



## **Manage S3 buckets**

### **ONTAP 9.10.1 REST API Documentation**

NetApp  
May 08, 2024

This PDF was generated from [https://docs.netapp.com/us-en/ontap-restapi-9101/ontap/protocols\\_s3\\_buckets\\_endpoint\\_overview.html](https://docs.netapp.com/us-en/ontap-restapi-9101/ontap/protocols_s3_buckets_endpoint_overview.html) on May 08, 2024. Always check [docs.netapp.com](https://docs.netapp.com) for the latest.

# Table of Contents

- Manage S3 buckets . . . . . 1
  - Protocols S3 buckets endpoint overview . . . . . 1
  - Retrieve all S3 buckets for all SVMs . . . . . 12
  - Create the S3 bucket configuration for an SVM . . . . . 28
  - Delete the S3 bucket configuration for an SVM . . . . . 45
  - Retrieve the S3 bucket configuration for an SVM . . . . . 49
  - Update the S3 bucket configuration for an SVM . . . . . 61

# Manage S3 buckets

## Protocols S3 buckets endpoint overview

### Overview

An S3 bucket is a container of objects. Each bucket defines an object namespace. S3 server requests specify objects using a bucket-name and object-name pair. An object consists of data, along with optional metadata and access controls, that is accessible using a name. An object resides within a bucket. There can be more than one bucket in an S3 server. Buckets that are created for the server are associated with an S3 user that is created on the S3 server.

### Examples

#### Retrieving all fields for all S3 buckets of a cluster

```
# The API:
/api/protocols/s3/buckets

# The call:
curl -X GET "https://<mgmt-
ip>/api/protocols/s3/buckets?fields=*&return_records=true" -H "accept:
application/json"

# The response:
{
  "records": [
    {
      "svm": {
        "uuid": "12f3ba4c-7ae0-11e9-8c06-0050568ea123",
        "name": "vs1"
      },
      "uuid": "527812ab-7c6d-11e9-97e8-0050568ea123",
      "name": "bucket-2",
      "volume": {
        "name": "fg_oss_1558514455",
        "uuid": "51276f5f-7c6d-11e9-97e8-0050568ea123"
      },
      "size": 209715200,
      "logical_used_size": 157286400,
      "encryption": {
        "enabled": false
      },
      "comment": "S3 bucket.",
      "qos_policy": {
        "min_throughput_iops": 0,
```

```

        "min_throughput_mbps": 0,
        "max_throughput_iops": 1000,
        "max_throughput_mbps": 0,
        "uuid": "39ac471f-ff35-11e9-b0f9-005056a7ab52",
        "name": "vs0_auto_gen_policy_39a9522f_ff35_11e9_b0f9_005056a7ab52"
    }
},
{
    "svm": {
        "uuid": "12f3ba4c-7ae0-11e9-8c06-0050568ea123",
        "name": "vs1"
    },
    "uuid": "a8234aec-7e06-11e9-97e8-0050568ea123",
    "name": "bucket-1",
    "volume": {
        "name": "fg_oss_1558690256",
        "uuid": "a36a1ea7-7e06-11e9-97e8-0050568ea123"
    },
    "size": 1677721600,
    "logical_used_size": 0,
    "encryption": {
        "enabled": false
    },
    "comment": "bucket2",
    "qos_policy": {
        "min_throughput_iops": 0,
        "min_throughput_mbps": 0,
        "max_throughput_iops": 1000,
        "max_throughput_mbps": 0,
        "uuid": "39ac471f-ff35-11e9-b0f9-005056a7ab52",
        "name": "vs0_auto_gen_policy_39a9522f_ff35_11e9_b0f9_005056a7ab52"
    }
},
{
    "svm": {
        "uuid": "ee30eb2d-7ae1-11e9-8abe-0050568ea123",
        "name": "vs2"
    },
    "uuid": "19283b75-7ae2-11e9-8abe-0050568ea123",
    "name": "bucket-3",
    "volume": {
        "name": "fg_oss_1558690257",
        "uuid": "a46a1ea7-7e06-11e9-97e8-0050568ea123"
    },
    "size": 1677721600,
    "logical_used_size": 1075838976,

```

```

"encryption": {
  "enabled": false
},
"comment": "bucket3",
"qos_policy": {
  "min_throughput_iops": 0,
  "min_throughput_mbps": 0,
  "max_throughput_iops": 1000,
  "max_throughput_mbps": 0,
  "uuid": "39ac471f-ff35-11e9-b0f9-005056a7ab52",
  "name": "vs0_auto_gen_policy_39a9522f_ff35_11e9_b0f9_005056a7ab52"
},
"policy": {
  "statements": [
    {
      "effect": "allow",
      "actions": [
        "*"
      ],
      "principals": [
        "Alice"
      ],
      "resources": [
        "bucket-3",
        "bucket-3/*"
      ],
      "sid": "fullAccessForAliceToBucket",
      "conditions": [
        {
          "operator": "ip_address",
          "source_ips": [
            "1.1.1.1/10"
          ]
        }
      ]
    }
  ]
}
],
"num_records": 3
}

```

**Retrieving all S3 buckets of a cluster ordered by size**

```
# The API:
/api/protocols/s3/buckets

# The call:
curl -X GET "https://<mgmt-
ip>/api/protocols/s3/buckets?return_records=true&order_by=size" -H
"accept: application/json"

# The response:
{
  "records": [
    {
      "svm": {
        "uuid": "12f3ba4c-7ae0-11e9-8c06-0050568ea123",
        "name": "vs1"
      },
      "uuid": "754389d0-7e13-11e9-bfdc-0050568ea123",
      "name": "bb1",
      "size": 83886080
    },
    {
      "svm": {
        "uuid": "ee30eb2d-7ae1-11e9-8abe-0050568ea123",
        "name": "vs2"
      },
      "uuid": "19283b75-7ae2-11e9-8abe-0050568ea123",
      "name": "bb2",
      "size": 838860800
    },
    {
      "svm": {
        "uuid": "12f3ba4c-7ae0-11e9-8c06-0050568ea123",
        "name": "vs1"
      },
      "uuid": "a8234aec-7e06-11e9-97e8-0050568ea123",
      "name": "bucket-1",
      "size": 1677721600
    }
  ],
  "num_records": 3
}
```

**Retrieving all S3 buckets of a cluster with name "bb2"**

```

# The API:
/api/protocols/s3/buckets

# The call:
curl -X GET "https://<mgmt-
ip>/api/protocols/s3/buckets?name=bb2&return_records=true" -H "accept:
application/json"

# The response:
{
  "records": [
    {
      "svm": {
        "uuid": "12f3ba4c-7ae0-11e9-8c06-0050568ea123",
        "name": "vs1"
      },
      "uuid": "087d940e-7e15-11e9-bfdc-0050568ea123",
      "name": "bb2"
    },
    {
      "svm": {
        "uuid": "ee30eb2d-7ae1-11e9-8abe-0050568ea123",
        "name": "vs2"
      },
      "uuid": "19283b75-7ae2-11e9-8abe-0050568ea123",
      "name": "bb2"
    }
  ],
  "num_records": 2
}

```

### Retrieving the specified bucket associated with an SVM

```
# The API:
/api/protocols/s3/buckets/{svm.uuid}/{uuid}

# The call:
curl -X GET "https://<mgmt-ip>/api/protocols/s3/buckets/12f3ba4c-7ae0-11e9-8c06-0050568ea123/527812ab-7c6d-11e9-97e8-0050568ea123" -H "accept: application/json"

# The response:
{
  "svm": {
    "uuid": "12f3ba4c-7ae0-11e9-8c06-0050568ea123",
    "name": "vs1"
  },
  "uuid": "527812ab-7c6d-11e9-97e8-0050568ea123",
  "name": "bucket-2",
  "volume": {
    "name": "fg_oss_1558514455",
    "uuid": "51276f5f-7c6d-11e9-97e8-0050568ea123"
  },
  "size": 209715200,
  "logical_used_size": 157286400,
  "encryption": {
    "enabled": false
  },
  "comment": "S3 bucket.",
  "qos_policy": {
    "min_throughput_iops": 0,
    "min_throughput_mbps": 0,
    "max_throughput_iops": 1000,
    "max_throughput_mbps": 0,
    "uuid": "39ac471f-ff35-11e9-b0f9-005056a7ab52",
    "name": "vs0_auto_gen_policy_39a9522f_ff35_11e9_b0f9_005056a7ab52"
  }
}
```

## Creating an S3 bucket for an SVM



```
# The API:
/api/protocols/s3/buckets

# The call:
curl -iku admin:netapp1! -X POST "https://<mgmt-
ip>/api/protocols/s3/buckets?return_timeout=0&return_records=true" -H
"accept: application/json" -H "Content-Type: application/json" -d "{
  \"aggregates\": [ { \"name\": \"aggr5\", \"uuid\": \"12f3ba4c-7ae0-11e9-
8c06-0050568ea123\" } ], \"comment\": \"S3 bucket.\",
  \"constituents_per_aggregate\": 4, \"name\": \"bucket-3\", \"svm\": {
  \"name\": \"vs1\" } }"

# The response:
HTTP/1.1 202 Accepted
Date: Fri, 24 May 2019 11:22:14 GMT
Server: libzapid-httpd
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Location: /api/protocols/s3/buckets/259b4e46-2d33-11ea-9145-
005056bbbec1/?name=bucket-3
Content-Length: 353
Content-Type: application/json
{
  "num_records": 1,
  "records": [
    {
      "name": "bucket-3",
      "comment": "S3 bucket."
    }
  ],
  "job": {
    "uuid": "2e880171-7e16-11e9-bfdc-0050568ea123",
    "_links": {
      "self": {
        "href": "/api/cluster/jobs/2e880171-7e16-11e9-bfdc-0050568ea123"
      }
    }
  }
}
```

## Creating an S3 bucket along with QoS policy for an SVM

```
# The API:
/api/protocols/s3/buckets

# The call:
curl -iku admin:netapp1! -X POST "https://<mgmt-
ip>/api/protocols/s3/buckets?return_timeout=0&return_records=true" -H
"accept: application/json" -H "Content-Type: application/json" -d "{
\"comment\": \"S3 bucket.\", \"name\": \"bucket-3\", \"svm\": { \"name\":
\"vs1\" }, \"qos_policy\": { \"min_throughput_iops\": 0,
\"min_throughput_mbps\": 0, \"max_throughput_iops\": 1000000,
\"max_throughput_mbps\": 900000, \"uuid\": \"02d07a93-6177-11ea-b241-
000c293feac8\", \"name\":
\"vs0_auto_gen_policy_02cfa02a_6177_11ea_b241_000c293feac8\" } }"

# The response:
HTTP/1.1 202 Accepted
Date: Fri, 24 May 2019 11:22:14 GMT
Server: libzapid-httpd
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Location: /api/protocols/s3/buckets/259b4e46-2d33-11ea-9145-
005056bbbec1/?name=bucket-3
Content-Length: 353
Content-Type: application/json
{
  "num_records": 1,
  "records": [
    {
      "name": "bucket-3",
      "comment": "S3 bucket."
    }
  ],
  "job": {
    "uuid": "2e880171-7e16-11e9-bfdc-0050568ea123",
    "_links": {
      "self": {
        "href": "/api/cluster/jobs/2e880171-7e16-11e9-bfdc-0050568ea123"
      }
    }
  }
}
```

## Creating an S3 bucket along with policies and conditions for an SVM

```
# The API:
/api/protocols/s3/buckets

# The call:
curl -iku admin:netapp1! -X POST "https://<mgmt-
ip>/api/protocols/s3/buckets?return_timeout=0&return_records=true" -H
"accept: application/json" -H "Content-Type: application/json" -d "{
\"aggregates\": [ { \"name\": \"aggr5\", \"uuid\": \"12f3ba4c-7ae0-11e9-
8c06-0050568ea123\" } ], \"comment\": \"S3 bucket.\",
\"constituents_per_aggregate\": 4, \"name\": \"bucket-3\", \"policy\": {
\"statements\": [ { \"actions\": [ \"GetObject\" ], \"conditions\": [ {
\"operator\": \"ip_address\", \"source_ips\": [ \"1.1.1.1/23\",
\"1.2.2.2/20\" ] } ], \"effect\": \"allow\", \"resources\": [ \"bucket-
3/policies/examples/*\" ], \"sid\": \"AccessToGetObjectForAllUsersofSVM\"
}, { \"actions\": [ \"*Object\" ], \"effect\": \"deny\", \"principals\": [
\"mike\" ], \"resources\": [ \"bucket-3/policy-docs/*\", \"bucket-
3/confidential-*\" ], \"sid\": \"DenyAccessToObjectForMike\" }, {
\"actions\": [ \"GetObject\" ], \"effect\": \"allow\", \"principals\": [
\"*\" ], \"resources\": [ \"bucket-3/readme\" ], \"sid\":
\"AnonymousAccessToGetObjectForUsers\" } ] }, \"svm\": { \"uuid\":
\"259b4e46-2d33-11ea-9145-005056bbb1\" } }"

# The response:
HTTP/1.1 202 Accepted
Date: Fri, 24 May 2019 11:22:14 GMT
Server: libzapid-httpd
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Location: /api/protocols/s3/buckets/259b4e46-2d33-11ea-9145-
005056bbb1/?name=bucket-3
Content-Length: 353
Content-Type: application/json
{
  "num_records": 1,
  "records": [
    {
      "name": "bucket-3",
      "comment": "S3 bucket."
    }
  ],
  "job": {
    "uuid": "2e880171-7e16-11e9-bfdc-0050568ea123",
    "_links": {
      "self": {
        "href": "/api/cluster/jobs/2e880171-7e16-11e9-bfdc-0050568ea123"
      }
    }
  }
}
```

```
}  
}  
}
```

## Updating an S3 bucket for an SVM

```
# The API:  
/api/protocols/s3/buckets/{svm.uuid}/{uuid}  
  
# The call:  
curl -X PATCH "https://<mgmt-ip>/api/protocols/s3/buckets/259b4e46-2d33-  
11ea-9145-005056bbbbec1/376a2efd-2d4d-11ea-9c30-  
005056bbb883a?return_records=true" -H "accept:  
application/json?return_records=true" -H "Content-Type: application/json"  
-d "{ \"comment\": \"Bucket modified.\", \"size\": 111111111111,  
\"qos_policy\": { \"min_throughput_iops\": 0, \"min_throughput_mbps\": 0,  
\"max_throughput_iops\": 1000000, \"max_throughput_mbps\": 900000,  
\"uuid\": \"02d07a93-6177-11ea-b241-000c293feac8\", \"name\":  
\"vs0_auto_gen_policy_02cfa02a_6177_11ea_b241_000c293feac8\" } }"  
  
# The response:  
HTTP/1.1 202 Accepted  
Date: Fri, 24 May 2019 11:32:27 GMT  
Server: libzapid-httpd  
X-Content-Type-Options: nosniff  
Cache-Control: no-cache,no-store,must-revalidate  
Content-Length: 189  
Content-Type: application/json  
{  
  "job": {  
    "uuid": "9beafabb-7e17-11e9-bfdc-0050568ea123",  
    "_links": {  
      "self": {  
        "href": "/api/cluster/jobs/9beafabb-7e17-11e9-bfdc-0050568ea123"  
      }  
    }  
  }  
}
```

## Updating an S3 bucket policy for an SVM

```

# The API:
/api/protocols/s3/buckets/{svm.uuid}/{uuid}

# The call:
curl -X PATCH "https://<mgmt-ip>/api/protocols/s3/buckets/259b4e46-2d33-11ea-9145-005056bbbec1/376a2efd-2d4d-11ea-9c30-005056bb883a?return_records=true" -H "accept: application/json" -H "Content-Type: application/json" -d "{ \"policy\": { \"statements\": [ { \"actions\": [ \"*\"] , \"conditions\": [ { \"operator\": \"ip_address\", \"source_ips\": [ \"1.1.1.5/23\" ] } ] , \"effect\": \"allow\", \"resources\": [ \"*\"] , \"sid\": \"fullAccessForAllPrincipalsToBucket\" } ] } }"

# The response:
HTTP/1.1 202 Accepted
Date: Fri, 24 May 2019 11:32:27 GMT
Server: libzapid-httpd
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Content-Length: 189
Content-Type: application/json
{
  "job": {
    "uuid": "9beafabb-7e17-11e9-bfdc-0050568ea123",
    "_links": {
      "self": {
        "href": "/api/cluster/jobs/9beafabb-7e17-11e9-bfdc-0050568ea123"
      }
    }
  }
}

```

## Deleting an S3 bucket for a specified SVM

```
# The API:
/api/protocols/s3/buckets/{svm.uuid}/{uuid}

# The call:
curl -iku admin:netapp1! -X DELETE "https://<mgmt-
ip>/api/protocols/s3/buckets/259b4e46-2d33-11ea-9145-
005056bbbec1/98528221-2d52-11ea-892e-005056bbbec1?return_records=true" -H
"accept: application/json"

# The response:
HTTP/1.1 202 Accepted
Date: Fri, 24 May 2019 11:40:17 GMT
Server: libzapid-httpd
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Content-Length: 189
Content-Type: application/json
{
  "job": {
    "uuid": "b3af4a54-7e18-11e9-bfdc-0050568ea123",
    "_links": {
      "self": {
        "href": "/api/cluster/jobs/b3af4a54-7e18-11e9-bfdc-0050568ea123"
      }
    }
  }
}
```

## Retrieve all S3 buckets for all SVMs

GET /protocols/s3/buckets

**Introduced In:** 9.7

Retrieves all S3 buckets for all SVMs. Note that in order to retrieve S3 bucket policy conditions, the 'fields' option should be set to '\*\*'.

### Related ONTAP commands

- vserver object-store-server bucket show
- vserver object-store-server bucket policy statement show
- vserver object-store-server bucket policy-statement-condition show

## Learn more

- [DOC /protocols/s3/buckets](#)

## Parameters

| Name                                   | Type    | In    | Required | Description   |
|--|---------|-------|----------|---|
| logical_used_size                      | integer | query | False    | Filter by logical_used_size   |
| svm.uuid                               | string  | query | False    | Filter by svm.uuid  |
| svm.name                               | string  | query | False    | Filter by svm.name  |
| protection_status.destination.is_ontap | boolean | query | False    | Filter by protection_status.destination.is_ontap<br><ul style="list-style-type: none"><li>• Introduced in: 9.10</li></ul> |
| protection_status.destination.is_cloud | boolean | query | False    | Filter by protection_status.destination.is_cloud<br><ul style="list-style-type: none"><li>• Introduced in: 9.10</li></ul> |
| protection_status.is_protected         | boolean | query | False    | Filter by protection_status.is_protected<br><ul style="list-style-type: none"><li>• Introduced in: 9.10</li></ul>         |
| volume.uuid                            | string  | query | False    | Filter by volume.uuid   |
| volume.name                            | string  | query | False    | Filter by volume.name   |
| uuid                                   | string  | query | False    | Filter by uuid  |
| role                                   | string  | query | False    | Filter by role<br><ul style="list-style-type: none"><li>• Introduced in: 9.10</li></ul>                                   |
| encryption.enabled                     | boolean | query | False    | Filter by encryption.enabled  |

| Name                                  | Type   | In    | Required | Description   |
|---------------------------------------|--------|-------|----------|---|
| audit_event_selector.permission       | string | query | False    | Filter by audit_event_selector.permission<br><br>• Introduced in: 9.10      |
| audit_event_selector.access           | string | query | False    | Filter by audit_event_selector.access<br><br>• Introduced in: 9.10          |
| comment                               | string | query | False    | Filter by comment   |
| policy.statements.effect              | string | query | False    | Filter by policy.statements.effect<br><br>• Introduced in: 9.8              |
| policy.statements.actions             | string | query | False    | Filter by policy.statements.actions<br><br>• Introduced in: 9.8             |
| policy.statements.conditions.operator | string | query | False    | Filter by policy.statements.conditions.operator<br><br>• Introduced in: 9.8 |
| policy.statements.conditions.prefixes | string | query | False    | Filter by policy.statements.conditions.prefixes<br><br>• Introduced in: 9.8 |



| Name                                    | Type    | In    | Required | Description   |
|---|---------|-------|----------|---|
| policy.statements.conditions.max_keys   | integer | query | False    | Filter by policy.statements.conditions.max_keys<br><br>• Introduced in: 9.8   |
| policy.statements.conditions.source_ips | string  | query | False    | Filter by policy.statements.conditions.source_ips<br><br>• Introduced in: 9.8 |
| policy.statements.conditions.usernames  | string  | query | False    | Filter by policy.statements.conditions.usernames<br><br>• Introduced in: 9.8  |
| policy.statements.conditions.delimiters | string  | query | False    | Filter by policy.statements.conditions.delimiters<br><br>• Introduced in: 9.8 |
| policy.statements.sid                   | string  | query | False    | Filter by policy.statements.sid<br><br>• Introduced in: 9.8                   |
| policy.statements.resources             | string  | query | False    | Filter by policy.statements.resources<br><br>• Introduced in: 9.8             |
| policy.statements.principals            | string  | query | False    | Filter by policy.statements.principals<br><br>• Introduced in: 9.8            |

| Name                           | Type          | In    | Required | Description  |
|--------------------------------|---------------|-------|----------|--|
| qos_policy.uuid                | string        | query | False    | Filter by qos_policy.uuid<br><br>• Introduced in: 9.8                |
| qos_policy.min_throughput_iops | integer       | query | False    | Filter by qos_policy.min_throughput_iops<br><br>• Introduced in: 9.8 |
| qos_policy.max_throughput_iops | integer       | query | False    | Filter by qos_policy.max_throughput_iops<br><br>• Introduced in: 9.8 |
| qos_policy.min_throughput_mbps | integer       | query | False    | Filter by qos_policy.min_throughput_mbps<br><br>• Introduced in: 9.8 |
| qos_policy.name                | string        | query | False    | Filter by qos_policy.name<br><br>• Introduced in: 9.8                |
| qos_policy.max_throughput_mbps | integer       | query | False    | Filter by qos_policy.max_throughput_mbps<br><br>• Introduced in: 9.8 |
| name                           | string        | query | False    | Filter by name   |
| size                           | integer       | query | False    | Filter by size   |
| fields                         | array[string] | query | False    | Specify the fields to return.  |

| Name           | Type          | In    | Required | Description  |
|----------------|---------------|-------|----------|--|
| 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"> <li>• Default value: 1</li> </ul>  |
| 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"> <li>• Default value: 1</li> <li>• Max value: 120</li> <li>• Min value: 0</li> </ul> |
| order_by       | array[string] | query | False    | Order results by specified fields and optional [asc  |

## Response

Status: 200, Ok

| Name        | Type                             | Description       |
|-------------|----------------------------------|-------------------|
| _links      | <a href="#">collection_links</a> |                   |
| num_records | integer                          | Number of records |
| records     | array[s3_bucket]                 |                   |

## Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "records": {
    "aggregates": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "aggr1",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    },
    "audit_event_selector": {
      "access": "read",
      "permission": "deny"
    },
    "comment": "S3 bucket.",
    "constituents_per_aggregate": 4,
    "logical_used_size": 0,
    "name": "bucket1",
    "policy": {
      "statements": {
        "actions": [
          "GetObject",
          "PutObject",
          "DeleteObject",
          "ListBucket"
        ],
        "conditions": {
          "delimiters": [
            "/"
          ],
          "max_keys": [
            1000
          ],
          "operator": "ip_address",
          "prefixes": [
```

```

        "pref"
    ],
    "source_ips": [
        "1.1.1.1",
        "1.2.2.0/24"
    ],
    "usernames": [
        "user1"
    ]
},
"effect": "allow",
"principals": [
    "user1",
    "group/grp1"
],
"resources": [
    "bucket1",
    "bucket1/*"
],
"sid": "FullAccessToUser1"
}
},
"qos_policy": {
    "_links": {
        "self": {
            "href": "/api/resourcelink"
        }
    },
    "max_throughput_iops": 10000,
    "max_throughput_mbps": 500,
    "min_throughput_iops": 2000,
    "min_throughput_mbps": 500,
    "name": "performance",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
},
"role": "standalone",
"size": 1677721600,
"storage_service_level": "value",
"svm": {
    "_links": {
        "self": {
            "href": "/api/resourcelink"
        }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
}

```

```

    },
    "uuid": "414b29a1-3b26-11e9-bd58-0050568ea055",
    "volume": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "volume1",
      "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
    }
  }
}

```

## Error

Status: Default, Error

| Name  | Type                  | Description |
|-------|-----------------------|-------------|
| error | <a href="#">error</a> |             |

## 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 | <a href="#">href</a> |             |
| self | <a href="#">href</a> |             |

\_links

| Name | Type                 | Description |
|------|----------------------|-------------|
| self | <a href="#">href</a> |             |

aggregates

Aggregate

| Name   | Type                   | Description |
|--------|------------------------|-------------|
| _links | <a href="#">_links</a> |             |
| name   | string                 |             |
| uuid   | string                 |             |

audit\_event\_selector

Audit event selector allows you to specify access and permission types to audit.

| Name       | Type   | Description                                |
|------------|--------|--|
| access     | string | Specifies read and write access types.     |
| permission | string | Specifies allow and deny permission types. |

encryption

| Name    | Type    | Description  |
|---------|---------|--|
| enabled | boolean | Specifies whether encryption is enabled on the bucket. By default, encryption is disabled on a bucket. |

#### s3\_bucket\_policy\_condition

Information about policy conditions based on various condition operators and condition keys.

| Name       | Type           | Description  |
|------------|----------------|--|
| delimiters | array[string]  | An array of delimiters that are compared with the delimiter value specified at the time of execution of an S3-based command, using the condition operator specified.             |
| max_keys   | array[integer] | An array of maximum keys that are allowed or denied to be retrieved using an S3 list operation, based on the condition operator specified.                                       |
| operator   | string         | Condition operator that is applied to the specified condition key.   |
| prefixes   | array[string]  | An array of prefixes that are compared with the input prefix value specified at the time of execution of an S3-based command, using the condition operator specified.            |
| source_ips | array[string]  | An array of IP address ranges that are compared with the IP address of a source command at the time of execution of an S3-based command, using the condition operator specified. |
| usernames  | array[string]  | An array of usernames that a current user in the context is evaluated against using the condition operators.   |

#### s3\_bucket\_policy\_statement

Specifies information about a single access permission.



| Name       | Type                              | Description  |
|------------|-----------------------------------|--|
| actions    | array[string]                     |  |
| conditions | array[s3_bucket_policy_condition] | Specifies bucket policy conditions.  |
| effect     | string                            | Specifies whether access is allowed or denied when a user requests the specific action. If access (to allow) is not granted explicitly to a resource, access is implicitly denied. Access can also be denied explicitly to a resource, in order to make sure that a user cannot access it, even if a different policy grants access. |
| principals | array[string]                     |  |
| resources  | array[string]                     |  |
| sid        | string                            | Specifies the statement identifier used to differentiate between statements.   |

## policy

A policy is an object associated with a bucket. It defines resource (bucket, folder, or object) permissions. These policies get evaluated when an S3 user makes a request by executing a specific command. The user must be part of the principal (user or group) specified in the policy. Permissions in the policies determine whether the request is allowed or denied.

| Name       | Type                              | Description                               |
|------------|-----------------------------------|---|
| statements | array[s3_bucket_policy_statement] | Specifies bucket access policy statement. |

## destination

| Name     | Type    | Description   |
|----------|---------|---|
| is_cloud | boolean | Specifies whether a bucket is protected within the Cloud.   |
| is_ontap | boolean | <p>Specifies whether a bucket is protected within ONTAP.</p> <ul style="list-style-type: none"> <li>• Default value:</li> <li>• readOnly: 1</li> <li>• Introduced in: 9.10</li> </ul> |

## protection\_status

Specifies attributes of bucket protection.

| Name         | Type                        | Description  |
|--------------|-----------------------------|--|
| destination  | <a href="#">destination</a> |  |
| is_protected | boolean                     | <p>Specifies whether a bucket is a source and if it is protected within ONTAP and/or an external cloud.</p> <ul style="list-style-type: none"><li>• Default value:</li><li>• readOnly: 1</li><li>• Introduced in: 9.10</li></ul> |

## qos\_policy

Specifies "qos\_policy.max\_throughput\_iops" and/or "qos\_policy.max\_throughput\_mbps" or "qos\_policy.min\_throughput\_iops" and/or "qos\_policy.min\_throughput\_mbps". Specifying "min\_throughput\_iops" or "min\_throughput\_mbps" is only supported on volumes hosted on a node that is flash optimized. A pre-created QoS policy can also be used by specifying "qos\_policy.name" or "qos\_policy.uuid" properties. Setting or assigning a QoS policy to a bucket is not supported if its containing volume or SVM already has a QoS policy attached.

| Name                | Type                   | Description   |
|---------------------|------------------------|---|
| _links              | <a href="#">_links</a> |   |
| max_throughput_iops | integer                | Specifies the maximum throughput in IOPS, 0 means none. This is mutually exclusive with name and UUID during POST and PATCH.  |
| max_throughput_mbps | integer                | Specifies the maximum throughput in Megabytes per sec, 0 means none. This is mutually exclusive with name and UUID during POST and PATCH.   |
| min_throughput_iops | integer                | Specifies the minimum throughput in IOPS, 0 means none. Setting "min_throughput" is supported on AFF platforms only, unless FabricPool tiering policies are set. This is mutually exclusive with name and UUID during POST and PATCH. |

| Name                | Type    | Description   |
|---------------------|---------|---|
| min_throughput_mbps | integer | Specifies the minimum throughput in Megabytes per sec, 0 means none. This is mutually exclusive with name and UUID during POST and PATCH. |
| name                | string  | The QoS policy group name. This is mutually exclusive with UUID and other QoS attributes during POST and PATCH.                           |
| uuid                | string  | The QoS policy group UUID. This is mutually exclusive with name and other QoS attributes during POST and PATCH.                           |

#### svm

| Name   | Type                   | Description                       |
|--------|------------------------|-----------------------------------|
| _links | <a href="#">_links</a> |                                   |
| name   | string                 | The name of the SVM.              |
| uuid   | string                 | The unique identifier of the SVM. |

#### volume

Specifies the FlexGroup volume name and UUID where the bucket is hosted.

| Name   | Type                   | Description  |
|--------|------------------------|--|
| _links | <a href="#">_links</a> |  |
| name   | string                 | The name of the volume.  |
| 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"> <li>• example: 028baa66-41bd-11e9-81d5-00a0986138f7</li> <li>• Introduced in: 9.6</li> </ul> |

#### s3\_bucket

A bucket is a container of objects. Each bucket defines an object namespace. S3 requests specify objects

using a bucket-name and object-name pair. An object resides within a bucket.

| Name                       | Type                                 | Description  |
|----------------------------|--------------------------------------|--|
| aggregates                 | array[ <a href="#">aggregates</a> ]  | A list of aggregates for FlexGroup volume constituents where the bucket is hosted. If this option is not specified, the bucket is auto-provisioned as a FlexGroup volume.  |
| audit_event_selector       | <a href="#">audit_event_selector</a> | Audit event selector allows you to specify access and permission types to audit.   |
| comment                    | string                               | Can contain any additional information about the bucket being created or modified.   |
| constituents_per_aggregate | integer                              | Specifies the number of constituents or FlexVol volumes per aggregate. A FlexGroup volume consisting of all such constituents across all specified aggregates is created. This option is used along with the aggregates option and cannot be used independently. |
| encryption                 | <a href="#">encryption</a>           |  |
| logical_used_size          | integer                              | Specifies the bucket logical used size up to this point.   |
| name                       | string                               | Specifies the name of the bucket. Bucket name is a string that can only contain the following combination of ASCII-range alphanumeric characters 0-9, a-z, ".", and "-".   |

| Name                  | Type                              | Description   |
|-----------------------|-----------------------------------|---|
| policy                | <a href="#">policy</a>            | A policy is an object associated with a bucket. It defines resource (bucket, folder, or object) permissions. These policies get evaluated when an S3 user makes a request by executing a specific command. The user must be part of the principal (user or group) specified in the policy. Permissions in the policies determine whether the request is allowed or denied.  |
| protection_status     | <a href="#">protection_status</a> | Specifies attributes of bucket protection.  |
| qos_policy            | <a href="#">qos_policy</a>        | Specifies<br>"qos_policy.max_throughput_iops" and/or<br>"qos_policy.max_throughput_mbps" or<br>"qos_policy.min_throughput_iops" and/or<br>"qos_policy.min_throughput_mbps". Specifying<br>"min_throughput_iops" or<br>"min_throughput_mbps" is only supported on volumes hosted on a node that is flash optimized. A pre-created QoS policy can also be used by specifying<br>"qos_policy.name" or<br>"qos_policy.uuid" properties. Setting or assigning a QoS policy to a bucket is not supported if its containing volume or SVM already has a QoS policy attached. |
| role                  | string                            | Specifies the role of the bucket.   |
| size                  | integer                           | Specifies the bucket size in bytes; ranges from 80MB to 64TB.   |
| storage_service_level | string                            | Specifies the storage service level of the FlexGroup volume on which the bucket should be created. Valid values are "value", "performance" or "extreme".  |

| Name   | Type                   | Description  |
|--------|------------------------|--|
| svm    | <a href="#">svm</a>    |  |
| uuid   | string                 | Specifies the unique identifier of the bucket.                           |
| volume | <a href="#">volume</a> | Specifies the FlexGroup volume name and UUID where the bucket is hosted. |

#### error\_arguments

| Name    | Type   | Description      |
|---------|--------|------------------|
| code    | string | Argument code    |
| message | string | Message argument |

#### error

| Name      | Type                                     | Description                                 |
|-----------|--|---|
| arguments | array[ <a href="#">error_arguments</a> ] | Message arguments                           |
| code      | string                                   | Error code                                  |
| message   | string                                   | Error message                               |
| target    | string                                   | The target parameter that caused the error. |

## Create the S3 bucket configuration for an SVM

POST /protocols/s3/buckets

**Introduced In:** 9.8

Creates the S3 bucket configuration of an SVM.

### Important notes

- Each SVM can have one or more bucket configurations.
- Aggregate lists should be specified explicitly. If not specified, then the bucket is auto-provisioned as a FlexGroup volume.
- Constituents per aggregate specifies the number of components (or FlexVol volumes) per aggregate. Is specified only when an aggregate list is explicitly defined.

- An access policy can be created along with a bucket create. If creating an access policy fails, bucket configurations are saved and the access policy can be created using the PATCH endpoint.
- "qos\_policy" can be specified if a bucket needs to be attached to a QoS group policy during creation time.
- "audit\_event\_selector" can be specified if a bucket needs to be specify access and permission type for auditing.

## Required properties

- `svm.uuid` or `svm.name` - Existing SVM in which to create the bucket configuration.
- `name` - Bucket name that is to be created.

## Recommended optional properties

- `aggregates` - List of aggregates for the FlexGroup volume on which the bucket is hosted on.
- `constituents_per_aggregate` - Number of constituents per aggregate.
- `size` - Specifying the bucket size is recommended.
- `policy` - Specifying a policy enables users to perform operations on buckets; specifying the resource permissions is recommended.
- `qos_policy` - A QoS policy for buckets.
- `audit_event_selector` - Audit policy for buckets.

## Default property values

- `size` - 800MB
- `comment` - ""
- `aggregates` - No default value.
- `constituents_per_aggregate` - 4 , if an aggregates list is specified. Otherwise, no default value.
- `policy.statements.actions` - GetObject, PutObject, DeleteObject, ListBucket, ListBucketMultipartUploads, ListMultipartUploadParts, GetObjectTagging, PutObjectTagging, DeleteObjectTagging.
- `policy.statements.principals` - all S3 users and groups in the SVM.
- `policy.statements.resources` - all objects in the bucket.
- `policy.statements.conditions` - list of bucket policy conditions.

## Related ONTAP commands

- `vserver object-store-server bucket create`
- `vserver object-store-server bucket policy statement create`

## Learn more

- [DOC /protocols/s3/buckets](#)

## Parameters

| 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>  |

## Request Body



| Name                       | Type                                 | Description  |
|----------------------------|--------------------------------------|--|
| aggregates                 | array[ <a href="#">aggregates</a> ]  | A list of aggregates for FlexGroup volume constituents where the bucket is hosted. If this option is not specified, the bucket is auto-provisioned as a FlexGroup volume.  |
| audit_event_selector       | <a href="#">audit_event_selector</a> | Audit event selector allows you to specify access and permission types to audit.   |
| comment                    | string                               | Can contain any additional information about the bucket being created or modified.   |
| constituents_per_aggregate | integer                              | Specifies the number of constituents or FlexVol volumes per aggregate. A FlexGroup volume consisting of all such constituents across all specified aggregates is created. This option is used along with the aggregates option and cannot be used independently.   |
| encryption                 | <a href="#">encryption</a>           |  |
| logical_used_size          | integer                              | Specifies the bucket logical used size up to this point.   |
| name                       | string                               | Specifies the name of the bucket. Bucket name is a string that can only contain the following combination of ASCII-range alphanumeric characters 0-9, a-z, ".", and "-".   |
| policy                     | <a href="#">policy</a>               | A policy is an object associated with a bucket. It defines resource (bucket, folder, or object) permissions. These policies get evaluated when an S3 user makes a request by executing a specific command. The user must be part of the principal (user or group) specified in the policy. Permissions in the policies determine whether the request is allowed or denied. |

| Name                  | Type                              | Description   |
|-----------------------|-----------------------------------|---|
| protection_status     | <a href="#">protection_status</a> | Specifies attributes of bucket protection.  |
| qos_policy            | <a href="#">qos_policy</a>        | Specifies "qos_policy.max_throughput_iops" and/or "qos_policy.max_throughput_mbps" or "qos_policy.min_throughput_iops" and/or "qos_policy.min_throughput_mbps". Specifying "min_throughput_iops" or "min_throughput_mbps" is only supported on volumes hosted on a node that is flash optimized. A pre-created QoS policy can also be used by specifying "qos_policy.name" or "qos_policy.uuid" properties. Setting or assigning a QoS policy to a bucket is not supported if its containing volume or SVM already has a QoS policy attached. |
| role                  | string                            | Specifies the role of the bucket.   |
| size                  | integer                           | Specifies the bucket size in bytes; ranges from 80MB to 64TB.   |
| storage_service_level | string                            | Specifies the storage service level of the FlexGroup volume on which the bucket should be created. Valid values are "value", "performance" or "extreme".  |
| svm                   | <a href="#">svm</a>               |   |
| uuid                  | string                            | Specifies the unique identifier of the bucket.  |
| volume                | <a href="#">volume</a>            | Specifies the FlexGroup volume name and UUID where the bucket is hosted.  |

## Example request

```
{
  "aggregates": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "aggr1",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "audit_event_selector": {
    "access": "read",
    "permission": "deny"
  },
  "comment": "S3 bucket.",
  "constituents_per_aggregate": 4,
  "logical_used_size": 0,
  "name": "bucket1",
  "policy": {
    "statements": {
      "actions": [
        "GetObject",
        "PutObject",
        "DeleteObject",
        "ListBucket"
      ],
      "conditions": {
        "delimiters": [
          "/"
        ],
        "max_keys": [
          1000
        ],
        "operator": "ip_address",
        "prefixes": [
          "pref"
        ],
        "source_ips": [
          "1.1.1.1",
          "1.2.2.0/24"
        ],
        "usernames": [
          "user1"
        ]
      }
    }
  }
}
```

```

    },
    "effect": "allow",
    "principals": [
        "user1",
        "group/grp1"
    ],
    "resources": [
        "bucket1",
        "bucket1/*"
    ],
    "sid": "FullAccessToUser1"
}
},
"qos_policy": {
    "_links": {
        "self": {
            "href": "/api/resourcelink"
        }
    },
    "max_throughput_iops": 10000,
    "max_throughput_mbps": 500,
    "min_throughput_iops": 2000,
    "min_throughput_mbps": 500,
    "name": "performance",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
},
"role": "standalone",
"size": 1677721600,
"storage_service_level": "value",
"svm": {
    "_links": {
        "self": {
            "href": "/api/resourcelink"
        }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
},
"uuid": "414b29a1-3b26-11e9-bd58-0050568ea055",
"volume": {
    "_links": {
        "self": {
            "href": "/api/resourcelink"
        }
    },
    "name": "volume1",

```

```
    "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
  }
}
```

## 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 | Message   |
|------------|---|
| 92405777   | "Failed to create bucket "{bucket name}" for SVM "{svm.name}". Reason: {Reason of failure}. ";                              |
| 92405785   | "Bucket name "{bucket name}" contains invalid characters. Valid characters for a bucket name are 0-9, a-z, ".", and "-". "; |
| 92405786   | "Bucket name "{bucket name}" is not valid. Bucket names must have between 3 and 63 characters. ";                           |

| Error code | Message  |
|------------|--|
| 92405811   | "Failed to create bucket "{bucket name}" for SVM "{svm.name}". Wait a few minutes and try the operation again.";   |
| 92405812   | "Failed to create the object store volume. Reason: {Reason for failure}.";   |
| 92405819   | "Cannot provision an object store server volume for bucket "{bucket name}" in SVM "{svm.name}" on the following aggregates because they are SnapLock aggregates: {List of aggregates.name}.";  |
| 92405820   | "Failed to check whether the aggregate "{aggregates.name}" is a FabricPool. Reason: {Reason for failure}.";  |
| 92405821   | "Cannot provision an object store server volume for bucket "{bucket name}" in SVM "{svm.name}" on the following aggregates because they are FabricPool: {List of aggregates.name}.";   |
| 92405827   | "Internal Error. Unable to generate object store volume name.";  |
| 92405857   | "One or more aggregates must be specified if "constituents_per_aggregate" is specified.";  |
| 92405858   | "Failed to "create" the "bucket" because the operation is only supported on data SVMs.";   |
| 92405859   | "The specified "aggregates.uuid" "{aggregates.uuid}" does not exist.";   |
| 92405860   | "The specified "aggregates.name" "{aggregates.name}" and "aggregates.uuid" "{aggregates.uuid}" refer to different aggregates.";  |
| 92405861   | "The specified SVM UUID or bucket UUID does not exist.";   |
| 92405863   | "An error occurs when creating an access policy. The reason for failure is detailed in the error message.";  |
| 92405891   | The resources specified in the access policy are not valid. Valid ways to specify a resource are *, <bucket-name>, <bucket-name>/.../.... Valid characters for a resource are 0-9, A-Z, a-z, _, +, comma, ;, :, =, ., &, @, ?, (, ), single quote, *, !, - and \$. |
| 92405894   | "Statements, principals and resources list can have a maximum of 10 entries.";   |
| 92405897   | The principals specified in the access policy are not in the correct format. User name must be in between 1 and 64 characters. Valid characters for a user name are 0-9, A-Z, a-z, _, +, =, comma, ., @, and - .   |

| Error code | Message  |
|------------|--|
| 92405898   | "The SID specified in the access policy is not valid. Valid characters for a SID are 0-9, A-Z and a-z."; |

| Name  | Type                  | Description |
|-------|-----------------------|-------------|
| error | <a href="#">error</a> |             |

#### 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 | <a href="#">href</a> |             |

aggregates

Aggregate

| Name   | Type                   | Description |
|--------|------------------------|-------------|
| _links | <a href="#">_links</a> |             |
| name   | string                 |             |
| uuid   | string                 |             |

audit\_event\_selector

Audit event selector allows you to specify access and permission types to audit.

| Name       | Type   | Description                                |
|------------|--------|--|
| access     | string | Specifies read and write access types.     |
| permission | string | Specifies allow and deny permission types. |

encryption

| Name    | Type    | Description  |
|---------|---------|--|
| enabled | boolean | Specifies whether encryption is enabled on the bucket. By default, encryption is disabled on a bucket. |

s3\_bucket\_policy\_condition

Information about policy conditions based on various condition operators and condition keys.



| Name       | Type           | Description  |
|------------|----------------|--|
| delimiters | array[string]  | An array of delimiters that are compared with the delimiter value specified at the time of execution of an S3-based command, using the condition operator specified.             |
| max_keys   | array[integer] | An array of maximum keys that are allowed or denied to be retrieved using an S3 list operation, based on the condition operator specified.                                       |
| operator   | string         | Condition operator that is applied to the specified condition key.   |
| prefixes   | array[string]  | An array of prefixes that are compared with the input prefix value specified at the time of execution of an S3-based command, using the condition operator specified.            |
| source_ips | array[string]  | An array of IP address ranges that are compared with the IP address of a source command at the time of execution of an S3-based command, using the condition operator specified. |
| usernames  | array[string]  | An array of usernames that a current user in the context is evaluated against using the condition operators.   |

#### s3\_bucket\_policy\_statement

Specifies information about a single access permission.

| Name       | Type                              | Description                         |
|------------|-----------------------------------|-------------------------------------|
| actions    | array[string]                     |                                     |
| conditions | array[s3_bucket_policy_condition] | Specifies bucket policy conditions. |

| Name       | Type          | Description  |
|------------|---------------|--|
| effect     | string        | Specifies whether access is allowed or denied when a user requests the specific action. If access (to allow) is not granted explicitly to a resource, access is implicitly denied. Access can also be denied explicitly to a resource, in order to make sure that a user cannot access it, even if a different policy grants access. |
| principals | array[string] |  |
| resources  | array[string] |  |
| sid        | string        | Specifies the statement identifier used to differentiate between statements.   |

#### policy

A policy is an object associated with a bucket. It defines resource (bucket, folder, or object) permissions. These policies get evaluated when an S3 user makes a request by executing a specific command. The user must be part of the principal (user or group) specified in the policy. Permissions in the policies determine whether the request is allowed or denied.

| Name       | Type                              | Description                               |
|------------|-----------------------------------|---|
| statements | array[s3_bucket_policy_statement] | Specifies bucket access policy statement. |

#### destination

| Name     | Type    | Description  |
|----------|---------|--|
| is_cloud | boolean | Specifies whether a bucket is protected within the Cloud.  |
| is_ontap | boolean | Specifies whether a bucket is protected within ONTAP. <ul style="list-style-type: none"> <li>• Default value: 1</li> <li>• readOnly: 1</li> <li>• Introduced in: 9.10</li> </ul> |

#### protection\_status

Specifies attributes of bucket protection.

| Name         | Type                        | Description  |
|--------------|-----------------------------|--|
| destination  | <a href="#">destination</a> |  |
| is_protected | boolean                     | <p>Specifies whether a bucket is a source and if it is protected within ONTAP and/or an external cloud.</p> <ul style="list-style-type: none"> <li>• Default value: 1</li> <li>• readOnly: 1</li> <li>• Introduced in: 9.10</li> </ul> |

#### qos\_policy

Specifies "qos\_policy.max\_throughput\_iops" and/or "qos\_policy.max\_throughput\_mbps" or "qos\_policy.min\_throughput\_iops" and/or "qos\_policy.min\_throughput\_mbps". Specifying "min\_throughput\_iops" or "min\_throughput\_mbps" is only supported on volumes hosted on a node that is flash optimized. A pre-created QoS policy can also be used by specifying "qos\_policy.name" or "qos\_policy.uuid" properties. Setting or assigning a QoS policy to a bucket is not supported if its containing volume or SVM already has a QoS policy attached.

| Name                | Type                   | Description   |
|---------------------|------------------------|---|
| _links              | <a href="#">_links</a> |   |
| max_throughput_iops | integer                | Specifies the maximum throughput in IOPS, 0 means none. This is mutually exclusive with name and UUID during POST and PATCH.  |
| max_throughput_mbps | integer                | Specifies the maximum throughput in Megabytes per sec, 0 means none. This is mutually exclusive with name and UUID during POST and PATCH.   |
| min_throughput_iops | integer                | Specifies the minimum throughput in IOPS, 0 means none. Setting "min_throughput" is supported on AFF platforms only, unless FabricPool tiering policies are set. This is mutually exclusive with name and UUID during POST and PATCH. |
| min_throughput_mbps | integer                | Specifies the minimum throughput in Megabytes per sec, 0 means none. This is mutually exclusive with name and UUID during POST and PATCH.   |

| Name | Type   | Description   |
|------|--------|---|
| name | string | The QoS policy group name. This is mutually exclusive with UUID and other QoS attributes during POST and PATCH. |
| uuid | string | The QoS policy group UUID. This is mutually exclusive with name and other QoS attributes during POST and PATCH. |

svm

| Name   | Type                   | Description                       |
|--------|------------------------|-----------------------------------|
| _links | <a href="#">_links</a> |                                   |
| name   | string                 | The name of the SVM.              |
| uuid   | string                 | The unique identifier of the SVM. |

volume

Specifies the FlexGroup volume name and UUID where the bucket is hosted.

| Name   | Type                   | Description  |
|--------|------------------------|--|
| _links | <a href="#">_links</a> |  |
| name   | string                 | The name of the volume.  |
| 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"> <li>• example: 028baa66-41bd-11e9-81d5-00a0986138f7</li> <li>• Introduced in: 9.6</li> </ul> |

s3\_bucket

A bucket is a container of objects. Each bucket defines an object namespace. S3 requests specify objects using a bucket-name and object-name pair. An object resides within a bucket.

| Name                       | Type                                 | Description  |
|----------------------------|--------------------------------------|--|
| aggregates                 | array[ <a href="#">aggregates</a> ]  | A list of aggregates for FlexGroup volume constituents where the bucket is hosted. If this option is not specified, the bucket is auto-provisioned as a FlexGroup volume.  |
| audit_event_selector       | <a href="#">audit_event_selector</a> | Audit event selector allows you to specify access and permission types to audit.   |
| comment                    | string                               | Can contain any additional information about the bucket being created or modified.   |
| constituents_per_aggregate | integer                              | Specifies the number of constituents or FlexVol volumes per aggregate. A FlexGroup volume consisting of all such constituents across all specified aggregates is created. This option is used along with the aggregates option and cannot be used independently.   |
| encryption                 | <a href="#">encryption</a>           |  |
| logical_used_size          | integer                              | Specifies the bucket logical used size up to this point.   |
| name                       | string                               | Specifies the name of the bucket. Bucket name is a string that can only contain the following combination of ASCII-range alphanumeric characters 0-9, a-z, ".", and "-".   |
| policy                     | <a href="#">policy</a>               | A policy is an object associated with a bucket. It defines resource (bucket, folder, or object) permissions. These policies get evaluated when an S3 user makes a request by executing a specific command. The user must be part of the principal (user or group) specified in the policy. Permissions in the policies determine whether the request is allowed or denied. |

| Name                  | Type                              | Description   |
|-----------------------|-----------------------------------|---|
| protection_status     | <a href="#">protection_status</a> | Specifies attributes of bucket protection.  |
| qos_policy            | <a href="#">qos_policy</a>        | Specifies "qos_policy.max_throughput_iops" and/or "qos_policy.max_throughput_mbps" or "qos_policy.min_throughput_iops" and/or "qos_policy.min_throughput_mbps". Specifying "min_throughput_iops" or "min_throughput_mbps" is only supported on volumes hosted on a node that is flash optimized. A pre-created QoS policy can also be used by specifying "qos_policy.name" or "qos_policy.uuid" properties. Setting or assigning a QoS policy to a bucket is not supported if its containing volume or SVM already has a QoS policy attached. |
| role                  | string                            | Specifies the role of the bucket.   |
| size                  | integer                           | Specifies the bucket size in bytes; ranges from 80MB to 64TB.   |
| storage_service_level | string                            | Specifies the storage service level of the FlexGroup volume on which the bucket should be created. Valid values are "value", "performance" or "extreme".  |
| svm                   | <a href="#">svm</a>               |   |
| uuid                  | string                            | Specifies the unique identifier of the bucket.  |
| volume                | <a href="#">volume</a>            | Specifies the FlexGroup volume name and UUID where the bucket is hosted.  |

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. |

error\_arguments

| Name    | Type   | Description      |
|---------|--------|------------------|
| code    | string | Argument code    |
| message | string | Message argument |

error

| Name      | Type                                     | Description                                 |
|-----------|--|---|
| arguments | array[ <a href="#">error_arguments</a> ] | Message arguments                           |
| code      | string                                   | Error code                                  |
| message   | string                                   | Error message                               |
| target    | string                                   | The target parameter that caused the error. |

## Delete the S3 bucket configuration for an SVM

```
DELETE /protocols/s3/buckets/{svm.uuid}/{uuid}
```

**Introduced In:** 9.8

Deletes the S3 bucket configuration of an SVM. An access policy is also deleted on an S3 bucket "delete" command.

### Related ONTAP commands

- `vserver object-store-server bucket delete`
- `vserver object-store-server bucket policy statement delete`
- `vserver object-store-server bucket policy-statement-condition delete`

### Learn more

- [DOC /protocols/s3/buckets](#)

## Parameters

| Name           | Type    | In    | Required | Description  |
|----------------|---------|-------|----------|--|
| uuid           | string  | path  | True     | The unique identifier of the bucket.   |
| 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> |
| svm.uuid       | string  | path  | True     | UUID of the SVM to which this object belongs.  |

## 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 | Message  |
|------------|--|
| 92405811   | "Failed to delete bucket "{bucket name}" for SVM "{svm.name}". Wait a few minutes and try the operation again."; |
| 92405858   | "Failed to "delete" the "bucket" because the operation is only supported on data SVMs.";                         |
| 92405861   | "The specified SVM UUID or bucket UUID does not exist.";   |
| 92405779   | "Failed to remove bucket "{bucket name}" for SVM "{svm.name}". Reason: {Reason for failure}. ";                  |
| 92405813   | "Failed to delete the object store volume. Reason: {Reason for failure}.";                                       |
| 92405864   | "An error occurred when deleting an access policy. The reason for failure is detailed in the error message.";    |

| Name  | Type                  | Description |
|-------|-----------------------|-------------|
| error | <a href="#">error</a> |             |

### 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 | <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. |

error\_arguments

| Name    | Type   | Description      |
|---------|--------|------------------|
| code    | string | Argument code    |
| message | string | Message argument |

error

| Name      | Type                                     | Description                                 |
|-----------|--|---|
| arguments | array[ <a href="#">error_arguments</a> ] | Message arguments                           |
| code      | string                                   | Error code                                  |
| message   | string                                   | Error message                               |
| target    | string                                   | The target parameter that caused the error. |

## Retrieve the S3 bucket configuration for an SVM

GET /protocols/s3/buckets/{svm.uuid}/{uuid}

## Introduced In: 9.8

Retrieves the S3 bucket configuration of an SVM. Note that in order to retrieve S3 bucket policy conditions, the 'fields' option should be set to '\*\*\*'.

## Related ONTAP commands

- `vserver object-store-server bucket show`
- `vserver object-store-server bucket policy statement show`
- `vserver object-store-server bucket policy-statement-condition show`

## Learn more

- [DOC /protocols/s3/buckets](#)

## Parameters

| Name     | Type          | In    | Required | Description                                   |
|----------|---------------|-------|----------|---|
| uuid     | string        | path  | True     | The unique identifier of the bucket.          |
| svm.uuid | string        | path  | True     | UUID of the SVM to which this object belongs. |
| fields   | array[string] | query | False    | Specify the fields to return.                 |

## Response

Status: 200, Ok

| Name                 | Type                                 | Description   |
|----------------------|--------------------------------------|---|
| aggregates           | array[ <a href="#">aggregates</a> ]  | A list of aggregates for FlexGroup volume constituents where the bucket is hosted. If this option is not specified, the bucket is auto-provisioned as a FlexGroup volume. |
| audit_event_selector | <a href="#">audit_event_selector</a> | Audit event selector allows you to specify access and permission types to audit.  |

| Name                       | Type                              | Description  |
|----------------------------|-----------------------------------|--|
| comment                    | string                            | Can contain any additional information about the bucket being created or modified.   |
| constituents_per_aggregate | integer                           | Specifies the number of constituents or FlexVol volumes per aggregate. A FlexGroup volume consisting of all such constituents across all specified aggregates is created. This option is used along with the aggregates option and cannot be used independently.   |
| encryption                 | <a href="#">encryption</a>        |  |
| logical_used_size          | integer                           | Specifies the bucket logical used size up to this point.   |
| name                       | string                            | Specifies the name of the bucket. Bucket name is a string that can only contain the following combination of ASCII-range alphanumeric characters 0-9, a-z, ".", and "-".   |
| policy                     | <a href="#">policy</a>            | A policy is an object associated with a bucket. It defines resource (bucket, folder, or object) permissions. These policies get evaluated when an S3 user makes a request by executing a specific command. The user must be part of the principal (user or group) specified in the policy. Permissions in the policies determine whether the request is allowed or denied. |
| protection_status          | <a href="#">protection_status</a> | Specifies attributes of bucket protection.   |

| Name                  | Type                       | Description   |
|-----------------------|----------------------------|---|
| qos_policy            | <a href="#">qos_policy</a> | Specifies "qos_policy.max_throughput_iops" and/or "qos_policy.max_throughput_mbps" or "qos_policy.min_throughput_iops" and/or "qos_policy.min_throughput_mbps". Specifying "min_throughput_iops" or "min_throughput_mbps" is only supported on volumes hosted on a node that is flash optimized. A pre-created QoS policy can also be used by specifying "qos_policy.name" or "qos_policy.uuid" properties. Setting or assigning a QoS policy to a bucket is not supported if its containing volume or SVM already has a QoS policy attached. |
| role                  | string                     | Specifies the role of the bucket.   |
| size                  | integer                    | Specifies the bucket size in bytes; ranges from 80MB to 64TB.   |
| storage_service_level | string                     | Specifies the storage service level of the FlexGroup volume on which the bucket should be created. Valid values are "value", "performance" or "extreme".  |
| svm                   | <a href="#">svm</a>        |   |
| uuid                  | string                     | Specifies the unique identifier of the bucket.  |
| volume                | <a href="#">volume</a>     | Specifies the FlexGroup volume name and UUID where the bucket is hosted.  |

## Example response

```
{
  "aggregates": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "aggr1",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "audit_event_selector": {
    "access": "read",
    "permission": "deny"
  },
  "comment": "S3 bucket.",
  "constituents_per_aggregate": 4,
  "logical_used_size": 0,
  "name": "bucket1",
  "policy": {
    "statements": {
      "actions": [
        "GetObject",
        "PutObject",
        "DeleteObject",
        "ListBucket"
      ],
      "conditions": {
        "delimiters": [
          "/"
        ],
        "max_keys": [
          1000
        ],
        "operator": "ip_address",
        "prefixes": [
          "pref"
        ],
        "source_ips": [
          "1.1.1.1",
          "1.2.2.0/24"
        ],
        "usernames": [
          "user1"
        ]
      }
    }
  }
}
```

```

    },
    "effect": "allow",
    "principals": [
        "user1",
        "group/grp1"
    ],
    "resources": [
        "bucket1",
        "bucket1/*"
    ],
    "sid": "FullAccessToUser1"
}
},
"qos_policy": {
    "_links": {
        "self": {
            "href": "/api/resourcelink"
        }
    },
    "max_throughput_iops": 10000,
    "max_throughput_mbps": 500,
    "min_throughput_iops": 2000,
    "min_throughput_mbps": 500,
    "name": "performance",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
},
"role": "standalone",
"size": 1677721600,
"storage_service_level": "value",
"svm": {
    "_links": {
        "self": {
            "href": "/api/resourcelink"
        }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
},
"uuid": "414b29a1-3b26-11e9-bd58-0050568ea055",
"volume": {
    "_links": {
        "self": {
            "href": "/api/resourcelink"
        }
    },
    "name": "volume1",

```



```
    "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
  }
}
```

## Error

Status: Default, Error

| Name  | Type  | Description |
|-------|-------|-------------|
| error | 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 | <a href="#">href</a> |             |

aggregates

Aggregate

| Name   | Type                   | Description |
|--------|------------------------|-------------|
| _links | <a href="#">_links</a> |             |
| name   | string                 |             |
| uuid   | string                 |             |

audit\_event\_selector

Audit event selector allows you to specify access and permission types to audit.

| Name       | Type   | Description                                |
|------------|--------|--|
| access     | string | Specifies read and write access types.     |
| permission | string | Specifies allow and deny permission types. |

encryption

| Name    | Type    | Description  |
|---------|---------|--|
| enabled | boolean | Specifies whether encryption is enabled on the bucket. By default, encryption is disabled on a bucket. |

s3\_bucket\_policy\_condition

Information about policy conditions based on various condition operators and condition keys.

| Name       | Type           | Description  |
|------------|----------------|--|
| delimiters | array[string]  | An array of delimiters that are compared with the delimiter value specified at the time of execution of an S3-based command, using the condition operator specified.             |
| max_keys   | array[integer] | An array of maximum keys that are allowed or denied to be retrieved using an S3 list operation, based on the condition operator specified.                                       |
| operator   | string         | Condition operator that is applied to the specified condition key.   |
| prefixes   | array[string]  | An array of prefixes that are compared with the input prefix value specified at the time of execution of an S3-based command, using the condition operator specified.            |
| source_ips | array[string]  | An array of IP address ranges that are compared with the IP address of a source command at the time of execution of an S3-based command, using the condition operator specified. |
| usernames  | array[string]  | An array of usernames that a current user in the context is evaluated against using the condition operators.   |

#### s3\_bucket\_policy\_statement

Specifies information about a single access permission.

| Name       | Type                              | Description                         |
|------------|-----------------------------------|-------------------------------------|
| actions    | array[string]                     |                                     |
| conditions | array[s3_bucket_policy_condition] | Specifies bucket policy conditions. |

| Name       | Type          | Description  |
|------------|---------------|--|
| effect     | string        | Specifies whether access is allowed or denied when a user requests the specific action. If access (to allow) is not granted explicitly to a resource, access is implicitly denied. Access can also be denied explicitly to a resource, in order to make sure that a user cannot access it, even if a different policy grants access. |
| principals | array[string] |  |
| resources  | array[string] |  |
| sid        | string        | Specifies the statement identifier used to differentiate between statements.   |

#### policy

A policy is an object associated with a bucket. It defines resource (bucket, folder, or object) permissions. These policies get evaluated when an S3 user makes a request by executing a specific command. The user must be part of the principal (user or group) specified in the policy. Permissions in the policies determine whether the request is allowed or denied.

| Name       | Type                              | Description                               |
|------------|-----------------------------------|---|
| statements | array[s3_bucket_policy_statement] | Specifies bucket access policy statement. |

#### destination

| Name     | Type    | Description  |
|----------|---------|--|
| is_cloud | boolean | Specifies whether a bucket is protected within the Cloud.  |
| is_ontap | boolean | Specifies whether a bucket is protected within ONTAP. <ul style="list-style-type: none"> <li>• Default value: 1</li> <li>• readOnly: 1</li> <li>• Introduced in: 9.10</li> </ul> |

#### protection\_status

Specifies attributes of bucket protection.

| Name         | Type                        | Description  |
|--------------|-----------------------------|--|
| destination  | <a href="#">destination</a> |  |
| is_protected | boolean                     | <p>Specifies whether a bucket is a source and if it is protected within ONTAP and/or an external cloud.</p> <ul style="list-style-type: none"> <li>• Default value: 1</li> <li>• readOnly: 1</li> <li>• Introduced in: 9.10</li> </ul> |

#### qos\_policy

Specifies "qos\_policy.max\_throughput\_iops" and/or "qos\_policy.max\_throughput\_mbps" or "qos\_policy.min\_throughput\_iops" and/or "qos\_policy.min\_throughput\_mbps". Specifying "min\_throughput\_iops" or "min\_throughput\_mbps" is only supported on volumes hosted on a node that is flash optimized. A pre-created QoS policy can also be used by specifying "qos\_policy.name" or "qos\_policy.uuid" properties. Setting or assigning a QoS policy to a bucket is not supported if its containing volume or SVM already has a QoS policy attached.

| Name                | Type                   | Description   |
|---------------------|------------------------|---|
| _links              | <a href="#">_links</a> |   |
| max_throughput_iops | integer                | Specifies the maximum throughput in IOPS, 0 means none. This is mutually exclusive with name and UUID during POST and PATCH.  |
| max_throughput_mbps | integer                | Specifies the maximum throughput in Megabytes per sec, 0 means none. This is mutually exclusive with name and UUID during POST and PATCH.   |
| min_throughput_iops | integer                | Specifies the minimum throughput in IOPS, 0 means none. Setting "min_throughput" is supported on AFF platforms only, unless FabricPool tiering policies are set. This is mutually exclusive with name and UUID during POST and PATCH. |
| min_throughput_mbps | integer                | Specifies the minimum throughput in Megabytes per sec, 0 means none. This is mutually exclusive with name and UUID during POST and PATCH.   |

| Name | Type   | Description   |
|------|--------|---|
| name | string | The QoS policy group name. This is mutually exclusive with UUID and other QoS attributes during POST and PATCH. |
| uuid | string | The QoS policy group UUID. This is mutually exclusive with name and other QoS attributes during POST and PATCH. |

#### svm

| Name                   | Type                   | Description                       |
|------------------------|------------------------|-----------------------------------|
| <a href="#">_links</a> | <a href="#">_links</a> |                                   |
| name                   | string                 | The name of the SVM.              |
| uuid                   | string                 | The unique identifier of the SVM. |

#### volume

Specifies the FlexGroup volume name and UUID where the bucket is hosted.

| Name                   | Type                   | Description  |
|------------------------|------------------------|--|
| <a href="#">_links</a> | <a href="#">_links</a> |  |
| name                   | string                 | The name of the volume.  |
| 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"> <li>• example: 028baa66-41bd-11e9-81d5-00a0986138f7</li> <li>• Introduced in: 9.6</li> </ul> |

#### error\_arguments

| Name    | Type   | Description      |
|---------|--------|------------------|
| code    | string | Argument code    |
| message | string | Message argument |

error

| Name      | Type                                     | Description                                 |
|-----------|--|---|
| arguments | array[ <a href="#">error_arguments</a> ] | Message arguments                           |
| code      | string                                   | Error code                                  |
| message   | string                                   | Error message                               |
| target    | string                                   | The target parameter that caused the error. |

## Update the S3 bucket configuration for an SVM

```
PATCH /protocols/s3/buckets/{svm.uuid}/{uuid}
```

**Introduced In:** 9.8

Updates the S3 bucket configuration of an SVM.

### Important notes

- The following fields can be modified for a bucket:
  - `comment` - Any information related to the bucket.
  - `size` - Bucket size.
  - `policy` - An access policy for resources (buckets and objects) that defines their permissions. New policies are created after existing policies are deleted. To retain any of the existing policy statements, you need to specify those statements again. Also, policy conditions can be specified as part of a bucket policy.
  - `qos_policy` - A QoS policy for buckets.
  - `audit_event_selector` - Audit policy for buckets. None can be specified for both access and permission to remove an audit event selector.

### Related ONTAP commands

- `vserver object-store-server bucket modify`
- `vserver object-store-server bucket policy statement modify`
- `vserver object-store-server bucket policy-statement-condition modify`

### Learn more

- [DOC /protocols/s3/buckets](#)

## Parameters

| Name           | Type    | In    | Required | Description  |
|----------------|---------|-------|----------|--|
| uuid           | string  | path  | True     | The unique identifier of the bucket.   |
| 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> |
| svm.uuid       | string  | path  | True     | UUID of the SVM to which this object belongs.  |

## Request Body



| Name                       | Type                                 | Description  |
|----------------------------|--------------------------------------|--|
| aggregates                 | array[ <a href="#">aggregates</a> ]  | A list of aggregates for FlexGroup volume constituents where the bucket is hosted. If this option is not specified, the bucket is auto-provisioned as a FlexGroup volume.  |
| audit_event_selector       | <a href="#">audit_event_selector</a> | Audit event selector allows you to specify access and permission types to audit.   |
| comment                    | string                               | Can contain any additional information about the bucket being created or modified.   |
| constituents_per_aggregate | integer                              | Specifies the number of constituents or FlexVol volumes per aggregate. A FlexGroup volume consisting of all such constituents across all specified aggregates is created. This option is used along with the aggregates option and cannot be used independently.   |
| encryption                 | <a href="#">encryption</a>           |  |
| logical_used_size          | integer                              | Specifies the bucket logical used size up to this point.   |
| name                       | string                               | Specifies the name of the bucket. Bucket name is a string that can only contain the following combination of ASCII-range alphanumeric characters 0-9, a-z, ".", and "-".   |
| policy                     | <a href="#">policy</a>               | A policy is an object associated with a bucket. It defines resource (bucket, folder, or object) permissions. These policies get evaluated when an S3 user makes a request by executing a specific command. The user must be part of the principal (user or group) specified in the policy. Permissions in the policies determine whether the request is allowed or denied. |

| Name                  | Type                              | Description   |
|-----------------------|-----------------------------------|---|
| protection_status     | <a href="#">protection_status</a> | Specifies attributes of bucket protection.  |
| qos_policy            | <a href="#">qos_policy</a>        | Specifies "qos_policy.max_throughput_iops" and/or "qos_policy.max_throughput_mbps" or "qos_policy.min_throughput_iops" and/or "qos_policy.min_throughput_mbps". Specifying "min_throughput_iops" or "min_throughput_mbps" is only supported on volumes hosted on a node that is flash optimized. A pre-created QoS policy can also be used by specifying "qos_policy.name" or "qos_policy.uuid" properties. Setting or assigning a QoS policy to a bucket is not supported if its containing volume or SVM already has a QoS policy attached. |
| role                  | string                            | Specifies the role of the bucket.   |
| size                  | integer                           | Specifies the bucket size in bytes; ranges from 80MB to 64TB.   |
| storage_service_level | string                            | Specifies the storage service level of the FlexGroup volume on which the bucket should be created. Valid values are "value", "performance" or "extreme".  |
| svm                   | <a href="#">svm</a>               |   |
| uuid                  | string                            | Specifies the unique identifier of the bucket.  |
| volume                | <a href="#">volume</a>            | Specifies the FlexGroup volume name and UUID where the bucket is hosted.  |

## Example request

```
{
  "aggregates": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "aggr1",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "audit_event_selector": {
    "access": "read",
    "permission": "deny"
  },
  "comment": "S3 bucket.",
  "constituents_per_aggregate": 4,
  "logical_used_size": 0,
  "name": "bucket1",
  "policy": {
    "statements": {
      "actions": [
        "GetObject",
        "PutObject",
        "DeleteObject",
        "ListBucket"
      ],
      "conditions": {
        "delimiters": [
          "/"
        ],
        "max_keys": [
          1000
        ],
        "operator": "ip_address",
        "prefixes": [
          "pref"
        ],
        "source_ips": [
          "1.1.1.1",
          "1.2.2.0/24"
        ],
        "usernames": [
          "user1"
        ]
      }
    }
  }
}
```

```

    },
    "effect": "allow",
    "principals": [
        "user1",
        "group/grp1"
    ],
    "resources": [
        "bucket1",
        "bucket1/*"
    ],
    "sid": "FullAccessToUser1"
}
},
"qos_policy": {
    "_links": {
        "self": {
            "href": "/api/resourcelink"
        }
    },
    "max_throughput_iops": 10000,
    "max_throughput_mbps": 500,
    "min_throughput_iops": 2000,
    "min_throughput_mbps": 500,
    "name": "performance",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
},
"role": "standalone",
"size": 1677721600,
"storage_service_level": "value",
"svm": {
    "_links": {
        "self": {
            "href": "/api/resourcelink"
        }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
},
"uuid": "414b29a1-3b26-11e9-bd58-0050568ea055",
"volume": {
    "_links": {
        "self": {
            "href": "/api/resourcelink"
        }
    },
    "name": "volume1",

```

```
    "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
  }
}
```

## 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 | Message  |
|------------|--|
| 92405778   | "Failed to modify bucket "{bucket name}" for SVM "{svm.name}". Reason: {Reason for failure}. ";                  |
| 92405846   | "Failed to modify the object store volume. Reason: {Reason for failure}.";                                       |
| 92405811   | "Failed to modify bucket "{bucket name}" for SVM "{svm.name}". Wait a few minutes and try the operation again."; |

| Error code | Message   |
|------------|---|
| 92405858   | "Failed to "modify" the "bucket" because the operation is only supported on data SVMs.";  |
| 92405861   | "The specified SVM UUID or bucket UUID does not exist.";  |
| 92405863   | "An error occurs when creating an access policy. The reason for failure is detailed in the error message.";   |
| 92405864   | "An error occurs when deleting an access policy. The reason for failure is detailed in the error message.";   |
| 92405891   | The resources specified in the access policy are not valid. Valid ways to specify a resource are *, <bucket-name>, <bucket-name>/.../.... Valid characters for a resource are 0-9, A-Z, a-z, _, +, comma, :, =, ., &, @, ?, (, ), single quote, *, !, - and \$. |
| 92405894   | "Statements, principals and resources list can have a maximum of 10 entries.";  |
| 92405897   | The principals specified in the access policy are not in the correct format. User name must be in between 1 and 64 characters. Valid characters for a user name are 0-9, A-Z, a-z, _, +, =, comma, ., @, and - .  |
| 92405898   | "The SID specified in the access policy is not valid. Valid characters for a SID are 0-9, A-Z and a-z.";  |

| Name  | Type  | Description |
|-------|-------|-------------|
| error | 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 | <a href="#">href</a> |             |

aggregates

Aggregate

| Name   | Type                   | Description |
|--------|------------------------|-------------|
| _links | <a href="#">_links</a> |             |
| name   | string                 |             |
| uuid   | string                 |             |

audit\_event\_selector

Audit event selector allows you to specify access and permission types to audit.

| Name       | Type   | Description                                |
|------------|--------|--|
| access     | string | Specifies read and write access types.     |
| permission | string | Specifies allow and deny permission types. |

encryption

| Name    | Type    | Description  |
|---------|---------|--|
| enabled | boolean | Specifies whether encryption is enabled on the bucket. By default, encryption is disabled on a bucket. |

s3\_bucket\_policy\_condition

Information about policy conditions based on various condition operators and condition keys.

| Name       | Type           | Description  |
|------------|----------------|--|
| delimiters | array[string]  | An array of delimiters that are compared with the delimiter value specified at the time of execution of an S3-based command, using the condition operator specified.             |
| max_keys   | array[integer] | An array of maximum keys that are allowed or denied to be retrieved using an S3 list operation, based on the condition operator specified.                                       |
| operator   | string         | Condition operator that is applied to the specified condition key.   |
| prefixes   | array[string]  | An array of prefixes that are compared with the input prefix value specified at the time of execution of an S3-based command, using the condition operator specified.            |
| source_ips | array[string]  | An array of IP address ranges that are compared with the IP address of a source command at the time of execution of an S3-based command, using the condition operator specified. |
| usernames  | array[string]  | An array of usernames that a current user in the context is evaluated against using the condition operators.   |

#### s3\_bucket\_policy\_statement

Specifies information about a single access permission.

| Name       | Type                              | Description                         |
|------------|-----------------------------------|-------------------------------------|
| actions    | array[string]                     |                                     |
| conditions | array[s3_bucket_policy_condition] | Specifies bucket policy conditions. |



| Name       | Type          | Description  |
|------------|---------------|--|
| effect     | string        | Specifies whether access is allowed or denied when a user requests the specific action. If access (to allow) is not granted explicitly to a resource, access is implicitly denied. Access can also be denied explicitly to a resource, in order to make sure that a user cannot access it, even if a different policy grants access. |
| principals | array[string] |  |
| resources  | array[string] |  |
| sid        | string        | Specifies the statement identifier used to differentiate between statements.   |

#### policy

A policy is an object associated with a bucket. It defines resource (bucket, folder, or object) permissions. These policies get evaluated when an S3 user makes a request by executing a specific command. The user must be part of the principal (user or group) specified in the policy. Permissions in the policies determine whether the request is allowed or denied.

| Name       | Type                              | Description                               |
|------------|-----------------------------------|---|
| statements | array[s3_bucket_policy_statement] | Specifies bucket access policy statement. |

#### destination

| Name     | Type    | Description  |
|----------|---------|--|
| is_cloud | boolean | Specifies whether a bucket is protected within the Cloud.  |
| is_ontap | boolean | Specifies whether a bucket is protected within ONTAP. <ul style="list-style-type: none"> <li>• Default value: 1</li> <li>• readOnly: 1</li> <li>• Introduced in: 9.10</li> </ul> |

#### protection\_status

Specifies attributes of bucket protection.

| Name         | Type                        | Description  |
|--------------|-----------------------------|--|
| destination  | <a href="#">destination</a> |  |
| is_protected | boolean                     | <p>Specifies whether a bucket is a source and if it is protected within ONTAP and/or an external cloud.</p> <ul style="list-style-type: none"> <li>• Default value: 1</li> <li>• readOnly: 1</li> <li>• Introduced in: 9.10</li> </ul> |

#### qos\_policy

Specifies "qos\_policy.max\_throughput\_iops" and/or "qos\_policy.max\_throughput\_mbps" or "qos\_policy.min\_throughput\_iops" and/or "qos\_policy.min\_throughput\_mbps". Specifying "min\_throughput\_iops" or "min\_throughput\_mbps" is only supported on volumes hosted on a node that is flash optimized. A pre-created QoS policy can also be used by specifying "qos\_policy.name" or "qos\_policy.uuid" properties. Setting or assigning a QoS policy to a bucket is not supported if its containing volume or SVM already has a QoS policy attached.

| Name                | Type                   | Description   |
|---------------------|------------------------|---|
| _links              | <a href="#">_links</a> |   |
| max_throughput_iops | integer                | Specifies the maximum throughput in IOPS, 0 means none. This is mutually exclusive with name and UUID during POST and PATCH.  |
| max_throughput_mbps | integer                | Specifies the maximum throughput in Megabytes per sec, 0 means none. This is mutually exclusive with name and UUID during POST and PATCH.   |
| min_throughput_iops | integer                | Specifies the minimum throughput in IOPS, 0 means none. Setting "min_throughput" is supported on AFF platforms only, unless FabricPool tiering policies are set. This is mutually exclusive with name and UUID during POST and PATCH. |
| min_throughput_mbps | integer                | Specifies the minimum throughput in Megabytes per sec, 0 means none. This is mutually exclusive with name and UUID during POST and PATCH.   |

| Name | Type   | Description   |
|------|--------|---|
| name | string | The QoS policy group name. This is mutually exclusive with UUID and other QoS attributes during POST and PATCH. |
| uuid | string | The QoS policy group UUID. This is mutually exclusive with name and other QoS attributes during POST and PATCH. |

#### svm

| Name   | Type                   | Description                       |
|--------|------------------------|-----------------------------------|
| _links | <a href="#">_links</a> |                                   |
| name   | string                 | The name of the SVM.              |
| uuid   | string                 | The unique identifier of the SVM. |

#### volume

Specifies the FlexGroup volume name and UUID where the bucket is hosted.

| Name   | Type                   | Description  |
|--------|------------------------|--|
| _links | <a href="#">_links</a> |  |
| name   | string                 | The name of the volume.  |
| 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"> <li>• example: 028baa66-41bd-11e9-81d5-00a0986138f7</li> <li>• Introduced in: 9.6</li> </ul> |

#### s3\_bucket

A bucket is a container of objects. Each bucket defines an object namespace. S3 requests specify objects using a bucket-name and object-name pair. An object resides within a bucket.

| Name                       | Type                                 | Description  |
|----------------------------|--------------------------------------|--|
| aggregates                 | array[ <a href="#">aggregates</a> ]  | A list of aggregates for FlexGroup volume constituents where the bucket is hosted. If this option is not specified, the bucket is auto-provisioned as a FlexGroup volume.  |
| audit_event_selector       | <a href="#">audit_event_selector</a> | Audit event selector allows you to specify access and permission types to audit.   |
| comment                    | string                               | Can contain any additional information about the bucket being created or modified.   |
| constituents_per_aggregate | integer                              | Specifies the number of constituents or FlexVol volumes per aggregate. A FlexGroup volume consisting of all such constituents across all specified aggregates is created. This option is used along with the aggregates option and cannot be used independently.   |
| encryption                 | <a href="#">encryption</a>           |  |
| logical_used_size          | integer                              | Specifies the bucket logical used size up to this point.   |
| name                       | string                               | Specifies the name of the bucket. Bucket name is a string that can only contain the following combination of ASCII-range alphanumeric characters 0-9, a-z, ".", and "-".   |
| policy                     | <a href="#">policy</a>               | A policy is an object associated with a bucket. It defines resource (bucket, folder, or object) permissions. These policies get evaluated when an S3 user makes a request by executing a specific command. The user must be part of the principal (user or group) specified in the policy. Permissions in the policies determine whether the request is allowed or denied. |

| Name                  | Type                              | Description   |
|-----------------------|-----------------------------------|---|
| protection_status     | <a href="#">protection_status</a> | Specifies attributes of bucket protection.  |
| qos_policy            | <a href="#">qos_policy</a>        | Specifies "qos_policy.max_throughput_iops" and/or "qos_policy.max_throughput_mbps" or "qos_policy.min_throughput_iops" and/or "qos_policy.min_throughput_mbps". Specifying "min_throughput_iops" or "min_throughput_mbps" is only supported on volumes hosted on a node that is flash optimized. A pre-created QoS policy can also be used by specifying "qos_policy.name" or "qos_policy.uuid" properties. Setting or assigning a QoS policy to a bucket is not supported if its containing volume or SVM already has a QoS policy attached. |
| role                  | string                            | Specifies the role of the bucket.   |
| size                  | integer                           | Specifies the bucket size in bytes; ranges from 80MB to 64TB.   |
| storage_service_level | string                            | Specifies the storage service level of the FlexGroup volume on which the bucket should be created. Valid values are "value", "performance" or "extreme".  |
| svm                   | <a href="#">svm</a>               |   |
| uuid                  | string                            | Specifies the unique identifier of the bucket.  |
| volume                | <a href="#">volume</a>            | Specifies the FlexGroup volume name and UUID where the bucket is hosted.  |

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. |

#### error\_arguments

| Name    | Type   | Description      |
|---------|--------|------------------|
| code    | string | Argument code    |
| message | string | Message argument |

#### error

| Name      | Type                                     | Description                                 |
|-----------|--|---|
| arguments | array[ <a href="#">error_arguments</a> ] | 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.