



View lock details

ONTAP 9.15.1 REST API reference

NetApp
September 11, 2024

Table of Contents

- View lock details 1
 - Protocols locks endpoint overview 1
 - Retrieve lock details 6
 - Delete locks for a parameter 17
 - Retrieve the lock for a specific UUID 19

View lock details

Protocols locks endpoint overview

Overview

A lock is a synchronization mechanism for enforcing limits on concurrent access to files where many clients can be accessing the same file at the same time. Locks can be viewed or broken according to a wide range of query fields that are presented in the lock information definition.

It is recommended that you provide as many fields as possible to optimize query processing.

Examples

Retrieving locks with all fields for all SVMs

```
# The API:
GET /protocols/locks

# The call:
curl -X GET "https://<mgmt-
ip>/api/protocols/locks?return_records=true&return_timeout=15&fields=*" -H
"accept: application/json"

# The response:
{
  "records": [
    {
      "svm": {
        "uuid": "5b4b6847-9ae4-11eb-8597-0050568ec154",
        "name": "vs1"
      },
      "volume": {
        "uuid": "429dcc79-9af2-11eb-b313-0050568ec154",
        "name": "test_vol1"
      },
      "interface": {
        "name": "vs1.data",
        "uuid": "6bf26e25-9ae4-11eb-8597-0050568ec154",
        "ip": {
          "address": "10.140.115.95"
        }
      },
      "path": "/test_vol1/Demo406.TXT",
      "uuid": "bf03d8b4-e145-498a-902d-b9fe5d546d18",
```

```

"constituent": false,
"protocol": "cifs",
"client_address": "10.74.7.22",
"owner_id": "feff-
0206000000020000000204000000000000000000000000000000000000000000ffff0a4a07161053010001000000
0300000006c000000000000000",
"share_lock": {
  "mode": "read_write_deny_write_delete",
  "soft": false
},
"smb": {
  "connect_state": "connected",
  "open_group_id":
"71756e2325a7eb11843f005056a4731c101068450bcdffff1c2c000000000000",
  "open_type": "durable"
},
"state": "granted",
"type": "share_level",
"node": {
  "name": "bshalini-vsim3",
  "uuid": "1f29b875-9ae3-11eb-8597-0050568ec154"
}
},
{
  "svm": {
    "uuid": "5b4b6847-9ae4-11eb-8597-0050568ec154",
    "name": "vs1"
  },
  "volume": {
    "uuid": "429dcc79-9af2-11eb-b313-0050568ec154",
    "name": "test_vol1"
  },
  "interface": {
    "name": "vs1.data",
    "uuid": "6bf26e25-9ae4-11eb-8597-0050568ec154",
    "ip": {
      "address": "10.140.115.95"
    }
  },
  "path": "/test_vol1/Demo406.TXT",
  "uuid": "0c33d18d-dcbc-492a-81b3-4c5740c46172",
  "constituent": false,
  "protocol": "cifs",
  "client_address": "10.74.7.22",
  "oplock_level": "batch",
  "owner_id": "feff-

```

```

02060000000200000002040000000000000000000000ffff0a4a07161053010001000000
0300000006c0000000000000",
  "smb": {
    "connect_state": "connected",
    "open_group_id":
"71756e2325a7eb11843f005056a4731c101068450bcdffff1c2c000000000000"
  },
  "state": "granted",
  "type": "op_lock",
  "node": {
    "name": "bshalini-vs1m3",
    "uuid": "1f29b875-9ae3-11eb-8597-0050568ec154"
  }
},
"num_records": 2
}

```

Retrieving locks of a specific volume

```

# The API:
GET /protocols/locks

# The call:
curl -X GET "https://<mgmt-ip>/api/protocols/locks?volume.uuid=429dcc79-
9af2-11eb-b313-
0050568ec154&return_records=true&return_timeout=15&fields=*" -H "accept:
application/json"

# The response:
{
  "records": [
    {
      "svm": {
        "uuid": "5b4b6847-9ae4-11eb-8597-0050568ec154",
        "name": "vs1"
      },
      "volume": {
        "uuid": "429dcc79-9af2-11eb-b313-0050568ec154",
        "name": "test_voll"
      },
      "interface": {

```

```

    "name": "vs1.data",
    "uuid": "6bf26e25-9ae4-11eb-8597-0050568ec154"
  },
  "path": "/test_vol1/Demo408.TXT",
  "uuid": "be1cdf00-37f1-4477-b6d0-bba8c4fa8c67"
},
{
  "svm": {
    "uuid": "5b4b6847-9ae4-11eb-8597-0050568ec154",
    "name": "vs1"
  },
  "volume": {
    "uuid": "429dcc79-9af2-11eb-b313-0050568ec154",
    "name": "test_vol1"
  },
  "interface": {
    "name": "vs1.data",
    "uuid": "6bf26e25-9ae4-11eb-8597-0050568ec154"
  },
  "path": "/test_vol1/Demo408.TXT",
  "uuid": "393cc06e-8b37-4f49-b09a-74d1eef79368"
}
],
"num_records": 2
}

```

Retrieving the lock for a specific UUID

```

# The API:
GET /protocols/locks/{uuid}

# The call:
curl -X GET "https://<mgmt-ip>/api/protocols/locks/be1cdf00-37f1-4477-b6d0-bba8c4fa8c67" -H "accept: application/json"

# The response:
{
  "svm": {
    "uuid": "5b4b6847-9ae4-11eb-8597-0050568ec154",
    "name": "vs1"
  },
  "volume": {

```

```

    "uuid": "429dcc79-9af2-11eb-b313-0050568ec154",
    "name": "test_vol1"
  },
  "interface": {
    "name": "vs1.data",
    "uuid": "6bf26e25-9ae4-11eb-8597-0050568ec154",
    "ip": {
      "address": "10.140.115.95"
    }
  },
  "path": "/test_vol1/Demo406.TXT",
  "uuid": "belcdf00-37f1-4477-b6d0-bba8c4fa8c67",
  "constituent": false,
  "protocol": "cifs",
  "client_address": "10.74.7.22",
  "owner_id": "feff-
02060000000200000002040000000000000000000000ffff0a4a07161053010001000000
030000006c00000000000000",
  "share_lock": {
    "mode": "read_write_deny_write_delete",
    "soft": false
  },
  "smb": {
    "connect_state": "connected",
    "open_group_id":
"71756e2325a7eb11843f005056a4731c101068450bcdffff1c2c000000000000",
    "open_type": "durable"
  },
  "state": "granted",
  "type": "share_level",
  "node": {
    "name": "bshalini-vs1m3",
    "uuid": "1f29b875-9ae3-11eb-8597-0050568ec154"
  }
}

```

Deleting the lock for a specific UUID

```
# The API:
DELETE /protocols/locks/{uuid}

# The call:
curl -X DELETE "https://<mgmt-ip>/api/protocols/locks/be1cdf00-37f1-4477-
b6d0-bba8c4fa8c67" -H "accept: application/json"
```

Deleting all locks for a specific protocol

```
# The API:
DELETE /protocols/locks/{uuid}

# The call:
curl -X DELETE "https://<mgmt-ip>/api/protocols/locks?protocol=cifs" -H
"accept: application/json"
```

Retrieve lock details

GET /protocols/locks

Introduced In: 9.10

Retrieves locks details.

Related ONTAP commands

- `vserver locks show`

Parameters

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

Name	Type	In	Required	Description
share_lock.soft	boolean	query	False	Filter by share_lock.soft
share_lock.mode	string	query	False	Filter by share_lock.mode
interface.uuid	string	query	False	Filter by interface.uuid
interface.ip.address	string	query	False	Filter by interface.ip.address
interface.name	string	query	False	Filter by interface.name
constituent	boolean	query	False	Filter by constituent
owner_id	string	query	False	Filter by owner_id
volume.uuid	string	query	False	Filter by volume.uuid
volume.name	string	query	False	Filter by volume.name
byte_lock.offset	integer	query	False	Filter by byte_lock.offset
byte_lock.soft	boolean	query	False	Filter by byte_lock.soft
byte_lock.exclusive	boolean	query	False	Filter by byte_lock.exclusive
byte_lock.length	integer	query	False	Filter by byte_lock.length
byte_lock.mandatory	boolean	query	False	Filter by byte_lock.mandatory
byte_lock.super	boolean	query	False	Filter by byte_lock.super
smb.open_group_id	string	query	False	Filter by smb.open_group_id

Name	Type	In	Required	Description
smb.open_type	string	query	False	Filter by smb.open_type
smb.connect_state	string	query	False	Filter by smb.connect_state
svm.uuid	string	query	False	Filter by svm.uuid
svm.name	string	query	False	Filter by svm.name
type	string	query	False	Filter by type
node.uuid	string	query	False	Filter by node.uuid
node.name	string	query	False	Filter by node.name
state	string	query	False	Filter by state
client_address	string	query	False	Filter by client_address
path	string	query	False	Filter by path
delegation	string	query	False	Filter by delegation
max_records	integer	query	False	Limit the number of records returned.
return_records	boolean	query	False	<p>The default is true for GET calls. When set to false, only the number of records is returned.</p> <ul style="list-style-type: none"> • Default value: 1

Name	Type	In	Required	Description
return_timeout	integer	query	False	<p>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.</p> <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
desc] direction. Default direction is 'asc' for ascending.	fields	array[string]	query	False

Response

Status: 200, Ok

Name	Type	Description
_links	collection_links	
num_records	integer	Number of records.
records	array[client_lock]	

Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": [
    {
      "byte_lock": {
        "length": "10",
        "offset": "100"
      },
      "client_address": "0.0.0.0",
      "delegation": "string",
      "interface": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "ip": {
          "address": "10.10.10.7"
        },
        "name": "lif1",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      },
      "node": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "node1",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      },
      "oplock_level": "string",
      "owner_id": "string",
      "path": "string",
      "protocol": "string",
      "share_lock": {
```

```

    "mode": "string"
  },
  "smb": {
    "connect_state": "string",
    "open_group_id": "string",
    "open_type": "string"
  },
  "state": "string",
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "type": "string",
  "uuid": "ceeac1b4-8646-4c76-a054-1c96e87594aa",
  "volume": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "volume1",
    "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
  }
}
]
}

```

Error

Status: Default, Unexpected error_response

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	

collection_links

Name	Type	Description
next	href	
self	href	

byte_lock

Name	Type	Description
exclusive	boolean	Indicates whether it is an exclusive bytelock.
length	integer	Length of the bytelock starting from the offset.
mandatory	boolean	Indicates whether or not the bytelock is mandatory.
offset	integer	Starting offset for a bytelock.
soft	boolean	Indicates whether it is a soft bytelock.
super	boolean	Indicates whether it is a super bytelock.

_links

Name	Type	Description
self	href	

ip

IP information

Name	Type	Description
address	string	IPv4 or IPv6 address

interface

A network interface. Either UUID or name may be supplied on input.

Name	Type	Description
_links	_links	
ip	ip	IP information
name	string	The name of the interface. If only the name is provided, the SVM scope must be provided by the object this object is embedded in.
uuid	string	The UUID that uniquely identifies the interface.

node

Name	Type	Description
_links	_links	
name	string	
uuid	string	

share_lock

Name	Type	Description
mode	string	Types of share lock modes.
soft	boolean	Indicates whether it is a soft share lock.

smb

Name	Type	Description
connect_state	string	SMB connection state.
open_group_id	string	SMB open group ID.
open_type	string	SMB open type.

svm

SVM, applies only to SVM-scoped objects.

Name	Type	Description
_links	_links	
name	string	The name of the SVM. This field cannot be specified in a PATCH method.
uuid	string	The unique identifier of the SVM. This field cannot be specified in a PATCH method.

volume

Name	Type	Description
_links	_links	
name	string	The name of the volume. This field cannot be specified in a POST or PATCH method.
uuid	string	<p>Unique identifier for the volume. This corresponds to the instance-uuid that is exposed in the CLI and ONTAPI. It does not change due to a volume move.</p> <ul style="list-style-type: none"> • example: 028baa66-41bd-11e9-81d5-00a0986138f7 • Introduced in: 9.6 • x-nullable: true

client_lock

This object represents locks on a volume.

Name	Type	Description
byte_lock	byte_lock	
client_address	string	IP address of the client holding the lock.
constituent	boolean	Indicate if volume is constituent or not.
delegation	string	Type of delegation.

Name	Type	Description
interface	interface	A network interface. Either UUID or name may be supplied on input.
node	node	
oplock_level	string	The oplock level determines which operations the client may cache locally.
owner_id	string	Owner ID.
path	string	Object path
protocol	string	Type of lock protocol.
share_lock	share_lock	
smb	smb	
state	string	State of lock.
svm	svm	SVM, applies only to SVM-scoped objects.
type	string	Type of lock.
uuid	string	Lock UUID
volume	volume	

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

Name	Type	Description
message	string	Error message
target	string	The target parameter that caused the error.

Delete locks for a parameter

DELETE /protocols/locks/{uuid}

Introduced In: 9.10

Deletes locks of given parameter.

Related ONTAP commands

- `vserver locks break`

Parameters

Name	Type	In	Required	Description
uuid	string	path	True	Lock ID

Response

Status: 200, Ok

Error

Status: Default, Error

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 the lock for a specific UUID

GET /protocols/locks/{uuid}

Introduced In: 9.10

Retrieves the lock for a specific UUID.

Related ONTAP commands

- `vserver locks show`

Parameters

Name	Type	In	Required	Description
uuid	string	path	True	Lock ID
fields	array[string]	query	False	Specify the fields to return.

Response

Status: 200, Ok

Name	Type	Description
byte_lock	byte_lock	
client_address	string	IP address of the client holding the lock.
constituent	boolean	Indicate if volume is constituent or not.
delegation	string	Type of delegation.
interface	interface	A network interface. Either UUID or name may be supplied on input.
node	node	
oplock_level	string	The oplock level determines which operations the client may cache locally.
owner_id	string	Owner ID.

Name	Type	Description
path	string	Object path
protocol	string	Type of lock protocol.
share_lock	share_lock	
smb	smb	
state	string	State of lock.
svm	svm	SVM, applies only to SVM-scoped objects.
type	string	Type of lock.
uuid	string	Lock UUID
volume	volume	

Example response

```
{
  "byte_lock": {
    "length": "10",
    "offset": "100"
  },
  "client_address": "0.0.0.0",
  "delegation": "string",
  "interface": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    }
  },
  "ip": {
    "address": "10.10.10.7"
  },
  "name": "lif1",
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
},
"node": {
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  }
},
"name": "node1",
"uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
},
"oplock_level": "string",
"owner_id": "string",
"path": "string",
"protocol": "string",
"share_lock": {
  "mode": "string"
},
"smb": {
  "connect_state": "string",
  "open_group_id": "string",
  "open_type": "string"
},
"state": "string",
"svm": {
  "_links": {
    "self": {
```

```

        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "type": "string",
  "uuid": "ceeac1b4-8646-4c76-a054-1c96e87594aa",
  "volume": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "volume1",
    "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
  }
}

```

Error

Status: Default, Error

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

byte_lock

Name	Type	Description
exclusive	boolean	Indicates whether it is an exclusive bytelock.
length	integer	Length of the bytelock starting from the offset.
mandatory	boolean	Indicates whether or not the bytelock is mandatory.
offset	integer	Starting offset for a bytelock.
soft	boolean	Indicates whether it is a soft bytelock.
super	boolean	Indicates whether it is a super bytelock.

href

Name	Type	Description
href	string	

_links

Name	Type	Description
self	href	

ip

IP information

Name	Type	Description
address	string	IPv4 or IPv6 address

interface

A network interface. Either UUID or name may be supplied on input.

Name	Type	Description
_links	_links	

Name	Type	Description
ip	ip	IP information
name	string	The name of the interface. If only the name is provided, the SVM scope must be provided by the object this object is embedded in.
uuid	string	The UUID that uniquely identifies the interface.

node

Name	Type	Description
_links	_links	
name	string	
uuid	string	

share_lock

Name	Type	Description
mode	string	Types of share lock modes.
soft	boolean	Indicates whether it is a soft share lock.

smb

Name	Type	Description
connect_state	string	SMB connection state.
open_group_id	string	SMB open group ID.
open_type	string	SMB open type.

svm

SVM, applies only to SVM-scoped objects.

Name	Type	Description
_links	_links	

Name	Type	Description
name	string	The name of the SVM. This field cannot be specified in a PATCH method.
uuid	string	The unique identifier of the SVM. This field cannot be specified in a PATCH method.

volume

Name	Type	Description
_links	_links	
name	string	The name of the volume. This field cannot be specified in a POST or PATCH method.
uuid	string	<p>Unique identifier for the volume. This corresponds to the instance-uuid that is exposed in the CLI and ONTAPI. It does not change due to a volume move.</p> <ul style="list-style-type: none"> • example: 028baa66-41bd-11e9-81d5-00a0986138f7 • Introduced in: 9.6 • x-nullable: true

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

Name	Type	Description
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.