



# **Manage jobs and schedules**

ONTAP 9

NetApp  
April 21, 2023

# Table of Contents

- Manage jobs and schedules. . . . . 1
  - Job categories . . . . . 1
  - Commands for managing jobs . . . . . 1
  - Commands for managing job schedules . . . . . 3

# Manage jobs and schedules

## Job categories

There are three categories of jobs that you can manage: server-affiliated, cluster-affiliated, and private.

A job can be in any of the following categories:

- **Server-Affiliated jobs**

These jobs are queued by the management framework to a specific node to be run.

- **Cluster-Affiliated jobs**

These jobs are queued by the management framework to any node in the cluster to be run.

- **Private jobs**

These jobs are specific to a node and do not use the replicated database (RDB) or any other cluster mechanism. The commands that manage private jobs require the advanced privilege level or higher.

## Commands for managing jobs

Jobs are placed into a job queue and run in the background when resources are available. If a job is consuming too many cluster resources, you can stop it or pause it until there is less demand on the cluster. You can also monitor and restart jobs.

When you enter a command that invokes a job, typically, the command informs you that the job has been queued and then returns to the CLI command prompt. However, some commands instead report job progress and do not return to the CLI command prompt until the job has been completed. In these cases, you can press Ctrl-C to move the job to the background.

If you want to...	Use this command...
Display information about all jobs	<code>job show</code>
Display information about jobs on a per-node basis	<code>job show bynode</code>
Display information about cluster-affiliated jobs	<code>job show-cluster</code>
Display information about completed jobs	<code>job show-completed</code>

If you want to...	Use this command...
Display information about job history	<code>job history show</code>  Up to 25,000 job records are stored for each node in the cluster. Consequently, attempting to display the full job history could take a long time. To avoid potentially long wait times, you should display jobs by node, storage virtual machine (SVM), or record ID.
Display the list of private jobs	<code>job private show</code> (advanced privilege level)
Display information about completed private jobs	<code>job private show-completed</code> (advanced privilege level)
Display information about the initialization state for job managers	<code>job initstate show</code> (advanced privilege level)
Monitor the progress of a job	<code>job watch-progress</code>
Monitor the progress of a private job	<code>job private watch-progress</code> (advanced privilege level)
Pause a job	<code>job pause</code>
Pause a private job	<code>job private pause</code> (advanced privilege level)
Resume a paused job	<code>job resume</code>
Resume a paused private job	<code>job private resume</code> (advanced privilege level)
Stop a job	<code>job stop</code>
Stop a private job	<code>job private stop</code> (advanced privilege level)
Delete a job	<code>job delete</code>
Delete a private job	<code>job private delete</code> (advanced privilege level)
Disassociate a cluster-affiliated job with an unavailable node that owns it, so that another node can take ownership of that job	<code>job unclaim</code> (advanced privilege level)



You can use the `event log show` command to determine the outcome of a completed job.

## Commands for managing job schedules

Many tasks—for instance, volume Snapshot copies—can be configured to run on specified schedules. Schedules that run at specific times are called *cron* schedules (similar to UNIX `cron` schedules). Schedules that run at intervals are called *interval* schedules. You use the `job schedule` commands to manage job schedules.

Job schedules do not adjust to manual changes to the cluster date and time. These jobs are scheduled to run based on the current cluster time when the job was created or when the job most recently ran. Therefore, if you manually change the cluster date or time, you should use the `job show` and `job history show` commands to verify that all scheduled jobs are queued and completed according to your requirements.

If the cluster is part of a MetroCluster configuration, then the job schedules on both clusters must be identical. Therefore, if you create, modify, or delete a job schedule, you must perform the same operation on the remote cluster.

If you want to...	Use this command...
Display information about all schedules	<code>job schedule show</code>
Display the list of jobs by schedule	<code>job schedule show-jobs</code>
Display information about cron schedules	<code>job schedule cron show</code>
Display information about interval schedules	<code>job schedule interval show</code>
Create a cron schedule <sup>1</sup>	<code>job schedule cron create</code>
Create an interval schedule	<code>job schedule interval create</code>  You must specify at least one of the following parameters: <code>-days</code> , <code>-hours</code> , <code>-minutes</code> , or <code>-seconds</code> .
Modify a cron schedule	<code>job schedule cron modify</code>
Modify an interval schedule	<code>job schedule interval modify</code>
Delete a schedule	<code>job schedule delete</code>
Delete a cron schedule	<code>job schedule cron delete</code>
Delete an interval schedule	<code>job schedule interval delete</code>

<sup>1</sup>Beginning with ONTAP 9.10.1, when you create a job schedule by using the `job schedule cron create` command, you can include the Vserver for your job schedule.

**Related information**

[ONTAP 9 Commands](#)

## Copyright information

Copyright © 2023 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.