



Set the retention time

ONTAP 9

NetApp
November 30, 2022

Table of Contents

- Set the retention time 1
 - Set the retention time overview 1
 - Set the retention time for a file explicitly 2
 - Set the default retention period 2

Set the retention time

Set the retention time overview

You can set the retention time for a file explicitly, or you can use the default retention period for the volume to derive the retention time. Unless you set the retention time explicitly, SnapLock uses the default retention period to calculate the retention time.

About retention period and retention time

The *retention period* for a WORM file specifies the length of time the file must be retained after it is committed to the WORM state. The *retention time* for a WORM file is the time after which the file no longer needs to be retained. A retention period of 20 years for a file committed to the WORM state on 10 November 2020 6:00 a.m., for example, would yield a retention time of 10 November 2040 6:00 a.m.



Beginning with ONTAP 9.10.1, you can set a retention time up to October 26, 3058 and a retention period up to 100 years. When you extend retention dates, older policies are converted automatically. In ONTAP 9.9.1 and earlier releases, unless you set the default retention period to infinite, the maximum supported retention time is January 19 2071 (GMT).

Important replication considerations

When establishing a SnapMirror relationship with a SnapLock source volume using a retention date later than January 19th 2071 (GMT), the destination cluster must be running ONTAP 9.10.1 or later or the SnapMirror transfer will fail.

Important revert considerations

ONTAP prevents you from reverting a cluster from ONTAP 9.10.1 to an earlier ONTAP version when there are any files with a retention period later than “January 19, 2071 8:44:07 AM”.

Understanding the default retention periods

A SnapLock Compliance or Enterprise volume has four retention periods:

- Minimum retention period (`min`), with a default of 0
- Maximum retention period (`max`), with a default of 30 years
- Default retention period, with a default equal to `min` for both Compliance mode and Enterprise mode beginning with ONTAP 9.10.1. In ONTAP releases earlier than ONTAP 9.10.1, the default retention period depends on the mode:
 - For Compliance mode, the default is equal to `max`.
 - For Enterprise mode, the default is equal to `min`.

- Unspecified retention period.

Beginning with ONTAP 9.8, you can set the retention period on files in a volume to `unspecified`, to enable the file to be retained until you set an absolute retention time. You can set a file with absolute retention time to unspecified retention and back to absolute retention as long as the new absolute retention time is later than the absolute time you previously set.

Beginning with ONTAP 9.12.1, WORM files with the retention period set to `unspecified` are guaranteed to have a retention period set to the minimum retention period configured for the SnapLock volume. When you change the file retention period from `unspecified` to an absolute retention time, the new retention time specified must be greater than the minimum retention time already set on the file.

So, if you do not set the retention time explicitly before committing a Compliance-mode file to the WORM state, and you do not modify the defaults, the file will be retained for 30 years. Similarly, if you do not set the retention time explicitly before committing an Enterprise-mode file to the WORM state, and you do not modify the defaults, the file will be retained for 0 years, or, effectively, not at all.

Set the retention time for a file explicitly

You can set the retention time for a file explicitly by modifying its last access time. You can use any suitable command or program over NFS or CIFS to modify the last access time.

About this task

After a file has been committed to WORM, you can extend but not shorten the retention time. The retention time is stored in the `atime` field for the file.



You cannot explicitly set the retention time of a file to `infinite`. That value is only available when you use the default retention period to calculate the retention time.

Steps

1. Use a suitable command or program to modify the last access time for the file whose retention time you want to set.

In a UNIX shell, use the following command to set a retention time of 21 November 2020 6:00 a.m. on a file named `document.txt`:

```
touch -a -t 202011210600 document.txt
```



You can use any suitable command or program to modify the last access time in Windows.

Set the default retention period

You can use the `volume snaplock modify` command to set the default retention period for files on a SnapLock volume.

What you'll need

The SnapLock volume must be online.

About this task

The following table shows the possible values for the default retention period option:



The default retention period must be greater than or equal to (\geq) the minimum retention period and less than or equal to (\leq) the maximum retention period.

Value	Unit	Notes
0 - 65535	seconds	
0 - 24	hours	
0 - 365	days	
0 - 12	months	
0 - 100	years	Beginning with ONTAP 9.10.1. For earlier ONTAP releases, the value is 0 - 70.
max	-	Use the maximum retention period.
min	-	Use the minimum retention period.
infinite	-	Retain the files forever.
unspecified	-	Retain the files until an absolute retention period is set.

The values and ranges for the maximum and minimum retention periods are identical, except for `max` and `min`, which are not applicable. For more information about this task, see [Set the retention time overview](#).

You can use the `volume snaplock show` command to view the retention period settings for the volume. For more information, see the man page for the command.



After a file has been committed to the WORM state, you can extend but not shorten the retention period.

Steps

1. Set the default retention period for files on a SnapLock volume:

```
volume snaplock modify -vserver SVM_name -volume volume_name -default  
-retention-period default_retention_period -minimum-retention-period  
min_retention_period -maximum-retention-period max_retention_period
```

For a complete list of options, see the man page for the command.



The following examples assume that the minimum and maximum retention periods have not been modified previously.

The following command sets the default retention period for a Compliance or Enterprise volume to 20 days:

```
cluster1::> volume snaplock modify -vserver vs1 -volume vol1 -default  
-retention-period 20days
```

The following command sets the default retention period for a Compliance volume to 70 years:

```
cluster1::> volume snaplock modify -vserver vs1 -volume vol1 -maximum  
-retention-period 70years
```

The following command sets the default retention period for an Enterprise volume to 10 years:

```
cluster1::> volume snaplock modify -vserver vs1 -volume vol1 -default  
-retention-period max -maximum-retention-period 10years
```

The following commands set the default retention period for an Enterprise volume to 10 days:

```
cluster1::> volume snaplock modify -vserver vs1 -volume vol1 -minimum  
-retention-period 10days  
cluster1::> volume snaplock modify -vserver vs1 -volume vol1 -default  
-retention-period min
```

The following command sets the default retention period for a Compliance volume to infinite:

```
cluster1::> volume snaplock modify -vserver vs1 -volume vol1 -default  
-retention-period infinite -maximum-retention-period infinite
```

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.