



# **qos settings commands**

## **ONTAP 9.14.1 commands**

NetApp  
February 12, 2024

# Table of Contents

- qos settings commands ..... 1
- qos settings throughput-floors-v2 ..... 1
- qos settings cache modify ..... 1
- qos settings cache show ..... 2

# qos settings commands

## qos settings throughput-floors-v2

Enable/Disable throughput floors v2 on AFF

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

### Description

The `qos settings throughput-floors-v2` command is used to enable or disable floors v2 on AFF. The default is enabled. With floors v2 enabled, throughput floors can be met when controllers are heavily utilized at the expense of higher latency on other workloads. Floors v2 applies to both QoS and Adaptive QoS.

### Parameters

**-enable {true|false} - enable or disable throughput floors v2 on AFF (privilege: advanced)**

This specifies if floors v2 is enabled or disabled. If this parameter is specified with *false* floors v2 will be disabled.

### Examples

The following example disables floors v2 on AFF.

```
cluster1::*> qos settings throughput-floors-v2 -enable false
```

## qos settings cache modify

Modify the cache policy

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

### Description

The `qos settings cache modify` command modifies the existing default caching-policy. The list of caching policies can be obtained from the `qos setting cache show -fields cache-setting` command.

### Parameters

**-cache-setting <text> - Cache Policy Name**

Valid inputs to this parameter include any one of the listed caching-policies. This command is to be used together with the default parameter. If you use this parameter, the command modifies the specified caching-policy based on the default parameter.

**[-default {true|false}] - Is Default?**

Valid inputs to this parameter are true and false. Together with cache-setting, this parameter helps set or unset a caching-policy as default.

## Examples

```
cluster1::> qos settings cache modify -default true -cache-setting
random_read_write-random_write
```

Sets caching-policy `random_read_write-random_write` as default.

## qos settings cache show

Display list of cache policies

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

### Description

The `qos settings cache show` shows the current caching-policies, class to which they belong, the number of workloads associated with each of the policies, and whether or not they are set to default. The following external-cache policies are available:

- none - Does not cache any user data or metadata blocks.
- auto - Read caches all metadata and randomly read user data blocks, and write caches all randomly overwritten user data blocks.
- all - Read caches all data blocks read and written. It does not do any write caching.
- all-random\_write - Read caches all data blocks read and written. It also write caches randomly overwritten user data blocks.
- all\_read - Read caches all metadata, randomly read, and sequentially read user data blocks.
- all\_read-random\_write - Read caches all metadata, randomly read, and sequentially read user data blocks. It also write caches randomly overwritten user data blocks.
- all\_read\_random\_write - Read caches all metadata, randomly read, sequentially read and randomly written user data.
- all\_read\_random\_write-random\_write - Read caches all metadata, randomly read, sequentially read, and randomly written user data blocks. It also write caches randomly overwritten user data blocks.
- meta - Read caches only metadata blocks.
- meta-random\_write - Read caches all metadata and write caches randomly overwritten user data blocks.
- noread-random\_write - Write caches all randomly overwritten user data blocks. It does not do any read caching.
- random\_read - Read caches all metadata and randomly read user data blocks.
- random\_read\_write - Read caches all metadata, randomly read and randomly written user data blocks.
- random\_read\_write-random\_write - Read caches all metadata, randomly read, and randomly written user data blocks. It also write caches randomly overwritten user data blocks.



Note that in a caching-policy name, a hyphen (-) separates read and write caching policies.

## Parameters

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

The input to this parameter is one of the following: {cache-setting|class|default|num-workloads}. If you use this parameter, the command displays information related to the specified input field.

**| [-instance ] }**

If you use this parameter, the command displays information about the caching-policies in a list format.

**[-cache-setting <text>] - Cache Policy Name**

The input to this parameter is any one of the above listed caching-policies. If you use this parameter, the command displays information corresponding to the specified caching-policy.

**[-class <QoS Configuration Class>] - Cache Policy Class**

The input to this parameter is one of the following: {undefined|preset|user-defined|system-defined|autovolume}. If you use this parameter, the command displays information corresponding to the specified policy-group class.

**[-default {true|false}] - Is Default?**

The input to this parameter is true and false. If you use this parameter, the command displays information corresponding to entries that have the specified default value.

**[-num-workloads <integer>] - Number Of Workloads With This Policy**

The input to this parameter is an integer. If you use this parameter, the command displays information about policy-groups matching the specified number of workloads.

## Examples

```

cluster1::> qos settings cache show
Policy Name  Class          Num Workloads  Default
-----
all          preset         0              false
all-random_write
            preset         0              false
all_read     preset         0              false
all_read-random_write
            preset         0              false
all_read_random_write
            preset         0              false
all_read_random_write-random_write
            preset         0              false
auto         preset         2              false
meta         preset         0              false
meta-random_write
            preset         0              false
none         preset         0              false
noread-random_write
            preset         0              false
random_read  preset         25             false
random_read_write
            preset         0              false
random_read_write-random_write
            preset         28             true
14 entries were displayed.

```

Shows QoS settings for the caching policies.

## 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—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.