Configure hosts

SnapManager for Hyper-V

NetApp
June 18, 2025

This PDF was generated from https://docs.netapp.com/us-en/snapmanager-hyper-v/reference-requirements-for-adding-a-hyper-v-parent-host-or-host-cluster.html on June 18, 2025. Always check docs.netapp.com for the latest.

Table of Contents

Configure hosts . . . 1
- Requirements for adding a Hyper-V parent host or host cluster . . . 1
  - SnapManager for Hyper-V installation . . . 1
  - Configuration settings . . . 1
  - Virtual machines and ONTAP LUNs . . . 1
  - Dedicated and clustered virtual machines . . . 1
  - Number of virtual machines . . . 2
  - SnapManager for Hyper-V service account requirements . . . 2
- Add a Hyper-V parent host or host cluster . . . 3
- Manage storage connection settings . . . 3
- View a Hyper-V parent host or host cluster . . . 3
- View a virtual machine . . . 4
- Migrate a Hyper-V virtual machine for SnapManager for Hyper-V operations . . . 4
- Import or export host and dataset configuration information . . . 4
- Remove a Hyper-V parent host or parent host cluster . . . 5
- Event notification settings . . . 5
  - Configure email notifications . . . 5
- Report path settings . . . 5

Configure hosts

You can add, view, and remove Hyper-V parent hosts or clusters by using SnapManager for Hyper-V.

Requirements for adding a Hyper-V parent host or host cluster

You must have all necessary configuration information available before adding a parent host or host cluster to SnapManager for Hyper-V.

SnapManager for Hyper-V installation

SnapManager for Hyper-V must be installed on the Hyper-V host that you want to add.

If you do not have SnapManager for Hyper-V installed, you are prompted to run the Remote Host Install wizard. The same SnapManager for Hyper-V version must be installed on each cluster node.

Configuration settings

The Hyper-V parent host that you want to add must be configured for SnapManager for Hyper-V.

If the SnapInfo settings, report directory settings, and notification settings are not configured for SnapManager for Hyper-V, you can configure them after you add the host, using the Configuration wizard.

Initially, the **Manage Storage Connections** tab is empty. You can add the storage connections from the **Manage Storage Connections** tab, but the newly added connections are visible from SnapDrive for Windows (SDW) Transport Protocol Settings (TPS).

You must configure the backup repository and report directory settings to add and manage virtual machines by using SnapManager for Hyper-V. Notification settings are optional.

Virtual machines and ONTAP LUNs

All of the files associated with the virtual machines, including configuration files, Snapshot copy file location, and VHDs, must reside on ONTAP LUNs.

This is necessary to perform a successful backup.

> If you change a virtual machine Snapshot file location to a different ONTAP LUN after creating the virtual machine, you should create at least one virtual machine Snapshot copy using Hyper-V Manager before making a backup by using SnapManager for Hyper-V. If you change the Snapshot copy file location and do not make a virtual machine Snapshot copy before making a backup, the backup operation could fail.

Dedicated and clustered virtual machines

Your virtual machines can be dedicated or part of a cluster.

If you add a single host, SnapManager for Hyper-V manages the dedicated virtual machines on that host. If you add a host cluster, SnapManager for Hyper-V manages the shared virtual machines on the host cluster.

Virtual machines residing on SAN and NAS that belong to the same host cluster should not exist in the same dataset. Adding these types of resources to a single dataset can cause the dataset backup to fail.

For application-consistent backups, dataset backups of clustered virtual machines take longer to complete when the virtual machines run on different nodes of the cluster. When virtual machines run on different nodes, separate backup operations are required for each node in the cluster. If all virtual machines run on the same node, only one backup operation is required, resulting in a faster backup.

Number of virtual machines

If your Hyper-V host or host cluster has more than 1,000 virtual machines, you must increase the value of the maximum `Elements In Cache Before Scavenging` property in the `SnapMgrServiceHost.exe.config` file for Hyper-V Cache Manager. This value should be greater than or equal to the number of Hyper-V hosts running on a stand-alone host or cluster. The value should be changed on each node of the cluster, and the SnapManager for Hyper-V service must be restarted after changing this value. You must manually edit the `SnapMgrServiceHost.exe.config` file using a text editor.

```
<cacheManagers>
…
      <add name="HyperV Cache Manager"

type="Microsoft.Practices.EnterpriseLibrary.Caching.CacheManager,
                           Microsoft.Practices.EnterpriseLibrary.Caching"
                        expirationPollFrequencyInSeconds="60"
                        maximumElementsInCacheBeforeScavenging="1200"
                        numberToRemoveWhenScavenging="10"
                        backingStoreName="inMemory" />
…
</cacheManagers>
```

SnapManager for Hyper-V service account requirements

When using SnapManager for Hyper-V to manage a Hyper-V host cluster, the SnapManager for Hyper-V and SnapDrive for Windows service accounts must be domain user accounts with local administrator rights on the server.

SnapManager for Hyper-V application-consistent backups run on the cluster node where the virtual machine is running. If Cluster Shared Volumes (CSVs) used by the virtual machine are not owned by the same node, virtual machine backups can fail when the SnapManager for Hyper-V service is using a local system account (even though the account has administrator privileges). In this case, SnapManager for Hyper-V cannot detect that the virtual machine files are residing on a CSV, causing the backup to fail.

For remote Volume Shadow Copy Service (VSS) operations with virtual machines stored on clustered Data ONTAP SMB 3.0 continuous availability (CA) shares to work properly, you must grant full control rights to the share for the SnapDrive for Windows service accounts and a minimum read-level access to the SnapManager for Hyper-V web service account.

Related information

Microsoft TechNet: Hyper-V

Add a Hyper-V parent host or host cluster

You can add a Hyper-V parent host or host cluster to back up and restore your virtual machines.

Steps

1. From the navigation pane, click **Protection**.
2. From the Actions pane, click **Add host**.
3. Run the **Add host** wizard.

After you finish

When you add a host to a cluster, the information about the new host is not automatically displayed in the GUI. Manually add the host information to the xml file in the installation directory.

SnapManager for Hyper-V must be installed on each cluster node. If you do not have SnapManager for Hyper-V installed, you are prompted to run the Remote Host Install wizard.

Manage storage connection settings

After you have added a host, you should enter all of the storage connections (SnapDrive for Windows and SnapManager for Hyper-V) for using Manage Storage Connection Settings in **Protection › Dataset Management**.

What you'll need

You must have at least one host added to SnapManager for Hyper-V before you can manage your storage connection settings.

Steps

1. From **Protection › Dataset Management**, select the **Manage Storage Connection** Settings.
2. Add the storage connections.

   All storage connections can be viewed in SnapDrive for Windows TPS.

View a Hyper-V parent host or host cluster

You can view configuration information about a specific Hyper-V parent host or host cluster so that you can monitor its status.

Steps

1. From the navigation pane, click **Protection › Hosts**.
2. Select the host or host cluster that you want to view.

   The Details pane displays the host or host cluster name, domain, cluster members (if applicable), and configuration messages. If you select a host that is not configured, the Details pane displays information about what is not configured.

View a virtual machine

From the Virtual Machine tab and VHD tab of the Details pane for a virtual machine, you can view information about and monitor the status of that machine.

Steps

1. From the navigation pane, click **Protection › Hosts › Protection › Datasets**.
2. Select the dataset or host to which the virtual machine belongs.
3. Select the appropriate virtual machine.

Results

The Virtual Machine tab displays the name, GUID, and state of the selected virtual machine.

The VHD tab displays system disk, mountpoint, VHD full path, LUN path, storage system name, serial number, and volume name associated with the selected virtual machine.

Migrate a Hyper-V virtual machine for SnapManager for Hyper-V operations

SnapManager for Hyper-V does not contain a migration wizard to help you migrate virtual machines (VMs) from non-ONTAP storage to ONTAP storage so that you can use them with SnapManager for Hyper-V. Instead, you must manually export and import the VM by using Server Manager.

Import or export host and dataset configuration information

Although you should manage a host from only one management console, if you need to do so from multiple consoles, you can import and export host and dataset configuration information from one remote management console to another to ensure data consistency.

About this task

You should not import or export configuration information to the directory on which SnapManager for Hyper-V is installed. If you uninstall SnapManager for Hyper-V, this file is lost.

You can use the Import and Export wizard to change host and dataset configuration settings to a previously exported setting. If you perform this operation in a clustered environment, you must import the settings on all nodes in the cluster so that all host and dataset configurations are the same.

Steps

1. From the navigation pane, click **Protection**.
2. From the **Actions** pane, click **Import and export**.

   The Import and Export wizard appears.

3. Complete the steps in the wizard to export host and dataset configuration information from one management console to another.

The export file is static and current only at the time that export file was executed.

4. Complete the steps in the wizard to import host and dataset configuration information to the destination management console.

Remove a Hyper-V parent host or parent host cluster

You can remove a Hyper-V parent host or parent host cluster when you no longer want to manage it using SnapManager for Hyper-V.

Steps

1. From the navigation pane, click **Protection › Hosts**.
2. Select the host or host cluster you want to remove.
3. In the **Actions** pane, click **Remove**.

   You can select **Delete all VM backups** to delete any virtual machine backups associated with the host.

   The Hyper-V parent host or host cluster is removed from SnapManager for Hyper-V management but is not deleted permanently. The virtual machines belonging to that host or host cluster are also removed from any datasets to which they belonged.

Event notification settings

You can configure event notification settings to send e-mail, Syslog, and AutoSupport messages if an event occurs.

If event notification settings are not configured when a Hyper-V parent host is added to SnapManager for Hyper-V, you can configure those settings later, using the Configuration wizard.

You can change the event notification settings by using the Configuration wizard even after the host has been added to SnapManager for Hyper-V.

You can configure the event notification settings before you can add virtual machine resources to a dataset.

Configure email notifications

Multiple email recipients for notifications must be separated by commas.

When you configure multiple email recipients for email notifications in SnapManager for Hyper-V, separate each recipient with a comma. This requirement differs from SnapManager for SQL in which each email notification recipient must be separated by semicolons.

Report path settings

You can configure report path settings so that you can store reports for SnapManager for Hyper-V operations. You must configure the report path settings before you can add virtual machine resources to a dataset.

If the report settings are not configured when a Hyper-V parent host is added to SnapManager for Hyper-V, you

can configure (and even change) those settings later, using the Configuration wizard.

If you configure the report path settings for a parent host cluster, you must manually create the report directory on each cluster node. The report path should not reside on a cluster shared volume (CSV) or a shared LUN.

Related information

Microsoft TechNet: Use Cluster Shared Volumes in a Failover Cluster

Copyright information

Copyright © 2025 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.