



Manage storage aggregate plexes

ONTAP 9.14.1 REST API reference

NetApp
May 23, 2024

Table of Contents

- Manage storage aggregate plexes 1
 - Storage aggregates aggregate.uuid plexes endpoint overview 1
 - The call: 1
 - The response: 1
- Retrieve a collection of plexes for an aggregate 5
- Retrieve a plex specified by the aggregate UUID and plex name 16

Manage storage aggregate plexes

Storage aggregates aggregate.uuid plexes endpoint overview

Overview

The Storage Aggregate Plex API provides relevant state information for each plex in the aggregate. For each plex, details are provided for the RAID groups in the plex and the disks that make up each RAID group.

Examples

Retrieving all aggregates and plexes

The following example shows the response with a list of aggregates and plexes:

The call:

```
curl -X GET "https://<mgmt-ip>/api/storage/aggregates/*/plexes" -H "accept: application/json"</mgmt-ip>
```

The response:

```
{ "records": [ { "aggregate": { "uuid": "04b7296e-a302-42a6-a2a9-dda6be054b29", "name": "test2" }, "name": "plex0" }, { "aggregate": { "uuid": "04b7296e-a302-42a6-a2a9-dda6be054b29", "name": "test2" }, "name": "plex1" }, { "aggregate": { "uuid": "66c4b221-65ff-4211-9b58-ada3c6fc41af", "name": "test" }, "name": "plex0" }, { "aggregate": { "uuid": "66c4b221-65ff-4211-9b58-ada3c6fc41af", "name": "test" }, "name": "plex1" }, { "aggregate": { "uuid": "7ee89e48-5d81-4609-9e1b-5d8d0995a886", "name": "aggr1" }, "name": "plex0" }, { "aggregate": { "uuid": "8bb2e3bf-c4f1-4748-9033-ca9231cf1c40", "name": "test3" }, "name": "plex0" }, { "aggregate": { "uuid": "8bb2e3bf-c4f1-4748-9033-ca9231cf1c40", "name": "test3" }, "name": "plex1" }, { "aggregate": { "uuid": "8f13de5c-99cf-4ada-884c-3cc32deb304a", "name": "aggr2" }, "name": "plex0" } ], "num_records": 8 }
```

```
### Retrieving a specific plex in all aggregates
```

```
The following example shows the response with a list of specific plexes in all aggregates:
```

```
# The call:
```

```
curl -X GET "https://<mgmt-ip>/api/storage/aggregates/*/plexes/plex0" -H "accept: application/json"
```

```
# The response:
```

```
{
  "records": [
    {
      "aggregate": {
        "uuid": "04b7296e-a302-42a6-a2a9-dda6be054b29",
```

```

    "name": "test2"
  },
  "name": "plex0"
},
{
  "aggregate": {
    "uuid": "66c4b221-65ff-4211-9b58-ada3c6fc41af",
    "name": "test"
  },
  "name": "plex0"
},
{
  "aggregate": {
    "uuid": "7ee89e48-5d81-4609-9e1b-5d8d0995a886",
    "name": "aggr1",
  },
  "name": "plex0",
},
{
  "aggregate": {
    "uuid": "8bb2e3bf-c4f1-4748-9033-ca9231cf1c40",
    "name": "test3",
  },
  "name": "plex0",
},
{
  "aggregate": {
    "uuid": "8f13de5c-99cf-4ada-884c-3cc32deb304a",
    "name": "aggr2",
  },
  "name": "plex0"
}
],
"num_records": 8
}

```

Retrieving the list of plexes in an aggregate

The following example shows the response with the list of plexes in an aggregate:

```

# The API:
/api/storage/aggregates/{uuid}/plexes

# The call:
curl -X GET "https://<mgmt-ip>/api/storage/aggregates/19425837-f2fa-4a9f-8f01-712f626c983c/plexes" -H "accept: application/json"

# The response:
{
  "records": [
    {
      "name": "plex0",
    },
    {
      "name": "plex4",
    }
  ],
  "num_records": 2,
}

```

Retrieving a specific plex in an aggregate

The following example shows the response when requesting a specific plex of an aggregate:

```

# The API:
/api/storage/aggregates/{uuid}/plexes/{name}

# The call:
curl -X GET "https://<mgmt-ip>/api/storage/aggregates/19425837-f2fa-4a9f-8f01-712f626c983c/plexes/plex0" -H "accept: application/json"

# The response:
{
  "aggregate": {
    "uuid": "19425837-f2fa-4a9f-8f01-712f626c983c",
    "name": "test1",
  },
  "name": "plex0",
  "online": true,
  "state": "normal",
  "pool": "pool0",
  "resync": {
    "active": false
  },
  "raid_groups": [

```

```
{
  "name": "rg0",
  "raid_type": "raid_dp",
  "cache_tier": false,
  "degraded": false,
  "recomputing_parity": {
    "active": false
  },
  "reconstruct": {
    "active": false
  },
  "disks": [
    {
      "position": "dparity",
      "state": "normal",
      "type": "ssd",
      "usable_size": 86769664,
      "disk": {
        "name": "1.1.29",
      }
    },
    {
      "position": "parity",
      "state": "normal",
      "type": "ssd",
      "usable_size": 86769664,
      "disk": {
        "name": "1.1.4",
      }
    },
    {
      "position": "data",
      "state": "normal",
      "type": "ssd",
      "usable_size": 86769664,
      "disk": {
        "name": "1.1.30",
      }
    },
    {
      "position": "data",
      "state": "normal",
      "type": "ssd",
      "usable_size": 86769664,
      "disk": {
        "name": "1.1.5",
      }
    }
  ]
}
```

```

    }
  },
  {
    "position": "data",
    "state": "normal",
    "type": "ssd",
    "usable_size": 86769664,
    "disk": {
      "name": "1.1.31",
    }
  },
  {
    "position": "data",
    "state": "normal",
    "type": "ssd",
    "usable_size": 86769664,
    "disk": {
      "name": "1.1.6",
    }
  }
]
}
],
}

```

Retrieve a collection of plexes for an aggregate

GET /storage/aggregates/{aggregate.uuid}/plexes

Introduced In: 9.6

Retrieves the collection of plexes for the specified aggregate.

Related ONTAP commands

- `storage aggregate plex show`

Parameters

Name	Type	In	Required	Description
aggregate.uuid	string	path	True	Aggregate UUID
aggregate.name	string	query	False	Filter by aggregate.name

Name	Type	In	Required	Description
raid_groups.disks.disk.name	string	query	False	Filter by raid_groups.disks.disk.name • Introduced in: 9.7
raid_groups.disks.state	string	query	False	Filter by raid_groups.disks.state • Introduced in: 9.7
raid_groups.disks.position	string	query	False	Filter by raid_groups.disks.position • Introduced in: 9.7
raid_groups.disks.type	string	query	False	Filter by raid_groups.disks.type • Introduced in: 9.7
raid_groups.disks.usable_size	integer	query	False	Filter by raid_groups.disks.usable_size • Introduced in: 9.7
raid_groups.name	string	query	False	Filter by raid_groups.name • Introduced in: 9.7
raid_groups.recomputing_parity.percent	integer	query	False	Filter by raid_groups.recomputing_parity.percent • Introduced in: 9.7

Name	Type	In	Required	Description
raid_groups.recomputing_parity.active	boolean	query	False	Filter by raid_groups.recomputing_parity.active • Introduced in: 9.7
raid_groups.degraded	boolean	query	False	Filter by raid_groups.degraded • Introduced in: 9.7
raid_groups.reconstruct.percent	integer	query	False	Filter by raid_groups.reconstruct.percent • Introduced in: 9.7
raid_groups.reconstruct.active	boolean	query	False	Filter by raid_groups.reconstruct.active • Introduced in: 9.7
raid_groups.raid_type	string	query	False	Filter by raid_groups.raid_type • Introduced in: 9.9
raid_groups.cache_tier	boolean	query	False	Filter by raid_groups.cache_tier • Introduced in: 9.7
state	string	query	False	Filter by state
pool	string	query	False	Filter by pool
name	string	query	False	Filter by name

Name	Type	In	Required	Description
resync.percent	integer	query	False	Filter by resync.percent
resync.active	boolean	query	False	Filter by resync.active
resync.level	string	query	False	Filter by resync.level
online	boolean	query	False	Filter by online
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	
error	error	
num_records	integer	Number of records
records	array[plex]	

Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "error": {
    "arguments": {
      "code": "string",
      "message": "string"
    },
    "code": "4",
    "message": "entry doesn't exist"
  },
  "num_records": 1,
  "records": {
    "aggregate": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "aggr1",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    },
    "name": "plex0",
    "pool": "pool0",
    "raid_groups": {
      "disks": {
        "disk": {
          "_links": {
            "self": {
              "href": "/api/resourcelink"
            }
          },
          "name": "1.0.1"
        },
        "position": "data",
        "state": "normal",
        "type": "ssd",
        "usable_size": 947912704
      }
    }
  }
}
```

```

    },
    "name": "rg0",
    "raid_type": "raid_dp",
    "recomputing_parity": {
      "percent": 10
    },
    "reconstruct": {
      "percent": 10
    }
  },
  "resync": {
    "level": "full",
    "percent": 10
  },
  "state": "normal"
}
}

```

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

href

Name	Type	Description
href	string	

_links

Name	Type	Description
next	href	
self	href	

error_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

error

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

_links

Name	Type	Description
self	href	

aggregate

Aggregate

Name	Type	Description
_links	_links	
name	string	
uuid	string	

disk

Disk

Name	Type	Description
<code>_links</code>	_links	
<code>name</code>	string	

raid_group_disk

Name	Type	Description
<code>disk</code>	disk	Disk
<code>position</code>	string	The position of the disk within the RAID group.
<code>state</code>	string	The state of the disk within the RAID group.
<code>type</code>	string	Disk interface type
<code>usable_size</code>	integer	Size in bytes that is usable by the aggregate.

recomputing_parity

Name	Type	Description
<code>active</code>	boolean	RAID group is recomputing parity
<code>percent</code>	integer	Recomputing parity percentage

reconstruct

Name	Type	Description
<code>active</code>	boolean	One or more disks in this RAID group are being reconstructed.
<code>percent</code>	integer	Reconstruct percentage

raid_group

Name	Type	Description
<code>cache_tier</code>	boolean	RAID group is a cache tier

Name	Type	Description
degraded	boolean	RAID group is degraded. A RAID group is degraded when at least one disk from that group has failed or is offline.
disks	array[raid_group_disk]	
name	string	RAID group name
raid_type	string	RAID type of the raid group.
recomputing_parity	recomputing_parity	
reconstruct	reconstruct	

resync

Name	Type	Description
active	boolean	Plex is being resynchronized to its mirrored plex
level	string	Plex resyncing level
percent	integer	Plex resyncing percentage

plex

Name	Type	Description
aggregate	aggregate	Aggregate
name	string	Plex name
online	boolean	Plex is online
pool	string	SyncMirror pool assignment
raid_groups	array[raid_group]	
resync	resync	
state	string	Plex state

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 plex specified by the aggregate UUID and plex name

GET /storage/aggregates/{aggregate.uuid}/plexes/{name}

Introduced In: 9.6

Retrieves the plex specified by the aggregate UUID and plex name.

Related ONTAP commands

- `storage aggregate plex show`

Parameters

Name	Type	In	Required	Description
aggregate.uuid	string	path	True	Aggregate UUID
name	string	path	True	Plex name
fields	array[string]	query	False	Specify the fields to return.

Response

Status: 200, Ok

Name	Type	Description
aggregate	aggregate	Aggregate
name	string	Plex name

Name	Type	Description
online	boolean	Plex is online
pool	string	SyncMirror pool assignment
raid_groups	array[raid_group]	
resync	resync	
state	string	Plex state

Example response

```
{
  "aggregate": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "aggr1",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "name": "plex0",
  "pool": "pool0",
  "raid_groups": {
    "disks": {
      "disk": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "1.0.1"
      },
      "position": "data",
      "state": "normal",
      "type": "ssd",
      "usable_size": 947912704
    },
    "name": "rg0",
    "raid_type": "raid_dp",
    "recomputing_parity": {
      "percent": 10
    },
    "reconstruct": {
      "percent": 10
    }
  },
  "resync": {
    "level": "full",
    "percent": 10
  },
  "state": "normal"
}
```

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

href

Name	Type	Description
href	string	

_links

Name	Type	Description
self	href	

aggregate

Aggregate

Name	Type	Description
_links	_links	
name	string	
uuid	string	

disk

Disk

Name	Type	Description
_links	_links	
name	string	

raid_group_disk

Name	Type	Description
disk	disk	Disk
position	string	The position of the disk within the RAID group.
state	string	The state of the disk within the RAID group.
type	string	Disk interface type
usable_size	integer	Size in bytes that is usable by the aggregate.

recomputing_parity

Name	Type	Description
active	boolean	RAID group is recomputing parity
percent	integer	Recomputing parity percentage

reconstruct

Name	Type	Description
active	boolean	One or more disks in this RAID group are being reconstructed.
percent	integer	Reconstruct percentage

raid_group

Name	Type	Description
cache_tier	boolean	RAID group is a cache tier
degraded	boolean	RAID group is degraded. A RAID group is degraded when at least one disk from that group has failed or is offline.
disks	array[raid_group_disk]	
name	string	RAID group name
raid_type	string	RAID type of the raid group.
recomputing_parity	recomputing_parity	
reconstruct	reconstruct	

resync

Name	Type	Description
active	boolean	Plex is being resynchronized to its mirrored plex
level	string	Plex resyncing level
percent	integer	Plex resyncing percentage

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.