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### CHAPTER 2: ZERTO VIRTUAL REPLICATION EVENTS

- Monitoring Events .................................................................. 65
- Events ................................................................................... 66
When a problem is identified by Zerto Virtual Replication, an alert is issued.

The following topics are described in this section:

- “Monitoring Alerts”, below
- “Amazon Web Services (AWS) Alerts”, below
- “Backup Alerts”, on page 6
- “Licensing Alerts”, on page 8
- “Storage Alerts”, on page 12
- “vCloud Director Alerts”, on page 13
- “VPG Alerts”, on page 18
- “VRA Alerts”, on page 35
- “Zerto Cloud Appliance Alerts”, on page 51
- “Zerto Cloud Connector Alerts”, on page 52
- “Zerto Cloud Manager Alerts”, on page 53
- “Zerto Virtual Manager Alerts”, on page 55
- “File Level Restore Alerts”, on page 64

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.

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.
- **ZCA** – Alerts relating to the recovery site being a cloud.
- **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
AWS0001
Alert Name Storage removed
Alert Category Public Cloud
Severity Error
Message Displayed The Zerto storage cannot be found. Re-install the Zerto Cloud Appliance (ZCA).
Description The storage used for the replicated data managed by the VRA in ZCA is not found.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The data replicated from the protected site is saved in a ZCA storage which cannot be found.</td>
<td>Reinstall the Zerto Cloud Appliance (ZCA).</td>
</tr>
</tbody>
</table>

Backup Alerts

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

BCK0001
BCK0002
BCK0005
BCK0006
BCK0007

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.

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

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.
### 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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
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</tr>
</thead>
<tbody>
<tr>
<td>No room on the disk where the repository is defined.</td>
<td>Check the amount of space on the disk where the repository is located.</td>
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<tr>
<td>Access permissions to the repository have changed and the backup job no longer has permission to write to the repository.</td>
<td>Check the authorization required to access the repository.</td>
</tr>
<tr>
<td>Network problems.</td>
<td>Check the network is working properly.</td>
</tr>
</tbody>
</table>

**Possible Cause**
- Network problems.

**Possible Resolution**
- 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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The VBA is not running.</td>
<td>Check that the VBA service is running.</td>
</tr>
<tr>
<td>Network problems.</td>
<td>Check the network is working properly.</td>
</tr>
</tbody>
</table>

**Possible Cause**
- Network problems.

**Possible Resolution**
- 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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A repository is not defined.</td>
<td>Define a repository in the Zerto User Interface.</td>
</tr>
</tbody>
</table>

**Possible Cause**
- A repository is not defined.

**Possible Resolution**
- Define a repository in the Zerto User Interface.
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
LIC0002 - Deprecated
LIC0003
LIC0004
LIC0005 - Deprecated
LIC0006
LIC0007
LIC0008 - Deprecated
LIC0009
LIC0010
LIC0011

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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Too many virtual machines are protected.</td>
<td>Contact your Zerto account manager to resolve the issue.</td>
</tr>
</tbody>
</table>

LIC0002 - Deprecated
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.
### Licensing Alerts

<table>
<thead>
<tr>
<th>Alert Name</th>
<th>License about to expire</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LIC0003</strong></td>
<td>Alert Category Licensing</td>
</tr>
<tr>
<td><strong>Severity</strong></td>
<td>Warning</td>
</tr>
<tr>
<td><strong>Message Displayed</strong></td>
<td>Your license is due to expire in {days}. Contact your account manager to extend your license. Note: Protection of virtual machines continues.</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>Your license is close to its expiration date.</td>
</tr>
<tr>
<td><strong>Note:</strong> All protected virtual machines will continue to be protected.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Too many CPU sockets are used in the protection of virtual machines.</td>
<td>Contact your Zerto account manager to resolve the issue.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Alert Name</th>
<th>License expired and exceeded</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LIC0004</strong></td>
<td>Alert Category Licensing</td>
</tr>
<tr>
<td><strong>Severity</strong></td>
<td>Warning</td>
</tr>
<tr>
<td><strong>Message Displayed</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>Your license is passed its expiration date and you are protecting more virtual machines than the license permits.</td>
</tr>
<tr>
<td><strong>Note:</strong> All protected virtual machines will continue to be protected.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your license is close to its expiration date.</td>
<td>Contact your Zerto account manager to extend the license life.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Alert Name</th>
<th>License expired and exceeded</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LIC0005 - Deprecated</strong></td>
<td>Alert Category Licensing</td>
</tr>
<tr>
<td><strong>Severity</strong></td>
<td>Warning</td>
</tr>
<tr>
<td><strong>Message Displayed</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>Your license is passed its expiration date and you are using more CPU sockets than the license permits.</td>
</tr>
<tr>
<td><strong>Note:</strong> All protected virtual machines will continue to be protected.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your license has expired and more virtual machines than permitted are being protected.</td>
<td>Contact your Zerto account manager to extend the license life and increase the number of virtual machines that can be protected.</td>
</tr>
</tbody>
</table>

**Licensing Alerts**
Licensing Alerts

### 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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your license has expired.</td>
<td>Contact your Zerto account manager to extend the license life.</td>
</tr>
</tbody>
</table>

### 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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>More virtual machines than permitted are being protected.</td>
<td>Contact your Zerto account manager to increase the number of virtual machines that can be protected.</td>
</tr>
</tbody>
</table>

### LIC0008 - Deprecated

**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.
### LIC0009

**Alert Name** Public cloud replication not supported  
**Alert Category** Licensing  
**Severity** Error  
**Message Displayed** The Current license does not support Public Cloud replication. Contact your account manager to upgrade.  
**Description** Your current license does not support Public Cloud replication. Contact your account manager to upgrade.  

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

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>License has been downgraded.</td>
<td>Contact your account manager to upgrade.</td>
</tr>
</tbody>
</table>

### LIC0010

**Alert Name** vCD not supported  
**Alert Category** Licensing  
**Severity** Error  
**Message Displayed** vCD is not supported under this license. For more details contact your account manager.  
**Description** Your current license does not support vCD. For more details contact your account manager.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your current license does not support vCD</td>
<td>Contact your account manager.</td>
</tr>
</tbody>
</table>

### LIC0011

**Alert Name** Cross hypervisor replication not supported  
**Alert Category** Licensing  
**Severity** Error  
**Message Displayed** The current license does not support cross hypervisor replication. For more details contact your account manager.  
**Description** Your current license does not support cross hypervisor replication. For more details contact your account manager.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your current license does not support cross hypervisor replication.</td>
<td>Contact your account manager.</td>
</tr>
</tbody>
</table>
Storage Alerts

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

STR0001
STR0002
STR0004

**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.

**Possible Cause**
The hypervisor manager has reported a problem accessing the storage.

**Possible Resolution**
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.

**Possible Cause**
Storage is too small.

**Possible Resolution**
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.  

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage is too small.</td>
<td>Increase the size of the storage.</td>
</tr>
<tr>
<td></td>
<td>Change the recovery storage being used in the VPG definition.</td>
</tr>
</tbody>
</table>

**vCloud Director Alerts**  

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

VCD0001  
VCD0002  
VCD0003  
VCD0004  
VCD0005  
VCD0006  
VCD0007  
VCD0010  
VCD0014  
VCD0015  
VCD0016  
VCD0017  
VCD0018  
VCD0020  
VCD0021  
VCD0022  

**VCD0001**  

Alert Category vCloud Director  
Severity Error  

**Message Displayed** Cannot obtain backing vCenter Servers for Org vDC `{orgvdc_name}`.
### 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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Org vDC is defined to more than one vCenter.</td>
<td>Contact the vSphere/vCD administrator.</td>
</tr>
</tbody>
</table>

### 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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Org vDC storage profile not found in vCenter.</td>
<td>Contact the vSphere/vCD administrator.</td>
</tr>
</tbody>
</table>

### 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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Provider vDC storage profile not found in vCenter.</td>
<td>Contact the vSphere/vCD administrator.</td>
</tr>
</tbody>
</table>

### 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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>vCD 1.5 is being used.</td>
<td>Refer to the exception message. Contact the vSphere/vCD administrator.</td>
</tr>
<tr>
<td>vCD 5.1 and higher is being used.</td>
<td>Refer to the exception message. Contact the vSphere/vCD administrator or Zerto support.</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zerto Virtual Replication access difficulty.</td>
<td>Wait a few minutes for the problem to resolve itself.</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disconnection with vCD.</td>
<td>Contact the vSphere/vCD administrator.</td>
</tr>
</tbody>
</table>

**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.

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<tr>
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<tr>
<td>vCD 1.5 is being used.</td>
<td>Refer to the exception message. Contact the vSphere/vCD administrator.</td>
</tr>
<tr>
<td>vCD 5.1 and higher is being used.</td>
<td>Refer to the exception message. Contact the vSphere/vCD administrator or Zerto support.</td>
</tr>
</tbody>
</table>
16

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wrong credentials.</td>
<td>Check the credentials.</td>
</tr>
<tr>
<td>vCD is down.</td>
<td>Check whether vCD is up or not.</td>
</tr>
<tr>
<td>Network problems.</td>
<td>Check the network is working properly.</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
</table>
| Network problems.       | Refer to the exception message. Contact the vSphere/vCD administrator. In the RabbitMQ GUI has been installed:  
1. Verify that the Zerto Virtual Manager is unable to connect to the AMQP server.  
2. Verify that the IP address credentials for the AMQP are correct.  
3. Verify that there is no proxy, either in Internet Explorer's LAN settings, or DNS settings, that might be blocking the connection.  
4. Login to the vCD interface and in Administration > Blocking Tasks > Settings verify AMQP Broker Settings are configured properly via the Test AMQP Connection button. |
| Configuration problems. | Refer to the exception message. Contact the vSphere/vCD administrator. Verify that the Exchange and Queue previously created by the Zerto Virtual Replication AMQP Installer are listed properly in RabbitMQ:  
1. Login to the RabbitMQ web-based GUI (http://server-name:55672/mgmt credentials are guest/guest).  
2. Click the Exchanges tab.  
3. If the exchange vCD does not exist, create it manually, and check to see if the connectivity issue is resolved. |

**VCD0016**

Alert Name: Provider vDC datastore not found  
Alert Category: vCloud Director  
Severity: Error  
Message Displayed: Provider vDC datastore not found.  
Description: Check the provider vDC datastore not found.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider vDC datastore</td>
<td>Check the provider vDC datastore.</td>
</tr>
<tr>
<td>not found</td>
<td>Check the provider vDC datastore.</td>
</tr>
</tbody>
</table>

vCloud Director Alerts
**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The datastore was not found.</td>
<td>Contact the vCD administrator.</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Org vDc metadata was not found.</td>
<td>Contact the vCD administrator.</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duplicate MAC addresses.</td>
<td>Contact the system administrator to change the duplicate MAC addresses.</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of virtual machines in the vApp doesn't match the number in the startup section.</td>
<td>Check if a virtual machine was removed from the vCenter Server.</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unknown entity in the startup section.</td>
<td>Check if a virtual machine was removed from the vCenter Server.</td>
</tr>
</tbody>
</table>

VCD0022
Alert Name vCD Protection group missing VM
Alert Category vCloud Director
Severity Error
Message Displayed A single VM: VPG {vpg name} was paused by the system because 1 VM was not found. In order to resume the VPG, return the VM to the inventory. If the VM cannot be returned, remove the VM from the vCD vApp.

Multiple VMs: VPG {vpg name} was paused by the system because {number of VMs} VMs were not found. In order to resume the VPG, return the VMs to the inventory. If the VMs cannot be returned, remove the VMs from the vCD vApp.

Description A VPG was paused by the system because a single or multiple virtual machines were removed from the inventory.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A single or multiple virtual machines were removed from the inventory.</td>
<td>Return the virtual machine to the inventory.</td>
</tr>
<tr>
<td></td>
<td>If you can’t return the virtual machine to the inventory, edit the vCD vApp and remove the virtual machine from the vCD vApp.</td>
</tr>
</tbody>
</table>

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

VPG0003
VPG0004
VPG0005
VPG0006
VPG0007
VPG0008
VPG0009
VPG0010
VPG0011
VPG0012
VPG0014
VPG0015
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.

### 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, Replication Pause Time 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.

### 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, Replication Pause Time 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: `ping URL -f -l MTU_value`. Start with an MTU value of 1500. When the MTU value is too big, the ping will return strings similar to the following: `Packet needs to be fragmented but DF set.`
**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
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</tr>
</thead>
<tbody>
<tr>
<td>The VPG is in an error state.</td>
<td>Delete the VPG and then reprotect the virtual machines.</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
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</tr>
</thead>
<tbody>
<tr>
<td>A virtual machine was added to a VPG or vCD vApp and the added virtual machine has no matching datastore or not enough room on the recovery datastore.</td>
<td>Edit the VPG to define the datastore to use for the virtual machine and the test and failover networks.</td>
</tr>
<tr>
<td>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.</td>
<td>Edit the VPG to specify a suitable datastore for the added volume.</td>
</tr>
<tr>
<td>The VPG settings were not updated because of a site disconnection or hypervisor manager, VMware vCenter Server and Microsoft SCVMM, error.</td>
<td>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.</td>
</tr>
<tr>
<td>When performing a Failover or Move operation, you do not specify reverse protection.</td>
<td>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.</td>
</tr>
<tr>
<td>An Org vDC network is removed from the recovery site that has a VPG replicating to it.</td>
<td>Edit the VPG to use a different Org vDC network.</td>
</tr>
<tr>
<td>A protected volume was resized and the recovery site is VMware vCenter Server is version 4.0.</td>
<td>Edit the VPG to cause the recovery site volumes to be resized.</td>
</tr>
</tbody>
</table>
| A source volume associated with an RDM as a target for replication is resized. | 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.  
2. Resize the RDM (both local and remote) as described in the VMware Expanding the size of a Raw Device Mapping (RDM) knowledge base article.  
3. Protect the virtual machine again after resizing the RDM.  
  The VPG will go through a Delta Sync. |
**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
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</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>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. If the synchronization continues for too long, 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.</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The connection between the hypervisor manager, such as VMware vCenter Server and Microsoft SCVMM, and the Zerto Virtual Manager is down.</td>
<td>Check the connectivity between the hypervisor manager, and Zerto Virtual Manager.</td>
</tr>
<tr>
<td>The connection between the Zerto Virtual Manager and the VRA is down.</td>
<td>Check the connectivity between the Zerto Virtual Manager and the VRA</td>
</tr>
<tr>
<td>An internal error occurred.</td>
<td>Contact Zerto support.</td>
</tr>
</tbody>
</table>
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\}.

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

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\}.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
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</tr>
</thead>
<tbody>
<tr>
<td>IO burst.</td>
<td>After the IO burst the RPO should return to under the target RPO setting.</td>
</tr>
<tr>
<td>VRA is a bottleneck.</td>
<td>Increase the reserved RAM for the protection and recovery site VRAs.</td>
</tr>
<tr>
<td>The network is slow.</td>
<td>Check the network rate to see if this is the problem.</td>
</tr>
<tr>
<td>The recovery storage is slow.</td>
<td>Check the IO rate for the recovery storage to see if this is the problem.</td>
</tr>
</tbody>
</table>

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

**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.

**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.

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The recovery host resource pool does not have enough resources to recover all the virtual machines in the VPG.</td>
<td>Edit the VPG and change the recovery host for one or more of the VPGs so that there are available resources.</td>
</tr>
<tr>
<td>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.</td>
<td>Increase the resource pool resources.</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The recovery host resource pool cannot be found.</td>
<td>Edit the VPG and change the recovery host for one or more of the VPGs so that there are available resources.</td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Pause was clicked to pause the VPG protection.</td>
<td>Click Resume to resume the protection.</td>
</tr>
<tr>
<td>After resuming protection, a Bitmap Sync will most probably be performed to synchronize the protection and recovery sites.</td>
<td></td>
</tr>
</tbody>
</table>
### 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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
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</tr>
</thead>
<tbody>
<tr>
<td>No storage profile that includes relevant recovery datastores can be found.</td>
<td>In VMware vSphere create a new storage profile, or enable an existing storage profile with the relevant datastores.</td>
</tr>
</tbody>
</table>

### 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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The specified storage profile has been disabled.</td>
<td>In VMware vSphere create a new storage profile, or enable an existing storage profile with the relevant datastores.</td>
</tr>
</tbody>
</table>

### 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.

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<tr>
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<tbody>
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<td>No storage profile that includes relevant recovery datastores can be found.</td>
<td>In VMware vSphere create a new storage profile, or enable an existing storage profile with the relevant datastores.</td>
</tr>
</tbody>
</table>
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 \{pvdc_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.

<table>
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<tbody>
<tr>
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</tbody>
</table>

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 \{pvdc_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.

<table>
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<tr>
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<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The specified storage profile has been disabled.</td>
<td>In VMware vSphere create a new storage profile, or enable an existing storage profile with the relevant datastores.</td>
</tr>
</tbody>
</table>

VPG0023

Alert Name VPG recovery storage profile not found
Alert Category VPG and protected virtual machines
Severity Error

Message Displayed 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.

Note: A similar message, referring to SCVMM and not vCenter is issued when the recovery is to Microsoft Hyper-V.

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

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The specified storage profile cannot be found.</td>
<td>In VMware vSphere create a new storage profile, or enable an existing storage profile with the relevant datastores.</td>
</tr>
</tbody>
</table>
### VPG0024

**Alert Name** VPG recovery storage profile does not include active datastores  
**Alert Category** VPG and protected virtual machines  
**Severity** Error  
**Message Displayed** 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\}. The VMs: \{0\} replicate to the storage profile \{1\}, but it is missing the following recovery datastores: \{2\}.  
**Note:** A similar message, referring to storages and not datastores is issued when the recovery is to Microsoft Hyper-V.  
**Description** The storage profile that is used for recovery no longer includes the datastores that were being used.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recovery datastore not found in the storage profile.</td>
<td>Add the datastore back to the storage profile.</td>
</tr>
<tr>
<td></td>
<td>Change the recovery datastore of the affected virtual machines in the VPG.</td>
</tr>
</tbody>
</table>

### VPG0025

**Alert Name** vCD 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 vCD vApps will be created but will not be accessible.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network mapping for one or more vApp networks has not been configured.</td>
<td>Configure the vApp network mapping.</td>
</tr>
</tbody>
</table>

### 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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service profile specified in the VPG no longer exists.</td>
<td>Consult with the cloud service provider about what service profile to use and edit the VPG to use another service profile.</td>
</tr>
</tbody>
</table>
**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
</table>
| 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.  
Remove the virtual machine from the VPG. |

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrupted network mappings.</td>
<td>Edit the VPG to fix the mapping.</td>
</tr>
</tbody>
</table>

**VPG0035**

Alert Name: VPG protected resources not in ZORG  
Alert Category: VPG and protected virtual machines  
Severity: Warning  
Message Displayed: VPG outside of ZORG. \{vpg_name\} has protected resources which are not assigned to ZORG \{zorg_name\}. Move the protected resources to the ZORG or change the VPG organization. \{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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
</table>
| 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 outside of ZORG.  
VPG `{vpg_name}` is using recovery resources which are not assigned to ZORG `{zorg_name}`.  
Reconfigure the recovery resources to the ZORG or change the VPG organization.  

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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>Update the resources available to the ZORG in the Zerto Cloud Manager to include the required resources.</td>
</tr>
<tr>
<td></td>
<td>If a mistake was made specifying the ZORG for the VPG, edit the VPG to correct the ZORG value.</td>
</tr>
</tbody>
</table>

## 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.

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

## 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.

### Possible Cause

<table>
<thead>
<tr>
<th>Possible Cause</th>
<th>Possible Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The journal is not big enough to store all the data for the time specified.</td>
<td>The Journal Size Hard Limit parameter needs to be manually adjusted.</td>
</tr>
</tbody>
</table>

#### 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.

<table>
<thead>
<tr>
<th>Possible Cause</th>
<th>Possible Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>Recover the RDM to an RDM of the same size.</td>
</tr>
</tbody>
</table>

#### 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.

<table>
<thead>
<tr>
<th>Possible Cause</th>
<th>Possible Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The hypervisor managers, such as VMware vCenter Server and Microsoft SCVMM, in both the protected and recovery sites support different virtual machine hardware versions.</td>
<td>Upgrade the recovery host to a version that supports the protected virtual machine hardware version.</td>
</tr>
<tr>
<td></td>
<td>Change the recovery host to one that supports the protected virtual machine hardware version.</td>
</tr>
</tbody>
</table>

#### 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.

VPG Alerts
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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>Manually join the VM to the domain following a recovery operation.</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The recovery network was not found.</td>
<td>Check the network.</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Microsoft default SAN policy.</td>
<td>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.</td>
</tr>
</tbody>
</table>

**VPG0044**

Alert Name Cross-replication  
Alert Category VPG and protected virtual machines  
Severity Error  
Message Displayed Protection group has volume of size 0:{0}.  
Or:  
Protection group has several volumes of size 0:{0}.  
Description One or more of the virtual machines in the VPG has a disk with size 0.
### VPG0045 - Deprecated

**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 Backlog** Warning

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>One of the virtual machines in the VPG has a disk with size 0</td>
<td>Remove the virtual machine from the VPG to enable protecting the other virtual machines in the VPG.</td>
</tr>
</tbody>
</table>

### VPG0046 - Deprecated

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A synchronization (but not a bitmap synchronization, see the next cause) has caused the journal to include less time than defined.</td>
<td>Nothing to do. With time the journal will fill up to the defined time.</td>
</tr>
<tr>
<td>A bitmap synchronization has caused the journal to include less time than defined.</td>
<td>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, Replication Pause Time has been defined, the synchronization will pause to enable the situation to be resolved, for example, by creating a clone.</td>
</tr>
</tbody>
</table>

---

*VPG Alerts*
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**

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

**VPG0047 - Deprecated**

*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**

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

**VPG0048 - Deprecated**

*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

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

VPG0049

Alert Name Protection group missing VM
Alert Category VPG and protected virtual machines
Severity Error
Message Displayed A single VM: VPG {vpg name} was paused by the system because 1 VM was not found. In order to resume the VPG, return the VM to the inventory. If the VM cannot be returned, edit the VPG to remove the VM from the VPG.

Multiple VMs: VPG {vpg name} was paused by the system because {number of VMs} VMs were not found. In order to resume the VPG, return the VMs to the inventory. If the VMs cannot be returned, edit the VPG to remove the VMs from the VPG.

Description A VPG was paused by the system because a single or multiple virtual machines were removed from the inventory.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A single or multiple virtual machines were removed from the inventory.</td>
<td>Return the virtual machine to the inventory. If you can’t return the virtual machine to the inventory, edit the VPG and remove the virtual machine from the VPG.</td>
</tr>
</tbody>
</table>

VRA Alerts

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

VRA0001
VRA0002
VRA0003
VRA0004
VRA0005
VRA0006
VRA0007
VRA0008
VRA0009
VRA0010
VRA0011
VRA0012
VRA0013
VRA0014
VRA0015
VRA0016
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.
**Zerto Virtual Replication Guide to Alerts and Events for Microsoft Azure Environments - Version 5.5**

**Zerto Virtual Replication Alerts**

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

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>One or more hosts in a cluster do not have VRAs installed.</td>
<td>Install a VRA on all the hosts in the cluster.</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The VRA did not install since it was not allocated an IP address.</td>
<td>Check the DHCP server. Reinstall the VRA using a static address.</td>
</tr>
</tbody>
</table>

**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 but the VRA was installed successfully but later on the DHCP server changed the IP address for the VRA.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The VRA IP address is not recognized by Zerto Virtual Replication.</td>
<td>Check the DHCP server, which might have assigned a different IP. Reinstall the VRA using a static address.</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The VRA IP address is not recognized by Zerto Virtual Replication.</td>
<td>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.</td>
</tr>
</tbody>
</table>

**VRA Alerts**
### 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.  

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network problems.</td>
<td>Check whether the peer site VRA is pingable.</td>
</tr>
<tr>
<td>VRA is down.</td>
<td>If the VRA is down, try rebooting the VRA.</td>
</tr>
</tbody>
</table>

### VRA0006
Alert Name: Datastore for journal disk is full  
Alert Category: VRAs  
Severity: Error  
Message Displayed: Cannot write to journal disk `{journal}` 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.  

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Datastore is full.</td>
<td>Increase the datastore size.</td>
</tr>
</tbody>
</table>

### 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.  

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage problems.</td>
<td>Check the datastore to see if it has enough free space and is accessible.</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recovery disks cannot be found.</td>
<td>Contact Zerto support.</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recovery disks cannot be found.</td>
<td>Contact Zerto support.</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recovery disks cannot be accessed.</td>
<td>Power on the recovery VM.</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
</table>
| 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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recovery disks cannot be updated.</td>
<td>Increase the size of the datastore.</td>
</tr>
</tbody>
</table>

### VRA0013
**Alert Name** I/O error to recovery disk  
**Alert Category** VRAs  
**Severity** Error  
**Message Displayed** I/O error to recovery disk \{disk_name\} of virtual machine \{vm_name\}.  
**Description** There are I/O errors generated when writing to the recovered virtual machine recovery disks.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
</table>
| 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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The cloned virtual machine is powered off.</td>
<td>Power on the cloned virtual machine.</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recovery disks for the clone cannot be accessed.</td>
<td>Check the datastore that it is accessible.</td>
</tr>
<tr>
<td></td>
<td>Contact Zerto support.</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recovery disks for the clone cannot be updated because the datastore for these disks is almost full.</td>
<td>Increase the datastore size.</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recovery disks cannot be updated.</td>
<td>Check the datastore that it is OK.</td>
</tr>
<tr>
<td></td>
<td>Check for IO problems.</td>
</tr>
</tbody>
</table>
### 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.  

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The protected virtual machine was removed.</td>
<td>Nothing to do. With time the VPG status will be resolved.</td>
</tr>
</tbody>
</table>

### 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.  

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The protected virtual machine volume was removed.</td>
<td>Wait and the VPG status will be resolved.</td>
</tr>
</tbody>
</table>

### 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.  

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The protected virtual machine is powered off.</td>
<td>Power on the virtual machine.</td>
</tr>
</tbody>
</table>

### 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.  

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
</table>
| 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.  

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A protected virtual machine disk is not supported by Zerto Virtual Replication.</td>
<td>Remove the disk.</td>
</tr>
</tbody>
</table>

**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.  

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problems with VRA installation.</td>
<td>Contact Zerto support.</td>
</tr>
</tbody>
</table>

**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.  

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
</table>
| 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.  

VRA Alerts
### Zerto Virtual Replication Alerts

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A recovery disk was removed.</td>
<td>Delete the VPG and recreate it to restart the protection of the virtual machine.</td>
</tr>
</tbody>
</table>

**POSSIBLE CAUSE**

A recovery disk was removed.

**POSSIBLE RESOLUTION**

- 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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A journal volume was removed.</td>
<td>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.</td>
</tr>
</tbody>
</table>

---

**POSSIBLE CAUSE**

A journal volume was removed.

**POSSIBLE RESOLUTION**

- 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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The VRA is powered off,</td>
<td>Power the VRA on.</td>
</tr>
</tbody>
</table>

**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.

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

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

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configuration mismatch in the VPG for the virtual machine.</td>
<td>Edit the VPG and change the journal size hard limit for the virtual machine.</td>
</tr>
</tbody>
</table>
**VRA0032**
Alert Name  Local VRA version 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. At least one VRA on the (local) site has not been upgraded to this newer version.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The VRA’s version on the local site is an old version, and a newer version is available.</td>
<td>Upgrade the VRAs on the local site to the new version.</td>
</tr>
</tbody>
</table>

**VRA0033**
Alert Name  Peer VRA out-of-date  
Alert Category  VRAs  
Severity  Warning
Message Displayed  At least one peer site VRA has not been updated to the latest version.
Description  A newer version of VRA is available. One or more of the peer sites VRAs have not been upgraded to this newer version.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A VRA on the peer site is an old version, and a newer version is available.</td>
<td>Upgrade the VRA on the peer site to the new version.</td>
</tr>
</tbody>
</table>

**VRA0035 - Deprecated**
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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>VRA reconciliation is in progress.</td>
<td>No action required.</td>
</tr>
</tbody>
</table>

Alarm in vCenter Server  VRAsReconciliation

**VRA0036 - Deprecated**
**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
</table>
| A VRA or shadow VRA has the same MAC address as the specified entity. | 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:  
1. Shut down the relevant VRA.  
2. Open Edit Settings for the VRA virtual machine in the vSphere Client console.  
3. Remove the listed NIC and save the settings.  
4. Open Edit Settings for the VRA virtual machine and add a new NIC and save the settings.  
5. Power on the VRA. |

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
</table>
| A VRA or shadow VRA has the same MAC address as the specified entity. | 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:  
1. Shut down the relevant VRA.  
2. Open Edit Settings for the VRA virtual machine in the vSphere Client console.  
3. Remove the listed NIC and save the settings.  
4. Open Edit Settings for the VRA virtual machine and add a new NIC and save the settings.  
5. Power on the VRA. |
**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.  

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journal size has increased to the configured hard limit.</td>
<td>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).</td>
</tr>
</tbody>
</table>

**VRA0040**

**Alert Name** Journal space low  
**Alert Category** VRAs  
**Severity** Warning  
**Message Displayed** The \{journal\} 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.  

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journal size has increased to the configured hard limit.</td>
<td>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).</td>
</tr>
</tbody>
</table>

**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).

**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.  

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A disconnection between the Zerto Virtual Manager and the hypervisor manager, such as VMware vCenter Server and Microsoft SCVMM.</td>
<td>Check the connection between the Zerto Virtual Manager and the hypervisor manager.</td>
</tr>
<tr>
<td>A disconnection between the Zerto Virtual Managers on both the protected and recovery sites.</td>
<td>Check the connection between the Zerto Virtual Managers.</td>
</tr>
<tr>
<td>A disconnection between the Zerto Virtual Manager and a VRA active in the rollback.</td>
<td>Check the connection to the VRAs.</td>
</tr>
</tbody>
</table>

**VRA0051 - Deprecated**

**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.  

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A disk was added.</td>
<td>Remove the disk.</td>
</tr>
</tbody>
</table>
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}`.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A system disk was removed.</td>
<td>Reinstall the VRA.</td>
</tr>
</tbody>
</table>

VRA0054
Alert Name VRA journal alert in public cloud
Alert Category VRAs
Severity Error
**Message Displayed** There are errors in the log volume files. If persists recreate VPG.
**Description** The VRA is unable to access the journal in the cloud storage.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The error could have happened for several reasons, such as objects that were deleted or because the access to the storage is unavailable.</td>
<td>Try to recreate the VPG or contact support.</td>
</tr>
</tbody>
</table>

VRA0055
Alert Name VRA target volume alert in public cloud
Category VRAs
Severity Error
**Message Displayed** There are errors in the target volume files. If persists recreated VPG.
**Description** The VRA is unable to access the target disks in the cloud storage.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The error could have happened for several reasons, such as objects that were deleted or because the access to the target disk is unavailable.</td>
<td>Try to recreate the VPG or contact support.</td>
</tr>
</tbody>
</table>
VRA0056
Alert Name: VRA is shutting down
Alert Category: VRAs
Severity: Warning
Message Displayed: VRA on host {0} is shutting down due to host maintenance.
Description: The VRA on the host will wait for the protected virtual machines to be vMotioned or up to 10 minutes, whichever occurs first, before shutting down automatically, to enable host maintenance.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>VRA is shutting down due to host maintenance.</td>
<td>No action required.</td>
</tr>
</tbody>
</table>

Zerto Cloud Appliance Alerts

Zerto Cloud Appliance (ZCA) alerts are triggered when there is a problem with the ZCA recovery site.

ZCA0001
ZCA0002

ZCA0001
Alert Name: Storage removed
Alert Category: Public Cloud
Severity: Error
Message Displayed: The Zerto storage cannot be found. Re-install the Zerto Cloud Appliance (ZCA).
Description: The storage used for the replicated data managed by the VRA in ZCA is not found.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The data replicated from the protected site is saved in a ZCA storage which cannot be found.</td>
<td>Reinstall the Zerto Cloud Appliance (ZCA).</td>
</tr>
</tbody>
</table>

ZCA0002
Alert Name: Quota of instances number exceeded
Alert Category: Public Cloud
Severity: Warning
Message Displayed: The maximum number of instances per instance type {0} was reached. To increase the quota per instance type, in order to improve RTOs, please contact AWS support. For more information, see Zerto documentation.
Description: The maximum number of instances per {instance type} was reached. Any additional instance creation will be queued, potentially increasing the RTO. To increase change the maximum allowed instances of type {instance type}, contact AWS support.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The maximum number of instances per instance type was reached.</td>
<td>The maximum number of instances per instance type needs to be increased. Contact AWS support.</td>
</tr>
</tbody>
</table>
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
ZCC0002
ZCC0003

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Zerto Cloud Connector is displayed as a ghost</td>
<td>Redeploy the cloud connector with the original settings.</td>
</tr>
<tr>
<td>cloud connector</td>
<td></td>
</tr>
</tbody>
</table>

**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.
- **Description**: 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.
- **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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Zerto Cloud Connector is powered off.</td>
<td>Try powering the Zerto Cloud Connector on.</td>
</tr>
<tr>
<td>Not enough disk space for the Zerto Cloud</td>
<td>Check the available storage on the datastore specified for</td>
</tr>
</tbody>
</table>
**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to the Zerto Cloud Connector is blocked in the Zerto Virtual Manager machine.</td>
<td>Check the access permissions to the machine running the Zerto Virtual Manager.</td>
</tr>
<tr>
<td>An invalid configuration was specified for the Zerto Cloud Connector.</td>
<td>Remove the Zerto Cloud Connector and reinstall a new Zerto Cloud Connector with the correct configuration.</td>
</tr>
<tr>
<td>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 Organization Network NIC settings.</td>
<td>Static route groups can be configured and assigned to the Zerto Cloud Connector.</td>
</tr>
<tr>
<td>The vSwitch or vDS assigned to the Cloud Network NIC settings is not configured correctly.</td>
<td>Verify that ping and telnet over TCP port 22 from the cloud Zerto Virtual Manager to the Cloud Network NIC are successful.</td>
</tr>
<tr>
<td>The uplink assigned to the vSwitch or DVS assigned to the Cloud Network NIC settings does not have proper trunking configured on the physical switch it is attached to.</td>
<td>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.</td>
</tr>
</tbody>
</table>

**Zerto Cloud Manager Alerts**

Zerto Cloud Manager alerts are triggered when there is a problem with a Zerto Cloud Manager.  
**ZCM0001**  
**ZCM0002**  

**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.  

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>vIP or port specified are not correct for the Zerto Virtual Manager.</td>
<td>Check the IP and port.</td>
</tr>
<tr>
<td>POSSIBLE CAUSE</td>
<td>POSSIBLE RESOLUTION</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------</td>
</tr>
<tr>
<td>The Zerto Virtual Manager is not running.</td>
<td>Check that the Zerto Virtual Manager service is running.</td>
</tr>
<tr>
<td>The Zerto Cloud Manager is blocked from accessing the Zerto Virtual Manager</td>
<td>Check the access permissions to the machine running the Zerto</td>
</tr>
<tr>
<td>machine.</td>
<td>Virtual Manager.</td>
</tr>
</tbody>
</table>
**ZCM0002**

**Alert Name** Zerto Cloud Manager not supported  
**Alert Category** Licensing  
**Severity** Error  
**Message Displayed** Zerto Cloud Manager is not supported with the current license. Check your license and contact your account manager.  
**Description** The Zerto Cloud Manager is not supported with the current license. Check your license and contact your account manager.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The license which is used on the Zerto Virtual Replication, and which is attached to Zerto Cloud Manager, does not support Zerto Cloud Manager.</td>
<td>Check your license and contact your account manager.</td>
</tr>
</tbody>
</table>

**Zerto Virtual Manager Alerts**

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

ZVM0001  
ZVM0002  
ZVM0003  
ZVM0004  
ZVM0005  
ZVM0006  
ZVM0007  
ZVM0008  
ZVM0009  
ZVM0010  
ZVM0011  
ZVM0012  
ZVM0013  
ZVM0014  
ZVM0015  
ZVM0016  
ZVM0017  
ZVM0019  
ZVM0020
Zerto Virtual Manager Alerts

ZVM0001
Alert Name: No connection to hypervisor manager, such as VMware vCenter Server and Microsoft SCVMM, or to public cloud.
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 cloud access parameters 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 cloud services (AWS or Microsoft Azure).

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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The hypervisor manager is not running.</td>
<td>Check the hypervisor manager</td>
</tr>
<tr>
<td>Authentication failed between the Zerto Virtual Manager and the hypervisor manager or cloud server.</td>
<td>Check that the Zerto Virtual Manager has the correct credentials to access the hypervisor manager or the cloud. The credentials can be reset in the Site Information tab in the Site Settings dialog.</td>
</tr>
</tbody>
</table>

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.

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

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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The two sites are syncing after a failed recovery operation.</td>
<td>If a recovery operation failed, wait a few minutes for the connection to be re-established.</td>
</tr>
<tr>
<td>The network to access the peer site has a problem.</td>
<td>Check on the peer site network.</td>
</tr>
<tr>
<td>The Zerto Virtual Manager service is not running on the peer site.</td>
<td>Check on the peer site if the Zerto Virtual Manager is running.</td>
</tr>
</tbody>
</table>

**ZVM0004**

Alert Name: Peer ZVM version 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: A newer version of the Zerto Virtual Replication is available. One or more of the peer site's Zerto Virtual Replication has not been upgraded to this newer version.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A ZVM version on the peer site is an old version, and a newer version is available.</td>
<td>Upgrade the ZVM version on the peer sites to the new versions.</td>
</tr>
<tr>
<td>This alert is relevant only when the updated version is a major or minor version.</td>
<td></td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low on free space for drive where the Zerto Virtual Manager is installed.</td>
<td>Free up some space on the drive or increase the size.</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The protected and recovery sites are running different versions of Zerto Virtual Replication.</td>
<td>Upgrade Zerto Virtual Replication, including any VRAs that can be upgraded.</td>
</tr>
</tbody>
</table>

Before upgrading, review the Product Version Lifecycle Matrix for Zerto Virtual Replication.

Then, review the following considerations:

- Zerto recommends upgrading to the latest version of Zerto Virtual Replication that supports the environment you are using. Refer to the Zerto Virtual Replication Interoperability Matrix for the list of environments supported by this version of Zerto Virtual Replication.
- The order you upgrade the sites, protected or recovery, is not relevant as long as paired sites remain only one version apart, that is, only one version higher or lower.
  
  **Note:** Upgrade releases are considered to be upgrades of the same version. Releases 5.5, 5.5U1, etc., are the same version.
- The following table shows what version you can upgrade to, based on the current version running at the site.
- You do not need to move workloads during an upgrade.
- When upgrading a protected vSphere or Hyper-V environment, after the upgrade, a bitmap sync is performed for VPGs on the protected VRA.
- In a Hyper-V environment, SCVMM 2016 is supported on ZVR clean installations only.
- Zerto Cloud Appliance is supported for Azure and AWS (ZCA) on:
  - Windows 2016
  - Windows 2012R2

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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>Upgrade Zerto Virtual Replication, first to the same version as the peer site and then upgrade both sites to the latest version.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>CURRENT VERSION</th>
<th>CAN UPGRADE TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0, 4.0Ux</td>
<td>4.5Ux</td>
</tr>
<tr>
<td>4.5, 4.5Ux</td>
<td>5.0Ux</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The two sites are running different versions of Zerto Virtual Replication that are not compatible one with the other.</td>
<td>Upgrade the older version to the same version as the local version.</td>
</tr>
</tbody>
</table>

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, etc., are the same version.

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

<table>
<thead>
<tr>
<th>CURRENT VERSION</th>
<th>CAN UPGRADE TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0, 4.0Ux</td>
<td>4.5Ux</td>
</tr>
<tr>
<td>4.5, 4.5Ux</td>
<td>5.0Ux</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Zerto Virtual Manager has an internal error.</td>
<td>Contact Zerto support.</td>
</tr>
</tbody>
</table>
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Zerto Virtual Replication Alerts

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Zerto Virtual Managers at the two sites required to be synchronized and are currently not synchronized.</td>
<td>Wait for the synchronization to complete.</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Zerto Virtual Manager cannot collect the host metadata.</td>
<td>Contact Zerto support.</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Zerto Virtual Manager cannot collect SCSI adapter information.</td>
<td>Remove the virtual machine from the VPG to enable protecting the other virtual machines in the VPG.</td>
</tr>
<tr>
<td></td>
<td>Contact Zerto support.</td>
</tr>
</tbody>
</table>
Zerto Virtual Replication Guide to Alerts and Events for Microsoft Azure Environments - Version 5.5

Zerto Virtual Replication Alerts

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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The host is not available.</td>
<td>Check the host status.</td>
</tr>
<tr>
<td>The host version is not supported by Zerto Virtual Replication.</td>
<td>Check the host version.</td>
</tr>
</tbody>
</table>

ZVM0014
Alert Name VRA/Diskbox SCSI GUID mismatch
Alert Category Zerto Virtual Manager
Severity Error
Message Displayed SCSI adapter data for host {host} is not found.
Description The SCSI adapter identifiers retrieved from SCVMM do not match the identifiers retrieved from the VM configuration on the Hyper-V host.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is a communication error between the host and the ZVM</td>
<td>Refresh the VM in the SCVMM console and ensure connectivity from the host to the ZVM.</td>
</tr>
<tr>
<td>A change was made to the virtual machine that was not updated in the VMM server.</td>
<td></td>
</tr>
</tbody>
</table>

ZVM0015
Alert Name Hyper-V host state
Alert Category Zerto Virtual Manager
Severity Warning or Error: If a VRA is not installed on the host, this is a warning. If a VRA is installed on the 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 the host so it cannot retrieve host information.
Zerto Virtual Replication Guide to Alerts and Events for Microsoft Azure Environments - Version 5.5
Zerto Virtual Replication Alerts

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is a communication problem between the Hyper-V host and the Zerto Virtual Manager. (There must be communication from the Hyper-V host to the Zerto Virtual Manager.)</td>
<td>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.</td>
</tr>
<tr>
<td>The user under which Zerto Virtual Manager runs scripts on the Hyper-V host has insufficient permissions to create the folder \file on the host.</td>
<td>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 Run As Account user or the default, which is the Hyper-V host machine user.</td>
</tr>
<tr>
<td>The Hyper-V PS module is not installed on the Hyper-V host.</td>
<td>Install the Hyper-V PS module on the Hyper-V host.</td>
</tr>
<tr>
<td>The version of PowerShell installed on the Hyper-V host is lower than 4.0. (Zerto Virtual Replication requires version 4.0 or higher.)</td>
<td>Check which version of Powershell is installed. If it is lower than 4.0, install version 4.0 or higher.</td>
</tr>
<tr>
<td>There is a communication problem between the Hyper-V host and SCVMM.</td>
<td>Check the Hyper-V host status and its communication status in SCVMM.</td>
</tr>
</tbody>
</table>

### ZVM0016

**Alert Name** Failed to load tweaks  
**Alert Category** Zerto Virtual Manager  
**Severity** Error  
**Message Displayed** Error occurred during loading zvm tweaks file {tweaks_file_name}. Service may not work as expected. Contact Zerto support.  
**Description** A problem occurred during loading and parsing the ZVM tweaks file. Unrecognised tweaks will not be applied.  

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZVM tweaks file contains tweaks with incorrect tweak name or value.</td>
<td>If you have updated the Zvm tweaks file, check that you hadn’t made a mistake specifying tweak name and value.</td>
</tr>
</tbody>
</table>

### ZVM0017

**Alert Name** Protected VM with unknown OS  
**Alert Category** Zerto Virtual Manager  
**Severity** Warning  
**Message Displayed** The OS on {0} is set to 'Other' or 'None'. To continue, please select a new OS type in SCVMM.  
**Description** The VM's OS type is not specified in SCVMM.  

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The OS type is not specified in SCVMM.</td>
<td>Add the OS type to the SCVMM</td>
</tr>
</tbody>
</table>

### ZVM0019

**Alert Name** Agent disconnected / Failed to open channel  
**Alert Category** Zerto Virtual Manager  
**Severity** Error  
**Message Displayed** Agent on host {n} is disconnected. Contact Zerto support.  
Or
Agent on host \{n\} is disconnected. \{reason\}
Or
Failed to open a channel for the agent on host \{0\}. Please check the SCVMM connection, or check the reason for the job failure. Or
Failed to install the agent on host:{0}. Failed rename agent executable, after unzip. Package might be corrupted. Contact Zerto support.

POSSIBLE CAUSES

<table>
<thead>
<tr>
<th>POSSIBLE RESOLUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agent channel disconnected with a pull request timeout.</td>
</tr>
<tr>
<td>Agent disconnected.</td>
</tr>
<tr>
<td>Agent failed to open channel.</td>
</tr>
<tr>
<td>Agent not accepted, failed to open channel.</td>
</tr>
<tr>
<td>Agent executable is missing due to corrupt package.</td>
</tr>
</tbody>
</table>

ZVM0020

Alert Name Agent installation failed
Alert Category Zerto Virtual Manager
Severity Error
Message Displayed
Failed to install the agent on host: {0}. {Reason}
Or
Failed to install the agent on host:{0}. A PowerShell module \{1\} validation failed.
Or
Failed to install the agent on host:{0}. Failed to create the install directory \{1\}.
Or
Failed to install the agent on host: {0}. The Hyper-V agent install package with name \{1\}, is not found.
Or
Failed to install the agent on host:{0}. VRA is not installed. Install the VRA, then retry.
Or
Failed to install the agent on host:{0}. An error occur when extracting the install package. Check the SCVMM user permissions on the host.
Or
Failed to install the agent on host:{0}. Failed to upload the install package to the host. Check the connection between the host and ZVM \{1\}).

POSSIBLE CAUSES

<table>
<thead>
<tr>
<th>POSSIBLE RESOLUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agent installation failed on host.</td>
</tr>
<tr>
<td>Agent installation failed due to PowerShell module validation failure.</td>
</tr>
<tr>
<td>Agent installation failed due to failure to create installation directory.</td>
</tr>
<tr>
<td>Agent installation failed due missing Hyper-V agent package.</td>
</tr>
<tr>
<td>Agent installation failed due to policy issue.</td>
</tr>
<tr>
<td>Agent installation failed due to failure to extract the installation package.</td>
</tr>
<tr>
<td>Agent installation failed due to failure to upload the installation package.</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>There was a problem installing the file level restore component.</td>
<td>Contact Zerto support.</td>
</tr>
<tr>
<td>There is a problem running the file level restore component.</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 2: ZERTO VIRTUAL REPLICATION EVENTS

All events which are triggered by Zerto Virtual Replication are displayed in the Zerto User Interface. Each event has a number, and a description.

Use the following topics to understand how to monitor events, and to review details of each event which is triggered.
- “Monitoring Events”, below
- “Events”, on page 66

Monitoring Events

To view the events, click the MONITORING tab, in the EVENTS area. A list of tasks performed within Zerto Virtual Replication is displayed.

To filter events:
1. To filter the events, select:
   - **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.
2. Click APPLY to apply the filtering selected via any of the above fields.
3. Click RESET to reset the display to the defaults values.
4. Click EXPORT to export the listing of events to a Microsoft Excel file.

See further details about any event by clicking the event ID link, and by referring to the section Events.
Events

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

For descriptions of each event, see the following:

- EV0002 – Create VPG
- EV0003 – Remove VPG
- EV0004 – Failover
- EV0005 – Test failover
- EV0006 – Stop failover test
- EV0008 – Move VPG
- EV0009 – Protect VM
- EV0010 – Unprotect VM
- EV0013 – Install VRA
- EV0014 – Uninstall VRA
- EV0016 – Update VPG
- EV0017 – Add tagged checkpoint
- EV0019 – Promotion for VM in VPG complete
- EV0020 – Promotion for all VMs in VPG complete
- EV0021 – Log collection
- EV0024 – Delete Paired VPGs
- EV0025 – Forcibly delete VPG
- EV0026 – Update VPG
- EV0027 – Forcibly delete VPG in error state
- EV0028 – Run script
- EV0029 – Initialize full sync
- EV0030 – Pair sites
- EV0031 – Unpair sites
- EV0034 – Install Zerto Cloud Connector
- EV0035 – Uninstall Zerto Cloud Connector
- EV0037 – Script failed
- EV0038 – Update advanced site settings
- EV0039 – Clone
- EV0040 – Remove VM from VPG and keep disk
- EV0041 – Failover Without Commit
- EV0042 – Committing Failover
- EV0043 – Failover rollback
- EV0044 – Move without commit
- EV0045 – Move rollback
Zerto Virtual Replication Guide to Alerts and Events for Microsoft Azure Environments - Version 5.5

Zerto Virtual Replication Events

EV0046 – Committing move
EV0047 – Move host resources
EV0048 – Upgrade VRA
EV0049 – Change VPG substatus to need configuration
EV0050 – Change VRA IP settings
EV0051– Pause VPG by User
EV0052 – Resume VPG by User
EV0053 – Upgrade Zerto Virtual Manager
EV0054 – Upgrade more than one VRA
EV0055 – Uninstall more than one VRA
EV0056 – Alert Turned On
EV0057 – Alert Turned Off
EV0058 – Change VRA password
EV0059 – Change recovery host
EV0060 – Backup VPG
EV0061 – Redeploy Cloud Connector
EV0062 – Cleanup VPG IP Diskbox
EV0063 - Restore
EV0064 – Pre-script
EV0065 – Post-script
EV0066 – Virtual Machine removed
EV0067 – Change VRA IP and password settings
EV0068 – File level recovery disk mounted
EV0069 – File level recovery disk unmounted
EV0070 – ZVM/ZSSP Login
EV0072 - Host entering maintenance mode
EV0073 - Host exiting maintenance mode
EV0077 – Pause VPG by the System
EV0078 – Resume VPG by User After Editing a VPG
EV0079 – Resume VPG by System
EV0080: Cloud
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Zerto Virtual Replication Events

**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 70.

**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 VCD vApp and is added to the VPG.

**EV0010 – Unprotect VM**
A virtual machine is removed from a protected VCD 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 - Deprecated**
A protected virtual machine in a protected vApp has been reconfigured and the definition in the VPG is updated.

**EV0024 - Delete Paired VPGs**
All VPGs for the paired 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 by User**
Protection group {vpg name} was paused by the user. Completed successfully.
**EV0052 – Resume VPG by User**
Protection group {vpg name} was resumed by the user. Completed successfully.

**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.

**EV0072 - Host entering maintenance mode**
The host is entering maintenance mode. The VRA on the host will wait for the protected virtual machines to be vMotioned or up to 10 minutes, whichever occurs first, before shutting down automatically.

**EV0073 - Host exiting maintenance mode**
The host is exiting maintenance mode. The VRA must be manually powered on.
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**EV0077 - Pause VPG by the System**
Protection group {vpg name} was paused by the System. One or more VMs were removed from the inventory.

**EV0078 - Resume VPG by User After Editing a VPG**
For a single virtual machine:
Protection group {vpg name} was resumed by the user after editing the VPG. VM {vm name} was removed from the VPG.
For multiple virtual machines:
Protection group {vpg name} was resumed by the user after editing the VPG. VMs {vm names} were removed from the VPG.

**EV0079 - Resume VPG by System**
Protection group {vpg name} was resumed by the System. One or more VMs were added to the inventory.