**Alarm in vCenter Server BacklogError**

POSSIBLE CAUSE	POSSIBLE RESOLUTION
A synchronization (but not a bitmap synchronization, see the next cause) has caused the journal to include less time than defined.	Nothing to do. With time the journal will fill up to the defined time.
A bitmap synchronization has caused the journal to include less time than defined.	If the amount of time left in the journal is too small, the ability to recover if a disaster occurs is impaired. If the advanced settings, <i>Replication Pause Time</i> has been defined, the synchronization will pause to enable the situation to be resolved, for example, by creating a clone.
The MTU value is too big to enable transfer over VPN.	Reduce the MTU. Zerto recommends reducing the MTU by increments of 10 until pinging the remote site is successful, using the following ping command: <code>ping URL -f -l MTU_value</code> . Start with an MTU value of 1500. When the MTU value is too big, the ping will return strings similar to the following: <code>Packet needs to be fragmented but DF set</code> .

## VPG0047

**Alert Name** Journal history is compromised

**Alert Category** VPG and protected virtual machines

**Severity** Warning

**Message Displayed** VPG {vpg\_name} has been protected for {x} but the journal history is only {y}.

**Description** When a virtual machine journal becomes full, Zerto Virtual Replication starts to move data to the recovery disks. Once this begins, the maintained history begins to decrease. If the journal history falls below 75% of the value specified for the `Default Journal History` parameter, a warning alert is issued in the GUI.

This warning alert is issued if the alert [VPG0037](#) becomes persistent.

If the journal is not big enough to store all the data for the time specified, as defined in the `Journal Size Hard Limit` parameter, the time frame for storing data is reduced. When the journal reaches the limit specified in the `Journal Size Warning Threshold` parameter, an alert is issued.

**Alarm in vCenter Server BacklogWarning**

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The journal is not big enough to store all the data for the time specified.	The <code>Journal Size Hard Limit</code> parameter needs to be manually adjusted.

**VPG0048**

**Alert Name** Journal history is compromised

**Alert Category** VPG and protected virtual machines

**Severity** Error

**Message Displayed** VPG {vpg\_name} has been protected for {x} but the journal history is only {y}.

**Description** The amount of time specified for the journal is more than the current amount of time, in minutes.

When a virtual machine journal becomes full, Zerto Virtual Replication starts to move data to the recovery disks. Once this begins, the maintained history begins to decrease. If the journal history falls below one hour, an error is issued, or, if the amount of history defined is only one hour, an error is issued if it is less than 45 minutes.

This error alert is issued if the alert [VPG0038](#) becomes persistent.

**Alarm in vCenter Server** [BacklogError](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The journal is not big enough to store all the data for the time specified.	The Journal Size Hard Limit parameter needs to be manually adjusted.

**VRA Alerts**

Zerto Virtual Replication Appliance (VRA) alerts are triggered when there is a problem with a VRA.

**VRA0001**

**Alert Name** Host without VRA

**Alert Category** VRAs

**Severity** Warning

**Message Displayed** Host {host\_IP} has no VRA installed, and is part of cluster {cluster\_name} that contains hosts with installed VRAs.

**Description** The host in the cluster does not have a VRA installed. Any protected virtual machine that is vMotioned to this hosts will cause the VPG to stop protecting all the virtual machine.

**Alarm in vCenter Server** [UninstalledHost](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
One or more hosts in a cluster do not have VRAs installed.	Install a VRA on all the hosts in the cluster.

**VRA0002**

**Alert Name** VRA without IP

**Alert Category** VRAs

**Severity** Error

**Message Displayed** VRA {vra\_name} did not receive an IP from DHCP during installation.

**Description** You can install a VRA by specifying a static IP address for the VRA virtual machine, which is recommended, or by specifying that the DHCP server should allocate the IP address. The DHCP option was selected when installing the VRA but the DHCP server failed to allocate an IP address to the VRA.

**Alarm in vCenter Server** [VraDidntReceiveIp](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The VRA did not install since it was not allocated an IP address.	Check the DHCP server. Reinstall the VRA using a static address.

**VRA0003**

Alert Name Host IP changes

Alert Category VRAs

Severity Error

Message Displayed IP of VRA on host {host\_ip} changed from {ip1} to {ip2}.

Description You can install a VRA by specifying a static IP address for the VRA virtual machine, which is recommended, or by specifying that the DHCP server should allocate the IP address. The DHCP option was selected when installing the VRA and the VRA was installed successfully but later on the DHCP server changed the IP address for the VRA.

Alarm in vCenter Server [VralpChanged](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The VRA IP address is not recognized by Zerto Virtual Replication.	Check the DHCP server, which might have assigned a different IP. Reinstall the VRA using a static address.

**VRA0004**

Alert Name VRA lost IP

Alert Category VRAs

Severity Error

Message Displayed VRA on host {host\_ip} no longer has an IP allocated (original IP was {ip}).

Description Access to the VRA is not possible via the IP that the Zerto Virtual Manager uses for the VRA.

Alarm in vCenter Server [VraToVraConnection](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The VRA IP address is not recognized by Zerto Virtual Replication.	If the VRA was installed using the DHCP server, check the DHCP server. Reinstall the VRA using a static address.
	Check if the VRA can boot up.

**VRA0005**

Alert Name VRAs not connected

Alert Category VRAs

Severity Error

Message Displayed Connection between local site VRA, {vra\_name} (on host {host\_name}), and peer site VRA, {vra\_name} is down.

Description The local VRA cannot communicate with the peer site VRA to send data for recovery.

Alarm in vCenter Server [VraToVraConnection](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Network problems.	Check whether the peer site VRA is pingable.
VRA is down.	If the VRA is down, try rebooting the VRA.

**VRA0006**

Alert Name Datastore for journal disk is full

Alert Category VRAs

Severity Error

Message Displayed Cannot write to journal disk {journal1} because datastore is almost full.

**Description** The datastore is nearing capacity and has no more room for updates to the journal.

This alert is triggered when the datastore space for the journal falls below 30GB or 15%, whichever is smaller.

Alarm in vCenter Server [VraLogVolume](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Datastore is full.	Increase the datastore size.

## VRA0007

**Alert Name** I/O error to journal

**Alert Category** VRAs

**Severity** Error

**Message Displayed** IO error to journal disk {journal}.

**Description** The VRA cannot write to the journal.

Alarm in vCenter Server [VraLogVolume](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Storage problems.	Check the datastore to see if it has enough free space and is accessible.

## VRA0008

**Alert Name** Recovery disk and VMs missing

**Alert Category** VRAs

**Severity** Error

**Message Displayed** Recovery disk and its virtual machine are missing.

**Description** The recovery disks for the a protected virtual machine managed by the VRA cannot be found. This should never happen.

Alarm in vCenter Server [VraTargetVolume](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Recovery disks cannot be found.	Contact Zerto support.

## VRA0009

**Alert Name** Recovery disk missing

**Alert Category** VRAs

**Severity** Error

**Message Displayed** Recovery disk on virtual machine {vm\_name} is missing.

**Description** The recovery disk managed by the VRA for the a protected virtual machine cannot be found. This should never happen.

Alarm in vCenter Server [VraTargetVolume](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Recovery disks cannot be found.	Contact Zerto support.

**VRA0010**

**Alert Name** Recovery disks turned off

**Alert Category** VRAs

**Severity** Error

**Message Displayed** Recovery disks of virtual machine {vm\_name} are inaccessible.

**Description** After a recovery operation the recovery disks for the recovered virtual machine cannot be accessed because the virtual machine is not powered on.

**Alarm in vCenter Server** [VraTargetVolume](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Recovery disks cannot be accessed.	Power on the recovery VM.

**VRA0011**

**Alert Name** Recovery disk inaccessible

**Alert Category** VRAs

**Severity** Error

**Message Displayed** Recovery disk {disk\_name} connected to virtual machine {vm\_name} is inaccessible.

**Description** After a recovery operation the recovery disks for the recovered virtual machine cannot be accessed.

**Alarm in vCenter Server** [VraTargetVolume](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Recovery disks cannot be accessed.	Check that the storage is OK.
	Contact Zerto support.

**VRA0012**

**Alert Name** Cannot write to recovery disk

**Alert Category** VRAs

**Severity** Error

**Message Displayed** Cannot write to recovery disk {disk\_name} of virtual machine {vm\_name} because datastore is almost full.

**Description** The datastore for the virtual machines in the recovery site is almost full and no writes can be committed to it for the specified virtual machine.

This alert is triggered when the datastore space for the recovery disk for the specified virtual machine falls below 30GB or 15%, whichever is smaller.

**Alarm in vCenter Server** [VraTargetVolume](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Recovery disks cannot be updated.	Increase the size of the datastore.

**VRA0013**

**Alert Name** I/O error to recovery disk

**Alert Category** VRAs

**Severity** Error

**Message Displayed** IO error to recovery disk {disk\_name} of virtual machine {vm\_name}.

**Description** There are IO errors generated when writing to the recovered virtual machine recovery disks.

Alarm in vCenter Server [VraTargetVolume](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Recovery disks cannot be updated.	Check the datastore that it is OK.
	Check for IO problems.

**VRA0014**

**Alert Name** Cloned disks turned off

**Alert Category** VRAs

**Severity** Error

**Message Displayed** Recovery disks of cloned virtual machine {vm\_name} are inaccessible.

**Description** The cloned virtual machine is not powered on and the disks for this machine cannot be updated by the VRA.

Alarm in vCenter Server [VraCloneVolume](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The cloned virtual machine is powered off.	Power on the cloned virtual machine.

**VRA0015**

**Alert Name** Cloned disk inaccessible

**Alert Category** VRAs

**Severity** Error

**Message Displayed** Clone disk {disk\_name} connected to virtual machine {vm\_name} is inaccessible.

**Description** The disks of the cloned virtual machine are inaccessible.

Alarm in vCenter Server [VraCloneVolume](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Recovery disks for the clone cannot be accessed.	Check the datastore that it is accessible.
	Contact Zerto support.

**VRA0016**

**Alert Name** Datastore for clone disk is full

**Alert Category** VRAs

**Severity** Error

**Message Displayed** Cannot write to clone disk {disk\_name} of virtual machine {vm\_name} because datastore is almost full.

**Description** The disks of the cloned virtual machine are on a datastore that is nearly full, preventing the cloned disks from being updated.

This alert is triggered when the datastore space for the cloned virtual machine falls below 30GB or 15%, whichever is smaller.

Alarm in vCenter Server [VraCloneVolume](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Recovery disks for the clone cannot be updated because the datastore for these disks is almost full.	Increase the datastore size.

**VRA0017**

Alert Name I/O error to clone

Alert Category VRAs

Severity Error

Message Displayed IO error to clone disk {disk\_name} of virtual machine {vm\_name}.

Description There are IO errors generated when writing to the cloned virtual machine recovery disks.

Alarm in vCenter Server [VraCloneVolume](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Recovery disks cannot be updated.	Check the datastore that it is OK.
	Check for IO problems.

**VRA0018**

Alert Name Protected disk and VM missing

Alert Category VRAs

Severity Error

Message Displayed Protected volume and its virtual machine are missing.

Description A protected virtual machine in the VPG was removed.

Alarm in vCenter Server [VraProtectedVolume](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The protected virtual machine was removed.	Nothing to do. With time the VPG status will be resolved.

**VRA0019**

Alert Name Protected disk missing

Alert Category VRAs

Severity Warning

Message Displayed Protected volume on virtual machine {vm\_name} is missing.

Description A protected virtual machine volume was removed.

Alarm in vCenter Server [VraProtectedVolume](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The protected virtual machine volume was removed.	Wait and the VPG status will be resolved.

**VRA0020**

Alert Name VM powered off

Alert Category VRAs

Severity Error

Message Displayed VM {vm\_name} is shut down and cannot be synced.

Description A protected virtual machine in the VPG is powered off and synchronization of this virtual machine with the recovery site cannot continue. This affects the whole VPG as the synchronization for the whole VPG is halted.

Alarm in vCenter Server [VraProtectedVolume](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The protected virtual machine is powered off.	Power on the virtual machine.

**VRA0021**

Alert Name VM disk inaccessible

Alert Category VRAs

Severity Error

Message Displayed VM {vm\_name} disk {disk\_name} cannot be synced because it is inaccessible.

Description A virtual machine disk cannot be accessed.

Alarm in vCenter Server [VraProtectedVolume](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
A virtual machine disk cannot be accessed.	Check the datastore that it is OK.
	Check for IO problems.

**VRA0022**

Alert Name VM disk incompatible

Alert Category VRAs

Severity Error

Message Displayed VM {vm\_name} disk {disk\_name} was associated with a different solution that is not supported by Zerto Virtual Replication.

Description A protected virtual machine has had a disk added that is not supported by Zerto Virtual Replication, resulting in the VPG not being protected.

Alarm in vCenter Server [VraProtectedVolume](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
A protected virtual machine disk is not supported by Zerto Virtual Replication.	Remove the disk.

**VRA0023**

Alert Name VRA cannot be registered.

Alert Category VRAs

Severity Error

Message Displayed VRA cannot be registered to host {host\_name}. Host component failed to load. {host\_component}.

Or: Zerto Virtual Manager cannot reload host component on this ESX version.

Description A problem is preventing the VRA from being installed on the host.

Alarm in vCenter Server [VRARegistrationFailed](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Problems with VRA installation.	Contact Zerto support.

**VRA0024**

Alert Name VRA removed

Alert Category VRAs

Severity Error

Message Displayed {vra\_name} on host {host\_name} was deleted from the hypervisor manager. Affected VPGS are {VPG\_names}.

Description A VRA or shadow VRA was removed even though it had recovery disks that it was managing, creating a ghost VRA.

Alarm in vCenter Server [GhostVm](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
A VRA was removed.	Remove and then recreate the VPGs, keeping the recovery disks when removing to use as preseeded disks when recreating the VPGs. Uninstall the VRA via the Zerto User Interface.

**VRA0025**

Alert Name I/O synchronization

Alert Category VRAs

Severity Error

Message Displayed VM {vm\_name} disk {disk\_name} cannot be synced because there are IO errors.

Description A virtual machine disk cannot be synced because of one of its disks.

Alarm in vCenter Server [VraProtectedVolume](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
A virtual machine disk has IO errors.	Check the datastore that it is OK. Check for IO problems.

**VRA0026**

Alert Name Recovery disk removed

Alert Category VRAs

Severity Error

Message Displayed {Recovery\_disk} of virtual machine {protected\_virtual\_machine\_name} in VPG {VPG\_name} on host {host\_name} was deleted from {storage\_or\_datastore}.

Description A recovery disk attached to a virtual machine in a VPG has been removed.

Alarm in vCenter Server [GhostMirrorVolume](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
A recovery disk was removed.	Delete the VPG and recreate it to restart the protection of the virtual machine.

**VRA0027**

Alert Name Journal volume removed

Alert Category VRAs

Severity Error

Message Displayed {Journal\_volume} of virtual machine {protected\_virtual\_machine\_name} in VPG {VPG\_name} on host {host\_name} was deleted from {storage\_or\_datastore}.

Description A journal volume attached to a virtual machine in a VPG has been removed.

Alarm in vCenter Server [GhostLogVolume](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
A journal volume was removed.	You can ignore this message. If the journal grows to approximately 80% of the provisioned journal size or less than 6GB remains free, a new volume is added to increase the journal size. When the amount of the journal used is approximately 50% of the provisioned journal size, the biggest unused journal volume from the added volumes is marked for removal. This volume is then removed after the time equivalent to three times the amount specified for the journal history, or twenty-four hours, whichever is more if it is still not used.
	Delete the VPG and recreate it to restart the protection of the virtual machine.

**VRA0028**

**Alert Name** VRA powered off

**Alert Category** VRAs

**Severity** Error/Warning

**Message Displayed** VRA on host {host\_name} is powered off.

**Description** An error is issued when a VRA on a host that has protected virtual machines, or that is used to recover virtual machines, is powered off. A warning is issued when a VRA on a host that does not have protected virtual machines, or that is not used to recover virtual machines, is powered off.

**Alarm in vCenter Server** [VraPoweredOff](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The VRA is powered off,	Power the VRA on.

**VRA0029**

**Alert Name** VRA memory low

**Alert Category** VRAs

**Severity** Warning

**Message Displayed** VRA on host {host\_name} does not have enough resources (hosts 4.x) or reserved memory (hosts 5.x).

**Description** On ESX/ESXi 4.x: The VRA does not have enough resources.

On ESXi 5.x: The VRA does not have enough reserved memory.

**Alarm in vCenter Server** [VraBallooning](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
On VMware ESX/ESXi 4.x hosts: The VRA does not have enough resources.	Either vMotion some of the protected VMs to another host or expect more frequent bitmap syncs.
On VMware ESXi 5.x or Microsoft Hyper-V hosts: The VRA does not have enough reserved memory.	Check that all the VRA memory is reserved.

**VRA0030**

Alert Name Journal size mismatch

Alert Category VRAs

Severity Warning

**Message Displayed** There is a mismatch in journal size configuration of VM {vm\_name} due to a failure in a previous update. The current configured size is {x}GB. Change it to {y}GB.

**Description** A previous configuration update of the journal for a specific virtual machine in the VPG failed. You need to update the journal size in the VPG for this virtual machine.

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Configuration mismatch in the VPG for the virtual machine.	Edit the VPG and change the journal size hard limit for the virtual machine.

**VRA0032**

Alert Name VRA out-of-date

Alert Category VRAs

Severity Warning

**Message Displayed** At least one VRA has not been updated to the latest version.

**Description** A newer version of the VRAs is available. One or more of the VRAs have not been upgraded to this newer version.

POSSIBLE CAUSE	POSSIBLE RESOLUTION
A VRA is an old version and a newer version is available.	Upgrade the VRA to the new version.

**VRA0035**

Alert Name VRA reconciliation

Alert Category VRAs

Severity Warning

**Message Displayed** VRAs reconciliation in progress.

**Description** The VRAs in the site are being checked that all are fully synchronized with the protected site.

Alarm in vCenter Server [VRAsReconciliation](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
VRA reconciliation is in progress.	No action required.

**VRA0037**

Alert Name Local MAC Address Conflict

Alert Category VRAs

Severity Error

**Message Displayed** Local {entity} MAC Address Conflict between {site1} and {site2}.

**Description** A VRA or Zerto Cloud Connector has the same MAC address as the specified entity.

Alarm in vCenter Server [DuplicateMacAddress](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
A VRA or shadow VRA has the same MAC address as the specified entity.	<p>Change the MAC address of the entity. To change the MAC address registered to an interface on a VRA, it is necessary to replace the NIC configured on the VRA:</p> <ol style="list-style-type: none"> <li>1. Shut down the relevant VRA.</li> <li>2. Open <code>Edit Settings</code> for the VRA virtual machine in the vSphere Client console.</li> <li>3. Remove the listed NIC and save the settings.</li> <li>4. Open <code>Edit Settings</code> for the VRA virtual machine and add a new NIC and save the settings.</li> <li>5. Power on the VRA.</li> </ol>

**VRA0038**

Alert Name MAC Address Conflict

Alert Category VRAs

Severity Error

**Message Displayed** Local<-->Remote {entity} MAC Address Conflict between {vm1\_name} and {vm2\_name} from site {site\_name}.

**Description** There is a MAC conflict between the entity and VRAs or Zerto Cloud Connectors from different sites.

Alarm in vCenter Server [DuplicateMacAddress](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
A VRA or shadow VRA has the same MAC address as the specified entity.	<p>Change the MAC address of the entity. To change the MAC address registered to an interface on a VRA, it is necessary to replace the NIC configured on the VRA:</p> <ol style="list-style-type: none"> <li>1. Shut down the relevant VRA.</li> <li>2. Open <code>Edit Settings</code> for the VRA virtual machine in the vSphere Client console.</li> <li>3. Remove the listed NIC and save the settings.</li> <li>4. Open <code>Edit Settings</code> for the VRA virtual machine and add a new NIC and save the settings.</li> <li>5. Power on the VRA.</li> </ol>

**VRA0039**

Alert Name Journal reached configured limit

Alert Category VRAs

Severity Error

**Message Displayed** The {journal} journal for VM {vm\_name} in VPG {vpg\_name} has reached its configured limit of {x}. Older checkpoints might be removed and the journal history might be reduced to make space for new data.

**Description** A journal size hard limit is configured and the size of the journal has reached this limit. Older checkpoints in the journal might be removed to enable adding new checkpoints reducing the history saved in the journal.

Alarm in vCenter Server [JournalLimitReached](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Journal size has increased to the configured hard limit.	Increase the journal size hard limit: Edit the VPG and change the journal size hard limit for each virtual machine in the VPG (changing the hard limit at the VPG level only affects new virtual machines added to the VPG and not existing virtual machines).

**VRA0040**

**Alert Name** Journal space low

**Alert Category** VRAs

**Severity** Warning

**Message Displayed** The {journal1} journal for VM {vm\_name} in VPG {vpg\_name} has reached {x}.

**Description** A journal size hard limit is configured and the size of the journal has reached this limit. Older checkpoints in the journal might be removed to enable adding new checkpoints reducing the history saved in the journal.

**Alarm in vCenter Server** [JournalLimitReached](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Journal size has increased to the configured hard limit.	Increase the journal size hard limit: Edit the VPG and change the journal size hard limit for each virtual machine in the VPG (changing the hard limit at the VPG level only affects new virtual machines added to the VPG and not existing virtual machines).

**VRA0049**

**Alert Name** Host rollback failed

**Alert Category** VRAs

**Severity** Error

**Message Displayed** Host {host\_name} rollback failed. Error is: {error}.

**Description** An operation required rolling back failed, for example if the installation of a VRA on the host failed and rolling back to the pre-installation state is performed.

Possible causes include a disconnection between the Zerto Virtual Managers on both sites or between a Zerto Virtual Manager and a VRA.

This alert occurs a rollback of a failed operation on a host (such as installing or upgrading a VRA) fails. This can be either due to an internal bug or due to external factors preventing the rollback (for example, an inability to connect to the hypervisor manager, such as VMware vCenter Server and Microsoft SCVMM, or to a VRA).

**Alarm in vCenter Server** [UndoRollbackFailed](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
A disconnection between the Zerto Virtual Manager and the hypervisor manager, such as VMware vCenter Server and Microsoft SCVMM,.	Check the connection between the Zerto Virtual Manager and the hypervisor manager.
A disconnection between the Zerto Virtual Managers on both the protected and recovery sites.	Check the connection between the Zerto Virtual Managers.
A disconnection between the Zerto Virtual Manager and a VRA active in the rollback.	Check the connection to the VRAs. Contact Zerto support.

**VRA0050**

**Alert Name** Wrong host password

**Alert Category** VRAs

**Severity** Warning

**Message Displayed** Wrong password to host {host\_name}.

**Description** The password the VRA uses to access the ESXi host has been changed and the VRA can no longer access the host.

Alarm in vCenter Server [HostPasswordChanged](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The VRA cannot access the host ESXi.	Change the password used by the VRA to access the host in the Zerto User Interface.

## VRA0052

**Alert Name** Disk visible but not recognized

**Alert Category** VRAs

**Severity** Warning

**Message Displayed** Disk {disk\_name} on VRA {recovery\_VRA\_virtual\_machine\_name} on host {host\_name} is unknown.

**Description** Zerto Virtual Manager sees a disk on a VRA that it does not recognize.

Alarm in vCenter Server [GhostUnknownVolume](#).

POSSIBLE CAUSE	POSSIBLE RESOLUTION
A disk was added.	Remove the disk.

## VRA0053

**Alert Name** System disk removed

**Alert Category** VRAs

**Severity** Error

**Message Displayed** Disk {disk\_name} on VRA {recovery\_VRA\_virtual\_machine\_name} on host {host\_name} cannot be found.

**Description**

Zerto Virtual Manager does not find a system disk on VRA {recovery\_VRA\_virtual\_machine\_name} on host {host\_name}.

Alarm in vCenter Server [GhostSystemDisk](#).

POSSIBLE CAUSE	POSSIBLE RESOLUTION
A system disk was removed.	Reinstall the VRA.

## Zerto Cloud Connector Alerts

Zerto Cloud connector alerts are triggered when there is a problem with a Zerto Cloud connector used by a Cloud Service Provider servicing a customer.

### ZCC0001

**Alert Name** Zerto Cloud Connector removed

**Alert Category** Zerto Cloud Connectors

**Severity** Error

**Message Displayed** Zerto Cloud connector for customer {zorg\_name}, with cloud IpSettings {ip} must be redeployed.

**Description** When an event occurs, for example the host machine crashes or the cloud connector is accidentally deleted, the cloud connector is displayed as a ghost Cloud Connector.

**Alarm in vCenter Server** [GhostCloudConnector](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The Zerto Cloud Connector is displayed as a ghost cloud connector	Redeploy the cloud connector with the original settings.

### ZCC0002

**Alert Name** Zerto Cloud Connector powered off

**Alert Category** Zerto Cloud Connectors

**Severity** Error

**Message Displayed** The Zerto Cloud Connector for {zcc\_name} is powered off.

Possible causes include hypervisor manager, such as VMware vCenter Server and Microsoft SCVMM, problems, disk space issues, network issues, wrong configuration.

A ZCC installation failed. The error for that failure should have more information. This can happen due to many reasons; VC problems, out of disk space, network issues, wrong configuration, etc.

**Description** A ZCC installation failed. The error for that failure should have more information. This can happen due to many reasons, such as hypervisor manager, VMware vCenter Server and Microsoft SCVMM, problems, out of disk space, etc.

**Note:** When a Zerto Cloud Connector is powered off, the site paired to this Zerto Cloud Connector will be disconnected. It is recommended to vMotion the Zerto Cloud Connector to a similar host to avoid this disconnection.

**Alarm in vCenter Server** [CloudConnector](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The Zerto Cloud Connector is powered off.	Try powering the Zerto Cloud Connector on.
Not enough disk space for the Zerto Cloud Connector.	Check the available storage on the datastore specified for the Zerto Cloud Connector.

### ZCC0003

**Alert Name** Orphaned Zerto Cloud Connector

**Alert Category** Zerto Cloud Connectors

**Severity** Warning

**Message Displayed** An orphaned Zerto Cloud Connector for {zcc\_name} was installed.

**Description** The status of the Zerto Cloud Connector is orphaned, for example when one of the specified networks is invalid or inaccessible or that the ports to access the connector are blocked in the Zerto Virtual Manager.

**Note:** The recovery host must have the same access to the networks that are used by the Zerto Cloud Connector, including all appropriate VLAN tagging on the vSwitch or VDS and required trunking at the physical layer.

## Alarm in vCenter Server CloudConnector

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Access to the Zerto Cloud Connector is blocked in the Zerto Virtual Manager machine.	Check the access permissions to the machine running the Zerto Virtual Manager.
An invalid configuration was specified for the Zerto Cloud Connector.	Remove the Zerto Cloud Connector and reinstall a new Zerto Cloud Connector with the correct configuration.
No default gateway is configured on this NIC. Note that when deploying a Zerto Cloud Connector, only a single default gateway is used by the connector, and is applied to the <code>Organization Network</code> NIC settings.	Static route groups can be configured and assigned to the Zerto Cloud Connector.
The IP configuration for this NIC is not valid for the environment.	Verify that ping and telnet over TCP port 22 from the cloud Zerto Virtual Manager to the <code>Cloud Network</code> NIC are successful.
The vSwitch or vDS assigned to the <code>Cloud Network</code> NIC settings is not configured correctly.	
The uplink assigned to the vSwitch or DVS assigned to the <code>Cloud Network</code> NIC settings does not have proper trunking configured on the physical switch it is attached to.	Verify that network layer 2 elements, such as ARP tables, on network equipment between the Zerto Cloud Connector and the Zerto Virtual Manager are properly configured and up to date.

## Zerto Cloud Manager Alerts

Zerto Cloud Manager alerts are triggered when there is a problem with a Zerto Cloud Manager.

### ZCM0001

**Alert Name** No connection to Zerto Virtual Manager

**Alert Category** Zerto Cloud Manager

**Severity** Error

**Message Displayed** Zerto Cloud Manager could not connect to Zerto Virtual Manager (hostip: {hostip}, port:{port}).

**Description** The Zerto Cloud Manager could not connect to the Zerto Virtual Manager using the specified IP and port.

POSSIBLE CAUSE	POSSIBLE RESOLUTION
vIP or port specified are not correct for the Zerto Virtual Manager.	Check the IP and port.
The Zerto Virtual Manager is not running.	Check that the Zerto Virtual Manager service is running.
The Zerto Cloud Manager is blocked from accessing the Zerto Virtual Manager machine.	Check the access permissions to the machine running the Zerto Virtual Manager.

## Zerto Virtual Manager Alerts

Zerto Virtual Manager alerts are triggered when there is a problem with a Zerto Virtual Manager.

### ZVM0001

**Alert Name** No connection to hypervisor manager, such as VMware vCenter Server and Microsoft SCVMM,

**Alert Category** Zerto Virtual Manager

**Severity** Error

**Message Displayed** The connection between site {site1} and the hypervisor manager {hv} at {IP} is down.

Or:

The access key and secret access key to access AWS from site {site1} are no longer valid.

**Description** The Zerto Virtual Manager running on the specified site cannot connect to either the hypervisor manager, such as VMware vCenter Server or Microsoft SCVMM, or to Amazon Web Services (AWS).

If the disconnection is on the protected site, the protection of the VPGs is compromised. If the status of the VPG was `Protecting` before the alert, then the VPG should be recoverable to the last checkpoint that was written to the journal. If the VPG was syncing, excluding a `Bitmap Sync`, or if a virtual machine was being vMotioned, then the corresponding VPG is not recoverable.

If the disconnection is on the recovery site, the recovery of the VPGs is compromised.

**Alarm in vCenter Server** [DisconnectedVCenter](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The hypervisor manager is not running.	Check the hypervisor manager
Authentication failed between the Zerto Virtual Manager and the hypervisor manager or Amazon AWS server.	Check that the Zerto Virtual Manager has the correct credentials to access the hypervisor manager or AWS. The credentials can be reset in the <i>Site Information</i> tab in the <i>Site Settings</i> dialog.

### ZVM0002

**Alert Name** No connection to VRA

**Alert Category** Zerto Virtual Manager

**Severity** Error

**Message Displayed** Zerto Virtual Manager is not connected to VRA with IP {IP} on host {IP}.

**Description** The Zerto Virtual Manager has lost communication with a VRA. This means that no new checkpoints can be written to the journals of any protected virtual machines whose recovery is managed by this VRA.

**Alarm in vCenter Server** [ZvmToVraConnection](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Zerto Virtual Replication is being updated.	Wait for the upgrade to complete and the communication with the VRA to be re-established.
The network to access the VRA has a problem.	Check the network.
The VRA is down.	Restart the VRA.
The Zerto Virtual Manager service is not running.	Check if the Zerto Virtual Manager service is running.

**ZVM0003**

**Alert Name** No connection to site

**Alert Category** Zerto Virtual Manager

**Severity** Error

**Message Displayed** The Zerto Virtual Manager is not connected to site {site1}.

**Description** The connection between the local Zerto Virtual Manager and the remote Zerto Virtual Manager is down.

Possible causes include network problems or the Zerto Virtual Manager is down. This error is also shown briefly while the sites are syncing following a failed operation.

**Alarm in vCenter Server** [ZvmToZvmConnection](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The two sites are syncing after a failed recovery operation.	If a recovery operation failed, wait a few minutes for the connection to be re-established.
The network to access the peer site has a problems.	Check on the peer site network.
The Zerto Virtual Manager service is not running on the peer site.	Check on the peer site if the Zerto Virtual Manager is running.

**ZVM0004**

**Alert Name** peer site out-of-date

**Alert Category** Zerto Virtual Manager

**Severity** Warning

**Message Displayed** At least one peer site has not been upgraded to version {v1}.

**Description** At least one of the peer sites is running a version of Zerto Virtual Replication one version lower than the version running on the local site. Any version of Zerto Virtual Replication will work with another site running the same version of Zerto Virtual Replication or one version higher or lower.

**Alarm in vCenter Server** [ZvmToZvmConnection](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
At least one of the peer sites is running a different versions of Zerto Virtual Replication.	Upgrade older versions to the same version as the local version.

**ZVM0005**

**Alert Name** Zerto Virtual Manager space low

**Alert Category** Zerto Virtual Manager

**Severity** Warning

**Message Displayed** Free space on drive {drive} is below the threshold of {x}GB.

**Description** The drive where the Zerto Virtual Manager is installed is too full and some space needs to be freed up.

This alert is triggered when the free space used by the Zerto Virtual Manager falls below 2GB.

**Alarm in vCenter Server** [LowDiskFreeSpace](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
Low on free space for drive where the Zerto Virtual Manager is installed.	Free up some space on the drive or increase the size.

**ZVM0006**

**Alert Name** Upgrade available

**Alert Category** Zerto Virtual Manager

**Severity** Warning

**Message Displayed** A new version (`{{version}}`) is available for upgrade.

**Description** One of the sites is running a later version.

**Alarm in vCenter Server** [NewVersionAvailable](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The protected and recovery sites are running different versions of Zerto Virtual Replication.	Upgrade Zerto Virtual Replication, including any VRAs that can be upgraded.

You can upgrade from version N to the next version (N+1) of Zerto Virtual Replication including to any update *within* the current version. You cannot do an N+2 upgrade directly.

The order you upgrade the sites, protected or recovery, is not relevant as long as paired sites remain only one version apart.

**Note:** Upgrade releases are considered to be upgrades of the same version. Releases 4.5, 4.5U1, 4.5U2, etc., are the *same* version.

The following table shows what version you can upgrade to based on the current version running at the site.

CURRENT VERSION:	CAN UPGRADE TO:
3.5, 3.5Ux	4.0, 4.0Ux
4.0, 4.0Ux	4.5
4.5, 4.5Ux	N/A

**ZVM0007**

**Alert Name** Cannot upgrade

**Alert Category** Zerto Virtual Manager

**Severity** Warning

**Message Displayed** A new version (`{{version}}`) is available for upgrade, but the current site cannot upgrade to it. Possible causes include you have an old peer which the new version will not be able to communicate with or because you have a VRA running an older version which the new version will not be able to communicate with.

**Description** You can only upgrade Zerto Virtual Replication to one version higher with full protection maintained. One of the sites is already running a version one version higher but an upgrade to this is also available.

**Alarm in vCenter Server** [NewVersionAvailable](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The protected and recovery sites are running different versions of Zerto Virtual Replication. The peer site is running Zerto Virtual Replication one version higher than the local site and there is an upgrade available for this version, but the local site cannot upgrade to it directly, because it is two versions higher.	Upgrade Zerto Virtual Replication, first to the same version as the peer site and then upgrade both sites to the latest version.
The protected and recovery sites are running different versions of VRAs.	Upgrade any VRAs that can be upgraded.

You can upgrade from version N to the next version (N+1) of Zerto Virtual Replication including to any update *within* the current version. You cannot do an N+2 upgrade directly.

The order you upgrade the sites, protected or recovery, is not relevant as long as paired sites remain only one version apart.

**Note:** Upgrade releases are considered to be upgrades of the same version. Releases 4.5, 4.5U1, 4.5U2, etc., are the *same* version.

The following table shows what version you can upgrade to based on the current version running at the site.

CURRENT VERSION:	CAN UPGRADE TO:
3.5, 3.5Ux	4.0, 4.0Ux
4.0, 4.0Ux	4.5
4.5, 4.5Ux	N/A

## ZVM0008

**Alert Name** Version mismatch

**Alert Category** Zerto Virtual Manager

**Severity** Error

**Message Displayed** Not connected to Zerto Virtual Manager on `site_name` (version {v1}).

**Description** The local site could not connect to the remote site because the sites are running different versions of Zerto Virtual Replication. Any version of Zerto Virtual Replication will work with another site running the same version of Zerto Virtual Replication or one version higher or lower.

**Alarm in vCenter Server** [PeerZvmCompatibility](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The two sites are running different versions of Zerto Virtual Replication which are not compatible one with the other.	Upgrade the older version to the same version as the local version.

You can upgrade from version N to the next version (N+1) of Zerto Virtual Replication including to any update *within* the current version. You cannot do an N+2 upgrade directly.

The order you upgrade the sites, protected or recovery, is not relevant as long as paired sites remain only one version apart.

**Note:** Upgrade releases are considered to be upgrades of the same version. Releases 4.5, 4.5U1, 4.5U2, etc., are the *same* version.

The following table shows what version you can upgrade to based on the current version running at the site.

CURRENT VERSION:	CAN UPGRADE TO:
3.5, 3.5Ux	4.0, 4.0Ux
4.0, 4.0Ux	4.5
4.5, 4.5Ux	N/A

## ZVM0009

**Alert Name** Internal error

**Alert Category** Zerto Virtual Manager

**Severity** Error

**Message Displayed** ZVM Internal alert

**Description** The Zerto Virtual Manager has entered an error state.

**Alarm in vCenter Server** [AssertAlert](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The Zerto Virtual Manager has an internal error.	Contact Zerto support.

**ZVM0010**

**Alert Name** Synchronization between Zerto Virtual Managers

**Alert Category** Zerto Virtual Manager

**Severity** Warning

**Message Displayed** Synchronizing with site {site\_name}.

**Description** The local site and peer site Zerto Virtual Managers are being synchronized with each other.

**Note:** Failovers, failover tests and clones can be performed during the synchronization. A Move operation cannot be performed.

**Alarm in vCenter Server** [ZvmToZvmSync](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The Zerto Virtual Managers at the two sites required to be synchronized and are currently not synchronized.	Wait for the synchronization to complete.

**ZVM0011**

**Alert Name** Metadata collection

**Alert Category** Zerto Virtual Manager

**Severity** Warning

**Message Displayed** Failed to collect metadata for {0}: {1}.

**Description** The Zerto Virtual Manager cannot collect metadata describing the host. The virtual machine on this host cannot be protected and protected virtual machines cannot be recovered to this host.

**Alarm in vCenter Server** [CheckHost](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The Zerto Virtual Manager cannot collect the host metadata.	Contact Zerto support.

**ZVM0012**

**Alert Name** Metadata collection

**Alert Category** Zerto Virtual Manager

**Severity** Error

**Message Displayed** VM {vm\_name} is unprotected – Zerto Virtual Manager cannot access the SCSI adapter.

**Description** The Zerto Virtual Manager cannot collect SCSI adapter information from the host for the virtual machine in the VPG.

**Alarm in vCenter Server** [ProtectedVmScsiMismatch](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The Zerto Virtual Manager cannot collect SCSI adapter information.	Remove the virtual machine from the VPG to enable protecting the other virtual machines in the VPG.
	Contact Zerto support.

**ZVM0013**

**Alert Name** Metadata collection

**Alert Category** Zerto Virtual Manager

**Severity** Warning

**Message Displayed** Failed to collect site metadata for host {host}.

**Description** The Zerto Virtual Manager cannot communicate with the host to access the details about the host.

**Alarm in vCenter Server** [CheckHost](#)

POSSIBLE CAUSE	POSSIBLE RESOLUTION
The host is not available.	Check the host status.
The host version is not supported by Zerto Virtual Replication.	Check the host version.

**ZVM0014**

**Alert Name** SCSI not found

**Alert Category** Zerto Virtual Manager

**Severity** Error

**Message Displayed** SCSI adapter data for host {host} is not found.

**Description** The Zerto Virtual Manager cannot communicate with a shadow VRA.

**ZVM0015**

**Alert Name** Hyper-V host not accessible

**Alert Category** Zerto Virtual Manager

**Severity** Warning or Error: If a VRA is not installed on the Hyper-V host, this is a warning. If a VRA is installed on the Hyper-V host, this is an error.

**Message Displayed**

Host {host\_name} is not ready. Failed to create folder at host.

Or:

Host {host\_name} is not ready. Failed to upload script file to host.

Or:

Host {host\_name} is not ready. Failed to check if {PS\_module\_name} PS Module is installed on host.

Or:

Host {host\_name} is not ready. {PS\_module\_name} PS Module is not installed at host.

Or:

Host {host\_name} is not ready. Host is not responding.

**Description** The Zerto Virtual Manager cannot communicate with SCVMM. This alert can be issued in the following cases.

- Hyper-V to Hyper-V
- Hyper-V to vSphere
- vSphere to Hyper-V

- Hyper-V to AWS

POSSIBLE CAUSE	POSSIBLE RESOLUTION
There is a communication problem between SCVMM and the Zerto Virtual Manager.	Check communication from the virtual machine on which Hyper-V is running to the machine on which Zerto Virtual Manager is installed by sending a ping command from the Hyper-V machine to the Zerto Virtual Manager machine.
The user under which Zerto Virtual Manager runs scripts on the Hyper-V host has insufficient permissions to create the folder <code>\file</code> on the host.	Check if the user on the Hyper-V host has privileges to read and write on the local host file system. It could be a <i>Run As Account</i> user or the default, which is the Hyper-V host machine user.
The Hyper-V PS module is not installed on the Hyper-V host.	Install the Hyper-V PS module on the Hyper-V host.
The version of PowerShell installed on the Hyper-V host is lower than 4.0.	Check which version of PowerShell is installed. If it is lower than 4.0, install version 4.0 or higher.
There is a communication problem between the Hyper-V host and SCVMM.	Check the Hyper-V host status and its communication status in SCVMM.

## CHAPTER 3: ZERTO VIRTUAL REPLICATION EVENTS

When event occurs in Zerto Virtual Replication, an event is triggered.

The following topics are described in this chapter:

- “Monitoring Events”, below
- “Events”, on page 60

### Monitoring Events

All events triggered by Zerto Virtual Replication are displayed in the Zerto User Interface. The *EVENTS* subtab under the *MONITORING* tab displays a log of tasks performed within Zerto Virtual Replication.

ID	Type	Entity	ZORG	Site	User	VPG	Timestamp	Description
EV0060	Backup VPG	VPG	N/A	Site4-Ent2-P1	Site4-Ent2-P1\Administ...	HR-2	28/04/2015 10:16:48	Backup Protection Group 'HR-2'. Success. Completed successfully. Full. Bac
EV0038	Update advanced site s...	Site	N/A	N/A	Site4-Ent2-P1\Administ...		27/04/2015 16:00:20	Completed successfully. Update advanced setting s. Success.
EV0038	Update advanced site s...	Site	N/A	N/A	Site4-Ent2-P1\Administ...		27/04/2015 15:57:28	Completed successfully. Update advanced setting s. Success.
EV0038	Update advanced site s...	Site	N/A	N/A	Site4-Ent2-P1\Administ...		27/04/2015 15:56:19	Completed successfully. Update advanced setting s. Success.
EV0038	Update advanced site s...	Site	N/A	N/A	Site4-Ent2-P1\Administ...		27/04/2015 15:56:12	Completed successfully. Update advanced setting s. Success.
EV0016	Update VPG	VPG	N/A	Site4-Ent2-P1	Site4-Ent2-P1\Administ...	HR-2	26/04/2015 16:30:52	Update protection group. Success. Completed succ
EV0030	Pair sites	Site	N/A	N/A	Site4-Ent2-P1\Administ...		22/04/2015 11:50:56	Pairing. Zerto Virtual Ma nager = 172.20.99.23, P ort = 9081. Failure. Fail
EV0030	Pair sites	Site	N/A	N/A	Site4-Ent2-P1\Administ...		22/04/2015 11:50:13	Pairing. Zerto Virtual Ma nager = 172.20.99.33, P ort = 9081. Failure. Fail

You can specify how you want to filter the events:

**Type** – You can display just the events generated by Zerto Virtual Replication or the alert on and off events or both.

**From and To** – The dates for which you want event information. Only activities performed, between these dates are displayed.

Click *APPLY* to apply the filtering selected via any of the above fields.

Click *RESET* to reset the display to the defaults values.

Click *EXPORT* to export the listing of events to a Microsoft Excel file.

You can see more details about any event by clicking the event ID link for the event.

### Events

Events are triggered within Zerto Virtual Replication, including when an alert is issued or turned off.

#### EV0002 - Create VPG

A new VPG was defined.

**EV0003 - Remove VPG**

A VPG has been removed and the virtual machines in the VPG are no longer protected. The virtual machines are removed and if the target disks are saved they can be used as preseeded disks if the virtual machines are reprotected. The location of the preseeded disk is specified in the description of the event, [“EV0040 - Remove VM from VPG and keep disk”, on page 63](#).

**Note:** If the VPG was not successfully removed, it can still be forcibly removed. If a test failover, failover or move operation is being performed on the VPG, the VPG is not removed.

**EV0004 - Failover**

Support event for backwards compatibility: A failover operation was performed on a VPG.

**EV0005 - Test failover**

A failover test operation was performed on a VPG to test the recovery process. The test does not stop the ongoing protection of the virtual machines defined in the VPG.

**EV0006 - Stop failover test**

A failover test operation on a VPG was stopped and the test virtual machines are removed from the recovery site.

**EV0008 - Move VPG**

Support event for backwards compatibility: A VPG has been migrated to the recovery site.

**EV0009 - Protect VM**

A virtual machine has been added to a protected vApp and is added to the VPG.

**EV0010 - Unprotect VM**

A virtual machine is removed from a protected vApp and is also removed from the VPG.

**EV0013 - Install VRA**

Installing a Virtual Replication Appliance, VRA.

**EV0014 - Uninstall VRA**

Uninstalling a Virtual Replication Appliance, VRA.

**EV0016 - Update VPG**

A VPG is updated.

**EV0017 - Add tagged checkpoint**

A checkpoint with a tag has been added. Tagged checkpoints are added manually either by a user or by the Zerto Virtual Manager when a virtual machine is added to an existing VPG and the synchronization of the added machine is complete and when a failover test finishes.

**EV0019 - Promotion for VM in VPG complete**

The promotion of journal data to a recovered virtual machine has completed.

**EV0020 - Promotion for all VMs in VPG complete**

After a recovery operation promotion of data from every journal for every virtual machine in the VPG has completed.

**EV0021 - Log collection**

Logs are collected.

**EV0023 - Force configuration of new VM**

A protected virtual machine in a protected vApp has been reconfigured and the definition in the VPG is updated.

**EV0024 - Delete every VPG in site**

All VPGs for the site are removed. All the virtual machines that were protected in these VPGs are no longer protected.

**EV0025 - Forcibly delete VPG**

A VPG has been removed and the virtual machines in the VPG are no longer protected.

**EV0026 - Update VPG**

A VPG has been updated.

**EV0027 - Forcibly delete VPG in error state**

A VPG is moved to an error state and has to be forcibly removed. The virtual machines in the VPG are no longer protected.

**EV0028 - Run script**

The script completed.

**EV0029 - Initialize full sync**

A VPG has been forcibly synchronized.

**EV0030 - Pair sites**

Two sites are connected together, enabling one of the sites to protect virtual machines on the other site.

**EV0031 - Unpair sites**

Two paired sites are unpaired. All VPGs in either site are also removed and the virtual machines no longer protected.

**EV0034 - Install Zerto Cloud Connector**

A Zerto Cloud Connector has been installed.

**EV0035 - Uninstall Zerto Cloud Connector**

A Zerto cloud connector is uninstalled.

**EV0037 - Script failed**

A pre-script or post-script failed.

**EV0038 - Update advanced site settings**

Advanced settings have been saved. Advanced settings include:

- The maximum bandwidth Zerto Virtual Replication uses across the sites.
- The timeout used for scripts that run before or after a failover, move or test failover.
- Protected virtual machines can be recovered to the same site.
- The scales to use when displaying the performance graphs (for IOPS, throughput, WAN traffic, the time from last checkpoint as an indication of compliance with the required RPO and the CPU usage by the VRA).
- The time to wait in seconds for a live failover or move operation before automatically committing or rolling back the operation.

**EV0039 - Clone**

A VPG has been cloned in the recovery site.

**EV0040 - Remove VM from VPG and keep disk**

When a VPG is removed the recovery disks for the virtual machines are kept and can be used as preseeded disks if the virtual machines are reprotected. The location of the preseeded disk is specified in the description of the event.

**EV0041 - Failover Without Commit**

A failover operation has started and the virtual machines on the recovery site are started up, with the ability to check the recovered machines before committing the failover.

**EV0042 - Committing Failover**

A VPG has been failed over to the recovery site.

**EV0043 - Failover rollback**

A VPG that was marked for failover has been rolled back to its previous state in the protected site.

**EV0044 - Move without commit**

A move operation has started and the virtual machines on the recovery site are started up, with the ability to check the recovered machines before committing the operation.

**EV0045 - Move rollback**

A VPG that was marked for moving has been rolled back to its previous state in the protected site.

**EV0046 - Committing move**

A VPG has been moved to the recovery site.

**EV0047 - Move host resources**

VRA data has been moved to another host.

**EV0048 - Upgrade VRA**

The VRA is upgraded to the latest version.

**EV0049 - Change VPG substatus to need configuration**

The VPG needs to be configured to enable protecting the virtual machines in it.

**EV0050 - Change VRA IP settings**

The VRA network settings have changed, for example when the gateway to the VRA is changed.

**EV0051- Pause VPG**

Protection for a VPG is paused. No new checkpoints are written but the protection group can be recovered to the last checkpoint before the pause commenced.

**EV0052 - Resume VPG**

Protection for a paused VPG is resumed.

**EV0053 - Upgrade Zerto Virtual Manager**

The Zerto Virtual Manager is upgraded to the latest version.

**EV0054 - Upgrade more than one VRA**

A group of VRAs have been upgraded. This event is performed asynchronously. Check the alerts to ensure that all the VRAs are actually upgraded.

**EV0055 - Uninstall more than one VRA**

A group of VRAs have been uninstalled. This event is performed asynchronously. Check the alerts to ensure that all the VRAs are actually uninstalled.

**EV0056 - Alert Turned On**

An alert is issued.

**EV0057 - Alert Turned Off**

An alert is dismissed.

Any Zerto Virtual Replication alert will only be turned off when all instances of the alert are turned off. For example, if you pause two VPGs and then resume just a single VPG, the alert remains on. Only when no VPGs are paused is the alert stopped.

**EV0058 - Change VRA password**

The VRA password used to access the host was changed.

**EV0059 - Change recovery host**

The recovery host for the virtual machine in the VPG was changed.

**EV0060 - Backup VPG**

A VPG backup was run for the VPG.

**EV0061 - Redeploy Cloud Connector**

The Zerto Cloud Connector was redeployed.

**EV0062 - Cleanup VPG IP Diskbox**

A change datastore operation failed and a cleanup of the temporary virtual machine used by Zerto Virtual Replication to implement the change datastore was performed.

### **EV0063 - Restore**

An offsite backup was restored.

### **EV0064 - Pre-script**

A script was run at the beginning of a recovery operation.

### **EV0065 - Post-script**

A script was run at the end of a recovery operation.

### **EV0066 - Virtual Machine removed**

A virtual machine was removed from the hypervisor manager.

### **EV0067 - Change VRA IP and password settings**

The VRA network settings have changed, for example when the gateway to the VRA is changed or the VRA password used to access the host was changed.

### **EV0068 - File level recovery disk mounted**

A disk for file level recovery was mounted.

### **EV0069 - File level recovery disk unmounted**

A disk for file level recovery was unmounted.

### **EV0070 - ZVM/ZSSP Login**

The login status to the Zerto Virtual Manager Web Client or Zerto Self-service Portal.

#### ABOUT ZERTO

Zerto is committed to keeping enterprise and cloud IT running 24/7 by providing scalable business continuity software solutions. Through the Zerto Cloud Continuity Platform, organizations seamlessly move and protect virtualized workloads between public, private and hybrid clouds. The company's flagship product, Zerto Virtual Replication, is the standard for protection of applications in cloud and virtualized datacenters.