



# **CLI change events that can be audited**

## **ONTAP 9**

NetApp  
November 12, 2022

# Table of Contents

- CLI change events that can be audited . . . . . 1
  - CLI change events that can be audited overview . . . . . 1
  - Manage file-share event. . . . . 4
  - Manage audit-policy-change event . . . . . 4
  - Manage user-account event. . . . . 5
  - Manage security-group event. . . . . 7
  - Manage authorization-policy-change event . . . . . 8

# CLI change events that can be audited

## CLI change events that can be audited overview

ONTAP can audit certain CLI change events, including certain SMB-share events, certain audit policy events, certain local security group events, local user group events, and authorization policy events. Understanding which change events can be audited is helpful when interpreting results from the event logs.

You can manage storage virtual machine (SVM) auditing CLI change events by manually rotating the audit logs, enabling or disabling auditing, displaying information about auditing change events, modifying auditing change events, and deleting auditing change events.

As an administrator, if you execute any command to change configuration related to the SMB-share, local user-group, local security-group, authorization-policy, and audit-policy events, a record generates and the corresponding event gets audited:

Auditing Category	Events	Event IDs	Run this command...
Mhost Auditing	policy-change	[4719] Audit configuration changed	<code>vserver audit disable enable modify</code>
	file-share	[5142] Network share was added	<code>vserver cifs share create</code>
		[5143] Network share was modified	<code>vserver cifs share modify vserver cifs share create modify delete vserver cifs share add remove</code>
		[5144] Network share deleted	<code>vserver cifs share delete</code>



	Rename	and-groups local-user rename
security-group	[4731] Local Security Group created	vserver cifs users-and-groups local-group create vserver services name-service unix-group create
	[4734] Local Security Group deleted	vserver cifs users-and-groups local-group delete vserver services name-service unix-group delete
	[4735] Local Security Group Modified	vserver cifs users-and-groups local-group rename modify vserver services name-service unix-group modify
	[4732] User added to Local Group	vserver cifs users-and-groups local-group add-members vserver services name-service unix-group adduser
	[4733] User Removed from Local Group	vserver cifs users-and-groups local-group remove-members vserver services name-service unix-group deluser
authorization-policy-change	[4704] User Rights Assigned	vserver cifs users-and-groups privilege add-privilege
	[4705] User Rights Removed	vserver cifs users-and-groups privilege remove-privilege reset-privilege

## Manage file-share event

When a file-share event is configured for a storage virtual machine (SVM) and an audit is enabled, audit events are generated. The file-share events are generated when the SMB network share is modified using `vserver cifs share` related commands.

The file-share events with the event-ids 5142, 5143, and 5144 are generated when a SMB network share is added, modified, or deleted for the SVM. The SMB network share configuration is modified using the `cifs share access control create|modify|delete` commands.

The following example displays a file-share event with the ID 5143 is generated, when a share object called 'audit\_dest' is created:

```
netapp-clus1::*> cifs share create -share-name audit_dest -path
/audit_dest
- System
  - Provider
    [ Name]   NetApp-Security-Auditing
    [ Guid]   {3CB2A168-FE19-4A4E-BDAD-DCF422F13473}
    EventID 5142
    EventName Share Object Added
    ...
    ...
    ShareName audit_dest
    SharePath /audit_dest
    ShareProperties oplocks;browsable;changenotify;show-previous-versions;
    SD O:BAG:S-1-5-21-2447422786-1297661003-4197201688-513D: (A;;FA;;;WD)
```

## Manage audit-policy-change event

When an audit-policy-change event is configured for a storage virtual machine (SVM) and an audit is enabled, audit events are generated. The audit-policy-change events are generated when an audit policy is modified using `vserver audit` related commands.

The audit-policy-change event with the event-id 4719 is generated whenever an audit policy is disabled, enabled, or modified and helps to identify when a user attempts to disable auditing to cover the tracks. It is configured by default and requires diagnostic privilege to disable.

The following example displays an audit-policy change event with the ID 4719 generated, when an audit is disabled:

```
netapp-clus1::*> vserver audit disable -vserver vserver_1
- System
  - Provider
    [ Name]   NetApp-Security-Auditing
    [ Guid]   {3CB2A168-FE19-4A4E-BDAD-DCF422F13473}
    EventID  4719
    EventName Audit Disabled
    ...
    ...
    SubjectUserName admin
    SubjectUserSid 65533-1001
    SubjectDomainName ~
    SubjectIP console
    SubjectPort
```

## Manage user-account event

When a user-account event is configured for a storage virtual machine (SVM) and an audit is enabled, audit events are generated.

The user-account events with event-ids 4720, 4722, 4724, 4725, 4726, 4738, and 4781 are generated when a local SMB or NFS user is created or deleted from the system, local user account is enabled, disabled or modified, and local SMB user password is reset or changed. The user-account events are generated when a user account is modified using `vserver cifs users-and-groups <local user>` and `vserver services name-service <unix user>` commands.

The following example displays a user account event with the ID 4720 generated, when a local SMB user is created:

```

netapp-clus1::~*> vserver cifs users-and-groups local-user create -user
-name testuser -is-account-disabled false -vserver vserver_1
Enter the password:
Confirm the password:

- System
- Provider
  [ Name]   NetApp-Security-Auditing
  [ Guid]   {3CB2A168-FE19-4A4E-BDAD-DCF422F13473}
EventID 4720
EventName Local Cifs User Created
...
...
TargetUserName testuser
TargetDomainName NETAPP-CLUS1
TargetSid S-1-5-21-2447422786-1297661003-4197201688-1003
TargetType CIFS
DisplayName testuser
PasswordLastSet 1472662216
AccountExpires NO
PrimaryGroupId 513
UserAccountControl %%0200
SidHistory ~
PrivilegeList ~

```

The following example displays a user account event with the ID 4781 generated, when the local SMB user created in the preceding example is renamed:



```

netapp-clus1::*> vserver cifs users-and-groups local-user rename -user
-name testuser -new-user-name testuser1
- System
- Provider
  [ Name]   NetApp-Security-Auditing
  [ Guid]   {3CB2A168-FE19-4A4E-BDAD-DCF422F13473}
  EventID  4781
  EventName Local Cifs User Renamed
  ...
  ...
  OldTargetUserName testuser
  NewTargetUserName testuser1
  TargetDomainName NETAPP-CLUS1
  TargetSid S-1-5-21-2447422786-1297661003-4197201688-1000
  TargetType CIFS
  SidHistory ~
  PrivilegeList ~

```

## Manage security-group event

When a security-group event is configured for a storage virtual machine (SVM) and an audit is enabled, audit events are generated.

The security-group events with event-ids 4731, 4732, 4733, 4734, and 4735 are generated when a local SMB or NFS group is created or deleted from the system, and local user is added or removed from the group. The security-group-events are generated when a user account is modified using `vserver cifs users-and-groups <local-group>` and `vserver services name-service <unix-group>` commands.

The following example displays a security group event with the ID 4731 generated, when a local UNIX security group is created:

```

netapp-clus1::*> vserver services name-service unix-group create -name
testunixgroup -id 20
- System
- Provider
  [ Name]   NetApp-Security-Auditing
  [ Guid]   {3CB2A168-FE19-4A4E-BDAD-DCF422F13473}
  EventID  4731
  EventName Local Unix Security Group Created
  ...
  ...
  SubjectUserName admin
  SubjectUserSid 65533-1001
  SubjectDomainName ~
  SubjectIP console
  SubjectPort
  TargetUserName testunixgroup
  TargetDomainName
  TargetGid 20
  TargetType NFS
  PrivilegeList ~
  GidHistory ~

```

## Manage authorization-policy-change event

When authorization-policy-change event is configured for a storage virtual machine (SVM) and an audit is enabled, audit events are generated.

The authorization-policy-change events with the event-ids 4704 and 4705 are generated whenever the authorization rights are granted or revoked for an SMB user and SMB group. The authorization-policy-change events are generated when the authorization rights are assigned or revoked using `vserver cifs users-and-groups privilege` related commands.

The following example displays an authorization policy event with the ID 4704 generated, when the authorization rights for a SMB user group are assigned:

```
netapp-clus1::*> vserver cifs users-and-groups privilege add-privilege
-user-or-group-name testcifslocalgroup -privileges *
- System
- Provider
  [ Name]   NetApp-Security-Auditing
  [ Guid]   {3CB2A168-FE19-4A4E-BDAD-DCF422F13473}
  EventID  4704
  EventName User Right Assigned
  ...
  ...
  TargetUserOrGroupName testcifslocalgroup
  TargetUserOrGroupDomainName NETAPP-CLUS1
  TargetUserOrGroupSid S-1-5-21-2447422786-1297661003-4197201688-1004;
  PrivilegeList
  SeTcbPrivilege;SeBackupPrivilege;SeRestorePrivilege;SeTakeOwnershipPrivile
ge;SeSecurityPrivilege;SeChangeNotifyPrivilege;
  TargetType CIFS
```

## 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.

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.