



## **vserver audit commands**

ONTAP 9.9.1 commands

NetApp  
February 12, 2024

# Table of Contents

vserver audit commands .....	1
vserver audit create .....	1
vserver audit delete .....	3
vserver audit disable .....	4
vserver audit enable .....	4
vserver audit modify .....	5
vserver audit prepare-to-downgrade .....	7
vserver audit rotate-log .....	8
vserver audit show .....	8
vserver audit audit-log-redirect create .....	11
vserver audit audit-log-redirect delete .....	12
vserver audit audit-log-redirect modify .....	12
vserver audit audit-log-redirect show .....	13

# vserver audit commands

## vserver audit create

Create an audit configuration

**Availability:** This command is available to *cluster* and Vserver administrators at the *admin* privilege level.

### Description

The vserver audit create command creates an audit configuration for a Vserver.

When you create an audit configuration, you can also specify the rotation method. By default, the audit log is rotated based on size.

You can use the time-based rotation parameters in any combination (`-rotate-schedule-month`, `-rotate-schedule-dayofweek`, `-rotate-schedule-day`, `-rotate-schedule-hour`, and `-rotate-schedule-minute`). The `-rotate-schedule-minute` parameter is mandatory. All other time-based rotation parameters are optional.

The rotation schedule is calculated by using all the time-related values. For example, if you specify only the `-rotate-schedule-minute` parameter, the audit log files are rotated based on the minutes specified on all days of the week, during all hours on all months of the year. If you specify only one or two time-based rotation parameters (say `-rotate-schedule-month` and `-rotate-schedule-minutes`), the log files are rotated based on the minute values that you specified on all days of the week, during all hours, but only during the specified months. For example, you can specify that the audit log is to be rotated during the months January, March, and August on all Mondays, Wednesdays, and Saturdays at 10:30.

If you specify values for both `-rotate-schedule-dayofweek` and `-rotate-schedule-day`, they are considered independently. For example if you specify `-rotate-schedule-dayofweek` as Friday and `-rotate-schedule-day` as 13 then the audit logs would be rotated on every Friday and on the 13th day of the specified month, not just on every Friday the 13th.

### Parameters

#### **-vserver <vserver name>** - Vserver

This parameter specifies the name of the Vserver on which to create the audit configuration. The Vserver must already exist.

#### **-destination <text>** - Log Destination Path

This parameter specifies the audit log destination path where consolidated audit logs are stored. If the path is not valid, the command fails. The path can be up to 864 characters in length and must have read-write permissions.

#### **[-events {file-ops|cifs-logon-logoff|cap-staging|file-share|audit-policy-change|user-account|authorization-policy-change|security-group}]** - Categories of Events to Audit

This parameter specifies the categories of events to be audited. Supported event categories are: file access events (both CIFS and NFS), CIFS logon and logoff events, Central Access Policy(CAP) staging events, File share events, Audit policy change events, Local User Account Management Events, Local Security Group Management Events and Authorization Policy Change Events. The corresponding parameter values

are: *file-ops*, *cifs-logon-logoff*, *cap-staging*, *file-share*, *audit-policy-change*, *user-account*, *security-group* and *authorization-policy-change*. By default, *file-ops*, *cifs-logon-logoff* and *audit-policy-change* events are enabled. The support for *audit-policy-change* event can be modified from diag prompt using [vserver audit modify](#) command.

#### **[-format {xml|evtx}] - Log Format**

This parameter specifies the output format of the audit logs. The output format can be either Data ONTAP-specific XML or Microsoft Windows EVTX log format. By default, the output format is EVTX.

#### **[-rotate-size {<size>|-}] - Log File Size Limit**

This parameter specifies the audit log file size limit. By default, the audit log is rotated based on size. The default audit log size is 100 MB.

#### **[-rotate-schedule-month <cron\_month>, ...] - Log Rotation Schedule: Month**

This parameter specifies the monthly schedule for rotating the audit log. For example, you can specify that the audit log is to be rotated during the months January, March, and August, or during all the months. Valid values are January, February, March, April, May, June, July, August, September, October, November, December, and all. Specify "all" to rotate the audit logs every month.

#### **[-rotate-schedule-dayofweek <cron\_dayofweek>, ...] - Log Rotation Schedule: Day of Week**

This parameter specifies the daily (day of the week) schedule for rotating the audit log. For example, you can specify that the audit log is to be rotated on Tuesdays and Fridays, or during all the days of a week. Valid values are Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, and all. Specify "all" to rotate the audit logs every day.

#### **[-rotate-schedule-day <cron\_dayofmonth>, ...] - Log Rotation Schedule: Day**

This parameter specifies the day of the month schedule for rotating the audit log. For example, you can specify that the audit log is to be rotated on the 10th and 20th days of a month, or all days of a month. Valid values range from 1 to 31.

#### **[-rotate-schedule-hour <cron\_hour>, ...] - Log Rotation Schedule: Hour**

This parameter specifies the hourly schedule for rotating the audit log. For example, you can specify that the audit log is to be rotated at 6 a.m and 10 a.m. Valid values range from 0 (midnight) to 23 (11:00 p.m.). Specify "all" to rotate the audit logs every hour.

#### **[-rotate-schedule-minute <cron\_minute>, ...] - Log Rotation Schedule: Minute**

This parameter specifies the minute schedule for rotating the audit log. For example, you can specify that the audit log is to be rotated at the 30th minute. Valid values range from 0 to 59.

#### **{ [-rotate-limit <integer>] - Log Files Rotation Limit**

This parameter specifies the audit log files rotation limit. A value of 0 indicates that all the log files are retained. The default value is 0. For example, if you enter a value of 5, the last five audit logs are retained.

#### **| [-retention-duration <[<integer>d]<integer>h]<integer>m]<integer>s]>] - Log Retention Duration }**

This parameter specifies the audit log files retention duration. A value of 0s indicates that all the log files are retained. The default value is 0s. For example, if you enter a value of 5d0h0m, logs more than 5 days old are deleted.

## Examples

The following examples create an audit configuration for Vserver vs1 using size-based rotation.

```
cluster1::> vserver audit create -vserver vs1 -destination /audit_log  
-rotate-size 10MB -rotate-limit 5
```

+ +

The following example creates an audit configuration for Vserver vs1 using time-based rotation. The audit logs are rotated monthly, all days of the week, at 12:30.

```
cluster1::> vserver audit create -vserver vs1 -destination /audit_log  
-rotate-schedule-month all -rotate-schedule-dayofweek all -rotate-schedule  
-hour 12 -rotate-schedule-minute 30
```

The following example creates an audit configuration for Vserver vs1 using time-based rotation. The audit logs are rotated in January, March, May, July, September, and November on Monday, Wednesday, and Friday, at 6:15, 6:30, 6:45, 12:15, 12:30, 12:45, 18:15, 18:30, and 18:45. The last 6 audit logs are retained.

```
cluster1::> vserver audit create -vserver vs1 -destination /audit_log  
-rotate-schedule-month January,March,May,July,September,November -rotate  
-schedule-dayofweek Monday,Wednesday,Friday -rotate-schedule-hour 6,12,18  
-rotate-schedule-minute 15,30,45 -rotate-limit 6
```

The following example creates an audit configuration for Vserver vs1 for auditing CIFS and NFS file access events in the output log format EVTX.

```
cluster1::> vserver audit create -vserver vs1 -destination /audit_log  
-format evtx -events file-ops
```

## Related Links

- [vserver audit modify](#)

## vserver audit delete

Delete audit configuration

**Availability:** This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

## Description

The `vserver audit delete` command deletes the audit configuration for a Vserver.

## Parameters

### **-vserver <vserver name>** - Vserver

This parameter specifies the name of the Vserver associated with the audit configuration to be deleted.

### **[-force <true>]** - Force Delete (privilege: advanced)

This parameter is used to forcibly delete the audit configuration. By default the setting is `false`.

## Examples

The following example deletes the audit configuration for Vserver vs1.

```
cluster1::> vserver audit delete -vserver vs1
```

## vserver audit disable

Disable auditing

**Availability:** This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

## Description

The `vserver audit disable` command disables auditing for a Vserver.

## Parameters

### **-vserver <vserver name>** - Vserver

This parameter specifies the name of the Vserver for which auditing is to be disabled. The Vserver audit configuration must already exist.

## Examples

The following example disables auditing for Vserver vs1.

```
cluster1::> vserver audit disable -vserver vs1
```

## vserver audit enable

Enable auditing

**Availability:** This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

## Description

The vserver audit enable command enables auditing for a Vserver.

## Parameters

### **-vserver <vserver name>** - Vserver

This parameter specifies the name of the Vserver for which auditing is to be enabled. The Vserver audit configuration must already exist.

### **[ -force <true> ]** - Force Enable (privilege: advanced)

This parameter is used to ignore errors while enabling auditing.

## Examples

The following example enables auditing for Vserver vs1:

```
cluster1::> vserver audit enable -vserver vs1
```

## vserver audit modify

### Modify the audit configuration

**Availability:** This command is available to *cluster* and Vserver administrators at the *admin* privilege level.

## Description

The vserver audit modify command modifies an audit configuration for a Vserver.

## Parameters

### **-vserver <vserver name>** - Vserver

This parameter specifies the name of the Vserver for which the audit configuration is to be modified. The Vserver audit configuration must already exist.

If you have configured time-based rotation, modifying one parameter of time-based rotation schedule does not affect the other parameters. For example, if the rotation schedule is set to run at Monday 12:30 a.m., and you modify the *-rotate-schedule-dayofweek* parameter to Monday,Wednesday,Friday, the new rotation-schedule rotates the audit logs on Monday, Wednesday, and Friday at 12:30 a.m. To clear time-based rotation parameters, you must explicitly set that portion to "-". Some time-based parameters can also be set to "all".

### **[ -destination <text> ]** - Log Destination Path

This parameter specifies the audit log destination path where consolidated audit logs are stored. If the path is not valid, the command fails. The path can be up to 864 characters in length and must have read-write permissions.

**[-events {file-ops|cifs-logon-logoff|cap-staging|file-share|audit-policy-change|user-account|authorization-policy-change|security-group}] - Categories of Events to Audit**

This parameter specifies the categories of events to be audited. Supported event categories are: file access events (both CIFS and NFS), CIFS logon and logoff events, Central Access Policy(CAP) staging events, File share events, Audit policy change events, Local User Account Management Events, Local Security Group Management Events and Authorization Policy Change Events. The corresponding parameter values are: *file-ops*, *cifs-logon-logoff*, *cap-staging*, *file-share*, *audit-policy-change*, *user-account*, *security-group* and *authorization-policy-change*. By default, *file-ops*, *cifs-logon-logoff* and *audit-policy-change* events are enabled

**[-format {xml|evtx}] - Log Format**

This parameter specifies the output format of the audit logs. The output format can be either Data ONTAP-specific XML or Microsoft Windows EVTX log format. By default, the output format is EVTX.

**[-rotate-size {<size>|-}] - Log File Size Limit**

This parameter specifies the audit log file size limit. By default, the audit log is rotated based on size. The default audit log size is 100 MB.

**[-rotate-schedule-month <cron\_month>, ...] - Log Rotation Schedule: Month**

This parameter specifies the monthly schedule for rotating the audit log. For example, you can specify that the audit log is to be rotated during the months January, March, and August, or during all the months. Valid values are January, February, March, April, May, June, July, August, September, October, November, December, and all. Specify "all" to rotate the audit logs every month.

**[-rotate-schedule-dayofweek <cron\_dayofweek>, ...] - Log Rotation Schedule: Day of Week**

This parameter specifies the daily (day of the week) schedule for rotating the audit log. For example, you can specify that the audit log is to be rotated on Tuesdays and Fridays, or during all the days of a week. Valid values are Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, and all. Specify "all" to rotate the audit logs every day.

**[-rotate-schedule-day <cron\_dayofmonth>, ...] - Log Rotation Schedule: Day**

This parameter specifies the day of the month schedule for rotating the audit log. For example, you can specify that the audit log is to be rotated on the 10th and 20th days of a month, or all days of a month. Valid values range from 1 to 31.

**[-rotate-schedule-hour <cron\_hour>, ...] - Log Rotation Schedule: Hour**

This parameter specifies the hourly schedule for rotating the audit log. For example, you can specify that the audit log is to be rotated at 6 a.m and 10 a.m. Valid values range from 0 (midnight) to 23 (11:00 p.m.). Specify "all" to rotate the audit logs every hour.

**[-rotate-schedule-minute <cron\_minute>, ...] - Log Rotation Schedule: Minute**

This parameter specifies the minute schedule for rotating the audit log. For example, you can specify that the audit log is to be rotated at the 30th minute. Valid values range from 0 to 59.

**{ [-rotate-limit <integer>] - Log Files Rotation Limit**

This parameter specifies the audit log files rotation limit. A value of 0 indicates that all the log files are retained. The default value is 0.

```
| [-retention-duration <[<integer>d]<[<integer>h]<[<integer>m]<[<integer>s]>] -Log  
Retention Duration }
```

This parameter specifies the audit log files retention duration. A value of 0s indicates that all the log files are retained. For example, if you enter a value of 5d0h0m0s, logs more than 5 days old are deleted.

## Examples

The following example modifies the rotate-size and rotate-limit field for Vserver vs1.

```
cluster1::> vserver audit modify -vserver vs1 -rotate-size 10MB -rotate  
-limit 3
```

The following example modifies an audit configuration for Vserver vs1 using the time-based rotation method. The audit logs are rotated monthly, all days of the week, at 12:30.

```
cluster1::> vserver audit modify -vserver vs1 -destination /audit_log  
-rotate-schedule-month all -rotate-schedule-dayofweek all -rotate-schedule  
-hour 12 -rotate-schedule-minute 30
```

The following example modifies an audit configuration for Vserver vs1 for auditing CIFS and NFS file access events in the output log format EVTX.

```
cluster1::> vserver audit modify -vserver vs1 -format evtx -events file-  
ops
```

## vserver audit prepare-to-downgrade

Restore the Audit configuration to Earlier Release of Data ONTAP

**Availability:** This command is available to *cluster* administrators at the *advanced* privilege level.

### Description

The `vserver audit prepare-to-downgrade` command restores the Audit configurations for ONTAP based on the input parameter `disable-feature-set`.

### Parameters

**-disable-feature-set <downgrade version>** - Data ONTAP Version (privilege: advanced)

This parameter specifies the ONTAP version that introduced the new Audit features and needs to be removed. The value can be one of the following:

- 9.0.0 - Disables the Audit features introduced in the ONTAP release 9.0.0. The following events are removed from the event list:
  - File share event. The corresponding parameter value is *file-share*.

- Audit policy change event. The corresponding parameter value is *audit-policy-change* .
- Local user account management event. The corresponding parameter value is *user-account* .
- Local security group management event. The corresponding parameter value is *security-group* .
- Authorization policy change event. The corresponding parameter value is *authorization-policy-change* .

## Examples

```
cluster1::> vserver audit prepare-to-downgrade -disable-feature-set 9.0.0
```

## vserver audit rotate-log

Rotate audit log

**Availability:** This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

### Description

The `vserver audit rotate-log` command rotates audit logs for a Vserver.

### Parameters

#### **-vserver <vserver name>** - Vserver

This parameter specifies the name of the Vserver for which audit logs are to be rotated. The Vserver audit configuration must already exist. Auditing must be enabled for the Vserver.

## Examples

The following example rotates audit logs for Vserver vs1.

```
cluster1::> vserver audit rotate-log -vserver vs1
```

## vserver audit show

Display the audit configuration

**Availability:** This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

### Description

The `vserver audit show` command displays audit configuration information about Vservers. The command output depends on the parameter or parameters specified with the command. If you do not specify any parameters, the command displays the following information about all the Vservers:

- Vserver name

- Audit state
- Target directory

You can specify the **-fields** parameter to specify which audit configuration information to display about Vservers. + You can specify additional parameters to display only information that matches those parameters. For instance, to display information about the log file rotation size of a Vserver whose value matches 10 MB, run the command with the **-rotate-size 10MB** parameter.

You can specify the **-instance** parameter to display audit configuration information for all Vservers in list form.

## Parameters

**{ [-fields <fieldname>, ...]**

If you specify the **-fields <fieldname>, ...** parameter, the command only displays the fields that you specify.

**| [-log-save-details ]**

You can specify the **-log-save-details** parameter to display the following information about all the Vservers:

- Vserver name
- Rotation file size
- Rotation schedules
- Rotation limit

**| [-instance ] }**

If you specify the **-instance** parameter, the command displays detailed information about all entries.

**[-vserver <vserver name>] - Vserver**

If you specify this parameter, the command displays information about the specified Vserver.

**[-state {true|false}] - Auditing State**

If you specify this parameter, the command displays information about the Vservers that use the specified audit state value.

**[-destination <text>] - Log Destination Path**

If you specify this parameter, the command displays information about the Vservers that use the specified destination path.

**[-events {file-ops|cifs-logon-logoff|cap-staging|file-share|audit-policy-change|user-account|authorization-policy-change|security-group}] - Categories of Events to Audit**

If you specify this parameter, the command displays information about the Vservers that use the specified category of events that are audited. Valid values are *file-ops*, *cifs-logon-logoff*, *cap-staging*, *file-share*, *audit-policy-change*, *user-account*, *security-group* and *authorization-policy-change*. *audit-policy-change* will appear only in diag mode.

**[-format {xml|evttx}] - Log Format**

If you specify this parameter, the command displays information about the Vservers that use the specified

log format.

#### **[-rotate-size {<size>}|-}] - Log File Size Limit**

If you specify this parameter, the command displays information about the Vservers that use the specified log file rotation size.

#### **[-rotate-schedule-month <cron\_month>, ...] - Log Rotation Schedule: Month**

If you specify this parameter, the command displays information about the Vservers that use the specified month of the time-based log rotation scheme. Valid values are January, February, March, April, May, June, July, August, September, October, November, and December.

#### **[-rotate-schedule-dayofweek <cron\_dayofweek>, ...] - Log Rotation Schedule: Day of Week**

If you specify this parameter, the command displays information about the Vservers that use the specified day of the week of the time-based log rotation scheme. Valid values are Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday.

#### **[-rotate-schedule-day <cron\_dayofmonth>, ...] - Log Rotation Schedule: Day**

If you specify this parameter, the command displays information about the Vservers that use the specified day of the month of the time-based log rotation scheme. Valid values range from 1 to 31.

#### **[-rotate-schedule-hour <cron\_hour>, ...] - Log Rotation Schedule: Hour**

If you specify this parameter, the command displays information about the Vservers that use the specified hour of the time-based log rotation scheme. Valid values range from 0 (midnight) to 23 (11:00 p.m.).

#### **[-rotate-schedule-minute <cron\_minute>, ...] - Log Rotation Schedule: Minute**

If you specify this parameter, the command displays information about the Vservers that use the specified minute of the time-based log rotation scheme. Valid values range from 0 to 59.

#### **[-rotate-schedule-description <text>] - Rotation Schedules**

If you specify this parameter, the command displays information about the Vservers that use the specified rotation schedules. This field is derived from the rotate-time fields.

#### **[-rotate-limit <integer>] - Log Files Rotation Limit**

If you specify this parameter, the command displays information about the Vservers that use the specified rotation limit value.

#### **[-retention-duration <[<integer>d] [<integer>h] [<integer>m] [<integer>s]>] - Log Retention Duration**

If you specify this parameter, the command displays information about the Vservers audit logs retention duration.

## **Examples**

The following example displays the name, audit state, event types, log format, and target directory for all Vservers.

```

cluster1::> vserver audit show
Vserver      State   Event Types Log Format Target Directory
-----
vs1          false   file-ops    evtx      /audit_log

```

The following example displays the Vserver names and details about the audit log for all Vservers.

```

cluster1::> vserver audit show -log-save-details
Rotation           Rotation
Vserver      File Size Rotation Schedule     Limit
-----
vs1          100MB      -                  0

```

The following example displays in list form all audit configuration information about all Vservers.

```

cluster1::> vserver audit show -instance
Vserver: vs1
          Auditing state: true
          Log Destination Path: /audit_log
          Categories of Events to Audit: file-ops
          Log Format: evtx
          Log File Size Limit: 100MB
          Log Rotation Schedule: Month: -
          Log Rotation Schedule: Day of Week: -
          Log Rotation Schedule: Day: -
          Log Rotation Schedule: Hour: -
          Log Rotation Schedule: Minute: -
          Rotation Schedules: -
          Log Files Rotation Limit: 0
          Log Retention Time: 0s

```

## vserver audit audit-log-redirect create

Create Audit Log Redirect Vserver destination

**Availability:** This command is available to *cluster* administrators at the *advanced* privilege level.

### Description

The `vserver audit audit-log-redirect create` command creates an audit log redirect configuration to designate a dedicated Vserver for all audit logs in a cluster to reside in.

## Parameters

**-vserver <vserver name>** - Audit Log Redirect Vserver (privilege: advanced)

Use this parameter to specify a dedicated Vserver for all audit logs to reside in.

## Examples

The following example causes all audit logs in a cluster to be redirected to `vserver1`:

```
cluster1::> vserver audit audit-log-redirect create -vserver vserver1
```

## vserver audit audit-log-redirect delete

Delete Audit Log Redirect Vserver destination

**Availability:** This command is available to *cluster* administrators at the *advanced* privilege level.

## Description

The `vserver audit audit-log-redirect delete` command deletes the dedicated Vserver for all audit logs in a cluster to reside in.

## Examples

The following example delete the audit-log-redirect Vserver.

```
cluster1::> vserver audit audit-log-redirect delete
```

## vserver audit audit-log-redirect modify

Modify Audit Log Redirect Vserver destination

**Availability:** This command is available to *cluster* administrators at the *advanced* privilege level.

## Description

The `vserver audit audit-log-redirect modify` command changes the dedicated Vserver for all audit logs in a cluster to reside in.

## Parameters

**[-vserver <vserver name>]** - Audit Log Redirect Vserver (privilege: advanced)

Use this parameter to specify a dedicated Vserver for all audit logs to reside in.

## Examples

The following example modify the current audit-log-redirect Vserver to `vserver1` :

```
cluster1::> vserver audit audit-log-redirect modify -vserver vserver1
```

## vserver audit audit-log-redirect show

Display Audit Log Redirect Vserver destination

**Availability:** This command is available to *cluster* administrators at the *advanced* privilege level.

## Description

The `vserver audit audit-log-redirect show` command displays the dedicated Vserver for all audit logs in a cluster to reside in.

## Examples

The following example displays the audit-log-redirect Vserver:

```
cluster1::> vserver audit audit-log-redirect show
Audit Log Redirect Vserver: vserver1
```

## **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—with 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.