



# **Rest API management with System Manager**

**ONTAP 9**

NetApp  
April 21, 2023

# Table of Contents

- Rest API management with System Manager ..... 1
  - Rest API management with System Manager ..... 1
  - Accessing the REST API log ..... 1

# Rest API management with System Manager

## Rest API management with System Manager

The REST API log captures the API calls that System Manager issues to ONTAP. You can use the log to understand the nature and sequence of the calls needed to perform the various ONTAP administrative tasks.

### How System Manager uses the REST API and API log

There are several ways that REST API calls are issued by System Manager to ONTAP.

#### When does System Manager issue API calls

Here are the most important examples of when System Manager issues ONTAP REST API calls.

##### Automatic page refresh

System Manager automatically issues API calls in the background to refresh the displayed information, such as on the dashboard page.

##### Display action by user

One or more API calls are issued when you display a specific storage resource or a collection of resources from the System Manager UI.

##### Update action by user

An API call is issued when you add, modify, or delete an ONTAP resource from the System Manager UI.

##### Reissuing an API call

You can also manually reissue an API call by clicking a log entry. This displays the raw JSON output from the call.

### Where to find more information

- [ONTAP 9 Automation docs](#)

## Accessing the REST API log

You can access the log containing a record of the ONTAP REST API calls made by System Manager. When displaying the log, you can also reissue API calls and review the output.

#### Steps

1. At the top of the page, click  to display the REST API log.

The most recent entries are displayed at the bottom of the page.

2. On the left, click **DASHBOARD** and observe the new entries being created for the API calls issued to refresh the page.
3. Click **STORAGE** and then click **Qtrees**.

This causes System Manager to issue a specific API call to retrieve a list of the Qtrees.

4. Locate the log entry describing the API call which has the form:

```
GET /api/storage/qtrees
```

You will see additional HTTP query parameters included with the entry, such as `max_records`.

5. Click the log entry to reissue the GET API call and display the raw JSON output.

#### Example

```
1 {
2   "records": [
3     {
4       "svm": {
5         "uuid": "19507946-e801-11e9-b984-00a0986ab770",
6         "name": "SMQA",
7         "_links": {
8           "self": {
9             "href": "/api/svm/svms/19507946-e801-11e9-b984-
10             00a0986ab770"
11           }
12         },
13         "volume": {
14           "uuid": "1e173258-f98b-11e9-8f05-00a0986abd71",
15           "name": "vol_vol_test2_dest_dest",
16           "_links": {
17             "self": {
18               "href": "/api/storage/volumes/1e173258-f98b-11e9-8f05-
19               00a0986abd71"
20             }
21           },
22           "id": 1,
23           "name": "test2",
24           "security_style": "mixed",
25           "unix_permissions": 777,
26           "export_policy": {
27             "name": "default",
28             "id": 12884901889,
29             "_links": {
30               "self": {
```

```

31         "href": "/api/protocols/nfs/export-policies/12884901889"
32     }
33 }
34 },
35 "path": "/vol_vol_test2_dest_dest/test2",
36 "_links": {
37     "self": {
38         "href": "/api/storage/qtrees/1e173258-f98b-11e9-8f05-
00a0986abd71/1"
39     }
40 }
41 },
42 ],
43 "num_records": 1,
44 "_links": {
45     "self": {
46         "href":
"/api/storage/qtrees?max_records=20&fields=*&name=!%22%22"
47     }
48 }
49 }

```

## 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.