



Job objects API and asynchronous processes

Active IQ Unified Manager 9.7

NetApp
April 05, 2024

Table of Contents

- Job objects API and asynchronous processes. 1
 - Asynchronous requests described using Job object 1
 - Querying the Job object associated with an API request. 1
 - Steps in an asynchronous request. 1
 - Viewing Jobs 1

Job objects API and asynchronous processes

The management-server category consists of the jobs API that provides information about the Jobs performed while running Active IQ Unified Manager APIs. you must know how asynchronous processing works using the Job object.

Some of the API calls, particularly those that are used for adding or modifying resources, can take longer to complete than other calls. Unified Manager processes these long-running requests asynchronously.

Asynchronous requests described using Job object

After making an API call that runs asynchronously, the HTTP response code 202 indicates the request has been successfully validated and accepted, but not yet completed. The request is processed as a background task which continues to run after the initial HTTP response to the client. The response includes the Job object anchoring the request, including its unique identifier.

Querying the Job object associated with an API request

The Job object returned in the HTTP response contains several properties. You can query the state property to determine if the request completed successfully. A Job object can be in one of the following states:

- NORMAL
- WARNING
- PARTIAL_FAILURES
- ERROR

There are two techniques you can use when polling a Job object to detect a terminal state for the task, either success or failure:

- Standard polling request: The current Job state is returned immediately.
- Long polling request: When the job state moves to NORMAL, ERROR, or PARTIAL_FAILURES.

Steps in an asynchronous request

You can use the following high-level procedure to complete an asynchronous API call:

1. Issue the asynchronous API call.
2. Receive an HTTP response 202 indicating successful acceptance of the request.
3. Extract the identifier for the Job object from the response body.
4. Within a loop, wait for the Job object to reach the terminal state NORMAL, ERROR, or PARTIAL_FAILURES.
5. Verify the terminal state of the Job and retrieve the Job result.

Viewing Jobs

In Active IQ Unified Manager, operations like adding and modifying resources are performed by synchronous and asynchronous API invocations. Invocations that are

scheduled for asynchronous execution can be tracked by a Job object created for that invocation. Each Job object has a unique key for identification. Each Job object returns the Job object URI for you to access and track the progress of the job. You can use this API for retrieving the details of each execution.

You can query all of the Job objects. You can also use the Job key and Job object details to run the next set of operations on the resources.

View jobs

You can use this method to obtains a list of all of the Jobs. The response body consists of the Job details of all of the Jobs. You can also view the details of a particular Job object by specifying the Job key in the URI. The response body consists of the details that are identified by the Job key. In the response, the latest Job object is returned to the top. If you want to query a particular Job object, enter the Job ID of the job.

Category	HTTP verb	Path
management-server	GET	/management-server/jobs /management-server/jobs/{key}

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.