



Troubleshoot issues with the virtual appliance for VSC, VASA Provider, and SRA

VSC, VASA Provider, and SRA 9.7

NetApp
August 30, 2024

Table of Contents

- Troubleshoot issues with the virtual appliance for VSC, VASA Provider, and SRA 1
 - Collect the log files 1
 - VVol datastore provisioning fails with large number of volumes 1
 - Issue while editing VM Storage Policies after upgrade 2
 - VASA Provider status shows as “Offline” in vCenter Server GUI 2
 - Error while accessing the VSC Summary page of virtual appliance 2
 - Error deleting a datastore after network settings are changed 3
 - Virtual machine provision fails with an undefined error 4
 - Thick provision of VVols fails for ONTAP 9.4 storage systems 5
 - Datastore inaccessible when volume status is changed to offline 5
 - Add storage system with IPv4 results in authentication error with IPv6 status in storage system grid 6
 - File creation error while provisioning virtual machines on VVol datastores 6
 - Incorrect status 'Failover in Progress' is reported for SRA in SRM 7

Troubleshoot issues with the virtual appliance for VSC, VASA Provider, and SRA

If you encounter unexpected behavior during the configuration or management of the virtual appliance for Virtual Storage Console (VSC), VASA Provider, and Storage Replication Adapter (SRA), then you can follow specific troubleshooting procedures to identify and resolve the cause of such issues.

Collect the log files

You can collect log files for Virtual Storage Console for VMware vSphere from the option available in the VSC graphical user interface (GUI). Technical support might ask you to collect the log files to help troubleshoot a problem.

About this task

If you need VASA Provider log files, you can generate a support bundle from the **Vendor Provider Control Panel** screen. This page is part of the VASA Provider maintenance menus, which are accessible from the virtual appliance's console.

https://vm_ip:9083

You can collect the VSC log files by using the “Export VSC Logs” feature in the VSC GUI. When you collect a VSC log bundle with VASA Provider enabled, the VSC log bundle will also have the VP logs. The following steps tell you how to collect the VSC log files:

Steps

1. From the Virtual Storage Console home page, click **Configuration > Export VSC Logs**.

This operation can take several minutes.

2. When prompted, save the file to your local computer.

You can then send the `.zip` file to technical support.

VVol datastore provisioning fails with large number of volumes

Issue

VVol datastore provisioning fails when you try to provision VVol datastores with more than six volumes.

Cause

VVol datastore provisioning fails because of socket timeouts between VSC and VASA Provider.

Corrective action

You should either create VVol datastore with less than six volumes or increase the VVol datastore size after provisioning using the **Expand VVol Datastore** option.

Issue while editing VM Storage Policies after upgrade

After upgrading from the 7.0 version of the virtual appliance for Virtual Storage Console (VSC), VASA Provider, and Storage Replication Adapter (SRA) to the latest version of the virtual appliance for VSC, VASA Provider, and SRA, if you attempt to edit an existing VM Storage Policy before you configure any new storage capability profiles, the following error message might be displayed: There are incorrect or missing values below.

Cause

You might get this error if you have not created any new storage capability profiles.

Corrective action

You must perform the following:

1. Stop editing the VM Storage Policy.
2. Create a new storage capability profile.
3. Modify the required VM Storage Policy.

VASA Provider status shows as “Offline” in vCenter Server GUI

The status of VASA Provider for ONTAP might appear as “Offline” in the vCenter Server GUI after you restart the VASA Provider service.

Workaround

1. Check the status of VASA Provider from the virtual appliance for Virtual Storage Console (VSC), VASA Provider, and Storage Replication Adapter (SRA), and ensure that VASA Provider is active.
2. In the VSC page of vCenter Server, verify that VASA Provider is enabled by navigating to **Configuration > Manage Extensions**.
3. On the vCenter Server, check the `/var/log/vmware/vmware-sps/sps.log` file for any connection errors with VASA Provider.
4. If there are any errors, restart the “vmware-sps” service.

Error while accessing the VSC Summary page of virtual appliance


The error message `/opt/netapp/vscserver/etc/vsc/performance.json` (No

such file or directory) might be displayed when you try to access the VSC Summary page after you deploy the virtual appliance for Virtual Storage Console (VSC), VASA Provider, and Storage Replication Adapter (SRA).

Description

When you try to access the VSC dashboard after the deployment of the virtual appliance for VSC, VASA Provider, and SRA, you might encounter an error because the scheduler initialization process is not complete.

Workaround

You must wait for a few seconds after the deployment of the virtual appliance for the performance scheduler initialization process to complete, and then click the  button to get the latest data.

Error deleting a datastore after network settings are changed

Issue

After changing the IP address of the virtual appliance for VSC, VASA Provider, and SRA, an error is displayed while using the VSC interface to perform certain operations. For example, deleting a datastore or trying to access VASA Provider server on ESXi host.

Cause

The vCenter Server does not use the updated IP address and continues to use the old IP address to make calls to VASA Provider.

Corrective action

When IP address of the virtual appliance for VSC, VASA Provider, and SRA changes, you should perform the following:

1. Unregister VSC from vCenter Server.
2. Access https://<vcenter_ip>/mob.
3. Click **Content** > **Extension Manager** > **Unregister Extension** > **Unregister all com.netapp.extensions**.
4. Log in to the vCenter Server as root using putty.
5. Change to the vsphere-client-serenity directory using: `cd /etc/vmware/vsphere-client/vc-packages/vsphere-client-serenity`.
6. Stop the vSphere Client: service using `vsphere-client stop`.
7. Remove the directories containing the UI extensions: `rm -rf com.netapp*`
8. Start the vSphere Client: service using `vsphere-client start`.

This operation can take several minutes for the vSphere Client to restart and initialize correctly.

9. Change to the vsphere-ui serenity directory using: `/etc/vmware/vsphere-ui/vc-packages/vsphere-client-serenity/`.

10. Stop the vSphere UI: service using `vsphere-ui stop`.
11. Remove the directories containing the UI extensions: `rm -rf com.netapp*`
12. Start the vSphere UI using: `service-control --start vsphere-ui`.

Virtual machine provision fails with an undefined error

Virtual machine provisioning operations such as Create, Clone, Power on, Power off, Suspend, Migrate, and update VM Storage Profile on VVol datastore might fail with a generic error message in task manager that does not indicate whether the issue is with VASA Provider or VMware.

Issue

You receive error messages in task manager such as `No suitable volume was found amongst the candidate volumes for the specified requirements`.

Cause

The error might occur due to issues with VMware, VASA Provider, or ONTAP storage. The error message might not specify the exact reason for failure. The issue might also be due to large storage systems with a large number of storage virtual machines (SVMs), volumes, and LUNs in the environment. The periodic discovery operations running in the background on such storage systems take time and might cause the timeout of virtual machine provisioning operations if these operations are triggered simultaneously.

Corrective action

1. Verify whether the issue is with VASA Provider or ONTAP storage by examining the `/opt/netapp/vpserver/logs/error.log`, `vvolvp.log`, and `zapi_error.log` log files.
 - If errors such as `NaException com.netapp.offtap3.ontap.ApiFailedException: No suitable volume was found amongst the candidate volumes for the specified requirements. Details: Vvol Placement: Type: place Candidate Volumes: Vvol_nfs_pb2, Vvol_nfs_pb1 Performance: Greatest IOPS Size: 4GB Space Guaranteed: false Volumes with insufficient unpromised IOPS: Vvol_nfs_pb1, Vvol_nfs_pb2 Result: success (errno=13001)` are reported, then you should take corrective action, such as increasing IOPS on storage with the help of the storage administrator.
 - You must run provisioning operations only when there is no discovery operation running in the background. If the errors reported in the VASA Provider log files are not specific, then you should follow up with technical support to resolve the issue.
2. If no specific errors are reported in the VASA Provider log files, examine the `sps.log` log file to verify whether the issue is with VMware, and then take suitable corrective action based on the errors reported.

If the errors reported in the `sps.log` log file are not specific, then you should follow up with a VMware administrator to resolve the issue.

Thick provision of VVols fails for ONTAP 9.4 storage systems

Thick provisioning of virtual volumes (VVols) fails when the VVol datastore does not contain thick-provisioned FlexVol volumes on an ONTAP 9.4 storage system.

Issue

You might receive error messages such as the following while provisioning the VVol:

```
com.netapp.vasa.vvol.exceptions.OutOfResourceException: Unable to find a
location
for a vvol of size 4,096 in storage container vvol_nfs_new - Checked 1
places.
Specific reasons were vvol_nfs_new | Final Score: 0 | 100 -> 0 : FlexVol
of
vvol_nfs_new does not support required storage profile, details
[FlexVolume with
name vvol_nfs_new is not thick provisioned]
```

Cause

This error occurs if you do not have any thick-provisioned FlexVol volumes on the VVol.

Solution

1. Add a new FlexVol volume that has storage capability with thick provisioning enabled for the VVol.
2. Create a new virtual machine by using the FlexVol volume.

Datastore inaccessible when volume status is changed to offline

Issue

When a volume of a datastore is made offline, the datastore is inaccessible. Even if you bring the volume online, VSC fails to discover the datastore. On the vSphere Client, if you right-click the datastore, no VSC actions are available.

Cause

When volume is made offline from the cluster, the volume is unmounted first and then made offline or restricted. The junction path is removed when the volume is made offline and the datastore becomes inaccessible. If the volume is made online, the junction path is not available and not mounted on the by default. This is the ONTAP behavior.

Corrective action

You should bring the volume online and then manually mount the volume with the same junction path as before. You can run the storage discovery to view that the datastore is discovered and actions for the datastore are available.

Add storage system with IPv4 results in authentication error with IPv6 status in storage system grid

Issue

The storage system grid displays authentication failure status with IPv6 address for a storage system even though the storage system is added with IPv4 address.

Cause

When you have a dual stack storage system with IPv4 and IPv6 LIFs and you add a storage system with IPv4 LIF, then during the periodic discovery process, VSC can discover the IPv6 LIF too. This IPv6 discovery fails with authentication error as the IPv6 LIF is not added explicitly. This error does not have any impact on any of the operations performed for the storage system.

Corrective action

You must perform the following:

1. In the VSC home page, click **Storage Systems**.
2. Click the storage system that has unknown status with IPv6 address.
3. Change the IP address to IPv4 using the set default credentials.
4. Click **Back to listing**, and then click **REDISCOVER ALL**.

The stale IPv6 entry from the storage systems list is deleted and storage system is discovered without authentication errors.

File creation error while provisioning virtual machines on VVol datastores

Issue

Cannot create virtual machine using the default storage virtual machine (SVM) or any mixed storage virtual machine (SVM) that has both IPv6 and IPv4 data LIFS configured.

Cause

The issue occurs because the default vs0 has both IPv6 and IPv4 data LIFs, and is not a purely IPv4 datastore.

Corrective action

You can provision a virtual machine with vs0 using the following steps:

1. Use System Manager application to disable all the IPv6 LIFs .
2. Rediscover the cluster.
3. Provision a virtual machine on the VVol datastore on which the provisioning was failing.

The virtual machine is successfully provisioned.

Incorrect status 'Failover in Progress' is reported for SRA in SRM

Issue

VMware Site Recovery Manager (SRM) displays the status of the device as “In progress” for the newly SnapMirrored device.

Cause

This issue occurs due to the presence of an entry with the same device name as the newly created device in the `/opt/netapp/vpserver/conf/devices.txt` file.

Corrective action

You should manually delete the entries matching the device that you newly created from both the sites (site A and site B) from located at `/opt/netapp/vpserver/conf/devices.txt` and rerun discover devices. After the discovery completes, the devices will display the correct status.

Copyright information

Copyright © 2024 NetApp, Inc. All Rights Reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system—without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP “AS IS” AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

LIMITED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

Trademark information

NETAPP, the NETAPP logo, and the marks listed at <http://www.netapp.com/TM> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.