



# Manage cluster firmware history

## ONTAP 9.9.1 REST API reference

NetApp  
August 29, 2024

# Table of Contents

- Manage cluster firmware history ..... 1
  - Cluster firmware history endpoint overview ..... 1
  - Retrieve history details for firmware update requests ..... 3

# Manage cluster firmware history

## Cluster firmware history endpoint overview

### Overview

Use this API to retrieve a history of firmware update requests. This API supports GET calls.

### Examples

#### Retrieving history of firmware updates

The following example retrieves a history of firmware updates performed on the cluster. Note that if the *fields=\** parameter is not specified, only the job ID and start time are returned. Filters can be added on the fields to limit the results.

```
# The API:
GET /api/cluster/firmware/history

# The call:
curl -X GET "https://<mgmt-ip>/api/cluster/firmware/history/?fields=*" -H
"accept: application/hal+json"

# The response:
200 OK
{
  "records": [
    {
      "start_time": "1970-01-01T00:02:03+00:00",
      "job": {
        "uuid": "adf700c2-b50e-11ea-a54f-005056bbec43"
      },
      "node": {
        "uuid": "0530d6c1-8c6d-11e8-907f-00a0985a72ee",
        "name": "node1"
      },
      "fw_file_name": "all_disk_fw.zip",
      "fw_update_state": "starting_workers",
      "end_time": "1970-01-01T00:07:36+00:00",
      "update_status": [
        {
          "worker": {
            "node": {
              "uuid": "0530d6c1-8c6d-11e8-907f-00a0985a72ee",
              "name": "node1"
            }
          }
        }
      ]
    }
  ]
}
```

```

    },
    "state": "failed",
    "error": {
      "message": "A firmware file already exists.",
      "code": 2228327
    }
  },
  {
    "worker": {
      "node": {
        "uuid": "0530d6c1-8c6d-11e8-907f-00a0985a72ef",
        "name": "node2"
      },
      "state": "complete",
      "error": {
        "message": "Success",
        "code": 0
      }
    }
  }
],
"_links": {
  "self": {
    "href": "/api/cluster/firmware/history/1970-01-01T00%3A02%3A03-00%3A00/adf700c2-b50e-11ea-a54f-005056bbec43"
  }
},
{
  "start_time": "1970-01-01T00:02:03+00:00",
  "job": {
    "uuid": "f84adabe-b50e-11ea-a54f-005056bbec43"
  },
  "node": {
    "uuid": "0530d6c1-8c6d-11e8-907f-00a0985a72ee",
    "name": "node1"
  },
  "fw_file_name": "all_shelf_fw.zip",
  "fw_update_state": "completed",
  "end_time": "1970-01-01T00:07:36+00:00",
  "update_status": [
    {
      "worker": {
        "node": {
          "uuid": "0530d6c1-8c6d-11e8-907f-00a0985a72ee",

```

```

    "name": "node1"
  },
  "state": "failed",
  "error": {
    "message": "A firmware file already exists.",
    "code": 2228327
  }
},
{
  "worker": {
    "node": {
      "uuid": "0530d6c1-8c6d-11e8-907f-00a0985a72ef",
      "name": "node2"
    },
    "state": "complete",
    "error": {
      "message": "Success",
      "code": 0
    }
  }
},
{
  "_links": {
    "self": {
      "href": "/api/cluster/firmware/history/1970-01-01T00%3A02%3A03-00%3A00/f84adabe-b50e-11ea-a54f-005056bbec43"
    }
  }
},
{
  "num_records": 2,
  "_links": {
    "self": {
      "href": "/api/cluster/firmware/history/?fields=%2A"
    }
  }
}
}

```

## Retrieve history details for firmware update requests

GET /cluster/firmware/history

Introduced In: 9.8

Retrieves the history details for firmware update requests.

## Learn more

- [DOC /cluster/firmware/history](#)

## Parameters

Name	Type	In	Required	Description
start_time	string	query	False	Filter by start_time
fw_file_name	string	query	False	Filter by fw_file_name
node.name	string	query	False	Filter by node.name
node.uuid	string	query	False	Filter by node.uuid
update_status.worker.error.message	string	query	False	Filter by update_status.worker.error.message
update_status.worker.error.code	integer	query	False	Filter by update_status.worker.error.code
update_status.worker.node.name	string	query	False	Filter by update_status.worker.node.name
update_status.worker.node.uuid	string	query	False	Filter by update_status.worker.node.uuid
update_status.worker.state	string	query	False	Filter by update_status.worker.state
job.uuid	string	query	False	Filter by job.uuid
fw_update_state	string	query	False	Filter by fw_update_state
end_time	string	query	False	Filter by end_time
fields	array[string]	query	False	Specify the fields to return.

Name	Type	In	Required	Description
max_records	integer	query	False	Limit the number of records returned.
return_records	boolean	query	False	The default is true for GET calls. When set to false, only the number of records is returned. <ul style="list-style-type: none"> <li>• Default value: 1</li> </ul>
return_timeout	integer	query	False	The number of seconds to allow the call to execute before returning. When iterating over a collection, the default is 15 seconds. ONTAP returns earlier if either max records or the end of the collection is reached. <ul style="list-style-type: none"> <li>• Default value: 1</li> <li>• Max value: 120</li> <li>• Min value: 0</li> </ul>
order_by	array[string]	query	False	Order results by specified fields and optional [asc

## Response

Status: 200, Ok

Name	Type	Description
_links	<a href="#">_links</a>	
num_records	integer	
records	array[ <a href="#">firmware_history</a> ]	

## Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "end_time": "2019-02-02T19:00:00Z",
      "fw_file_name": "all_disk_fw.zip",
      "fw_update_state": "string",
      "job": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "uuid": "string"
      },
      "node": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "node1",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      },
      "start_time": "2019-02-02T19:00:00Z",
      "update_status": [
        {
          "worker": {
            "error": {
              "code": "2228325",
              "message": "Cannot open local staging ZIP file
disk_firmware.zip"
            }
          }
        }
      ]
    }
  ]
}
```



```

    },
    "node": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "node1",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    },
    "state": "waiting_to_retry"
  }
}
]
}
]
}

```

## Error

Status: Default, Error

Name	Type	Description
error	error	

## Example error

```

{
  "error": {
    "arguments": [
      {
        "code": "string",
        "message": "string"
      }
    ],
    "code": "4",
    "message": "entry doesn't exist",
    "target": "uuid"
  }
}

```

# Definitions

## See Definitions

href

Name	Type	Description
href	string	

\_links

Name	Type	Description
next	<a href="#">href</a>	
self	<a href="#">href</a>	

\_links

Name	Type	Description
self	<a href="#">href</a>	

job\_link

Name	Type	Description
_links	<a href="#">_links</a>	
uuid	string	The UUID of the asynchronous job that is triggered by a POST, PATCH, or DELETE operation.

node

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	
uuid	string	

firmware\_history\_update\_state\_error

Name	Type	Description
code	integer	Code corresponding to the status message.
message	string	Error message returned when a firmware update job fails.

worker

Name	Type	Description
error	<a href="#">firmware_history_update_state_error</a>	
node	<a href="#">node</a>	
state	string	The state of each worker that a node is controlling.

#### firmware\_history\_update\_state

Name	Type	Description
worker	<a href="#">worker</a>	

#### firmware\_history

Name	Type	Description
<a href="#">_links</a>	<a href="#">_links</a>	
end_time	string	End time of this update request.
fw_file_name	string	Name of the firmware file.
fw_update_state	string	
job	<a href="#">job_link</a>	
node	<a href="#">node</a>	
start_time	string	Start time of this update request.
update_status	array[ <a href="#">firmware_history_update_state</a> ]	

#### error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

#### error

Name	Type	Description
arguments	array[ <a href="#">error_arguments</a> ]	Message arguments
code	string	Error code

<b>Name</b>	<b>Type</b>	<b>Description</b>
message	string	Error message
target	string	The target parameter that caused the error.

## 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.