Manage FC protocol

ONTAP 9

NetApp
May 17, 2023

This PDF was generated from https://docs.netapp.com/us-en/ontap/san-admin/configure-svm-fc-task.html on May 17, 2023. Always check docs.netapp.com for the latest.

Table of Contents

Manage FC protocol . . . 1
Configure an SVM for FC . . . 1
Delete an FC service for an SVM . . . 2
Recommended MTU configurations for FCoE jumbo frames . . . 3

Manage FC protocol

Configure an SVM for FC

To configure a storage virtual machine (SVM) for FC, you must create LIFs for the SVM and assign the FC protocol to those LIFs.

Before you begin

You must have an FC license and it must be enabled. If the FC license is not enabled, the LIFs and SVMs appear to be online but the operational status is `down`. The FC service must be enabled for your LIFs and SVMs to be operational. You must use single initiator zoning for all of the FC LIFs in the SVM to host the initiators.

About this task

NetApp supports a minimum of one FC LIF per node for each SVM serving data with the FC protocol. You must use two LIFs per node and two fabrics, with one LIF per node attached. This provides for redundancy at the node layer and the fabric.

Example 1. Steps

System Manager

Configure an storage VM for iSCSI with ONTAP System Manager (9.7 and later).

To configure FC on a new storage VM	To configure FC on an existing storage VM
1. In System Manager, click **Storage > Storage VMs** and then click **Add**. 2. Enter a name for the storage VM. 3. Select **FC** for the **Access Protocol**. 4. Click **Enable FC**. + The FC ports are automatically assigned. 5. Click **Save**.	1. In System Manager, click **Storage > Storage VMs**. 2. Click on the storage VM you want to configure. 3. Click on the **Settings** tab, and then click ⚙ next to the FC protocol. 4. Click **Enable FC** and enter the IP address and subnet mask for the network interface. + The FC ports are automatically assigned. 5. Click **Save**.

CLI

1. Enable FC service on the SVM:

   ```
   vserver fcp create -vserver vserver_name -status-admin up
   ```

2. Create two LIFs for the SVMs on each node serving FC:
   - For ONTAP 9.6 and later:

     ```
     network interface create -vserver vserver_name -lif lif_name -data
     -protocol fcp -service-policy default-data-fcp -home-node node_name
     -home-port port_name -address ip_address -netmask netmask
     ```

   - For ONTAP 9.5 and earlier:

     ```
     network interface create -vserver vserver_name -lif lif_name -role data
     -data-protocol fcp -home-node node_name -home-port port
     ```

3. Verify that your LIFs have been created and that their operational status is `online`:

   ```
   network interface show -vserver vserver_name lif_name
   ```

Related information

NetApp Support

NetApp Interoperability Matrix Tool

Considerations for LIFs in cluster SAN environments

Delete an FC service for an SVM

You can delete an FC service for a storage virtual machine (SVM) if it is no longer

required.

What you'll need

The administration status must be "down" before you can delete a FC service for an SVM. You can set the administration status to down with either the `vserver fcp modify` command or the `vserver fcp stop` command.

Steps

1. Use the `vserver fcp stop` command to stop the I/O to the LUN.

   ```
   vserver fcp stop -vserver vs_1
   ```

2. Use the `vserver fcp delete` command to remove the service from the SVM.

   ```
   vserver fcp delete -vserver vs_1
   ```

3. Use the `vserver fcp show` to verify that you deleted the FC service from your SVM:

   ```
   vserver fcp show -vserver vs_1
   ```

Recommended MTU configurations for FCoE jumbo frames

For Fibre Channel over Ethernet (FCoE), jumbo frames for the Ethernet adapter portion of the CNA should be configured at 9000 MTU. Jumbo frames for the FCoE adapter portion of the CNA should be configured at greater than 1500 MTU. Only configure jumbo frames if the initiator, target, and all intervening switches support and are configured for jumbo frames.

Copyright information

Copyright © 2023 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.