



Replace Fibre Channel HBA in SG6000-CN controller

StorageGRID

NetApp
September 04, 2024

Table of Contents

- Replace Fibre Channel HBA in SG6000-CN controller 1
- Verify Fibre Channel HBA to replace 1
- Remove Fibre Channel HBA 3
- Reinstall Fibre Channel HBA 5

Replace Fibre Channel HBA in SG6000-CN controller

You might need to replace the Fibre Channel host bus adapter (HBA) in the SG6000-CN controller if it is not functioning optimally or if it has failed.

Verify Fibre Channel HBA to replace

If you are unsure which Fibre Channel host bus adapter (HBA) to replace, complete this procedure to identify it.

What you'll need

- You have the serial number of the storage appliance or SG6000-CN controller where the Fibre Channel HBA needs to be replaced.



If the serial number of the storage appliance containing the Fibre Channel HBA you are replacing starts with the letter Q, it will not be listed in the Grid Manager. You must check the tags attached to the front of each SG6000-CN controller in the data center until you find a match.



- You are signed in to the Grid Manager using a [supported web browser](#).

Steps

1. From the Grid Manager, select **NODES**.
2. From the table on the Nodes page, select an appliance Storage Node.
3. Select the **Hardware** tab.

Check the **Storage appliance chassis serial number** and the **Compute controller serial number** in the StorageGRID Appliance section. See if one of these serial numbers matches the serial number of the storage appliance where you are replacing the Fibre Channel HBA. If either serial number matches, you have found the correct appliance.

StorageGRID Appliance

Appliance model: ?	SG5660	
Storage controller name: ?	StorageGRID-SGA-Lab11	
Storage controller A management IP: ?	10.224.2.192	
Storage controller WWID: ?	600a098000a4a707000000005e8ed5fd	
Storage appliance chassis serial number: ?	1142FG000135	
Storage controller firmware version: ?	08.40.60.01	
Storage hardware: ?	Nominal	
Storage controller failed drive count: ?	0	
Storage controller A: ?	Nominal	
Storage controller power supply A: ?	Nominal	
Storage controller power supply B: ?	Nominal	
Storage data drive type: ?	NL-SAS HDD	
Storage data drive size: ?	2.00 TB	
Storage RAID mode: ?	RAID6	
Storage connectivity: ?	Nominal	
Overall power supply: ?	Nominal	
Compute controller serial number: ?	SV54365519	
Compute controller CPU temperature: ?	Nominal	
Compute controller chassis temperature: ?	Nominal	

Storage shelves

Shelf chassis serial number ?	Shelf ID ?	Shelf status ?	IOM status ?
SN SV13304553	0	Nominal	N/A

- If the StorageGRID Appliance section does not display, the node selected is not a StorageGRID appliance. Select a different node from the tree view.
 - If the Appliance Model is not SG6060 or SG6060X, select a different node from the tree view.
 - If the serial numbers do not match, select a different node from the tree view.
4. After you locate the node where the Fibre Channel HBA needs to be replaced, write down the Compute controller BMC IP address listed the StorageGRID Appliance section.

You can use this IP address to turn on the compute controller identify LED, to help you locate the appliance in the data center.

[Turn the controller identify LED on and off](#)

Related information

[Remove Fibre Channel HBA](#)

Remove Fibre Channel HBA

You might need to replace the Fibre Channel host bus adapter (HBA) in the SG6000-CN controller if it is not functioning optimally or if it has failed.

What you'll need

- You have the correct replacement Fibre Channel HBA.
- You have [determined which SG6000-CN controller contains the Fibre Channel HBA to replace](#).
- You have [physically located the SG6000-CN controller](#) in the data center.
- You have [shut down the SG6000-CN controller](#).



A controlled shutdown is required before you remove the controller from the rack.

- You have [removed the controller from the cabinet or rack](#).
- You have [removed the controller cover](#).

About this task

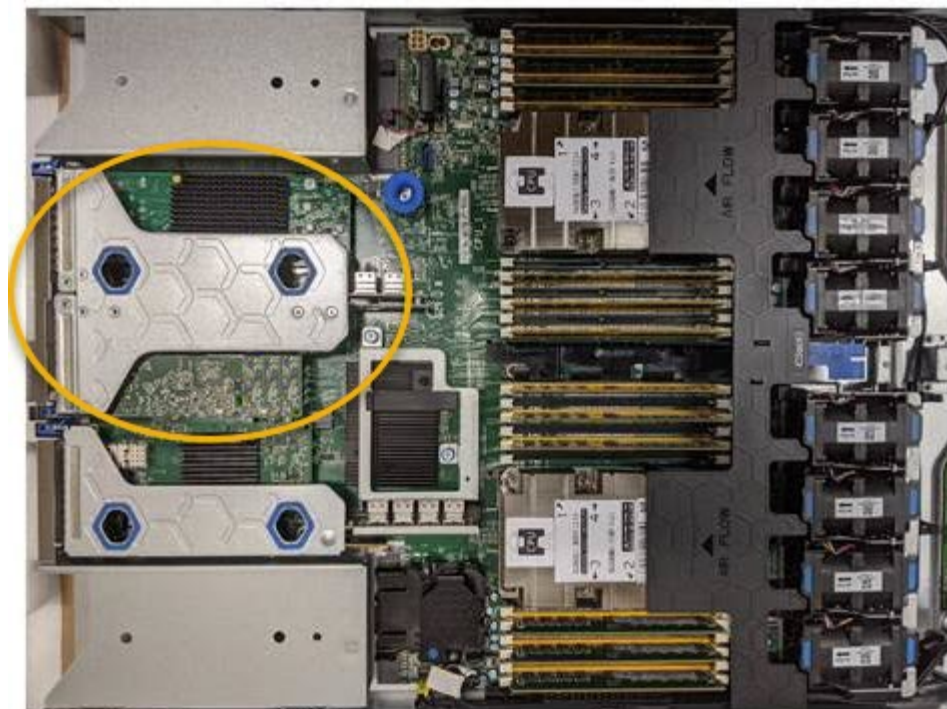
To prevent service interruptions, confirm that all other Storage Nodes are connected to the grid before starting the Fibre Channel HBA replacement or replace the adapter during a scheduled maintenance window when periods of service disruption are normally expected. See the information about [monitoring node connection states](#).



If you have ever used an ILM rule that creates only one copy of an object, you must replace the Fibre Channel HBA during a scheduled maintenance window. Otherwise, you might temporarily lose access to those objects during this procedure. See information about [why you should not use single-copy replication](#).

Steps

1. Wrap the strap end of the ESD wristband around your wrist, and secure the clip end to a metal ground to prevent static discharge.
2. Locate the riser assembly at the rear of the controller that contains the Fibre Channel HBA.



3. Grasp the riser assembly through the blue-marked holes and carefully lift it upwards. Move the riser assembly toward the front of the chassis as you lift it to allow the external connectors in its installed adapters to clear the chassis.
4. Place the riser card on a flat anti-static surface with the metal frame side down to access the adapters.



There are two adapters in the riser assembly: a Fibre Channel HBA and an Ethernet network adapter. The Fibre Channel HBA is indicated in the illustration.

5. Open the blue adapter latch (circled) and carefully remove the Fibre Channel HBA from the riser assembly. Rock the adapter slightly to help remove the adapter from its connector. Do not use excessive force.
6. Place the adapter on a flat anti-static surface.

After you finish

Install the replacement Fibre Channel HBA.

[Reinstall Fibre Channel HBA](#)

Reinstall Fibre Channel HBA

The replacement Fibre Channel HBA is installed into the same location as the one that was removed.

What you'll need

- You have the correct replacement Fibre Channel HBA.
- You have removed the existing Fibre Channel HBA.

Remove Fibre Channel HBA

Steps

1. Wrap the strap end of the ESD wristband around your wrist, and secure the clip end to a metal ground to prevent static discharge.
2. Remove the replacement Fibre Channel HBA from its packaging.
3. With the blue adapter latch in the open position, align the Fibre Channel HBA with its connector on the riser assembly; then, carefully press the adapter into the connector until it is fully seated.



There are two adapters in the riser assembly: a Fibre Channel HBA and an Ethernet network adapter. The Fibre Channel HBA is indicated in the illustration.

4. Locate the alignment hole on the riser assembly (circled) that aligns with a guide pin on the system board to ensure correct riser assembly positioning.



5. Position the riser assembly in the chassis, making sure that it aligns with the connector and guide pin on the system board; then, insert the riser assembly.
6. Carefully press the riser assembly in place along its center line, next to the blue-marked holes, until it is fully seated.
7. Remove the protective caps from the Fibre Channel HBA ports where you will be reinstalling cables.

After you finish

If you have no other maintenance procedures to perform in the controller, reinstall the controller cover.

[Reinstall SG6000-CN controller cover](#)

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.