



Retrieve consistency group metrics

ONTAP 9.14.1 REST API reference

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Retrieve consistency group metrics

Application consistency-groups consistency_group.uuid metrics endpoint overview

Overview

Retrieves historical performance and capacity metrics for a consistency group.

Examples

Retrieving historical performance and space metrics for a consistency group for the past day

```
# The API:
/api/application/consistency-groups/{uuid}/metrics

# The call:
curl -X GET "https://<mgmt-ip>/api/application/consistency-
groups/{uuid}/metrics?interval=1d&fields=*" -H "accept:
application/hal+json"

# The response:
Snipped most of the records
{
  "records": [
    {
      "uuid": "5069acd5-b325-11ed-a958-005056ac6b54",
      "timestamp": "2023-02-23T03:17:45Z",
      "status": "ok",
      "duration": "PT15S",
      "latency": {
        "read": 0,
        "write": 0,
        "other": 0,
        "total": 0
      },
      "iops": {
        "read": 0,
        "write": 0,
        "other": 0,
        "total": 0
      },
      "throughput": {
        "read": 0,
        "write": 0,
```

```
    "other": 0,
    "total": 0
  },
  "available_space": 862216192,
  "used_space": 1810432,
  "size": 864026624,
  "_links": {
    "self": {
      "href": "/api/application/consistency-groups/5069acd5-b325-11ed-
a958-005056ac6b54/metrics/2023-02-23T03%3A17%3A45Z?fields=**"
    }
  }
},
{
  "uuid": "5069acd5-b325-11ed-a958-005056ac6b54",
  "timestamp": "2023-02-23T02:18:00Z",
  "svm": {
    "name": "vs0",
    "uuid": "55b1a7b9-b2fb-11ed-a958-005056ac6b54"
  },
  "status": "partial_no_data",
  "duration": "PT15S",
  "latency": {
    "read": 0,
    "write": 0,
    "other": 0,
    "total": 0
  },
  "iops": {
    "read": 0,
    "write": 0,
    "other": 0,
    "total": 0
  },
  "throughput": {
    "read": 0,
    "write": 0,
    "other": 0,
    "total": 0
  },
  "available_space": 0,
  "used_space": 0,
  "size": 0,
  "_links": {
    "self": {
      "href": "/api/application/consistency-groups/5069acd5-b325-11ed-
```

```

a958-005056ac6b54/metrics/2023-02-23T02%3A18%3A00Z?fields=**"
    }
  }
},
"num_records": 240,
"_links": {
  "self": {
    "href": "/api/application/consistency-groups/5069acd5-b325-11ed-a958-005056ac6b54/metrics?fields=**"
  }
}
}
}

```

Retrieving historical metrics within a time range defined by timestamp

```

curl -X GET "https://<mgmt-ip>/api/application/consistency-groups/{uuid}/metrics?fields=**&timestamp=2023-02-23T03:36:45Z..2023-02-23T03:36:30Z" -H "accept: application/hal+json"

```

Response:

```

{
"records": [
{
  "uuid": "5069acd5-b325-11ed-a958-005056ac6b54",
  "timestamp": "2023-02-23T03:36:45Z",
  "svm": {
    "name": "vs0",
    "uuid": "55b1a7b9-b2fb-11ed-a958-005056ac6b54"
  },
  "status": "ok",
  "duration": "PT15S",
  "latency": {
    "read": 0,
    "write": 0,
    "other": 0,
    "total": 0
  },
  "iops": {
    "read": 0,
    "write": 0,
    "other": 0,
    "total": 0
  },
  "throughput": {

```

```
    "read": 0,
    "write": 0,
    "other": 0,
    "total": 0
  },
  "available_space": 862183424,
  "used_space": 1843200,
  "size": 864026624,
  "_links": {
    "self": {
      "href": "/api/application/consistency-groups/5069acd5-b325-11ed-
a958-005056ac6b54/metrics/2023-02-23T03%3A36%3A45Z?fields=**"
    }
  }
},
{
  "uuid": "5069acd5-b325-11ed-a958-005056ac6b54",
  "timestamp": "2023-02-23T03:36:30Z",
  "svm": {
    "name": "vs0",
    "uuid": "55b1a7b9-b2fb-11ed-a958-005056ac6b54"
  },
  "status": "ok",
  "duration": "PT15S",
  "latency": {
    "read": 0,
    "write": 0,
    "other": 0,
    "total": 0
  },
  "iops": {
    "read": 0,
    "write": 0,
    "other": 0,
    "total": 0
  },
  "throughput": {
    "read": 0,
    "write": 0,
    "other": 0,
    "total": 0
  },
  "available_space": 862183424,
  "used_space": 1843200,
  "size": 864026624,
  "_links": {
```

```

    "self": {
      "href": "/api/application/consistency-groups/5069acd5-b325-11ed-a958-005056ac6b54/metrics/2023-02-23T03%3A36%3A30Z?fields=**"
    }
  },
  "num_records": 2,
  "_links": {
    "self": {
      "href": "/api/application/consistency-groups/5069acd5-b325-11ed-a958-005056ac6b54/metrics?fields=**&timestamp=2023-02-23T03:36:45Z..2023-02-23T03:36:30Z"
    }
  }
}

```

Retrieve the historical performance and capacity metrics for a consistency group

GET /application/consistency-groups/{consistency_group.uuid}/metrics

Introduced In: 9.13

Retrieves historical performance and capacity metrics for a consistency group.

Parameters

| Name | Type | In | Required | Description |
|------------------|---------|-------|----------|----------------------------|
| status | string | query | False | Filter by status |
| available_space | integer | query | False | Filter by available_space |
| timestamp | string | query | False | Filter by timestamp |
| used_space | integer | query | False | Filter by used_space |
| throughput.total | integer | query | False | Filter by throughput.total |
| throughput.other | integer | query | False | Filter by throughput.other |

| Name | Type | In | Required | Description |
|-----------------------|-------------|-----------|-----------------|---|
| throughput.write | integer | query | False | Filter by throughput.write |
| throughput.read | integer | query | False | Filter by throughput.read |
| size | integer | query | False | Filter by size |
| latency.total | integer | query | False | Filter by latency.total |
| latency.other | integer | query | False | Filter by latency.other |
| latency.write | integer | query | False | Filter by latency.write |
| latency.read | integer | query | False | Filter by latency.read |
| duration | string | query | False | Filter by duration |
| iops.total | integer | query | False | Filter by iops.total |
| iops.other | integer | query | False | Filter by iops.other |
| iops.write | integer | query | False | Filter by iops.write |
| iops.read | integer | query | False | Filter by iops.read |
| consistency_group.uid | string | path | True | Unique identifier of the consistency group. |

| Name | Type | In | Required | Description |
|----------|--------|-------|----------|---|
| interval | string | query | False | <p>The time range for the data. Examples can be 1h, 1d, 1w, 1m, 1y. The period for each time range is as follows:</p> <ul style="list-style-type: none"> • 1h: Metrics over the most recent hour sampled over 15 seconds. • 1d: Metrics over the most recent day sampled over 5 minutes. • 1w: Metrics over the most recent week sampled over 30 minutes. • 1m: Metrics over the most recent month sampled over 2 hours. • 1y: Metrics over the most recent year sampled over a day. • Default value: 1 • enum: ["1h", "1d", "1w", "1m", "1y"] |

| 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 |
| fields | array[string] | query | False | Specify the fields to return. |
| max_records | integer | query | False | Limit the number of records returned. |
| order_by | array[string] | query | False | Order results by specified fields and optional [asc/desc] direction. Default direction is 'asc' for ascending. |
| 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 |

Response

Status: 200, Ok

| Name | Type | Description |
|--------|------------------------|-------------|
| _links | _links | |

| Name | Type | Description |
|-------------|----------------------------------|-------------------|
| num_records | integer | Number of records |
| records | array[records] | |

Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "records": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "available_space": 4096,
    "duration": "PT15S",
    "iops": {
      "read": 200,
      "total": 1000,
      "write": 100
    },
    "latency": {
      "read": 200,
      "total": 1000,
      "write": 100
    },
    "size": 4096,
    "status": "ok",
    "throughput": {
      "read": 200,
      "total": 1000,
      "write": 100
    },
    "timestamp": "2017-01-25 11:20:13 +0000",
    "used_space": 4096
  }
}
```

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 | |

_links

| Name | Type | Description |
|------|----------------------|-------------|
| self | href | |

iops

The rate of I/O operations observed at the storage object.

| Name | Type | Description |
|-------|---------|--|
| other | integer | Performance metric for other I/O operations. Other I/O operations can be metadata operations, such as directory lookups and so on. |
| read | integer | Performance metric for read I/O operations. |
| total | integer | Performance metric aggregated over all types of I/O operations. |
| write | integer | Performance metric for write I/O operations. |

latency

The round trip latency observed at the storage object, in microseconds.

| Name | Type | Description |
|-------|---------|--|
| other | integer | Performance metric for other I/O operations. Other I/O operations can be metadata operations, such as directory lookups and so on. |
| read | integer | Performance metric for read I/O operations. |
| total | integer | Performance metric aggregated over all types of I/O operations. |
| write | integer | Performance metric for write I/O operations. |

throughput

The rate of throughput bytes per second observed at the storage object.

| Name | Type | Description |
|-------|---------|--|
| other | integer | Performance metric for other I/O operations. Other I/O operations can be metadata operations, such as directory lookups and so on. |
| read | integer | Performance metric for read I/O operations. |
| total | integer | Performance metric aggregated over all types of I/O operations. |
| write | integer | Performance metric for write I/O operations. |

records

Performance and capacity numbers, such as, IOPS, latency, throughput, used space, and available space.

| Name | Type | Description |
|------------------------|------------------------|---|
| _links | _links | |
| available_space | integer | The total space available in the consistency group, in bytes. |

| Name | Type | Description |
|------------|------------|---|
| duration | string | The duration over which this sample is calculated. The time durations are represented in the ISO-8601 standard format. Samples can be calculated over the following durations: |
| iops | iops | The rate of I/O operations observed at the storage object. |
| latency | latency | The round trip latency observed at the storage object, in microseconds. |
| size | integer | The total size of the consistency group, in bytes. |
| status | string | Errors associated with the sample. For example, if the aggregation of data over multiple nodes fails, then any partial errors might return "ok" on success or "error" on an internal uncategorized failure. Whenever a sample collection is missed but done at a later time, it is back filled to the previous 15 second timestamp and tagged with "backfilled_data". "Inconsistent_delta_time" is encountered when the time between two collections is not the same for all nodes. Therefore, the aggregated value might be over or under inflated. "Negative_delta" is returned when an expected monotonically increasing value has decreased in value. "Inconsistent_old_data" is returned when one or more nodes do not have the latest data. |
| throughput | throughput | The rate of throughput bytes per second observed at the storage object. |
| timestamp | string | The timestamp of the performance and capacity data. |

| Name | Type | Description |
|------------|---------|--|
| used_space | integer | The total space used in the consistency group, in bytes. |

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. |

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