



Configure the audit client for NFS

StorageGRID

NetApp
July 19, 2022

Table of Contents

- Configure the audit client for NFS 1
 - Add an NFS audit client to an audit share 2
 - Verify NFS audit integration 4
 - Remove an NFS audit client from the audit share 4
 - Change the IP address of an NFS audit client 6

Configure the audit client for NFS

The audit share is automatically enabled as a read-only share.

What you'll need

- You have the `Passwords.txt` file with the root/admin password (available in the SAID package).
- You have the `Configuration.txt` file (available in the SAID package).
- The audit client is using NFS Version 3 (NFSv3).

About this task

Perform this procedure for each Admin Node in a StorageGRID deployment from which you want to retrieve audit messages.

Steps

1. Log in to the primary Admin Node:
 - a. Enter the following command: `ssh admin@primary_Admin_Node_IP`
 - b. Enter the password listed in the `Passwords.txt` file.
 - c. Enter the following command to switch to root: `su -`
 - d. Enter the password listed in the `Passwords.txt` file.

When you are logged in as root, the prompt changes from `$` to `#`.

2. Confirm that all services have a state of Running or Verified. Enter: `storagegrid-status`

If any services are not listed as Running or Verified, resolve issues before continuing.

3. Return to the command line. Press **Ctrl+C**.
4. Start the NFS configuration utility. Enter: `config_nfs.rb`

```
-----  
| Shares                | Clients                | Config                |  
-----  
| add-audit-share       | add-ip-to-share       | validate-config      |  
| enable-disable-share  | remove-ip-from-share  | refresh-config       |  
|                       |                       | help                 |  
|                       |                       | exit                 |  
-----
```

5. Add the audit client: `add-audit-share`
 - a. When prompted, enter the audit client's IP address or IP address range for the audit share:
`client_IP_address`
 - b. When prompted, press **Enter**.
6. If more than one audit client is permitted to access the audit share, add the IP address of the additional user: `add-ip-to-share`

- a. Enter the number of the audit share: `audit_share_number`
- b. When prompted, enter the audit client's IP address or IP address range for the audit share:
`client_IP_address`
- c. When prompted, press **Enter**.

The NFS configuration utility is displayed.

- d. Repeat these substeps for each additional audit client that has access to the audit share.

7. Optionally, verify your configuration.

- a. Enter the following: `validate-config`

The services are checked and displayed.

- b. When prompted, press **Enter**.

The NFS configuration utility is displayed.

- c. Close the NFS configuration utility: `exit`

8. Determine if you must enable audit shares at other sites.

- If the StorageGRID deployment is a single site, go to the next step.
- If the StorageGRID deployment includes Admin Nodes at other sites, enable these audit shares as required:

- a. Remotely log in to the site's Admin Node:

- i. Enter the following command: `ssh admin@grid_node_IP`
- ii. Enter the password listed in the `Passwords.txt` file.
- iii. Enter the following command to switch to root: `su -`
- iv. Enter the password listed in the `Passwords.txt` file.

- b. Repeat these steps to configure the audit shares for each additional Admin Node.

- c. Close the remote secure shell login to the remote Admin Node. Enter: `exit`

9. Log out of the command shell: `exit`

NFS audit clients are granted access to an audit share based on their IP address. Grant access to the audit share to a new NFS audit client by adding its IP address to the share, or remove an existing audit client by removing its IP address.

Add an NFS audit client to an audit share

NFS audit clients are granted access to an audit share based on their IP address. Grant access to the audit share to a new NFS audit client by adding its IP address to the audit share.

What you'll need

- You have the `Passwords.txt` file with the root/admin account password (available in the SAID package).

- You have the `Configuration.txt` file (available in the SAID package).
- The audit client is using NFS Version 3 (NFSv3).

Steps

1. Log in to the primary Admin Node:

- Enter the following command: `ssh admin@primary_Admin_Node_IP`
- Enter the password listed in the `Passwords.txt` file.
- Enter the following command to switch to root: `su -`
- Enter the password listed in the `Passwords.txt` file.

When you are logged in as root, the prompt changes from `$` to `#`.

2. Start the NFS configuration utility: `config_nfs.rb`

Shares	Clients	Config	

add-audit-share	add-ip-to-share	validate-config	
enable-disable-share	remove-ip-from-share	refresh-config	
		help	
		exit	

3. Enter: `add-ip-to-share`

A list of NFS audit shares enabled on the Admin Node is displayed. The audit share is listed as:
`/var/local/audit/export`

4. Enter the number of the audit share: `audit_share_number`

5. When prompted, enter the audit client's IP address or IP address range for the audit share:
`client_IP_address`

The audit client is added to the audit share.

6. When prompted, press **Enter**.

The NFS configuration utility is displayed.

7. Repeat the steps for each audit client that should be added to the audit share.

8. Optionally, verify your configuration: `validate-config`

The services are checked and displayed.

- When prompted, press **Enter**.

The NFS configuration utility is displayed.

9. Close the NFS configuration utility: `exit`
10. If the StorageGRID deployment is a single site, go to the next step.

Otherwise, if the StorageGRID deployment includes Admin Nodes at other sites, optionally enable these audit shares as required:

- a. Remotely log in to a site's Admin Node:
 - i. Enter the following command: `ssh admin@grid_node_IP`
 - ii. Enter the password listed in the `Passwords.txt` file.
 - iii. Enter the following command to switch to root: `su -`
 - iv. Enter the password listed in the `Passwords.txt` file.
 - b. Repeat these steps to configure the audit shares for each Admin Node.
 - c. Close the remote secure shell login to the remote Admin Node: `exit`
11. Log out of the command shell: `exit`

Verify NFS audit integration

After you configure an audit share and add an NFS audit client, you can mount the audit client share and verify that the files are available from the audit share.

Steps

1. Verify connectivity (or variant for the client system) using the client-side IP address of the Admin Node hosting the AMS service. Enter: `ping IP_address`

Verify that the server responds, indicating connectivity.

2. Mount the audit read-only share using a command appropriate to the client operating system. A sample Linux command is (enter on one line):

```
mount -t nfs -o hard,intr Admin_Node_IP_address:/var/local/audit/export  
myAudit
```

Use the IP address of the Admin Node hosting the AMS service and the predefined share name for the audit system. The mount point can be any name selected by the client (for example, *myAudit* in the previous command).

3. Verify that the files are available from the audit share. Enter: `ls myAudit /*`

where *myAudit* is the mount point of the audit share. There should be at least one log file listed.

Remove an NFS audit client from the audit share

NFS audit clients are granted access to an audit share based on their IP address. You can remove an existing audit client by removing its IP address.

What you'll need

- You have the `Passwords.txt` file with the root/admin account password (available in the SAID package).
- You have the `Configuration.txt` file (available in the SAID package).

About this task

You cannot remove the last IP address permitted to access the audit share.

Steps

1. Log in to the primary Admin Node:

- a. Enter the following command: `ssh admin@primary_Admin_Node_IP`
- b. Enter the password listed in the `Passwords.txt` file.
- c. Enter the following command to switch to root: `su -`
- d. Enter the password listed in the `Passwords.txt` file.

When you are logged in as root, the prompt changes from `$` to `#`.

2. Start the NFS configuration utility: `config_nfs.rb`

Shares	Clients	Config
add-audit-share	add-ip-to-share	validate-config
enable-disable-share	remove-ip-from-share	refresh-config
		help
		exit

3. Remove the IP address from the audit share: `remove-ip-from-share`

A numbered list of audit shares configured on the server is displayed. The audit share is listed as:
`/var/local/audit/export`

4. Enter the number corresponding to the audit share: `audit_share_number`

A numbered list of IP addresses permitted to access the audit share is displayed.

5. Enter the number corresponding to the IP address you want to remove.

The audit share is updated, and access is no longer permitted from any audit client with this IP address.

6. When prompted, press **Enter**.

The NFS configuration utility is displayed.

7. Close the NFS configuration utility: `exit`

8. If your StorageGRID deployment is a multiple data center site deployment with additional Admin Nodes at the other sites, disable these audit shares as required:

- a. Remotely log in to each site's Admin Node:
 - i. Enter the following command: `ssh admin@grid_node_IP`
 - ii. Enter the password listed in the `Passwords.txt` file.
 - iii. Enter the following command to switch to root: `su -`
 - iv. Enter the password listed in the `Passwords.txt` file.
 - b. Repeat these steps to configure the audit shares for each additional Admin Node.
 - c. Close the remote secure shell login to the remote Admin Node: `exit`
9. Log out of the command shell: `exit`

Change the IP address of an NFS audit client

Complete these steps if you need to change the IP address of an NFS audit client.

Steps

1. Add a new IP address to an existing NFS audit share.
2. Remove the original IP address.

Related information

- [Add an NFS audit client to an audit share](#)
- [Remove an NFS audit client from the audit share](#)

Copyright Information

Copyright © 2022 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.

RESTRICTED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.277-7103 (October 1988) and FAR 52-227-19 (June 1987).

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.