



# **Display MetroCluster diagnostics**

ONTAP 9.9.1 REST API reference

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# Display MetroCluster diagnostics

## Cluster MetroCluster diagnostics endpoint overview

### Overview

You can use this API to initiate a MetroCluster diagnostics operation and fetch the results of a completed diagnostics operation on a MetroCluster over IP configuration. The GET operation retrieves the results of a completed diagnostics operation for the MetroCluster over IP configuration. The POST request can be used to start a MetroCluster diagnostics operation or set up a schedule for the diagnostics to be run periodically.

### Starting a MetroCluster diagnostics operation

A new MetroCluster diagnostics operation can be started by issuing a POST to `/cluster/metrocluster/diagnostics`. There are no extra parameters required to initiate a diagnostics operation.

### Polling the POST job for status of diagnostics operation

After a successful POST `/cluster/diagnostics` operation is issued, an HTTP status code of 202 (Accepted) is returned along with a job UUID and a link in the body of the response. The POST job continues asynchronously and can be monitored by using the job UUID and the `/cluster/jobs` API. The "message" field in the response of the GET `/cluster/jobs/{uuid}` request shows the current step in the job, and the "state" field shows the overall state of the job.

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## Examples

### Running the diagnostics operation

This example shows the POST request for starting a diagnostic operation for a MetroCluster over IP configuration and the responses returned:

```
#API  
/api/cluster/metrocluster/diagnostics
```

### POST Request

```
curl -X POST https://<mgmt-ip>/api/cluster/metrocluster/diagnostics
```

### POST Response

```
HTTP/1.1 202 Accepted
Date: Tue, 22 Sep 2020 17:20:53 GMT
Server: libzapid-httpd
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Location: /api/cluster/metrocluster/diagnostics
Content-Length: 189
Content-Type: application/hal+json
{
  "job": {
    "uuid": "f7d3804c-fcf7-11ea-acaf-005056bb47c1",
    "_links": {
      "self": {
        "href": "/api/cluster/jobs/f7d3804c-fcf7-11ea-acaf-005056bb47c1"
      }
    }
  }
}
```

## Monitoring the job progress

Use the link provided in the response to the POST request to fetch information for the diagnostics operation job.

### Request

```
curl -X GET https://<mgmt-ip>/api/cluster/jobs/f7d3804c-fcf7-11ea-acaf-005056bb47c1
```

### Job status response

```
HTTP/1.1 202 Accepted
Date: Tue, 22 Sep 2020 17:21:12 GMT
Server: libzapid-httpd
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Content-Length: 345
Content-Type: application/hal+json
{
  "uuid": "f7d3804c-fcf7-11ea-acaf-005056bb47c1",
  "description": "POST /api/cluster/metrocluster/diagnostics",
  "state": "running",
  "message": "Checking nodes...",
  "code": 2432853,
  "start_time": "2020-09-22T13:20:53-04:00",
  "_links": {
    "self": {
      "href": "/api/cluster/jobs/f7d3804c-fcf7-11ea-acaf-005056bb47c1"
    }
  }
}
```

#### Final status of the diagnostics job

```
HTTP/1.1 202 Accepted
Date: Tue, 22 Sep 2020 17:29:04 GMT
Server: libzapid-httpd
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Content-Length: 372
Content-Type: application/hal+json
{
  "uuid": "f7d3804c-fcf7-11ea-acaf-005056bb47c1",
  "description": "POST /api/cluster/metrocluster/diagnostics",
  "state": "success",
  "message": "success",
  "code": 0,
  "start_time": "2020-09-22T13:20:53-04:00",
  "end_time": "2020-09-22T13:22:04-04:00",
  "_links": {
    "self": {
      "href": "/api/cluster/jobs/f7d3804c-fcf7-11ea-acaf-005056bb47c1"
    }
  }
}
```

## Retrieving the diagnostics operation

### Request

```
curl -X GET https://<mgmt-ip>/api/cluster/metrocluster/diagnostics
```

### Response

```
HTTP/1.1 202 Accepted
Date: Tue, 22 Sep 2020 18:04:28 GMT
Server: libzapid-httpd
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Content-Length: 1005
Content-Type: application/hal+json
{
  "node": {
    "timestamp": "2020-09-22T13:47:01-04:00",
    "state": "ok",
    "summary": {
      "message": ""
    }
  },
  "interface": {
    "timestamp": "2020-09-22T13:47:01-04:00",
    "state": "ok",
    "summary": {
      "message": ""
    }
  },
  "aggregate": {
    "timestamp": "2020-09-22T13:47:01-04:00",
    "state": "ok",
    "summary": {
      "message": ""
    }
  },
  "cluster": {
    "timestamp": "2020-09-22T13:47:01-04:00",
    "state": "ok",
    "summary": {
      "message": ""
    }
  },
  "connection": {
```

```

    "timestamp": "2020-09-22T13:47:01-04:00",
    "state": "ok",
    "summary": {
      "message": ""
    }
  },
  "volume": {
    "timestamp": "2020-09-22T13:47:01-04:00",
    "state": "ok",
    "summary": {
      "message": ""
    }
  },
  "config_replication": {
    "timestamp": "2020-09-22T13:47:01-04:00",
    "state": "ok",
    "summary": {
      "message": ""
    }
  },
  "_links": {
    "self": {
      "href": "/api/cluster/metrocluster/diagnostics"
    }
  }
}

```

### Related ONTAP Commands

- `metrocluster check run`
- `metrocluster check show`

## Retrieve diagnostic operation results for a MetroCluster configuration

GET /cluster/metrocluster/diagnostics

**Introduced In:** 9.8

Retrieves the results of a completed diagnostic operation for the MetroCluster configuration.

### Parameters

Name	Type	In	Required	Description
return_records	boolean	query	False	The default is true for GET calls. When set to false, only the number of records is returned.  • 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.  • 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
Specify the fields to return.	max_records	integer	query	False

## Response

Status: 200, Ok

Name	Type	Description
aggregate	<a href="#">aggregate</a>	
cluster	<a href="#">cluster</a>	
config-replication	<a href="#">config-replication</a>	



Name	Type	Description
connection	connection	
interface	interface	
node	node	
volume	volume	

## Example response

```
{
  "aggregate": {
    "state": "ok",
    "summary": {
      "code": "string",
      "message": "string"
    },
    "timestamp": "2016-03-10T14:35:16-08:00"
  },
  "cluster": {
    "state": "ok",
    "summary": {
      "code": "string",
      "message": "string"
    },
    "timestamp": "2016-03-10T14:35:16-08:00"
  },
  "config-replication": {
    "state": "ok",
    "summary": {
      "code": "string",
      "message": "string"
    },
    "timestamp": "2016-03-14T14:35:16-08:00"
  },
  "connection": {
    "state": "ok",
    "summary": {
      "code": "string",
      "message": "string"
    },
    "timestamp": "2016-03-10T14:35:16-08:00"
  },
  "interface": {
    "state": "ok",
    "summary": {
      "code": "string",
      "message": "string"
    },
    "timestamp": "2016-03-10T14:35:16-08:00"
  },
  "node": {
    "state": "ok",
    "summary": {
```

```

    "code": "string",
    "message": "string"
  },
  "timestamp": "2016-03-10T14:35:16-08:00"
},
"volume": {
  "state": "ok",
  "summary": {
    "code": "string",
    "message": "string"
  },
  "timestamp": "2016-03-10T14:35:16-08:00"
}
}

```

## Error

Status: Default

### ONTAP Error Response Codes

Error Code	Description
2425734	An internal error occurred. Wait a few minutes, and try the operation again. For further assistance, contact technical support.
2427132	MetroCluster is not configured on this cluster.
2432856	MetroCluster diagnostics result is not available. Use the REST API GET method on <code>/api/cluster/metrocluster/operations?type=check&amp;fields=*</code> for more information.

## Definitions

## See Definitions

summary

Additional information or recovery steps to take.

Name	Type	Description
code	string	Argument code
message	string	Message argument

aggregate

Name	Type	Description
state	string	Status of diagnostic operation for this component.
summary	<a href="#">summary</a>	Additional information or recovery steps to take.
timestamp	string	Time of the most recent diagnostic operation for this component

cluster

Name	Type	Description
state	string	Status of diagnostic operation for this component.
summary	<a href="#">summary</a>	Additional information or recovery steps to take.
timestamp	string	Time of the most recent diagnostic operation for this component

config-replication

Name	Type	Description
state	string	Status of diagnostic operation for this component.

Name	Type	Description
summary	<a href="#">summary</a>	Additional information or recovery steps to take.
timestamp	string	Time of the most recent diagnostic operation for this component

#### connection

Name	Type	Description
state	string	Status of diagnostic operation for this component.
summary	<a href="#">summary</a>	Additional information or recovery steps to take.
timestamp	string	Time of the most recent diagnostic operation for this component

#### interface

Name	Type	Description
state	string	Status of diagnostic operation for this component.
summary	<a href="#">summary</a>	Additional information or recovery steps to take.
timestamp	string	Time of the most recent diagnostic operation for this component

#### node

Name	Type	Description
state	string	Status of diagnostic operation for this component.
summary	<a href="#">summary</a>	Additional information or recovery steps to take.

Name	Type	Description
timestamp	string	Time of the most recent diagnostic operation for this component

volume

Name	Type	Description
state	string	Status of diagnostic operation for this component.
summary	<a href="#">summary</a>	Additional information or recovery steps to take.
timestamp	string	Time of the most recent diagnostic operation for this component

## Start MetroCluster diagnostics or set up a periodic diagnostic schedule

POST /cluster/metrocluster/diagnostics

**Introduced In:** 9.8

Start a MetroCluster diagnostic operation or set up a schedule for the diagnostics to be run periodically.

### Parameters

Name	Type	In	Required	Description
schedule	integer	query	False	Shows the minutes of every hour when a job runs. Setting this parameter schedules the periodic job to be run to perform MetroCluster diagnostic.

Name	Type	In	Required	Description
return_timeout	integer	query	False	<p>The number of seconds to allow the call to execute before returning. When doing a POST, PATCH, or DELETE operation on a single record, the default is 0 seconds. This means that if an asynchronous operation is started, the server immediately returns HTTP code 202 (Accepted) along with a link to the job. If a non-zero value is specified for POST, PATCH, or DELETE operations, ONTAP waits that length of time to see if the job completes so it can return something other than 202.</p> <ul style="list-style-type: none"> <li>• Default value: 1</li> <li>• Max value: 120</li> <li>• Min value: 0</li> </ul>
return_records	boolean	query	False	<p>The default is false. If set to true, the records are returned.</p> <ul style="list-style-type: none"> <li>• Default value:</li> </ul>

## Response

Status: 202, Accepted

Name	Type	Description
job	<a href="#">job_link</a>	

## Example response

```
{
  "job": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "uuid": "string"
  }
}
```

## Error

Status: Default

### ONTAP Error Response Codes

Error Code	Description
2425734	An internal error occurred. Wait a few minutes, and try the operation again. For further assistance, contact technical support.
2427132	MetroCluster is not configured on this cluster.
2432833	Operation is already running.
2432852	MetroCluster diagnostics start
2432853	MetroCluster diagnostics job scheduled
2432854	MetroCluster diagnostics complete
2432855	MetroCluster diagnostics operation failed. Use the REST API GET method on <code>/api/cluster/metrocluster/operations?type=check&amp;fields=*</code> for more information.

## Definitions



## See Definitions

href

Name	Type	Description
href	string	

\_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.

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