



Add, remove, or discover LUN map reporting nodes

ONTAP 9.14.1 REST API reference

NetApp
May 23, 2024

Table of Contents

- Add, remove, or discover LUN map reporting nodes 1
 - Protocols SAN lun-maps lun.uuid igroup.uuid reporting-nodes endpoint overview 1
 - Retrieve LUN map reporting nodes 2
 - Add a reporting node and its HA partner to a LUN map 8
 - Remove a reporting node and its HA partner from a LUN map 16
 - Retrieve a LUN map reporting node 17

Add, remove, or discover LUN map reporting nodes

Protocols SAN lun-maps lun.uuid igroup.uuid reporting-nodes endpoint overview

Overview

A LUN map's reporting nodes are the cluster nodes from which network paths to a mapped LUN are advertised via the SAN protocols as part of the Selective LUN Map (SLM) feature of ONTAP. SLM reduces the number of paths from the host to a mapped LUN and enables management of a single initiator group (igroup) per host.

If there are no reporting nodes in a LUN map, network paths to all cluster nodes having the appropriate network interfaces (LIFs) in the SVM are advertised. This is not a typical configuration and is reserved for limited specific use cases. Note that having no reporting nodes in a LUN map differs subtly from having all reporting nodes in the LUN map. If a LUN map has an empty reporting nodes list and a new node is added to the cluster, a path to the new node will also be advertised. If a LUN map has all cluster nodes in its reporting nodes list and a new node is added to the cluster, a path to the new node is not advertised unless the LUN map's reporting nodes are explicitly updated to include the new node.

If portsets are used to further restrict access for initiators to specific LIFs, the mapped LUN will be accessible only via the LIFs in the portset that are on the reporting nodes of the LUN map.

When a LUN map is created, the cluster node hosting the mapped LUN and its high availability (HA) partner are set as the initial reporting nodes.

Before moving a mapped LUN or a volume containing mapped LUNs to another HA pair within the same cluster, the destination node should be added to the LUN map's reporting nodes. This ensures that active, optimized LUN paths are maintained. After moving a mapped LUN or a volume containing mapped LUNs to another HA pair within the same cluster, the cluster node that previously hosted the mapped LUN should be removed from the LUN map's reporting node. Further details for this workflow may be found in the ONTAP SAN Administration documentation - see [Modifying the SLM reporting-nodes list](#).

The LUN map reporting nodes REST API allows you to add, remove and discover the reporting nodes of a LUN map.

Examples

Adding a node to a LUN map

This example adds a cluster node, and its high availability (HA) partner cluster node, to a LUN map's reporting nodes.

```
# The API:
POST /api/protocols/san/lun-maps/{lun.uuid}/{igroup.uuid}/reporting-nodes

# The call:
curl -X POST 'https://<mgmt-ip>/api/protocols/san/lun-maps/c8ad35ce-ef03-4577-88f0-9ad150ac6bbf/b10a8165-8346-11eb-ab8e-005056bbb402/reporting-nodes' -H 'Accept: application/hal+json' -d '{ "name": "node2" }'
```

Removing a node from a LUN map

This example removes a cluster node, and its high availability (HA) partner cluster node, from a LUN map's reporting nodes.

```
# The API:
DELETE /api/protocols/san/lun-maps/{lun.uuid}/{igroup.uuid}/reporting-nodes/{uuid}

# The call:
curl -X DELETE 'https://<mgmt-ip>/api/protocols/san/lun-maps/c8ad35ce-ef03-4577-88f0-9ad150ac6bbf/b10a8165-8346-11eb-ab8e-005056bbb402/reporting-nodes/6d2cd7d5-493a-daf8-9ae1-219e4ad6f77d' -H 'Accept: application/hal+json'
```

Retrieve LUN map reporting nodes

```
GET /protocols/san/lun-maps/{lun.uuid}/{igroup.uuid}/reporting-nodes
```

Introduced In: 9.10

Retrieves LUN map reporting nodes.

Related ONTAP commands

- `lun mapping show`

Learn more

- [DOC /protocols/san/lun-maps/{lun.uuid}/{igroup.uuid}/reporting-nodes](#)

Parameters

Name	Type	In	Required	Description
uuid	string	query	False	Filter by uuid

Name	Type	In	Required	Description
name	string	query	False	Filter by name
fields	array[string]	query	False	Specify the fields to return.
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"> • Default value: 1
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"> • Default value: 1 • Max value: 120 • Min value: 0
order_by	array[string]	query	False	Order results by specified fields and optional [asc

Response

Status: 200, Ok

Name	Type	Description
_links	_links	

Name	Type	Description
num_records	integer	The number of records in the response.
records	array[lun_map_reporting_node]	

Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": {
    "_links": {
      "node": {
        "href": "/api/resourcelink"
      },
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "igroup": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "uuid": "4ea7a442-86d1-11e0-ae1c-123478563412"
    },
    "lun": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "uuid": "4ea7a442-86d1-11e0-ae1c-123478563412"
    },
    "name": "node1",
    "uuid": "5ac8eb9c-4e32-dbaa-57ca-fb905976f54e"
  }
}
```

Error

Status: Default

ONTAP Error Response Codes

Error Code	Description
5374875	The specified LUN does not exist or is not accessible to the caller.
5374878	The specified initiator group does not exist, is not accessible to the caller, or is not in the same SVM as the specified LUN.
5374922	The specified LUN map does not exist.

Also see the table of common errors in the [Response body](#) overview section of this documentation.

Name	Type	Description
error	returned_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	href	
self	href	

_links

Name	Type	Description
node	href	
self	href	

_links

Name	Type	Description
self	href	

igroup

The initiator group of the LUN map of the reporting node.

Name	Type	Description
_links	_links	
uuid	string	The unique identifier of the initiator group.

lun

The LUN of the LUN map of the reporting node.

Name	Type	Description
_links	_links	
uuid	string	The unique identifier of the LUN.

lun_map_reporting_node

A cluster node from which network paths to the LUN are advertised by ONTAP via the SAN protocols.

Name	Type	Description
_links	_links	
igroup	igroup	The initiator group of the LUN map of the reporting node.
lun	lun	The LUN of the LUN map of the reporting node.
name	string	The name of the node. Either <code>uuid</code> or <code>name</code> are required in POST.
uuid	string	The unique identifier of the node. Either <code>uuid</code> or <code>name</code> are required in POST.

error_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

returned_error

Name	Type	Description
arguments	array[error_arguments]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

Add a reporting node and its HA partner to a LUN map

POST `/protocols/san/lun-maps/{lun.uuid}/{igroup.uuid}/reporting-nodes`

Introduced In: 9.10

Adds a reporting node and its HA partner to a LUN map.

Required properties

- `uuid` or `name` - A cluster node to add.

Related ONTAP commands

- `lun mapping add-reporting-nodes`

Learn more

- [DOC /protocols/san/lun-maps/{lun.uuid}/{igroup.uuid}/reporting-nodes](#)

Parameters

Name	Type	In	Required	Description
<code>return_records</code>	boolean	query	False	The default is false. If set to true, the records are returned. • Default value:

Request Body

Name	Type	Description
<code>_links</code>	_links	
<code>igroup</code>	igroup	The initiator group of the LUN map of the reporting node.
<code>lun</code>	lun	The LUN of the LUN map of the reporting node.
<code>name</code>	string	The name of the node. Either <code>uuid</code> or <code>name</code> are required in POST.
<code>uuid</code>	string	The unique identifier of the node. Either <code>uuid</code> or <code>name</code> are required in POST.

Example request

```
{
  "_links": {
    "node": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "igroup": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "uuid": "4ea7a442-86d1-11e0-ae1c-123478563412"
  },
  "lun": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "uuid": "4ea7a442-86d1-11e0-ae1c-123478563412"
  },
  "name": "node1",
  "uuid": "5ac8eb9c-4e32-dbaa-57ca-fb905976f54e"
}
```

Response

Status: 201, Created

Name	Type	Description
<code>_links</code>	<code>_links</code>	
<code>num_records</code>	integer	The number of records in the response.
<code>records</code>	array[lun_map_reporting_node]	

Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": {
    "_links": {
      "node": {
        "href": "/api/resourcelink"
      },
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "igroup": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "uuid": "4ea7a442-86d1-11e0-ae1c-123478563412"
    },
    "lun": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "uuid": "4ea7a442-86d1-11e0-ae1c-123478563412"
    },
    "name": "node1",
    "uuid": "5ac8eb9c-4e32-dbaa-57ca-fb905976f54e"
  }
}
```

Headers

Name	Description	Type
Location	Useful for tracking the resource location	string

Error

Status: Default

ONTAP Error Response Codes

Error Code	Description
5374875	The specified LUN does not exist or is not accessible to the caller.
5374878	The specified initiator group does not exist, is not accessible to the caller, or is not in the same SVM as the specified LUN.
5374920	The specified cluster node does not exist.
5374921	The specified cluster node name and UUID do not refer to the same cluster node.
5374922	The specified LUN map does not exist.
5374923	A cluster node <code>uuid</code> or <code>name</code> must be specified to add a reporting node.

Also see the table of common errors in the [Response body](#) overview section of this documentation.

Name	Type	Description
error	returned_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
node	href	
self	href	

_links

Name	Type	Description
self	href	

igroup

The initiator group of the LUN map of the reporting node.

Name	Type	Description
_links	_links	
uuid	string	The unique identifier of the initiator group.

lun

The LUN of the LUN map of the reporting node.

Name	Type	Description
_links	_links	
uuid	string	The unique identifier of the LUN.

lun_map_reporting_node

A cluster node from which network paths to the LUN are advertised by ONTAP via the SAN protocols.

Name	Type	Description
_links	_links	
igroup	igroup	The initiator group of the LUN map of the reporting node.

Name	Type	Description
lun	lun	The LUN of the LUN map of the reporting node.
name	string	The name of the node. Either <code>uuid</code> or <code>name</code> are required in POST.
uuid	string	The unique identifier of the node. Either <code>uuid</code> or <code>name</code> are required in POST.

`_links`

Name	Type	Description
next	href	
self	href	

`error_arguments`

Name	Type	Description
code	string	Argument code
message	string	Message argument

`returned_error`

Name	Type	Description
arguments	array[error_arguments]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

Remove a reporting node and its HA partner from a LUN map

DELETE /protocols/san/lun-maps/{lun.uuid}/{igroup.uuid}/reporting-nodes/{uuid}

Introduced In: 9.10

Removes a reporting node and its HA partner from a LUN map.

Related ONTAP commands

- `lun mapping remove-reporting-nodes`

Learn more

- [DOC /protocols/san/lun-maps/{lun.uuid}/{igroup.uuid}/reporting-nodes](#)

Response

Status: 200, Ok

Error

Status: Default

ONTAP Error Response Codes

Error Code	Description
5374608	An attempt was made to delete the last reporting node for a LUN. The REST API requires that a LUN map must maintain at least one reporting node.
5374875	The specified LUN does not exist or is not accessible to the caller.
5374878	The specified initiator group does not exist, is not accessible to the caller, or is not in the same SVM as the specified LUN.
5374922	The specified LUN map does not exist.

Also see the table of common errors in the [Response body](#) overview section of this documentation.

Name	Type	Description
error	returned_error	

Example error

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

Definitions

See Definitions

error_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

returned_error

Name	Type	Description
arguments	array[error_arguments]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

Retrieve a LUN map reporting node

GET /protocols/san/lun-maps/{lun.uuid}/{igroup.uuid}/reporting-nodes/{uuid}

Introduced In: 9.10

Retrieves a LUN map reporting node.

Related ONTAP commands

- `lun mapping show`

Learn more

- [DOC /protocols/san/lun-maps/{lun.uuid}/{igroup.uuid}/reporting-nodes](#)

Parameters

Name	Type	In	Required	Description
fields	array[string]	query	False	Specify the fields to return.

Response

Status: 200, Ok

Name	Type	Description
<code>_links</code>	<code>_links</code>	
<code>igroup</code>	<code>igroup</code>	The initiator group of the LUN map of the reporting node.
<code>lun</code>	<code>lun</code>	The LUN of the LUN map of the reporting node.
<code>name</code>	string	The name of the node. Either <code>uuid</code> or <code>name</code> are required in POST.
<code>uuid</code>	string	The unique identifier of the node. Either <code>uuid</code> or <code>name</code> are required in POST.

Example response

```
{
  "_links": {
    "node": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "igroup": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "uuid": "4ea7a442-86d1-11e0-ae1c-123478563412"
  },
  "lun": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "uuid": "4ea7a442-86d1-11e0-ae1c-123478563412"
  },
  "name": "node1",
  "uuid": "5ac8eb9c-4e32-dbaa-57ca-fb905976f54e"
}
```

Error

Status: Default

ONTAP Error Response Codes

Error Code	Description
5374875	The specified LUN does not exist or is not accessible to the caller.
5374878	The specified initiator group does not exist, is not accessible to the caller, or is not in the same SVM as the specified LUN.

Error Code	Description
5374922	The specified LUN map does not exist.

Also see the table of common errors in the [Response body](#) overview section of this documentation.

Name	Type	Description
error	returned_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
node	href	
self	href	

_links

Name	Type	Description
self	href	

igroup

The initiator group of the LUN map of the reporting node.

Name	Type	Description
_links	_links	
uuid	string	The unique identifier of the initiator group.

lun

The LUN of the LUN map of the reporting node.

Name	Type	Description
_links	_links	
uuid	string	The unique identifier of the LUN.

error_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

returned_error

Name	Type	Description
arguments	array[error_arguments]	Message arguments
code	string	Error code
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.