



SimpliVity OmniStack Release Notes

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Customer support

To contact SimpliVity Customer Support, visit <https://support.simplivity.com>. When contacting a representative, you need to know the serial number of your OmniStack server to verify your service subscription.

SimpliVity uses OmniWatch to automatically monitor the health of your OmniStack equipment and have it send us notifications of any alerts or errors.

Intended audience

This document is intended for users of SimpliVity OmniStack products who want to install, manage, and monitor their hyperconverged IT infrastructure. This information is intended for system administrators experienced in hypervisor technology, virtual machine management, and data center operations.

SimpliVity documentation conventions

SimpliVity documentation uses the following conventions to assist your reading.

General formatting

`Monospace font` represents a command line syntax, file path, system output, or similar code.

Italic font represents a user-defined name or variable.

Bold font represents a user interface element, such as a button or tab, with which a user interacts.

Command Line formatting

SimpliVity documentation uses the following format for CLI commands:

```
command --option variable
```

where

- `command` is the name of the command and should be typed exactly as shown.
- `--option` is a command option and should be typed exactly as shown.
- *variable* is an option variable and should be replaced with the required value.

Reading path

SimpliVity provides a comprehensive documentation set for this release of the OmniStack Software. The following reading path lists the documentation for this release.

Learn about this OmniStack release.

Document	Description
<i>SimpliVity OmniStack Release Notes</i> 760-000183 Rev A	Explains new features, fixed issues, and known issues in this release. Read this document first. Note that the information in these Release Notes may supersede information in other OmniStack publications in this documentation set.

Install and configure hardware.

Document	Description
<i>SimpliVity OmniCube CN-Series Hardware Installation Quick Start</i> 760-000159 Rev A	Explains installation and integration steps for OmniCube CN-Series hardware.
<i>SimpliVity OmniCube CN-1400, CN-2400, CN-3400, and CN-5400 Series Hardware Installation and Maintenance Guide</i> 760-000193 Rev A	Explains installation, cabling, and configuration procedures for OmniCube CN-1400, CN-2400, CN-3400, and CN-5400 Series hardware.
<i>SimpliVity OmniCube CN-2000, CN-2200, CN-3000, and CN-5000 Hardware Installation and Maintenance Guide</i> 760-000194 Rev A	Explains installation, cabling, and configuration procedures for OmniCube CN-2000, CN-2200, CN-3000, and CN-5000 hardware.

Document	Description
<i>SimpliVity OmniStack Integrated Solution with Cisco UCS C240 M4SX Hardware Installation Quick Start</i> 760-000162 Rev A	Explains installation and integration steps for OmniStack Integrated Solution with Cisco UCS C240 M4SX hardware.
<i>SimpliVity OmniStack Integrated Solution with Cisco UCS C240 M4SX Hardware Installation and Maintenance Guide</i> 760-000196 Rev A	Explains installation, cabling, and configuration procedures for OmniStack Integrated Solution with Cisco UCS C240 M4SX hardware.
<i>SimpliVity OmniStack Solution with Lenovo x3650 M5 Hardware Installation Quick Start</i> 760-000164 Rev A	Explains installation and integration steps for OmniStack Solution with Lenovo x3650 M5 hardware.
<i>SimpliVity OmniStack Solution with Lenovo x3650 M5 Hardware Installation and Maintenance Guide</i> 760-000198 Rev A	Explains installation, cabling, and configuration procedures for OmniStack Solution with Lenovo x3650 M5 hardware.

Deploy the OmniStack Software on your platform.

Document	Description
<i>SimpliVity OmniStack Host Deployment Quick Start</i> 760-000185 Rev A	Explains deployment steps for all platforms.
<i>SimpliVity OmniStack Host Deployment Guide</i> 760-000184 Rev A	Explains how to use Deployment Manager to deploy all platforms.
<i>SimpliVity OmniStack Upgrade Manager Guide</i> 760-000191 Rev A	Explains upgrade procedures for OmniStack Software.

Administer your Federations.

Document	Description
<i>SimpliVity OmniStack for vSphere Web Client Administrator Guide</i> 760-000186 Rev A	Explains procedures for administering OmniStack hosts using OmniStack for vSphere Web Client.

Document	Description
SimpliVity Extension for vSphere Web Client Help 760-000187 Rev A	Explains procedures for administering OmniStack hosts using OmniStack for vSphere Web Client. The SimpliVity Extension for vSphere Web Client includes this Help system.
<i>SimpliVity OmniStack REST API Getting Started Guide</i> 760-000190 Rev A	Explains how to use the OmniStack REST API to administer OmniStack hosts. See api.simplivity.com for this guide.
<i>SimpliVity OmniStack Command Reference</i> 760-000188 Rev A	Explains OmniStack command line interface (CLI) commands.

Monitor your Federations.

Document	Description
<i>SimpliVity OmniStack Events Reference</i> 760-000189 Rev A	Explains SimpliVity-specific alarms and events.

SimpliVity documentation feedback

We welcome your feedback, suggestions, and comments to help us continue to improve the quality of our documentation.

Send your comments to Documentation-Feedback@SimpliVity.com and include as much detail as possible to help us identify the affected area.

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OmniStack Release Notes

This document contains important product information and restrictions for OmniStack Software from SimpliVity Corporation.

OmniStack 3.6.1 from SimpliVity Corporation provides bug fixes and enhancements. OmniStack consists of the software installed on your platform and the SimpliVity vSphere Extension that you use to manage SimpliVity virtual objects. You can also manage SimpliVity objects through the SimpliVity CLI and REST API.

Fixed in this release

This version of OmniStack fixes these issues:

Category	Description
Backups and backup policies	<ul style="list-style-type: none">■ File Level Restore (FLR) operation fails when Changed Block Tracking (CBT) is enabled on a disk■ File Level Restore (FLR) fails with certain types of Windows system files■ After OmniStack host removal, degraded backups for the same virtual machine may be rebuilt having different replica sets
SimpliVity Extension for vSphere Web Client	When creating or editing a policy rule, you see an "invalid time" error when you enter "a.m." or "p.m." to specify the Server Local Time Start or Server Local Time Stop fields.
REST API	The REST API service stops servicing requests, the <code>svt-rest-api.log</code> file contains <code>OutOfMemoryError</code> messages, and the number of inactive vCenter connections keeps increasing over time.
Networking	Improved network interoperability by changing the gratuitous ARP to use ARP request instead of ARP response, as recommended in specification RFC 5227.
Platform	Both an HDD alarm and an SSD alarm are triggered during an SSD event in an All Flash server.
Security	Fixed a privilege escalation vulnerability in Linux (CVE-2016-5195).

Category	Description
Storage	In rare occurrences, an inconsistency in an on-disk data structure requires redeployment of a node.
Virtual machine constraints and known issues	<ul style="list-style-type: none"> ■ After you delete a virtual machine, the OmniStack host continues to consume storage. ■ Cloning several VMs concurrently from the same source image takes a long time to complete. Refer to <i>SimpliVity OmniStack for VMware Horizon 7 - Reference Architecture</i> for best practices to avoid this issue.
Upgrade	<ul style="list-style-type: none"> ■ After relocating a Federation to a new vCenter Server, all VMs are not visible in the GUI and <code>svt-vm-show</code>. ■ Creating a datastore before an upgrade is committed creates a duplicate datastore.

New in this release

This version of OmniStack software adds these features.

Feature	Description
Platforms	<p>Support for these new platforms:</p> <ul style="list-style-type: none"> ■ OmniCube CN-2400-E with Self-Encrypting Drives (SED)
Changes to cluster support	<p>OmniStack hosts and standard ESXi hosts must reside in one cluster within a datacenter. The hosts cannot reside outside the cluster or in other clusters within the same datacenter. You must deploy OmniStack hosts to one cluster and you cannot upgrade the OmniStack software unless the OmniStack hosts reside in one cluster per datacenter.</p> <p>For more details, see the OmniStack documentation.</p>
Additional support for application-consistent backups using Microsoft Volume Shadow Copy Service (VSS)	<ul style="list-style-type: none"> ■ You can select the Microsoft VSS method, instead of using the default snapshot method, when you set up rules for a backup policy. For manual backups, you can also specify application aware backups with Microsoft VSS using the <code>svt-vm-backup</code> command. This replaces setting the consistency type on the virtual machine. Setting the consistency type on the virtual machine is deprecated, but the old settings are still supported. ■ OmniStack supports VSS on virtual machines running SQL Server 2016, in addition to SQL Server 2012, on the Windows Server 2012 R2 operating system.

Feature	Description
New in version 1.3 of the REST API	<ul style="list-style-type: none"> ■ Association of <code>omnystack_cluster</code> objects with Hypervisor Management System (HMS) clusters. The new <code>hypervisor_object_parent_name</code> and <code>hypervisor_object_parent_id</code> properties identify the parent of an <code>omnystack_cluster</code>. ■ Ability to set the retention time for one or more backups ■ Addition of returned cluster throughput and connectivity properties ■ Ability to set the time zone for a cluster ■ Ability to request a list of valid time zones for use when setting the time zone for a cluster ■ Ability to request the amount of life remaining for solid state drives (SSDs) ■ Ability to get the upgrade status for clusters ■ Increased security resulting from removing the ability to refresh OAuth 2 tokens. Instead, you must request a new OAuth 2 token when an existing OAuth 2 token expires. For more information, see api.simplivity.com.
CLI Commands	<p>The option that specifies crash consistent backups for the <code>svt-backup-show</code> command has changed. Beginning in this release, set <code>--consistency</code> to <code>none</code>. Previously, you set <code>--consistency-type</code> to <code>normal</code>.</p>
Events	<p>Added the following events to monitor availability zone compliance:</p> <ul style="list-style-type: none"> ■ <code>com.simplivity.event.backup.zone.align.fail</code> ■ <code>com.simplivity.event.vm.zone.align.ok</code> <p>Added the following events to monitor for SSD array drive faults in SimpliVity storage:</p> <ul style="list-style-type: none"> ■ <code>com.simplivity.event.storage.ssd.array.urgent</code> ■ <code>com.simplivity.event.storage.ssd.array.warning</code> <p>For more details see the <i>SimpliVity OmniStack Events Reference</i>.</p>
Support for Long Distance vMotion (vSphere 6.0)	<p>You can migrate a powered-on virtual machine to another OmniStack host, datastore, or both across long distances (such as a cluster in a datacenter in a different continent) with minimal impact to performance. If you change the datastore, the virtual machine uses the policy assigned to that datastore.</p> <p>For more details on Long Distance vMotion requirements, see the VMware documentation.</p>

Feature	Description
Pre-deployment Network Validation	SimpliVity Deployment Manager provides validation of a customer's network environment prior to deployment. This includes cautions when users have non-optimal configurations and errors that will block a deployment. Actionable messages are provided in both cases, allowing users to understand and resolve pre-deployment issues.

Supported configurations, requirements, and constraints

This section provides information about supported software and firmware versions, environmental requirements, and network configuration constraints.

Supported platforms

This version of OmniStack supports these platforms:

- OmniCube CN-1200, CN-1400, CN-2000, CN-2200, CN-2400, CN-3000, CN-3400, CN-3400-E, CN-5000, CN-5400, CN-5400-E, CN-5400-F
- OmniStack Integrated Solution with Cisco UCS C240 M3S
- OmniStack Integrated Solution with Cisco UCS C240 M4SX
- OmniStack Solution with Lenovo x3650 M5

Software revisions

The latest supported configuration information for this software release is found in the *Interoperability Guides* available from the Downloads & Documents page of the SimpliVity Online Support Center at [Customer Support](#). A SimpliVity customer account is required to access this document.

Note:

- With the exception of vCenter Server and vSphere Web Client revisions specified in the *SimpliVity Interoperability Guides*, you should obtain and install OmniStack software and upgrades from SimpliVity only.
- Do not apply any upgrades or patches to installed software unless you are advised to do so by SimpliVity or by your support provider.
- Do not allow Automatic VMware Updates to update the software on SimpliVity systems.

Factory Reset and Factory Upgrade images are also available for specific versions of ESXi 5.1, 5.5, and 6.0. Contact SimpliVity [Customer Support](#) if you are unsure which version to use or if you do not have the correct media.

Firmware revisions

The OmniStack software requires that each supported platform is running a specific firmware revision. To avoid compatibility issues, contact [Customer Support](#) before making any firmware changes.

For information about the supported firmware revisions for each OmniStack release, see the *Interoperability Guide* for your platform available from the Downloads & Documents page of the SimpliVity Support Center at [Customer Support](#).

If your system, or any management software, has automatic system updates enabled, disable this feature to avoid installing unsupported firmware revisions.

Software upgrade paths

Supported upgrade path information is provided in the *Interoperability Guide* document available from the Downloads & Documents page of the SimpliVity Online Support Center at [Customer Support](#). A SimpliVity customer account is required to access this document.

ESXi licenses

SimpliVity OmniStack ships preinstalled with custom versions of vSphere ESXi that you must not replace or upgrade except when advised by SimpliVity (or your support provider).

You must purchase a VMware vSphere license to operate vSphere ESXi on OmniStack. SimpliVity OmniStack supports all types of vSphere ESXi licenses. However, some of the VMware features referenced in the SimpliVity software and documentation might not be available, depending on the type of ESXi license you decide to purchase.

You can compare vSphere ESXi license features at:

<http://www.vmware.com/products/vsphere/compare>.

SimpliVity OmniStack supports all types of vSphere ESXi licenses. However, the SimpliVity VAAI NAS plug-in requires vSphere licenses that support the VAAI NAS API.

vCenter server instances

If you configure multiple, geographically-distributed, VMware datacenters, SimpliVity recommends that you also install an instance of VMware vCenter Server at each site hosting OmniStack hosts, using linked mode. This recommended configuration ensures that you can continue to manage your Federation and recover VMs from remote backups if there is a disaster at one site that takes your vCenter Server offline.

Note:

SimpliVity supports only a single Federation per linked-mode vCenter management domain. All vCenters in linked mode represent a single management domain.

See the VMware documentation for information about highly-available vSphere configurations.

OmniStack environmental requirements

It is not necessary to defragment the SimpliVity storage used by guest VMs. In certain circumstances, this can negatively affect OmniStack efficiency, increasing the amount of physical storage required by the VM.

You might obtain benefits by aligning partitions as described in the Performance Best Practices for VMware vSphere 5.1, 5.5, or 6.0 at <http://www.vmware.com>.

The following requirements apply to networks used by a Federation:

IPv4 Protocol

OmniStack requires an IPv4 network. Your network can use both modes (both IPv4 and IPv6). However, if this is the case, you must specify both IPv4 and IPv6 addresses for any OmniStack host that communicates with the Federation across a network.

NIC Teaming and Load Balancing

OmniStack uses Port ID for NIC teaming as the default setting. If your network uses LACP, 802.3ad, or EtherChannel, configure Load Balancing (in the vSwitch properties) as: Route based on IP hash.

Use Port ID for all other cases.

Storage Capacity Input Values and Reporting

All size input fields and display values are based on IEEE 1541-2002 standards of binary multiples.

To remain consistent with VMware's reported values, the SI decimal prefixes are used to represent IEC binary prefixes in all cases. For example 1,048,576 bytes is reported as 1.00 MB, not as 1.00 MiB. For more information see <http://www.wikipedia.org/wiki/Mebibyte>.

Requirements for sharing SimpliVity datastores with standard ESXi hosts

You can share SimpliVity datastores with standard ESXi hosts. The following constraints and requirements apply:

- A single cluster must contain both the Federation OmniStack hosts and the standard ESXi hosts.
- A standard ESXi host must run either ESXi 5.0 (Update 1 and Update 2), ESXi 5.1 (Update 1), ESXi 5.5.0.3, or ESXi 6.0.
- To use vMotion to move VMs from an OmniStack host to a standard ESXi host, make sure that your cluster baseline settings are compatible. Otherwise, you might see the following vSphere error:

```
The virtual machine requires hardware features that are unsupported or disabled on the target host.
```

For information about cluster baseline settings, go to the VMware knowledge base:

<http://kb.vmware.com/selfservice/microsites/microsite.do>

Use the **View Article by ID** option to view article number 1003212.

- To take advantage of hardware acceleration, install the VAAI NAS plug-in on Federation OmniStack hosts and on standard ESXi hosts. See the *SimpliVity Extension for vSphere Web Client Administrator Guide*.

Storing SQL database files in volatile memory storage is not supported

Storing SQL database files or database log files in RAM disk or any type of volatile memory storage is not supported and results in data loss.

RAM disk is not persistent storage that protects your data during failure events.

See <http://support.microsoft.com/kb/917047> Microsoft SQL Server I/O subsystem requirements for the tempdb database for more information.

General restrictions and known issues

The following general restrictions and known issues apply in this release.

Restarting an OmniStack host in a single host deployment results in a VMware error.

In deployments with a single OmniStack host, restarting the host results in the vCenter error message "Create NAS Datastore: An error occurred during host configuration. Unable to get console path for volume <DATACENTER NAME>."

Resolution

No resolution is required. This error message does not impact operations and can be ignored.

Tasks are pending when OmniStack host becomes unavailable

Certain tasks, such as datastore creation, stop operating if a Federation OmniStack host becomes unavailable for any reason.

The tasks remain "pending completion." When the OmniStack host returns to normal operation, tasks continue and finish if no other constraints prevent the tasks from completing.

If you remove an OmniStack host from the Federation before a task completes, the task fails with an error notification.

Resolution

No resolution is required, this is normal operation.

Do not simultaneously remove multiple OmniStack hosts from a Federation

Do not attempt to simultaneously remove multiple OmniStack hosts from a VMware datacenter.

Resolution

Wait for one removal operation to complete before you begin a second removal.

To remove all OmniStack hosts from a VMware datacenter, use the `--datacenter` option with the `svt-federation-remove` command.

Backup and backup policy constraints and known issues

The following use constraints and known issues apply to backup operations.

Changing all policy rules to specify a different type of application consistent backup results in an error

If a backup policy has multiple rules that specify application consistent backups, and you attempt to edit all the rules so that they specify application aware backups with Microsoft VSS, then the edit operation will fail. (Similarly, if a backup policy has multiple rules that specify application aware backups with Microsoft VSS, and you want to edit all the rules so that they specify application consistent backups, then the edit operation will fail.)

Resolution

You must delete the existing rules and create new rules.

Alternatively, you can update all the rules to specify crash consistent backups, and save the policy. Then, edit the policies and specify the backups as application consistent or application aware with Microsoft VSS.

SimpliVity move task stuck at 95% for a virtual machine

When you issue a SimpliVity move task for a virtual machine, in rare cases, the VMware vSphere Web Client might show the operation is stuck at 95% complete.

Resolution

When a SimpliVity move is 95% complete, you should be able to power on and use the virtual machine.

VSS backups stop working after you move a virtual machine

After you move a virtual machine, application aware backups with Microsoft VSS stop working.

Resolution

On the virtual machine you moved, manually setting the credentials for application aware backups with Microsoft VSS will resolve the problem .

Intermittent VSS backup snapshot failure

Volume Shadow Copy Service (VSS) backups require SimpliVity software to interact with the guest virtual machine by means of the VMware API. Occasionally, a VSS backup fails due to failures in the VMware API calls.

This problem may generate the following alarm:

 SimpliVity VM Backup Snapshot Failure

Resolution

Contact SimpliVity <https://support.simplivity.com>.

Unable to delete backups through the GUI

Users are unable to delete backups through the GUI and instead receive the following error: "Not authorized to perform requested action or view requested information, or an object is inaccessible".

Resolution

Run `svt-emergency-hms-sync` before trying to delete backups through the GUI.

File Restore wizard reports error trying to open a disk partition

In the File Restore wizard, when you click a virtual disk, the software displays a partition list that may contain inaccessible partitions. If you click an inaccessible file partition, the wizard generates an error.

Failed backup associated with a removed OmniStack host is not deleted

When a failed backup is associated with an OmniStack host, and you remove the host, the host might not delete the backup.

Solution

For assistance deleting the host, contact SimpliVity [Customer Support](#).

Delete remote backups when source failure domain is offline

When you have a remote backup scheduled for deletion, the OmniStack host deletes it as long as there is one OmniStack Virtual Controller reachable in the source virtual machine's cluster. If none of the Virtual Controllers in the source virtual machine's datacenter are reachable, then the remote backup is not deleted until one Virtual Controller comes online.

Resolution

Make sure at least one Virtual Controller in the source virtual machine's cluster is online and reachable from the Virtual Controller in the cluster hosting the expired backup.

SimpliVity Web UI does not display all partitions for File Level Restore

In some instances, the SimpliVity web UI does not display all of the partitions available for File Level Restore (FLR). The OmniStack host looks for a list of partitions, filters out those that are not known to work with FLR, and maintains a count of the number of supported partitions. However, if the unsupported partitions are listed before the supported partitions in the partitions list, the host attempts to mount the unsupported partition and fails, but reduces the count of the number of partitions it should attempt to mount. The supported partitions further down the list may not be mounted based on the original count.

Resolution

For more information, contact [Customer Support](#).

Use `dsv-filerestore` commands to find and restore files on partitions that are not visible through the customer-facing web UI.

Migration of VMs spanning multiple datastores created "scattered" VMs that caused OmniStack hosts to run out of storage

Migrating large numbers of VMs spanning multiple datastores can create scattered VMs that can quickly result in an out of storage condition on the OmniStack host. The OmniStack host provides warnings when it becomes 80 and 90% full, but migrating large numbers of VMs that span multiple datastores can quickly fill the remaining storage.

Resolution

Avoid creating scattered VMs (VMs that span datastores). Follow SimpliVity best practices and recommendations for migrating VMs onto OmniStack hosts to ensure that adequate storage remains available.

Expired backups are not deleted causing a large number of pending backups

In some situations (for example, after a cluster is removed) the backups associated with that cluster are not deleted. This results in large numbers of pending backups to the (now removed) cluster.

Resolution

For more information, contact [Customer Support](#).

vCenter server inventory is not up to date after performing a restore and "Identity not found" error is generated

If you restore a vCenter server using a backup that pre-dates major changes to the Federation, such as adding a new cluster, then the vCenter inventory is not be up to date. In the svtf.log, one or both of the following errors are reported:

```
SyncNodeWithVCenter found FailureDomain information needs updating  
com.simplivity.hval.exceptions.HVALIdentityNotFoundException: Identity not found
```

Resolution

For more information, contact [Customer Support](#).

Restored virtual machines do not power on

When you used VMware vSphere Replication software to migrate one or more virtual machines onto a SimpliVity datastore and created manual or policy backups for those virtual machines prior to upgrading to version 3.5.1, you are unable to power on the restored VM created using those pre-3.5.1 backups. The VMware vSphere Replication software uses the full data path for Virtual Machine Disk (vmdk) locations. When you restore the pre-3.5.1 backup to a new virtual machine, the original full path is preserved, and it still points to the original virtual machine location instead of the new virtual machine location. Backups created while running OmniStack 3.5.1 or greater have the paths corrected within the backup and do not exhibit this issue.

Resolution

To restore virtual machines so that they power on, perform the following:

1. Manually edit the SCSI file name to remove the full ESXi path. For example, suppose that the SCSI file name were the following:

```
scsi0:0.fileName = "/vmfs/volumes/5099d679-0d11ac4c/poe-servertest01/  
poeservertest01.vmdk"
```

In this case, you would change the SCSI file name to the following:

```
scsi0:0.fileName = "poe-servertest01.vmdk"
```

2. Power on the virtual machine.

Backups do not display if a vCenter in a linked mode environment goes down

This problem occurs when a vCenter is unavailable in a linked mode environment. In this state, the GUI cannot retrieve and display backups for any VM managed by the missing linked mode vCenter. However, you can use the `svt-backup-show` CLI command to display these missing backups.

Resolution

To resolve the problem, restart the vSphere Client. On restart, the vSphere Client automatically connects to one of the remaining linked mode vCenters and the application is then able to retrieve and to display all backups.

VM backup policy is changed after VM migration

This problem might occur occasionally if you use the VMware Migrate option to relocate a SimpliVity-managed VM. The problem occurs only when the migrated VM uses a backup policy other than the default backup policy for the datastore that contains the VM.

Following the migration, the VM might lose its association with its assigned backup policy and become associated with the default Backup policy for the destination datastore.

Resolution

This problem does not apply to the CLI command `svt-vm-move` or the SimpliVity GUI operation **SimpliVity > Move** virtual machine. Use these SimpliVity options to relocate VMs.

Failed to restore a backup of a deleted VM

An attempt to restore a new VM from a backup of a deleted VM fails with the error:

```
Unable to determine VM owner
```

Resolution

Attempt to restore the VM a second time. Contact SimpliVity [Customer Support](#) if the operation fails again.

SimpliVity backup, move, or restore operations fail with "Scattered VM" or "Operation Cannot Complete Using Partial VM Backup" message

VDI-linked clones with a local delta disk that points back to an external base .vmdk file fail with the log message `Scattered VM`.

Note:

SimpliVity backups are not supported for Horizon linked clones or Citrix desktops provisioned via MCS.

Non-linked clone backups of VMs with whole .vmdk files located in other datastores or directories generate an event that states:

```
VM <VM_NAME> backup taken of Partial VM. Backups may not restore properly.
```

Attempting to restore one of these backups as a new VM results in the following message:

```
Recovering partial backup <BACKUP_NAME> to <NEW_VM_NAME> in <DATACENTER_NAME>.
VM recovered using partial backup may not operate as expected. See product
documentation about partial backups.
```

Attempting a SimpliVity move or Restore-In-Place fails with the following message:

Operation cannot complete using Partial VM Backup.

Resolution

To prevent automatic backups, apply a no-rule (blank) policy to intentionally scattered VMs.

Policy backup failures trying to backup to rebuilt cluster

After replacing all the OmniStack hosts in a cluster, policy backups that were previously being saved to this cluster are no longer being saved to this cluster, and you may see events about invalid backup destinations. See the "Virtual machine backup invalid destination" event in the *SimpliVity OmniStack Events Reference*.

Resolution

Policy backup rules previously pointing to this cluster may have invalid references due to removing all of the original OmniStack hosts in this cluster. Backup policies with rules previously specifying the rebuilt cluster must be deleted and new rules created specifying the rebuilt cluster as the backup destination.

Data becomes temporarily unavailable when a host reaches 97% capacity

By design, when an OmniStack host reaches 97% capacity it no longer accepts writes. However, currently when the host reaches full (97%) capacity the data becomes unavailable instead of causing HA non-compliance which would allow the HA peer to provide the data.

Resolution

Never allow the host to reach full (97%) capacity. The host warns when it reaches 80 and 90% capacity. Follow SimpliVity best practices and recommendations for migrating and backing up VMs on SimpliVity hosts to ensure that adequate storage remains available.

If the host does reach this state, perform a Safe Shutdown from the vSphere Web Client (**SimpliVity Federation > Hosts > All SimpliVity Actions > Shut Down Virtual Controller**) as documented in the *OmniStack for vSphere Web Client Administrator Guide* and contact <https://support.simplivity.com> for assistance in freeing up space on the host. A safe shutdown causes HA non-compliance, allowing a host that has the full (now shutdown) host as an HA peer to provide the data and unblock the data unavailability.

"Data access is not optimized" error message may or may not require follow-on action to be taken

This message accurately indicates that the path of accessing data is traveling through more than one host. However, it does not accurately indicate whether or not the OmniStack host can self-correct this situation. Self-correction is undertaken, if possible, after this message is issued. If self-correction is successful, a second corresponding "data access is optimized" message is issued.

Note:

A user may intentionally create the situation that causes a reduction in performance in order to alleviate other resource limitations such as memory or CPU utilization in the OmniStack host. This issue does not limit access, it only changes its performance.

Resolution

All "data access is not optimized" messages that are not shortly followed by the corresponding "data access is optimized" message need to be investigated and rectified by either:

- vMotion the VM to one of the two hosts where the storage resides - (recommended)
- Move the storage to where the VM is located - This method requires SimpliVity Customer Support involvement, takes time, and impacts I/O performance.

Datastore constraints and known issues

The following use constraints and known issues apply to SimpliVity datastores.

Datastore appears inactive after powering off guest VMs

In some cases a datastore appears inactive after powering off guest VMs.

Resolution

Remove and re-add the datastore from the ESXi host using ESXCLI. See the procedure below.

```
~ # esxcli storage nfs list
Volume Name Host Share Accessible Mounted Read-Only Hardware Acceleration
-----
ds00 omni.cube.io 86867ce0-2982-470e-b9b4-365b7000e309 false true false Unknown
ds03 omni.cube.io dee78bc2-1273-4156-be06-d0048268173d true true false Supported
~ # ~ # esxcli storage nfs remove -v ds00
~ # esxcli storage nfs add -H omni.cube.io -s 86867ce0-2982-470e-b9b4-365b7000e309 -v ds00
~ # esxcli storage nfs list
Volume Name Host Share Accessible Mounted Read-Only Hardware Acceleration
-----
ds00 omni.cube.io 86867ce0-2982-470e-b9b4-365b7000e309 true true false Supported
ds03 omni.cube.io dee78bc2-1273-4156-be06-d0048268173d true true false Supported
~ #
```

Refer to the following link for more details: [Remounting a disconnected NFS datastore from the ESXi/ESX command line \(1005057\)](#)

Datastore creation takes an extended time or fails

Tasks such as deleting a large number of VMs or deleting stale files from a datastore cause brief periods of heavy I/O. Additional tasks (such as snapshot creation and deletion, or datastore creation) further increase I/O, causing all tasks to require more time for completion. In some cases, tasks might time out because SimpliVity imposes a 20-minute time out limit per vCenter transaction.

Errors such as "platform integration error" or "cannot delete file" during file, folder, and datastore delete and create operations, indicate that vCenter timed out during the current task.

Resolution

If a SimpliVity task times out due to heavy I/O, schedule the task for a period of reduced usage before re-trying the operation.

If a task fails to complete because of high I/O loads, customers should:

Check current I/O before attempting to delete large numbers of VMs and folders or to delete and create datastores.

Wait for deletions to complete before proceeding to the next task. If a task stalls or fails to complete because vCenter times out, wait for 30-60 minutes and retry the task or reduce I/O before performing the task.

Avoid reusing datastore names

If you create a datastore named ZK01 then rename that datastore to MK01 you cannot reuse the original name (ZK01) for other newly-created datastores.

Resolution

This is a VMware limitation and the only resolution is to use an unique datastore name.

Resizing a datastore hangs silently on a faulty OmniStack host

If you attempt to resize a datastore on a faulty OmniStack host, the operation appears to hang. The operation is illegal only because the unhealthy state of the OmniStack host does not permit the datastore resize operation. Attempting the operation from either the CLI (`svt-datastore-resize`) or the GUI (**SimpliVity > Resize Datastore**) results in a hang, and you must manually cancel the operation.

Resolution

Correct the underlying problem that put the OmniStack host in a faulty state before you attempt to resize a datastore.

GUI and CLI constraints and known issues

The following use constraints and known issues apply to the SimpliVity GUI and CLI.

SSD physical drives are duplicated in the Hardware Information screen

In All Flash servers, the physical drives are displayed twice in the Web Client Hardware Information screen and through the `svt-hardware-show` CLI command.

Resolution

The SSD drives are displayed correctly. The All Flash server utilizes two logical devices created from the same RAID array, which means that the same physical devices are displayed separately for each logical drive.

Each logical drive has a unique serial number. Use the serial numbers to differentiate between the two logical drives.

When using Linked Clones, some read performance statistics from Horizon View replica images or Citrix base disks are not shown

Read performance statistics are reported for VMs, with the exception of reads going to the Horizon View replica image or the Citrix base disk.

Resolution

For Horizon linked clones users can reference the replica image in the GUI to see the read I/O.

VMware I/O statistics are not available for Horizon replica images because they are not referenced with a world number.

For Citrix, linked clone base disks are not in inventory so statistics are not shown in our UI and they can't be easily collected at the ESXi level because they also do not have a world number.

GUI hangs when you remove an OmniStack from the Federation

The SimpliVity vSphere Extension connects to any available OmniStack host in a Federation.

If you remove an OmniStack host from a Federation, and it happens to be the same OmniStack host to which the GUI is connected, the GUI hangs.

Resolution

Restart the vSphere client on the same Federation vCenter server. It automatically connects to a different OmniStack host.

CLI interprets special characters

If you use names that contain special characters (`$`, `#`, `!`), you must either escape each character or surround it with single quotes.

For example, if you specify two `$` symbols with the `--name` option when using `svt-datastore-create`, the resulting datastore name includes a random numerical string:

```
$ svtcli@omnicube-ip2-25:~$ svt-datastore-create --size 5TB --policy dc1Policy1
--name vtids$$
$ svtcli@omnicube-ip2-25:~$ svt-datastore-show
.
.
.
+-----+-----+-----+-----+-----+
| vtids3287 | datacenter1 | dc1Policy1 | 5.00TB | 2013-Feb-26 11:08 | |
'-----+-----+-----+-----+-----+'
```

This is because the CLI shell interprets the dollar symbol (`$`) as a variable corresponding to the environment variable for the process identifier. The CLI inserts the PID value into the name, in place of the dollar symbol (`$`).

Resolution

If you use two or more `$` symbols with the `--name` option, enclose the entire name string in single quotes, as follows:

```
$ svtcli@omnicube-ip2-25:~$ svt-datastore-create --size 5TB --policy dc1Policy1
--name 'vtids$$'
```

Names containing three or more `$` or `#` symbols cause an "Unknown Error"

You cannot create a SimpliVity entity (such as a backup, datastore, or VM) if you specify a name string containing three or more consecutive `$` (dollar) or `#` (number) symbols.

The creation task fails with the message `Unknown Error`, even when you enclose the string in single quotes.

Resolution

Use an alternate object name for the entity. There are additional object naming restrictions in this release.

Task progress bar is inaccurate and appears to hang

SimpliVity tasks are reported in the vSphere Client Recent Tasks panel, located at the bottom of the vSphere window.

For some tasks, such as sending a backup to a remote cluster, the progress bar is not updated and it might appear that the task is inactive.

Resolution

Wait for the task to complete. It is unusual for a task to hang indefinitely, and if a task fails you see an error message in the tasks list. If successful, the progress bar updates at the end of the task.

Backup progress is visible on the backup GUI dialogs, or you can use the `svt-backup-show` CLI command.

Note:

Some tasks that involve large amounts of data can take several hours to complete.

REST API constraints and known issues

The following use constraints and known issues apply to the SimpliVity OmniStack REST API.

New maximum value for limit property for GET operations

The REST API now enforces a maximum value of 5000 for the `limit` property for all GET operations.

REST API GET `virtual_machines` request may return fewer `virtual_machines` than expected

You use the REST API to issue a GET `virtual_machines` request with or without a limit on the number of `virtual_machines` to return. Note that if you do not specify a limit, the REST service uses the default limit of 500 instances. The REST service gathers the correct number of `virtual_machines`. However, you do not have permission to view one or more of the `virtual_machines` that the REST service has gathered.

In this case, the REST service returns a response that lists only the `virtual_machines` in this group that you have permission to view. That is, the number of returned `virtual_machines` is smaller than the limit that you have specified or the default limit. In addition, the count of `virtual_machines` that the REST service returns in this case is incorrect.

For example, suppose that you have issued a GET request similar to the following sample:

```
https://[host]/api/virtual_machines?show_optional_fields=false&limit=150
```

However, of the 150 `virtual_machines` that the REST service gathers in response to this request, you only have permission to view 120 of these `virtual_machines`. In this scenario, the response to this GET request contains only the 120 `virtual_machines` that you have permission to view, even though the limit that you specified in the request was 150.

Resolution

If you suspect that you do not have permission to view some of the `virtual_machines` in a Federation, set the limit value to a very large number when you use a GET request to list `virtual_machines`.

Need to obtain the REST service certificate in order to use the REST API

You want to use the REST API, but security considerations prohibit you from saving the REST service certificate upon the first connection to this service.

Resolution

To obtain the REST service certificate, use SCP to copy the `rest.pem` certificate file from the `/var/svtfs/0/appdata/auth` directory on the OmniStack host. For assistance, contact [SimpliVity Customer Support](#).

REST API vCenter Linked Mode limitations

The REST API has vCenter Linked Mode limitations that are similar to the limitations that exist in the OmniStack CLI. Also, the count that the REST API returns when you issue `GET virtual_machines` may be inaccurate.

Hardware constraints and known issues

The following hardware constraints and known issues apply in this release.

CN-*400 server fails to boot at power-up.

After a power-up, a CN-*400 server (CN-1400, CN-2400, CN-3400, or CN-5400 series) may become stuck in boot with the message `Booting from Hard drive C`. If you experience this, verify that the H330 RAID controller is visible through the remote management IPMI console (iDRAC). If the H330 controller is not seen by iDRAC, the 330 RAID controller was not seen properly on power-up, and the BIOS attempted to boot from the SD Card.

Note:

Information for configuring, accessing, and using iDRAC is provided in the *SimpliVity OmniCube CN-1400, CN-2400, CN-3400, and CN-5400 Series Hardware Installation and Maintenance Guide*.

Resolution

Power down the server and remove (unplug) the power for 30 seconds. Re-apply power. At the BIOS prompt, press **F2** to enter the BIOS configuration and then navigate to the BIOS boot order. Change the priority on the BIOS boot order by placing the 330 controller at the top of the list and the SD card second on the list for the next power-up. Save changes and perform a warm reset on the server.

CIMC displays erroneous physical drive slot "0" configuration information

On rare occasions, the CIMC Physical Drive Information tab displays a physical drive in slot "0" even though the drives are numbered from 1 through 14. CIMC also displays configuration and error information for the non-existent drive.

Resolution

There is no slot "0" in the server. The information is erroneous and can be disregarded.

Inserting an unsupported drive does not generate an alarm

If a drive fails and you insert an unsupported drive, the OmniStack host does not generate a SimpliVity alarm in vSphere Client.

You might also notice related alarm events such as:

- SimpliVity Physical SSD (or HDD) drive rebuilding

- The physical SSD (or HDD) drive at slot:1 is rebuilding
- The physical SSD(or HDD) drive at slot:1 is finished rebuilding

However, these events are incorrectly reported because a rebuild cannot begin on an unsupported drive.

Resolution

Replace the failed drive as soon as possible using a compatible replacement drive. The drive rebuild should begin immediately.

FCoE is disabled on the OmniCube or OmniStack server

The Fibre Channel over Ethernet (FCoE) capability is disabled on OmniCube/OmniStack servers.

Resolution

By default, the FCoE capability is disabled. To enable FCoE, run the appropriate command on the server:

OmniCube:

```
# esxcfg-module -e fcoe
```

OmniStack Integrated Solution with Cisco UCS:

```
# esxcfg-module -e fnic
```

OmniCube or OmniStack server failed to connect to the 10GbE switch when using Twinax cables

Depending on the configuration, your OmniCube or OmniStack server ships with one or more Twinax cables intended for direct-connecting a 10GbE interface on one server to a 10GbE interface on another server, without going through a switch. If the Twinax cables fail to work when connected to a 10GbE switch, the most likely cause is the incompatibility of the switch with the passive Twinax cables.

Resolution

Check the switch vendor compatibility list and replace the cables with supported cables.

Installation, deployment, and upgrade issues

The following installation, deployment and upgrade issues apply in this release.

Based on your existing environment, upgrades to this version of software might require assistance from SimpliVity [Customer Support](#).

Deploying hosts using IP address pools fails

Deployment fails if you try to deploy OmniStack hosts using IP address pools with Deployment Manager. For example, if you define the network for the IP address pool through the `svt-ippool-set` command and then enter all the IP addresses for the hosts you want to add to the pool using the `svt-ippool-add` command, you can run Deployment Manager and select the **Deploy a host using existing IP address pools** option. However, the deployment for the hosts fails.

Resolution

OmniStack no longer supports deploying hosts using IP pools. You must deploy one or more hosts by manually entering the network settings or by importing a previously saved configuration file. For more details on deploying hosts, see the *OmniStack Host Deployment Guide*.

Deployment Manager fails on Step 30 of 33 "VMW_REMOVING_SVTBUILD_USER"

The OmniStack host deployment fails with an error similar to: Deployment failed on Step 30 of 33 "VMW_REMOVING_SVTBUILD_USER"

and the `firstboot.log` file from the failed SVA shows error messages similar to:

```
[Platform::CIM::Chassis] Chassis.pm:61 Found NO chassis!  
[Platform::Factory::VMware] VMware.pm:259 Unable to retrieve chassis  
information  
[Platform::Factory::VMware] VMware.pm:130 Chassis does not exist: retrieving  
chassis.
```

Resolution

Perform a cold reboot of the OmniStack host and retry the deployment.

You cannot deploy an OmniStack server if a Federation OmniStack host is offline

If you attempt to deploy an OmniStack server into a Federation where one of the Federated OmniStack hosts is powered off, the deployment stalls.

Resolution

The deployment resumes and completes successfully as soon as you power on the missing OmniStack host.

Deployment fails with "vSwitch0 not found" or "vSwitch1 not found" error

If a PortGroup with a matching name of vSwitch0 or vSwitch1 exists within a cluster, attempting to deploy a new host using Deployment Manager fails due to a name conflict with the vSwitches used for OmniStack host deployment.

Resolution

Rename the existing vSwitch0 or vSwitch1 PortGroups, and retry the deployment.

See "invalid configuration file" message when testing settings for deployment

At the Test Host Settings screen in Deployment Manager, you see the test screen go blank and this error message opens: "The deployment configuration XML file contains invalid content. Contact SimpliVity Customer Support."

Resolution

Click **Back** and check the MTU values at the Configure Management Network Settings, Configure Federation Network Settings, and Configure Storage Network Settings screens. You must enter a value between 1000-1500. In addition, the MTU setting must match the MTU settings used for the corresponding network of the previously deployed hosts. For example, if you previously deployed an OmniStack host with an MTU value of 1500 for Management network. The next host you deploy to that network must use an MTU value of 1500.

If you continue to see the error message, contact SimpliVity Support at <https://support.simplivity.com>.

OmniStack host joins the Federation but shows as disconnected from the Arbiter

A newly deployed OmniStack host joins the Federation but shows as disconnected from the Arbiter in `svt-federation-show` and the corresponding Web UI.

There is a small timing window where a user can encounter this issue after deploying a single OmniStack host with an Arbiter on the vCenter server, and then deploying a second OmniStack host in that cluster. The user could encounter this issue if during the deployment of the second host they change the IP address of the Arbiter host AND run the `svt-arbiter-address-set` command.

Resolution

Restart `svtfs` on the host that failed to connect and then run the `svt-federation-show` command to verify that the host is connected to the Arbiter.

Cisco UCS C240 servers show 40 GbE NIC as 10 Gb/s in Deployment Manager

If you run Deployment Manager to deploy a Cisco UCS C240 server, the “Select OmniStack Host” screen shows the VIC 1385 PCIe Ethernet Network Interface Card (NIC) with a speed of 10 Gb/s instead of 40. However, the server deploys to vCenter Server as expected and reflects the correct NIC speed of 40 GbE when you review the network information in vSphere Web Client.

Resolution

Ignore the NIC speed value shown in Deployment Manager. The Cisco server does use a NIC with a speed of 40 GbE even though it appears as 10 Gb/s in Deployment Manager.

SimpliVity is unable to reach expected ports on the Storage network after deployment

Following deployment, an alarm may appear on one or more SimpliVity OmniCube Virtual Controllers, indicating a connectivity failure on the Storage network.

Resolution

The issue should resolve itself within one minute and the alarm no longer appears. If it does not, contact SimpliVity [Customer Support](#).

Deployment Manager fails as a result of an incorrect coercion mode setting

A Deployment Manager deployment can fail with the following error:

```
Failed to (re)configure RAID set
```

Resolution

To correct this issue, contact SimpliVity [Customer Support](#).

Virtual controller does not power on during an OmniStack host deployment

When deploying OmniStack hosts in a cluster with no deployed OmniStack hosts, the Virtual Controller does not power on and the deployment fails. Deployment Manager displays the following error in the Deployment Status window:

```
ERROR: step 24 of 33 - A task error occurred powering on Virtual Controller
```

Resolution

Restart the VMware vCenter Workflow Manager service. See VMware KB article 1003895 for more information.

See commit alarm in hypervisor after committing the upgrade in Upgrade Manager

After you run Upgrade Manager and successfully commit the OmniStack upgrade for your hosts, the hypervisor shows this alarm: "SimpliVity software commit needed."

Resolution

Right-click the alarm and select **Acknowledge**, then select **Reset to green** to clear it. The alarm does not reflect the correct status. As long as you see the commit complete in Upgrade Manager successfully, you can disregard the alarm in the hypervisor.

Arbiter fails to install correctly or fails to start

This problem may occur when deploying or redeploying SimpliVity hosts on vCenter Servers that previously contained a Federation.

If previous versions of the Arbiter were installed on a vCenter Server, installing updated Arbiter software might fail. This problem can manifest itself as a failed installation, or a failure to start the Arbiter service.

Manually uninstalling the Arbiter, or installing it over a previous version, can also cause a software version mismatch that might affect software upgrades.

Resolution

To correct this problem:

1. Use the Windows Control Panel to uninstall any previous versions of the Arbiter.
2. Delete the following folder:

```
C:\Program Files\SimpliVity\Arbiter
```

Install the version of the Arbiter that matches the correct version of the OmniStack software, as defined in the *SimpliVity Interoperability Guides*.

Virtual machine constraints and known issues

The following use constraints and known issues apply to VMs.

Saving credentials for a virtual machine in Linked Mode configuration might not work

If you're trying to save credentials for a guest virtual machine in a vCenter that is part of a Linked Mode configuration, the operation may fail.

Resolution

Access an OmniStack Virtual Controller that is in the same vCenter as the virtual machine for which you're trying to save credentials. Then, run `svt-vm-backup-params-set` to manually set the credentials for the virtual machine.

Alternatively, you can try to log on to the Web Client for the vCenter with which the virtual machine is associated.

VM folder might not get deleted when you delete its VM in vSphere Extension

When you right-click a virtual machine (VM) in vSphere Extension and select **Delete from Disk**, the folder containing the VM files might not get deleted from disk. Backups of the VM might be labeled [REMOVED] instead of [DELETED].

Resolution

You can manually delete the VM folder from disk.

Powering on or using vMotion on Virtual Machines sticks at 16%

Powering on or using vMotion on multiple VMs results in some VMs sticking at 16%.

Resolution

Disable DRS on the cluster with the stuck VMs, reboot the vCenter Server, and then power on the stuck VMs. Re-enabling DRS could cause a re-occurrence of this issue.

Virtual Machine Restore operation fails with "Could not reset VM to backup" error

When you try to restore a Virtual Machine to a backup via the `svt-vm-restore` command or the equivalent operation in the vSphere Web Client, the operation fails with `ERROR [55]: Could not reset VM to backup`. The restore operation is known to fail with this error when the virtual machine is in the process of synchronizing.

Resolution

To restore the Virtual Machine:

1. Restore the backup by creating a new virtual machine instead of replacing the existing one using the `svt-backup-restore` command (or Web Client equivalent) instead of `svt-vm-restore`.
2. Retry the Virtual Machine Restore operation after the Virtual Machine has completed synchronizing.

Cloned VMs not taking backups

When rapidly cloning large numbers of VMs, some of the cloned VMs are not taking backups. This generates the following alarm:

```
SimpliVity VM Automated Backup Not Enabled
```

Resolution

Contact SimpliVity [Customer Support](#).

Reloading VMs causes an invalid fault error

When reloading numerous VMs, vSphere Client shows "A general system error occurred: Invalid fault" status for some VMs. The cause is that the number of datastores in a cluster combined with the NFS maximum queue depth setting are overloading the OmniStack host.

This condition may cause unavailable or inaccessible datastores, unresponsive hosts, and disconnected virtual machines.

Resolution

Set the NFS maximum queue depth on the OmniStack hosts to reduce I/O congestion to the datastores. The table lists the recommended NFS maximum queue depth setting based on the number of datastores in a cluster.

Datastores in a Cluster	NFS.MaxQueueDepth
1–16	256 (default)
17–32	128
33–64	64

To set the NFS maximum queue depth:

1. In vSphere Client, select the OmniStack host in the Hosts and Cluster view.
2. Click the **Configuration** tab and then **Advanced Settings** under the **Software** panel to open the **Settings** dialog.
3. Select **NFS** and scroll down to `NFS.MaxQueueDepth`.
4. Change the value to the setting shown in the table.
5. Reboot the OmniStack host for the change to take effect.

Migrating a VM resets its backup policy

If you migrate a VM to a different SimpliVity datastore, its backups are retained (migrated with the VM). However, the migration operation resets the VM's backup policy to the destination datastore's default policy.

Resolution

Manually create or select an existing backup policy and apply it to the migrated VM.

Removing unwanted VM folders from a SimpliVity datastore

You remove folders by browsing to the datastore in vSphere Client, and selecting a folder and clicking delete. If you attempt to use this method to remove multiple unwanted folders (directories) from a SimpliVity datastore the operation appears to fail. Multiple folder remove operations do eventually succeed, but might take many minutes to complete.

Resolution

An underlying VMware problem causes this problem, due to the operation exceeding an NFS server timeout. The following VMware Knowledge Base article describes a solution:

http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=1035332

Moving a VM fails on the first attempt

In rare circumstances, a VM move operation might fail with the following error message:

```
com.simplivity.task.vmware.vm.move error code 55 (ResetFailed)
```

Resolution

Retry the move operation, which should succeed on a second attempt. If the move operation fails on retry, contact SimpliVity [Customer Support](#).

Cannot power on cloned virtual machine

If you right-click a virtual machine from the inventory panel in vSphere Client, select **SimpliVity > Clone Virtual Machine** to create a clone, and notice that the cloning process takes a long time to complete, the cloned virtual machine may appear, but you cannot power it on. If you check the **Recent Tasks** panel, you see an error indicating that the host received an error while powering on the virtual machine and could not load the configuration file.

This can occur when the virtual machine you clone has heavy input and output usage.

Resolution

Wait a few minutes to see if it powers on. If it continues to fail, delete the cloned virtual machine and create another clone when the virtual machine I/O usage is not as heavy.

SimpliVity clone does not specify a destination

A SimpliVity clone operation does not enable you to specify a destination host.

Resolution

When the clone operation is complete, search for the clone by name and use vMotion to move it to the required host.

See error message when moving a virtual machine

If you move a virtual machine to a datastore using the SimpliVity - Move Virtual Machine option and then try to move that same virtual machine to a different datastore before the first move task finishes, the second move cannot finish and you see one of the following error messages depending on when you started the second move:

- Platform integration exception. Contact [Customer Support](#).
- Duplicate name exists.
- Unknown VM or VM not found in datastore or VM not stored by SimpliVity.

Resolution

Wait until the first move task finishes before trying to move the virtual machine you just moved to another datastore.

Restore existing virtual machine of a VM template allowed using backup created before template conversion

If a virtual machine was converted to a virtual machine template, and there were backups created before the conversion took place, you are not prevented from using a backup of the virtual machine (before it was a template) to restore the existing virtual machine. The operation succeeds, and vCenter continues to show the VM template as a VM template. However, the configuration file in the virtual machine directory on the datastore has a `.vmtx` extension type, and subsequent backups indicate that the backups are for a regular virtual machine rather than a VM template.

Resolution

There are several possible ways to remedy this situation, including the following options:

1. Manually rename the configuration file for the VM template to use a `.vmtx` extension rather than a `.vmx` extension.
2. Perform the following procedure:
 - a. Remove the virtual machine template from the vCenter inventory.
 - b. Browse the datastore and manually add the virtual machine back to the vCenter inventory.
 - At this point, vCenter adds it back to the inventory as a regular virtual machine rather than a VM template.
 - c. Convert the virtual machine to a VM template.
3. Convert the VM template to a regular virtual machine. Then, convert it back from a virtual machine to a VM template.

Restore Files wizard fails with backups of virtual machines containing VMware snapshots

For SimpliVity backups that are not application consistent, you may encounter errors in the Restore Files wizard attempting to restore files for a backup of a virtual machine that contains a VMware snapshot. This situation occurs when the source virtual machine has one or more VMware snapshots listed in the VMware Snapshot Manager at a time when a SimpliVity backup is created for that virtual machine.

Resolution

Ensure that all VMware snapshots created manually by users or created by third-party backup solutions have been removed from the virtual machine at the time SimpliVity backups are taken to prevent this issue in the future.

For backups with files that are required but that exhibit this issue, you can use a regular backup restore to create a new virtual machine and perform either of the following actions:

- Turn on the virtual machine and retrieve the required files from that online virtual machine.
- Add the virtual disks from the newly created virtual machine to another VM from which you want to access the files, load the disks via Disk Manager (or another tool), and use File Explorer or another tool to find the required files from the virtual disk. Then, clean up the restored virtual machine after retrieving the required files.

See virtual machine CPU usage alert

Your SimpliVity Federation contains clusters with OmniStack hosts. When you click the Alarms tab from the vCenter level in vSphere Client to review any triggered alarms, you see "Virtual machine CPU usage" alarm messages for most of the OmniStack Virtual Controllers in your Federation.

Resolution

Disregard this alarm. The Virtual Controller is functioning as designed.

Cannot use the SimpliVity Extension or the SimpliVity CLI to manage VMs with identical names

If OmniStack hosts have virtual machines (VM) with identical names in the same clusters, you cannot use the SimpliVity Extension for vSphere Web Client or the SimpliVity CLI to manage these VMs. You can use the standard vSphere Client to manage these VMs. SimpliVity is working with VMware to resolve this issue.

Resolution

You can rename one of the VMs to enable the SimpliVity management functionality:

1. In the vSphere Client, but not the SimpliVity Extension, browse the cluster to identify VMs with identical names.
2. Right-click one of the VMs and select **Rename** to rename it with a unique name.
3. Repeat Steps 1 and 2 for each VM you want to rename.
4. Log in to the SimpliVity CLI.
5. Run `svt-emergency-hms-sync` on each Virtual Controller in the cluster with a renamed VM to sync the Virtual Controller with vSphere.

You can now use the SimpliVity Extension and the SimpliVity CLI to manage these VMs.

VMware constraints and known issues

The following use constraints and known issues apply to VMware.

Error while performing VMware migration between datastores

In some cases the following error occurs while performing a migration back and forth between two datastores: Unable to access file ds:///vmfs/volumes/988b24ee-7c743f81/

Resolution

Contact SimpliVity [Customer Support](#).

DRS no longer migrates VMs in a DRS enabled cluster

In a cluster with DRS enabled DRS-initiated migrations within a cluster stop. An error message is displayed on the cluster object in vSphere that reads “Configuration Issues: DRS invocation not completed”.

Solution

1. Disable DRS for the cluster.
2. Delete all the files under the C:\ProgramData\VMware\vCenterServer\logs\vmware-vpx\drmdump\domain-cXXXXX\ directory (with domain-cXXXXX replaced with the cluster's mo-id).
3. Restart vCenter server process.
4. Enable DRS for the cluster.

vCenter anomalies after restore

After restoring a vCenter, you may have to perform an action that changes the inventory, such as adding or deleting a host. If you change the inventory prior to creating a new backup, the changes are missing if you need to restore the vCenter.

Issue	Cause	Action
An extra ESXi host is in the inventory after you restore the vCenter, and the host is in a disconnected state	This occurs when you delete an ESXi host after the restored backup was created.	You must remove the host.

Issue	Cause	Action
An ESXi host you added does not exist after the vCenter is restored	This occurs when you add an ESXi host after the backup was created.	You must add the host where it is needed.
A virtual machine that you removed reappears after you restore the vCenter	This occurs when you remove the virtual machine after you create the backup.	You must remove or delete the virtual machine.
An orphaned virtual machine appears after you restore the vCenter	This occurs when you perform a SimpliVity move or when you delete the virtual machine from the disk.	You must remove the orphaned virtual machine from inventory.
A datastore that you removed from the Federation appears in the storage view after you restore the vCenter		You must remove or unmount the datastore.

vCenter does not display alarm when rear boot drive in OmniCube server is removed

Prior to OmniStack 3.5.1, VMware vCenter software does not display an alarm when you physically removed a rear boot drive from an OmniCube server. While the drive is removed, if a second rear boot drive fails, then the OmniCube server shuts down.

Solution

Beginning with the OmniStack 3.5.1 software release, the VMware vCenter software generates an alarm when you remove a hard disk drive from the rear panel.

- VMware vSphere 5.5 generates the alarm when you remove the rear boot drive. The alarm is automatically cleared after you insert a rear boot drive into the OmniCube server, the drive has finished rebuilding, and it is in the optimum state.
- VMware vSphere 6.0 generates the alarm when you remove the rear boot drive. After you insert a rear boot drive into the OmniCube server, the drive has finished rebuilding, and it is in the optimum state, you must manually clear the alarm. If you clear the alarm before the rear boot drive has finished rebuilding, or it is not in the optimum state, then the alarm is set again.

Virtual machine automatic startup/shutdown feature is disabled on ESXi hosts

The Virtual Machine Automatic Startup /Shutdown feature on ESXi hosts may change from Enabled to Disabled in these situations:

- Moving an ESXi host to the same or different HA cluster.
- Removing an ESXi host from an HA cluster and adding it back to the same HA cluster.

- HA is deselected and then selected again after the cluster is built.

This is a known VMware issue. See VMware KB article 2046319.

Resolution

Manually enable **Virtual Machine Startup/Shutdown** on the ESXi host(s):

1. Log in to vSphere Client using administrator credentials.
2. Select the ESXi host and click the **Configuration** tab.
3. In the **Software** box, click **Virtual Machine Startup /Shutdown**.
4. Click the **Properties** link.
5. Check `Allow virtual machines to start and stop automatically with the system` option.
6. Click OK.

vSphere 6.0 does not indicate when a guest virtual machine ejects a virtual CD/DVD

In vSphere 6.0, restoring an ISO image as a virtual CD/DVD on a guest virtual machine and ejecting the virtual CD/DVD does not uncheck the Device Status Connected box in vSphere Client. Subsequent restores on the same guest virtual machine fail.

Resolution

Perform these steps to disconnect the virtual CD/DVD on the guest virtual machine:

1. In vSphere Client, right-click the virtual machine and select **Edit Settings**.
2. In the **Hardware** tab, select the CD/DVD drive and uncheck `Connected in Device Status`.
3. Click OK.

Incorrect messages display after upgrading vCenter server

After upgrading your vCenter Server to version 6.0, the vSphere Client displays incorrect names and messages for SimpliVity events, alarms, and tasks. For example, the name of a task might display as:

```
XXX com.simplivity.task.vmware.vm.snap.manual.label not found XXX
```

Resolution

Run this command to correct the message text for new SimpliVity events, alarms, and tasks:

```
svt-extension-refresh
```



CAUTION:

This command clears all SimpliVity events, alarms, and tasks. For information about this command, see the *OmniStack Command Reference*.

Cannot migrate a virtual machine from a VDS to a vSwitch

In vSphere 6.0, migrating a VM from a cluster with a vSphere Distributed Switch (VDS) to a cluster with a standard virtual switch (vSwitch) shows Invalid Backing for the network adapter associated with the virtual machine.

Resolution

vSphere 6.0 supports these virtual machine migrations across different virtual switches:

- vSwitch to vSwitch
- vSwitch to VDS
- VDS to VDS

vSphere 6.0 does not support VDS to vSwitch VM migrations.

Unable to login using single sign-on after session timeout

This problem occurs only when you use the CLI. The GUI is unaffected.

If you are managing a Federation using a Single Sign-on (SSO) account with vCenter Servers in Linked Mode, after a session timeout, each vCenter Server requires that you re-enter your credentials to sign on.

Resolution

Enter your credentials for each vCenter Server in Linked Mode.

Migrating a VM using Storage vMotion causes performance graphs to reset

If you migrate a virtual machine specifying Storage vMotion, the performance data graphs are reset if you look at them through the SimpliVity tabs in vSphere Client. This also happens if you use the CLI `svt-vm-move` command or the SimpliVity -Move Virtual Machine option in vSphere Client.

Resolution

There is currently no workaround for this issue.

Resource Balancing restrictions and known issues

The following general restrictions and known issues apply in this release.

Capacity balance issue when building out existing clusters

When building out an existing cluster with additional OmniStack hosts, a potential capacity balance issue may arise regarding remote backups.

The initial remote backup for a new VM is assigned two hosts (2 hosts, one for each replica) in the target cluster based on overall capacity and iops - the lightest loaded hosts, in this sense. Subsequent remote backups for this VM then home to this assigned these two hosts (leveraging affinity for de-duplication properties) by following the last fully protected remote backup hosts. One implication of this strategy: When the hosts of the cluster is increased it may result in an imbalance of remote backups, regardless if the active VM's are redistributed or re-balanced in the source cluster. The new hosts do not automatically balance these remote backups.

Resolution

The affected cluster may require manual removal of backups and a lowering of the policy frequency and retention rate in order to maintain performance.

Stretched Clusters constraints and known issues

The following use constraints and known issues apply to Stretched Clusters.

Backup replica zone-compliance warning

In certain circumstances, when you remove OmniStack hosts from a Stretched Cluster or you reassign OmniStack hosts to zones in an existing Stretched Cluster, your backup replicas may become non-zone-compliant. This means that these non-zone-compliant backups may not survive a zone failover. In such a situation, an alarm is raised on every OmniStack host with these non-zone-compliant backups.

Note:

This issue does not affect virtual machines; it only affects backups.

Resolution

If you observe these alarms in your OmniStack host, please contact [Customer Support](#) to rectify the situation.

Stretched Clusters feature considerations

1. Existing datacenter size and network guidelines apply to Stretched Clusters.
2. The Arbiter must be placed in a third physical site.
3. Additional requirements for the Stretched Clusters feature are as follows:
 - a. Stretched Clusters are supported in datacenters with an even number of OmniStack hosts. Hosts in the datacenter shall be equally distributed into the 2 availability zones. Stretched Clusters are not supported in datacenters with an odd number of hosts.
 - b. Stretched Cluster configurations do not support standard ESXi hosts.
4. Virtual Desktop Infrastructure (VDI) environments and linked clones are not supported in Stretched Clusters.

Settings for ESXi cluster admission control to work with Stretched Clusters

When configuring your environment as a Stretched Cluster, it is essential that 50% of your overall capacity is retained to ensure that it is possible to run all workloads on one side in the event of a site outage.

The following formula allows you to reserve the correct amount of failover capacity, while discounting the resources used by the virtual controller:

```
((totalMem - totalVirtualControllerMem)/2)/totalMem = RESERVATION
```

Consider this example:

OmniCube/OmniStack with 4 x 512GB of RAM, and a virtual controller with 100GB of RAM:

```
((2048-400)/2)/2048 = 40%
```

Note:

It is possible to modify the reserved resources such that in the event of a failover, resources will be constrained, but workloads will remain up. A System Administrator may decide to over-provision a workload by 10%, or even 20% assuming it is appropriate for the workload. This is a decision for the System Administrator and requires an understanding of the workload and the implications over-provisioning will have for that workload in the event of a disaster. An understanding of concepts such as Transparent Page Sharing (TPS), Memory Ballooning, and ESXi Swapping behaviour are required to make this determination and are outside of the scope of this document.

To do this:

10%

```
(Reserved Resources) - 10%
```

```
(Reserved Resources) * 0.9
```

20%

```
(Reserved Resources) - 20%
```

```
(Reserved Resources) * 0.8
```

The `svt-vm-show` and `svt-backup-show` commands may incorrectly report statuses during healing

The `svt-vm-show` and `svt-backup-show` commands may incorrectly report the **Zoning** status of virtual machines and backups respectively while healing migrations are in progress after zone realization. You can determine whether any virtual machines or backups are undergoing healing migrations by checking looking at the output of the `svt-vm-show` or `svt-backup-show` command for a **Zoning** status of **Healing**.

Backup creation must be paused before performing zone modification and realization

When a zone change is realized on an existing cluster configuration, some data needs to be migrated between stretch cluster nodes to ensure availability zone compliance. On some systems with many virtual machines and backups, the amount of data to be migrated can be significant. Because all data migrations to achieve zone compliance are throttled and because they compete with other network traffic, we recommend that all backups be stopped before zone configuration realization and resumed after all healing migrations complete.

Resolution

Run the following command to suspend all backup policies active in the system:

```
# svt-policy-suspend --all
```

CONFIRMATION/WARNING:

This command suspends policy-based backups on the OmniCube(s). Note that it can take an extended time for backups to reach a quiesced state.

Proceed? (y/n): y

Task to suspend backup policy with id 42211720-6972-b397-38f2-615376cefc97:42211720-6972-b397-38f2-615376cefc97:36af498d-e441-4c18-bb3b-a3f94c103af8 has been started.

To view the progress of the task, run the following command:

```
# svt-task-show --task 42211720-6972-b397-38f2-615376cefc97:42211720-6972-b397-38f2-615376cefc97:36af498d-e441-4c18-bb3b-a3f94c103af8
```

```
task 42211720-6972-b397-38f2-615376cefc97:42211720-6972-b397-38f2-615376cefc97:36af498d-e441-4c18-bb3b-a3f94c103af8 is 100 percent complete.
```

Once all zone healing migrations for virtual machines and backups complete, resume all backup policies in the system by running the following command:

```
# svt-policy-resume --all
```

This command resumes policy-based backups.

Proceed? (y/n): y

Task to resume backup policy with id 42211720-6972-b397-38f2-615376cefc97:42211720-6972-b397-38f2-615376cefc97:54440c4b-d405-4468-9f32-26875ed9ec38 has been started.

To view the progress of the task, run the following command:

```
# svt-task-show --task 42211720-6972-b397-38f2-615376cefc97:42211720-6972-b397-38f2-615376cefc97:54440c4b-d405-4468-9f32-26875ed9ec38
```

```
task 42211720-6972-b397-38f2-615376cefc97:42211720-6972-b397-38f2-615376cefc97:54440c4b-d405-4468-9f32-26875ed9ec38 is 100 percent complete.
```

Documentation updates

This section provides information about changes or issues with product documentation.

Appendix A: SimpliVity terminology

The following table contains SimpliVity terms and definitions.

Term	Definition
Arbiter	Alternate name for the SimpliVity Arbiter. (See <i>SimpliVity Arbiter</i> .)
availability zone	Physically co-located collections of SimpliVity <i>OmniStack hosts</i> , which you define as being likely to go offline together due to external forces. If an availability zone goes offline, its peer ensures that host services continue.
cluster	A collection of SimpliVity <i>OmniStack hosts</i> that share resources and provide high availability and load-balancing services.
datastore	A vSphere container for <i>virtual machine</i> files, including compute and storage resources. For more information, refer to the vSphere documentation.
failure domain	A collection of SimpliVity <i>OmniStack hosts</i> that that serve as potential high availability failover targets for each other for purposes of high availability and disaster recovery.
Federation	A collection of SimpliVity <i>OmniStack hosts</i> and <i>clusters</i> managed in a single globally-unified management domain.
guest operating system	The operating system that runs inside a <i>virtual machine</i> .
host	A generic term referring to either an <i>OmniStack host</i> or a <i>legacy host</i> .
Intelligent Workload Optimizer	A functionality that optimizes the location of <i>virtual machines</i> within a <i>vSphere datacenter</i> , based on more sources of telemetry data (adding data location to CPU and memory usage) to intelligently configure workloads using the vSphere Distributed Resource Scheduler (DRS).
legacy host	A host that does not contain <i>OmniStack software</i> .
OmniCube host	See <i>OmniStack host</i> .

Term	Definition
OmniStack Accelerator	A SimpliVity PCI card that provides non-volatile memory, accelerated compression, and cryptographic hashing. The Accelerator card communicates with the <i>OmniStack software</i> .
OmniStack host	A host (server) containing an <i>OmniStack Accelerator</i> card that communicates with the <i>OmniStack software</i> and some supported virtualization software. An OmniStack host utilizes a dedicated virtual machine called the <i>OmniStack Virtual Controller</i> , which runs the <i>OmniStack software</i> . (Previously referred to as an OmniCube host.)
OmniStack software	The SimpliVity software running on the <i>OmniStack Virtual Controller</i> . (Previously referred to as an OmniCube software.)
OmniStack Virtual Controller	A <i>virtual machine</i> dedicated to the <i>OmniStack host</i> that runs the <i>OmniStack software</i> . This software in turn communicates with the <i>OmniStack Accelerator</i> card inside the host. (Previously referred to as an OmniCube Virtual Controller.)
SimpliVity Arbiter	The SimpliVity software that facilitates communication between <i>OmniStack hosts</i> in a <i>Federation</i> and enables failover and recovery operations. The Arbiter casts a tie-breaking vote in <i>datacenter</i> or <i>cluster</i> failure scenarios that include an even number of <i>OmniStack hosts</i> . This arbitration ensures the resiliency of the <i>Federation</i> . (Previously referred to as an OmniCube Arbiter.)
standard ESXi host	An ESXi host that does not contain <i>OmniStack software</i> .
stretched cluster	A configuration using an equal number of SimpliVity <i>OmniStack hosts</i> within two <i>availability zones</i> , and leveraging a third site arbiter, to prevent data loss following the loss of a single availability zone.
virtual machine	A virtualized (software) computer environment that runs a <i>guest operating system</i> and associated application software. Multiple virtual machines can operate concurrently on the same physical <i>host</i> machine.