



Manage S3 service bucket configuration

REST API reference

NetApp
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Manage S3 service bucket configuration

Protocols S3 services svm.uuid 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, accessible via a name. An object resides within a bucket. There can be more than one bucket in an S3 server. Buckets which are created for the server are associated with an S3 user that is created on the S3 server. An access policy is an object that when associated with a resource, defines their permissions. Buckets and objects are defined as resources. By default, only the "root" user can access these resources. Access policies are used to manage access to these resources by enabling ONTAP admin to provide "grants" to allow other users to perform operations on the buckets.

Examples

Retrieving all fields for all S3 buckets of an SVM

```
# The API:  
/api/protocols/s3/services/{svm.uuid}/buckets  
  
# The call:  
curl -X GET "https://<mgmt-ip>/api/protocols/s3/services/12f3ba4c-7ae0-  
11e9-8c06-0050568ea123/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": 50,
        "uuid": "39ac471f-ff35-11e9-b0f9-005056a7ab52",
        "name": "vs0_auto_gen_policy_39a9522f_ff35_11e9_b0f9_005056a7ab52"
    },
    "audit_event_selector": {
        "access": "all",
        "permission": "all"
    },
    "versioning-state": "disabled"
},
{
    "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": "bucket1",
    "qos_policy": {
        "min_throughput_iops": 0,
        "min_throughput_mbps": 0,
        "max_throughput_iops": 1000,
        "max_throughput_mbps": 50,
        "uuid": "39ac471f-ff35-11e9-b0f9-005056a7ab52",
        "name": "vs0_auto_gen_policy_39a9522f_ff35_11e9_b0f9_005056a7ab52"
    },
    "policy": {
        "statements": [
            {
                "effect": "allow",
                "actions": [
                    "*"
                ],
                "conditions": [
                    {
                        "path": "/",
                        "operator": "exists"
                    }
                ]
            }
        ]
    }
}

```

```

"principals": [
    "Alice"
],
"resources": [
    "*"
],
"sid": "fullAccessForAliceToBucket"
},
{
"effect": "allow",
"actions": [
    "ListBucket",
    "GetObject"
],
"principals": [
    "ann",
    "jack"
],
"resources": [
    "bucket-1",
    "bucket-1/*"
],
"sid": "AccessToListAndGetObjectForAnnAndJack",
"conditions": [
    {
        "operator": "ip_address",
        "source_ips": [
            "1.1.1.1/10"
        ]
    },
    {
        "operator": "string_equals",
        "prefixes": [
            "pref1",
            "pref2"
        ],
        "usernames": [
            "user1",
            "user2"
        ],
        "delimiters": [
            "del1",
            "del2"
        ]
    },
    {

```

```

        "operator": "numeric_equals",
        "max_keys": [
            100
        ]
    }
]
},
{
    "effect": "deny",
    "actions": [
        "*Object"
    ],
    "principals": [
        "mike",
        "group/group1"
    ],
    "resources": [
        "bucket-1/policy-docs/*",
        "bucket-1/confidential-*"
    ],
    "sid": "DenyAccessToGetPutDeleteObjectForMike"
},
{
    "effect": "allow",
    "actions": [
        "GetObject"
    ],
    "principals": [
        "*"
    ],
    "resources": [
        "bucket-1/readme"
    ],
    "sid": "AccessToGetObjectForAnonymousUsers"
},
{
    "effect": "allow",
    "actions": [
        "GetObject"
    ],
    "principals": [
    ],
    "resources": [
        "bucket-1/policies/examples/*"
    ],
    "sid": "AccessToGetObjectForAllUsersOfSVM"

```

```
        }
    ]
}
],
"num_records": 2
}
```

Retrieving the specified bucket associated with an SVM

```

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

# The call:
curl -X GET "https://<mgmt-ip>/api/protocols/s3/services/12f3ba4c-7ae0-
11e9-8c06-0050568ea123/buckets/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/services/{svm.uuid}/buckets

# The call:
curl -iku admin:netapp1! -X POST "https://<mgmt-
ip>/api/protocols/s3/services/12f3ba4c-7ae0-11e9-8c06-
0050568ea123/buckets?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\" }"

# The response:
HTTP/1.1 202 Accepted
Date: Fri, 24 May 2019 11:22:14 GMT
Server: libzapid-httdp
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Location: /api/protocols/s3/services/12f3ba4c-7ae0-11e9-8c06-
0050568ea123/buckets/?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 policies and event selector for an SVM

```

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

# The call:
curl -iku admin:netapp1! -X POST "https://<mgmt-
ip>/api/protocols/s3/services/3e538980-f0af-11e9-ba68-
0050568e9798/buckets?return_records=true" -H "accept: application/json" -H
"Content-Type: application/json" -d "{ \"comment\": \"S3 bucket.\",
\"name\": \"bucket-3\", \"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\" },
\"audit_event_selector\": { \"access\": \"all\", \"permission\": \"all\"}}"

# The response:
HTTP/1.1 202 Accepted
Date: Fri, 24 May 2019 11:22:14 GMT
Server: libzapid-httdp
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Location: /api/protocols/s3/services/12f3ba4c-7ae0-11e9-8c06-
0050568ea123/buckets/?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 for an SVM

```
# The API:  
/api/protocols/s3/services/{svm.uuid}/buckets  
  
# The call:  
curl -iku admin:netapp1! -X POST "https://<mgmt-  
ip>/api/protocols/s3/services/3e538980-f0af-11e9-ba68-  
0050568e9798/buckets?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\" ] }, { \"max_keys\": [  
1000 ], \"operator\": \"numeric_equals\" }, { \"delimiters\": [ \"/\" ],  
\"operator\": \"string_equals\", \"prefixes\": [ \"pref\" ],  
\"usernames\": [ \"user1\" ] } ], \"effect\": \"allow\", \"resources\": [  
\"bucket-3/policies/examples/*\" ], \"sid\":  
\"AccessToGetObjectForAllUsersofSVM\" }, { \"actions\": [ \"*Object\" ],  
\"effect\": \"deny\", \"principals\": [ \"mike\", \"group/grp1\" ],  
\"resources\": [ \"bucket-3/policy-docs/*\", \"bucket-3/confidential-*\" ],  
\"sid\": \"DenyAccessToObjectForMike\" }, { \"actions\": [  
\"GetObject\" ], \"effect\": \"allow\", \"principals\": [ \"*\" ],  
\"resources\": [ \"bucket-3/readme\" ], \"sid\":  
\"AnonnymousAccessToObjectForUsers\" } ] } }"  
  
# The response:  
HTTP/1.1 202 Accepted  
Date: Fri, 24 May 2019 11:22:14 GMT  
Server: libzapid-httdp  
X-Content-Type-Options: nosniff  
Cache-Control: no-cache,no-store,must-revalidate  
Location: /api/protocols/s3/services/12f3ba4c-7ae0-11e9-8c06-  
0050568ea123/buckets/?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 lifecycle management rules

```

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

# The call:
curl -iku admin:netapp1! -X POST "https://<mgmt-
ip>/api/protocols/s3/services/3e538980-f0af-11e9-ba68-
0050568e9798/buckets?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-4\", \"lifecycle_management\": { \"rules\": [ { \"name\":
\"rule1\", \"expiration\": { \"object_age_days\": \"1000\" } ,
\"abort_incomplete_multipart_upload\": { \"after_initiaion_days\": 200 }
, \"object_filter\": { \"prefix\": \"obj1*/\" , \"size_greater_than\":
\"1000\" } }, { \"name\": \"rule2\", \"object_filter\": {
\"size_greater_than\": \"50\" }, \"expiration\": { \"object_age_days\": :
\"5000\" } } ] } }"

# The response:
HTTP/1.1 202 Accepted
Date: Fri, 18 April 2022 11:22:14 GMT
Server: libzapid-httdp
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Location: /api/protocols/s3/services/12f3ba4c-7ae0-11e9-8c06-
0050568ea123/buckets/?name=bucket-4
Content-Length: 363
Content-Type: application/json
{
  "num_records": 1,
  "records": [
    {
      "name": "bucket-4",
      "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/services/{svm.uuid}/buckets/{uuid}  
  
# The call:  
curl -X PATCH "https://<mgmt-ip>/api/protocols/s3/services/12f3ba4c-7ae0-  
11e9-8c06-0050568ea123/buckets/754389d0-7e13-11e9-bfdc-0050568ea122" -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-httdp  
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 and event selector for an SVM

```

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

# The call:
curl -X PATCH "https://<mgmt-ip>/api/protocols/s3/services/3e538980-f0af-11e9-ba68-0050568e9798/buckets/754389d0-7e13-11e9-bfdc-0050568ea122?return_records=true" -H "accept: application/json" -H "Content-Type: application/json" -d "{ \"policy\": { \"statements\": [ { \"actions\": [ \"*\" ], \"conditions\": [ { \"operator\": \"ip_address\", \"source_ips\": [ \"1.1.1.1/23\", \"1.2.2.2/20\" ] }, { \"max_keys\": [ 1000 ], \"operator\": \"numeric_equals\" }, { \"delimiters\": [ \"/\" ], \"operator\": \"string_equals\", \"prefixes\": [ \"pref\" ], \"usernames\": [ \"user1\" ] } ], \"effect\": \"allow\", \"resources\": [ \"*\" ], \"sid\": \"fullAccessForAllPrincipalsToBucket\" } ], \"audit_event_selector\": { \"access\": \"read\", \"permission\": \"deny\" } }"
}

# The response:
HTTP/1.1 202 Accepted
Date: Fri, 24 May 2019 11:32:27 GMT
Server: libzapid-httppd
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 policy for an SVM

```

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

# The call:
curl -X PATCH "https://<mgmt-ip>/api/protocols/s3/services/3e538980-f0af-
11e9-ba68-0050568e9798/buckets/754389d0-7e13-11e9-bfdc-
0050568ea122?return_records=true" -H "accept: application/json" -H
"Content-Type: application/json" -d "{ \"policy\": { \"statements\": [ ] } }"
}

# The response:
HTTP/1.1 202 Accepted
Date: Fri, 24 May 2019 11:32:27 GMT
Server: libzapid-httdp
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/services/{svm.uuid}/buckets/{uuid}

# The call:
curl -iku admin:netapp1! -X DELETE "https://<mgmt-
ip>/api/protocols/s3/services/12f3ba4c-7ae0-11e9-8c06-
0050568ea123/buckets/754389d0-7e13-11e9-bfdc-
0050568ea123?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-httdp
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 S3 bucket configurations for an SVM

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

Introduced In: 9.7

Retrieves the S3 bucket's 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
- vserver object-store-server bucket lifecycle-management-rule show

Learn more

- [DOC /protocols/s3/services/{svm.uuid}/buckets](#)

Parameters

Name	Type	In	Required	Description
protection_status.is_protected	boolean	query	False	Filter by protection_status.is_protected <ul style="list-style-type: none">• Introduced in: 9.10
protection_status.destination.is_cloud	boolean	query	False	Filter by protection_status.destination.is_cloud <ul style="list-style-type: none">• Introduced in: 9.10
protection_status.destination.is_external_cloud	boolean	query	False	Filter by protection_status.destination.is_external_cloud <ul style="list-style-type: none">• Introduced in: 9.12
protection_status.destination.is_ontap	boolean	query	False	Filter by protection_status.destination.is_ontap <ul style="list-style-type: none">• Introduced in: 9.10
logical_used_size	integer	query	False	Filter by logical_used_size
svm.name	string	query	False	Filter by svm.name
encryption.enabled	boolean	query	False	Filter by encryption.enabled

Name	Type	In	Required	Description
size	integer	query	False	Filter by size <ul style="list-style-type: none"> • Max value: 70368744177664 • Min value: 83886080
volume.uuid	string	query	False	Filter by volume.uuid
volume.name	string	query	False	Filter by volume.name
comment	string	query	False	Filter by comment <ul style="list-style-type: none"> • maxLength: 256 • minLength: 0
audit_event_selector.permission	string	query	False	Filter by audit_event_selector.permission <ul style="list-style-type: none"> • Introduced in: 9.10
audit_event_selector.access	string	query	False	Filter by audit_event_selector.access <ul style="list-style-type: none"> • Introduced in: 9.10
versioning_state	string	query	False	Filter by versioning_state <ul style="list-style-type: none"> • Introduced in: 9.11
policy.statements.sid	string	query	False	Filter by policy.statements.sid <ul style="list-style-type: none"> • Introduced in: 9.8

Name	Type	In	Required	Description
policy.statements.principals	string	query	False	Filter by policy.statements.principals <ul style="list-style-type: none"> • Introduced in: 9.8
policy.statements.conditions.usernames	string	query	False	Filter by policy.statements.conditions.usernames <ul style="list-style-type: none"> • Introduced in: 9.8
policy.statements.conditions.max_keys	integer	query	False	Filter by policy.statements.conditions.max_keys <ul style="list-style-type: none"> • Introduced in: 9.8
policy.statements.conditions.delimiters	string	query	False	Filter by policy.statements.conditions.delimiters <ul style="list-style-type: none"> • Introduced in: 9.8
policy.statements.conditions.prefixes	string	query	False	Filter by policy.statements.conditions.prefixes <ul style="list-style-type: none"> • Introduced in: 9.8
policy.statements.conditions.source_ips	string	query	False	Filter by policy.statements.conditions.source_ips <ul style="list-style-type: none"> • Introduced in: 9.8
policy.statements.conditions.operator	string	query	False	Filter by policy.statements.conditions.operator <ul style="list-style-type: none"> • Introduced in: 9.8

Name	Type	In	Required	Description
policy.statements.effect	string	query	False	Filter by policy.statements.effect <ul style="list-style-type: none"> • Introduced in: 9.8
policy.statements.actions	string	query	False	Filter by policy.statements.actions <ul style="list-style-type: none"> • Introduced in: 9.8
policy.statements.resources	string	query	False	Filter by policy.statements.resources <ul style="list-style-type: none"> • Introduced in: 9.8
type	string	query	False	Filter by type <ul style="list-style-type: none"> • Introduced in: 9.12
qos_policy.name	string	query	False	Filter by qos_policy.name <ul style="list-style-type: none"> • Introduced in: 9.8
qos_policy.min_throughput_mbps	integer	query	False	Filter by qos_policy.min_throughput_mbps <ul style="list-style-type: none"> • Introduced in: 9.8
qos_policy.min_throughput_iops	integer	query	False	Filter by qos_policy.min_throughput_iops <ul style="list-style-type: none"> • Introduced in: 9.8

Name	Type	In	Required	Description
qos_policy.max_thro ughput_mbps	integer	query	False	Filter by qos_policy.max_thro ughput_mbps <ul style="list-style-type: none"> • Introduced in: 9.8
qos_policy.uuid	string	query	False	Filter by qos_policy.uuid <ul style="list-style-type: none"> • Introduced in: 9.8
qos_policy.max_thro ughput_iops	integer	query	False	Filter by qos_policy.max_thro ughput_iops <ul style="list-style-type: none"> • Introduced in: 9.8
nas_path	string	query	False	Filter by nas_path <ul style="list-style-type: none"> • Introduced in: 9.12
uuid	string	query	False	Filter by uuid
lifecycle_manageme nt.rules.expiration.ex pired_object_delete _marker	boolean	query	False	Filter by lifecycle_manageme nt.rules.expiration.ex pired_object_delete _marker <ul style="list-style-type: none"> • Introduced in: 9.13
lifecycle_manageme nt.rules.expiration.o bject_age_days	integer	query	False	Filter by lifecycle_manageme nt.rules.expiration.o bject_age_days <ul style="list-style-type: none"> • Introduced in: 9.13

Name	Type	In	Required	Description
lifecycle_manager.rules.expiration.object_expiry_date	string	query	False	Filter by lifecycle_manager.rules.expiration.object_expiry_date <ul style="list-style-type: none"> • Introduced in: 9.13
lifecycle_manager.rules.object_filter.size_less_than	integer	query	False	Filter by lifecycle_manager.rules.object_filter.size_less_than <ul style="list-style-type: none"> • Introduced in: 9.13
lifecycle_manager.rules.object_filter.tags	string	query	False	Filter by lifecycle_manager.rules.object_filter.tags <ul style="list-style-type: none"> • Introduced in: 9.13
lifecycle_manager.rules.object_filter.size_greater_than	integer	query	False	Filter by lifecycle_manager.rules.object_filter.size_greater_than <ul style="list-style-type: none"> • Introduced in: 9.13
lifecycle_manager.rules.object_filter.prefix	string	query	False	Filter by lifecycle_manager.rules.object_filter.prefix <ul style="list-style-type: none"> • Introduced in: 9.13
lifecycle_manager.rules.name	string	query	False	Filter by lifecycle_manager.rules.name <ul style="list-style-type: none"> • Introduced in: 9.13

Name	Type	In	Required	Description
lifecycle_manager.rules.non_current_version_expiration.non_current_days	integer	query	False	Filter by lifecycle_manager.rules.non_current_version_expiration.non_current_days <ul style="list-style-type: none"> • Introduced in: 9.13
lifecycle_manager.rules.non_current_version_expiration.new_non_current_versions	integer	query	False	Filter by lifecycle_manager.rules.non_current_version_expiration.new_non_current_versions <ul style="list-style-type: none"> • Introduced in: 9.13
lifecycle_manager.rules.abort_incomplete_multipart_upload.after_initiation_days	integer	query	False	Filter by lifecycle_manager.rules.abort_incomplete_multipart_upload.after_initiation_days <ul style="list-style-type: none"> • Introduced in: 9.13
lifecycle_manager.rules.enabled	boolean	query	False	Filter by lifecycle_manager.rules.enabled <ul style="list-style-type: none"> • Introduced in: 9.13
role	string	query	False	Filter by role <ul style="list-style-type: none"> • Introduced in: 9.10
name	string	query	False	Filter by name <ul style="list-style-type: none"> • maxLength: 63 • minLength: 3
svm.uuid	string	path	True	UUID of the SVM to which this object belongs.

Name	Type	In	Required	Description
fields	array[string]	query	False	Specify the fields to return.
max_records	integer	query	False	Limit the number of records returned.
return_records	boolean	query	False	<p>The default is true for GET calls. When set to false, only the number of records is returned.</p> <ul style="list-style-type: none"> Default value: 1
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"> Max value: 120 Min value: 0 Default value: 1
order_by	array[string]	query	False	Order results by specified fields and optional [asc]

Response

Status: 200, Ok

Name	Type	Description
_links	collection_links	
num_records	integer	Number of records
records	array[s3_bucket_svm]	

Example response

```
{  
  "_links": {  
    "next": {  
      "href": "/api/resourcelink"  
    },  
    "self": {  
      "href": "/api/resourcelink"  
    }  
  },  
  "num_records": 1,  
  "records": [  
    {  
      "audit_event_selector": {  
        "access": "string",  
        "permission": "string"  
      },  
      "comment": "S3 bucket.",  
      "lifecycle_management": {  
        "rules": [  
          {  
            "_links": {  
              "self": {  
                "href": "/api/resourcelink"  
              }  
            },  
            "abort_incomplete_multipart_upload": {  
              "_links": {  
                "self": {  
                  "href": "/api/resourcelink"  
                }  
              }  
            },  
            "expiration": {  
              "_links": {  
                "self": {  
                  "href": "/api/resourcelink"  
                }  
              }  
            },  
            "object_expiry_date": "string"  
          },  
          "name": "string",  
          "non_current_version_expiration": {  
            "_links": {  
              "self": {  
                "href": "/api/resourcelink"  
              }  
            }  
          }  
        ]  
      }  
    }  
  ]  
}
```

```

        "href": "/api/resourcelink"
    }
}
},
"object_filter": {
    "_links": {
        "self": {
            "href": "/api/resourcelink"
        }
    },
    "prefix": "/logs",
    "size_greater_than": 10485760,
    "size_less_than": 10240,
    "tags": [
        "project1=projA",
        "project2=projB"
    ]
}
}
]
},
"logical_used_size": 0,
"name": "bucket1",
"nas_path": "/",
"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": "string",
"size": 1677721600,
"svm": {
    "_links": {
        "self": {
            "href": "/api/resourcelink"
        }
    },
    "name": "svml1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
},
"type": "s3",

```

```

"uuid": "414b29a1-3b26-11e9-bd58-0050568ea055",
"versioning_state": "enabled",
"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	

collection_links

Name	Type	Description
next	href	
self	href	

_links

Name	Type	Description
self	href	

aggregates

Name	Type	Description
_links	_links	
name	string	
uuid	string	

audit_event_selector

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.

abort_incomplete_multipart_upload

Specifies a way to perform abort_incomplete_multipart_upload action on filtered objects within a bucket.

Name	Type	Description
_links	_links	
after_initiation_days	integer	Number of days of initiation after which uploads can be aborted.

expiration

Specifies a way to perform expiration action on filtered objects within a bucket.

Name	Type	Description
_links	_links	
expired_object_delete_marker	boolean	Cleanup object delete markers.
object_age_days	integer	Number of days since creation after which objects can be deleted.
object_expiry_date	string	Specific date from when objects can expire.

non_current_version_expiration

Specifies a way to perform non_current_version_expiration action on filtered objects within a bucket.

Name	Type	Description
_links	_links	
new_non_current_versions	integer	Number of latest non-current versions to be retained.
non_current_days	integer	Number of days after which non-current versions can be deleted.

object_filter

Specifies a way to filter objects within a bucket.

Name	Type	Description
_links	_links	
prefix	string	A prefix that is matched against object-names within a bucket.

Name	Type	Description
size_greater_than	integer	Size of the object greater than specified for which the corresponding lifecycle rule is to be applied.
size_less_than	integer	Size of the object smaller than specified for which the corresponding lifecycle rule is to be applied.
tags	array[string]	An array of key-value paired tags of the form <tag>or <tag=value>.</tag>

rules

Information about the lifecycle management rule of a bucket.

Name	Type	Description
_links	_links	
abort_incomplete_multipart_upload	abort_incomplete_multipart_upload	Specifies a way to perform abort_incomplete_multipart_upload action on filtered objects within a bucket.
enabled	boolean	Specifies whether or not the associated rule is enabled.
expiration	expiration	Specifies a way to perform expiration action on filtered objects within a bucket.
name	string	Bucket lifecycle management rule identifier.
non_current_version_expiration	non_current_version_expiration	Specifies a way to perform non_current_version_expiration action on filtered objects within a bucket.
object_filter	object_filter	Specifies a way to filter objects within a bucket.

lifecycle_management

Lifecycle management is implemented as an object associated with a bucket. It defines rules to be

applied against objects within a bucket. These rules are applied in the background and can delete objects.

Name	Type	Description
rules	array[rules]	Specifies an object store lifecycle management policy.

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_external_cloud	boolean	Specifies whether a bucket is protected on external Cloud providers.

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

protection_status

Specifies attributes of bucket protection.

Name	Type	Description
destination	destination	
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"> • Default value: 1 • readOnly: 1 • Introduced in: 9.10 • x-nullable: true

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	_links	
max_throughput_iops	integer	<p>Specifies the maximum throughput in IOPS, 0 means none. This is mutually exclusive with name and UUID during POST and PATCH.</p>

Name	Type	Description
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	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	_links	
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	_links	

Name	Type	Description
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"> example: 028baa66-41bd-11e9-81d5-00a0986138f7 Introduced in: 9.6 x-nullable: true

s3_bucket_svm

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
audit_event_selector	audit_event_selector	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.
encryption	encryption	
lifecycle_management	lifecycle_management	Lifecycle management is implemented as an object associated with a bucket. It defines rules to be applied against objects within a bucket. These rules are applied in the background and can delete objects.
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
nas_path	string	Specifies the NAS path to which the nas bucket corresponds to.
policy	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.
protection_status	protection_status	Specifies attributes of bucket protection.
qos_policy	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.
role	string	Specifies the role of the bucket.
size	integer	Specifies the bucket size in bytes; ranges from 80MB to 64TB.
svm	svm	

Name	Type	Description
type	string	Specifies the bucket type. Valid values are "s3" and "nas".
uuid	string	Specifies the unique identifier of the bucket.
versioning_state	string	Specifies the versioning state of the bucket. Valid values are "disabled", "enabled" or "suspended". Note that the versioning state cannot be modified to 'disabled' from any other state.
volume	volume	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[error_arguments]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

Create an S3 bucket configuration for an SVM

POST /protocols/s3/services/{svm.uuid}/buckets

Introduced In: 9.7

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.
- Constituents per aggregate specifies the number of components (or FlexVols) per aggregate. Is specified only when an aggregate list is explicitly defined.
- An access policy can be created when a bucket is created.
- "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` - 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 on which the bucket is hosted on.
- `constituents_per_aggregate` - Number of constituents per aggregate.
- `size` - Specifying the bucket size is recommended.
- `policy` - Specifying policy enables users to perform operations on buckets. Hence specifying the resource permissions is recommended.
- `qos_policy` - A QoS policy for buckets.
- `audit_event_selector` - Audit policy for buckets.
- `versioning_state` - Versioning state for buckets.
- `type` - Type of bucket.
- `nas_path` - The NAS path to which the NAS bucket corresponds to.
- `lifecycle_management` - Object store server lifecycle management policy.

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`, `GetBucketVersioning`, `PutBucketVersioning`.

- `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.
- `qos-policy` - No default value.
- `versioning_state` - disabled.
- `type` - S3.

Related ONTAP commands

- `vserver object-store-server bucket create`
- `vserver object-store-server bucket policy statement create`
- `vserver object-store-server bucket policy-statement-condition create`
- `vserver object-store-server bucket lifecycle-management-rule create`

Learn more

- [DOC /protocols/s3/services/{svm.uuid}/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"> • Default value: 1 • Max value: 120 • Min value: 0
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"> • Default value:
svm.uuid	string	path	True	UUID of the SVM to which this object belongs.

Request Body

Name	Type	Description
aggregates	array[aggregates]	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	audit_event_selector	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	encryption	
lifecycle_management	lifecycle_management	Lifecycle management is implemented as an object associated with a bucket. It defines rules to be applied against objects within a bucket. These rules are applied in the background and can delete objects.
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 "-".
nas_path	string	Specifies the NAS path to which the nas bucket corresponds to.

Name	Type	Description
policy	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.
protection_status	protection_status	Specifies attributes of bucket protection.
qos_policy	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.
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	svm	

Name	Type	Description
type	string	Specifies the bucket type. Valid values are "s3" and "nas".
uuid	string	Specifies the unique identifier of the bucket.
versioning_state	string	Specifies the versioning state of the bucket. Valid values are "disabled", "enabled" or "suspended". Note that the versioning state cannot be modified to 'disabled' from any other state.
volume	volume	Specifies the FlexGroup volume name and UUID where the bucket is hosted.

Example request

```
{  
  "aggregates": [  
    {  
      "name": "agg1",  
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"  
    }  
  ],  
  "audit_event_selector": {  
    "access": "string",  
    "permission": "string"  
  },  
  "comment": "S3 bucket.",  
  "constituents_per_aggregate": 4,  
  "lifecycle_management": {  
    "rules": [  
      {  
        "expiration": {  
          "object_expiry_date": "string"  
        },  
        "name": "string",  
        "object_filter": {  
          "prefix": "/logs",  
          "size_greater_than": 10485760,  
          "size_less_than": 10240,  
          "tags": [  
            "project1=projA",  
            "project2=projB"  
          ]  
        }  
      }  
    ]  
  },  
  "logical_used_size": 0,  
  "name": "bucket1",  
  "nas_path": "/",  
  "policy": {  
    "statements": [  
      {  
        "actions": [  
          "GetObject",  
          "PutObject",  
          "DeleteObject",  
          "ListBucket"  
        ],  
        "conditions": {}  
      }  
    ]  
  }  
}
```

```

"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": {
  "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": "string",
"size": 1677721600,
"storage_service_level": "value",
"svm": {

```

```

    "name": "svml",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "type": "s3",
  "uuid": "414b29a1-3b26-11e9-bd58-0050568ea055",
  "versioning_state": "enabled",
  "volume": {
    "name": "volume1",
    "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
  }
}

```

Response

Status: 202, Accepted

Name	Type	Description
job	job_link	

Example response

```

{
  "job": {
    "uuid": "string"
  }
}

```

Headers

Name	Description	Type
Location	Useful for tracking the resource location	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. ";
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 \$.

Error code	Message
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.";

Definitions

See Definitions

href

Name	Type	Description
href	string	

_links

aggregates

Name	Type	Description
name	string	
uuid	string	

audit_event_selector

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.

abort_incomplete_multipart_upload

Specifies a way to perform abort_incomplete_multipart_upload action on filtered objects within a bucket.

Name	Type	Description
after_initiation_days	integer	Number of days of initiation after which uploads can be aborted.

expiration

Specifies a way to perform expiration action on filtered objects within a bucket.

Name	Type	Description
expired_object_delete_marker	boolean	Cleanup object delete markers.
object_age_days	integer	Number of days since creation after which objects can be deleted.
object_expiry_date	string	Specific date from when objects can expire.

non_current_version_expiration

Specifies a way to perform non_current_version_expiration action on filtered objects within a bucket.

Name	Type	Description
new_non_current_versions	integer	Number of latest non-current versions to be retained.
non_current_days	integer	Number of days after which non-current versions can be deleted.

object_filter

Specifies a way to filter objects within a bucket.

Name	Type	Description
prefix	string	A prefix that is matched against object-names within a bucket.
size_greater_than	integer	Size of the object greater than specified for which the corresponding lifecycle rule is to be applied.
size_less_than	integer	Size of the object smaller than specified for which the corresponding lifecycle rule is to be applied.
tags	array[string]	An array of key-value paired tags of the form <tag> or <tag>:value</tag>

rules

Information about the lifecycle management rule of a bucket.

Name	Type	Description
abort_incomplete_multipart_upload	abort_incomplete_multipart_upload	Specifies a way to perform abort_incomplete_multipart_upload action on filtered objects within a bucket.
enabled	boolean	Specifies whether or not the associated rule is enabled.
expiration	expiration	Specifies a way to perform expiration action on filtered objects within a bucket.
name	string	Bucket lifecycle management rule identifier.
non_current_version_expiration	non_current_version_expiration	Specifies a way to perform non_current_version_expiration action on filtered objects within a bucket.
object_filter	object_filter	Specifies a way to filter objects within a bucket.

lifecycle_management

Lifecycle management is implemented as an object associated with a bucket. It defines rules to be applied against objects within a bucket. These rules are applied in the background and can delete objects.

Name	Type	Description
rules	array[rules]	Specifies an object store lifecycle management policy.

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.

Name	Type	Description
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.

Name	Type	Description
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_external_cloud	boolean	Specifies whether a bucket is protected on external Cloud providers.
is_ontap	boolean	Specifies whether a bucket is protected within ONTAP. <ul style="list-style-type: none"> • Default value: 1 • readOnly: 1 • Introduced in: 9.10 • x-nullable: true

protection_status

Specifies attributes of bucket protection.

Name	Type	Description
destination	destination	

Name	Type	Description
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"> • Default value: 1 • readOnly: 1 • Introduced in: 9.10 • x-nullable: true

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
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
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
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"> example: 028baa66-41bd-11e9-81d5-00a0986138f7 Introduced in: 9.6 x-nullable: true

s3_bucket_svm

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[aggregates]	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	audit_event_selector	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	encryption	
lifecycle_management	lifecycle_management	Lifecycle management is implemented as an object associated with a bucket. It defines rules to be applied against objects within a bucket. These rules are applied in the background and can delete objects.
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 "-".
nas_path	string	Specifies the NAS path to which the nas bucket corresponds to.

Name	Type	Description
policy	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.
protection_status	protection_status	Specifies attributes of bucket protection.
qos_policy	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.
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	svm	
type	string	Specifies the bucket type. Valid values are "s3" and "nas".
uuid	string	Specifies the unique identifier of the bucket.
versioning_state	string	Specifies the versioning state of the bucket. Valid values are "disabled", "enabled" or "suspended". Note that the versioning state cannot be modified to 'disabled' from any other state.
volume	volume	Specifies the FlexGroup volume name and UUID where the bucket is hosted.

job_link

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

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

Delete an S3 bucket configuration for an SVM

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

Introduced In: 9.7

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
- vserver object-store-server bucket lifecycle-management-rule delete

Learn more

- [DOC /protocols/s3/services/{svm.uuid}/buckets](#)

Parameters

Name	Type	In	Required	Description
uuid	string	path	True	The unique identifier of the bucket.

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"> • Default value: 1 • Max value: 120 • Min value: 0
svm.uuid	string	path	True	UUID of the SVM to which this object belongs.

Response

Status: 202, Accepted

Name	Type	Description
job	job_link	

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	error	

Example error

```
{  
  "error": {  
    "arguments": [  
      {  
        "code": "string",  
        "message": "string"  
      }  
    ],  
    "code": "4",  
    "message": "entry doesn't exist",  
    "target": "uuid"  
  }  
}
```

Definitions

See Definitions

href

Name	Type	Description
href	string	

_links

Name	Type	Description
self	href	

job_link

Name	Type	Description
_links	_links	
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[error_arguments]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

Retrieve an S3 bucket for an SVM

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

Introduced In: 9.7

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
- vserver object-store-server bucket lifecycle-management-rule show

Learn more

- [DOC /protocols/s3/services/{svm.uuid}/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
audit_event_selector	audit_event_selector	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.
encryption	encryption	

Name	Type	Description
lifecycle_management	lifecycle_management	Lifecycle management is implemented as an object associated with a bucket. It defines rules to be applied against objects within a bucket. These rules are applied in the background and can delete objects.
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 "-".
nas_path	string	Specifies the NAS path to which the nas bucket corresponds to.
policy	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.
protection_status	protection_status	Specifies attributes of bucket protection.

Name	Type	Description
qos_policy	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.
role	string	Specifies the role of the bucket.
size	integer	Specifies the bucket size in bytes; ranges from 80MB to 64TB.
svm	svm	
type	string	Specifies the bucket type. Valid values are "s3" and "nas".
uuid	string	Specifies the unique identifier of the bucket.
versioning_state	string	Specifies the versioning state of the bucket. Valid values are "disabled", "enabled" or "suspended". Note that the versioning state cannot be modified to 'disabled' from any other state.
volume	volume	Specifies the FlexGroup volume name and UUID where the bucket is hosted.

Example response

```
        "size_greater_than": 10485760,
        "size_less_than": 10240,
        "tags": [
            "project1=projA",
            "project2=projB"
        ],
    },
},
],
},
"logical_used_size": 0,
"name": "bucket1",
"nas_path": "/",
"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",
                "user2"
            ]
        }
    ]
}
```

```
        "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": "string",
"size": 1677721600,
"svm": {
    "_links": {
        "self": {
            "href": "/api/resourcelink"
        }
    },
    "name": "svml1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
},
"type": "s3",
"uuid": "414b29a1-3b26-11e9-bd58-0050568ea055",
"versioning_state": "enabled",
"volume": {
    "_links": {
        "self": {
            "href": "/api/resourcelink"
        }
    },
    "name": "volumel",
    "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	href	

aggregates

Name	Type	Description
_links	_links	
name	string	
uuid	string	

audit_event_selector

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.

abort_incomplete_multipart_upload

Specifies a way to perform abort_incomplete_multipart_upload action on filtered objects within a bucket.

Name	Type	Description
_links	_links	

Name	Type	Description
after_initiation_days	integer	Number of days of initiation after which uploads can be aborted.

expiration

Specifies a way to perform expiration action on filtered objects within a bucket.

Name	Type	Description
_links	_links	
expired_object_delete_marker	boolean	Cleanup object delete markers.
object_age_days	integer	Number of days since creation after which objects can be deleted.
object_expiry_date	string	Specific date from when objects can expire.

non_current_version_expiration

Specifies a way to perform non_current_version_expiration action on filtered objects within a bucket.

Name	Type	Description
_links	_links	
new_non_current_versions	integer	Number of latest non-current versions to be retained.
non_current_days	integer	Number of days after which non-current versions can be deleted.

object_filter

Specifies a way to filter objects within a bucket.

Name	Type	Description
_links	_links	
prefix	string	A prefix that is matched against object-names within a bucket.
size_greater_than	integer	Size of the object greater than specified for which the corresponding lifecycle rule is to be applied.

Name	Type	Description
size_less_than	integer	Size of the object smaller than specified for which the corresponding lifecycle rule is to be applied.
tags	array[string]	An array of key-value paired tags of the form <tag> or <tag=value>.</tag>

rules

Information about the lifecycle management rule of a bucket.

Name	Type	Description
_links	_links	
abort_incomplete_multipart_upload	abort_incomplete_multipart_upload	Specifies a way to perform abort_incomplete_multipart_upload action on filtered objects within a bucket.
enabled	boolean	Specifies whether or not the associated rule is enabled.
expiration	expiration	Specifies a way to perform expiration action on filtered objects within a bucket.
name	string	Bucket lifecycle management rule identifier.
non_current_version_expiration	non_current_version_expiration	Specifies a way to perform non_current_version_expiration action on filtered objects within a bucket.
object_filter	object_filter	Specifies a way to filter objects within a bucket.

lifecycle_management

Lifecycle management is implemented as an object associated with a bucket. It defines rules to be applied against objects within a bucket. These rules are applied in the background and can delete objects.

Name	Type	Description
rules	array[rules]	Specifies an object store lifecycle management policy.

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_external_cloud	boolean	Specifies whether a bucket is protected on external Cloud providers.

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

protection_status

Specifies attributes of bucket protection.

Name	Type	Description
destination	destination	
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"> • Default value: 1 • readOnly: 1 • Introduced in: 9.10 • x-nullable: true

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	_links	
max_throughput_iops	integer	<p>Specifies the maximum throughput in IOPS, 0 means none. This is mutually exclusive with name and UUID during POST and PATCH.</p>

Name	Type	Description
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	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	_links	
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	_links	

Name	Type	Description
name	string	The name of the volume.
uuid	string	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. <ul style="list-style-type: none"> example: 028baa66-41bd-11e9-81d5-00a0986138f7 Introduced in: 9.6 x-nullable: true

error_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

error

Name	Type	Description
arguments	array[error_arguments]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

Update an S3 bucket configuration for an SVM

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

Introduced In: 9.7

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. Policy conditions can also be modified using this API.
- `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 audit event selector.
- `versioning_state` - Versioning state for buckets.
- `nas_path` - NAS path to which the NAS bucket corresponds to.

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/services/{svm.uuid}/buckets](#)

Parameters

Name	Type	In	Required	Description
<code>uuid</code>	string	path	True	The unique identifier of the bucket.

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"> • Default value: 1 • Max value: 120 • Min value: 0
svm.uuid	string	path	True	UUID of the SVM to which this object belongs.

Request Body

Name	Type	Description
audit_event_selector	audit_event_selector	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.

Name	Type	Description
encryption	encryption	
lifecycle_management	lifecycle_management	Lifecycle management is implemented as an object associated with a bucket. It defines rules to be applied against objects within a bucket. These rules are applied in the background and can delete objects.
logical_used_size	integer	Specifies the bucket logical used size up to this point.
nas_path	string	Specifies the NAS path to which the nas bucket corresponds to.
policy	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.
protection_status	protection_status	Specifies attributes of bucket protection.

Name	Type	Description
qos_policy	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.
role	string	Specifies the role of the bucket.
size	integer	Specifies the bucket size in bytes; ranges from 80MB to 64TB.
svm	svm	
type	string	Specifies the bucket type. Valid values are "s3" and "nas".
uuid	string	Specifies the unique identifier of the bucket.
versioning_state	string	Specifies the versioning state of the bucket. Valid values are "disabled", "enabled" or "suspended". Note that the versioning state cannot be modified to 'disabled' from any other state.
volume	volume	Specifies the FlexGroup volume name and UUID where the bucket is hosted.

Example request

```
{  
  "audit_event_selector": {  
    "access": "string",  
    "permission": "string"  
  },  
  "comment": "S3 bucket.",  
  "lifecycle_management": {  
    "rules": [  
      {  
        "expiration": {  
          "object_expiry_date": "string"  
        }  
      }  
    ]  
  },  
  "logical_used_size": 0,  
  "nas_path": "/",  
  "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": {
    "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": "string",
"size": 1677721600,
"svm": {
    "name": "svml",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
},
"type": "s3",
"uuid": "414b29a1-3b26-11e9-bd58-0050568ea055",
"versioning_state": "enabled",
"volume": {
    "name": "volume1",
    "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
}
}
}

```

Response

Status: 202, Accepted

Name	Type	Description
job	job_link	

Example response

```
{
  "job": {
    "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. ";
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. ";

Error code	Message
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.";

Definitions

See Definitions

href

Name	Type	Description
href	string	

_links

aggregates

Name	Type	Description
name	string	
uuid	string	

audit_event_selector

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.

abort_incomplete_multipart_upload

Specifies a way to perform abort_incomplete_multipart_upload action on filtered objects within a bucket.

Name	Type	Description
after_initiation_days	integer	Number of days of initiation after which uploads can be aborted.

expiration

Specifies a way to perform expiration action on filtered objects within a bucket.

Name	Type	Description
expired_object_delete_marker	boolean	Cleanup object delete markers.
object_age_days	integer	Number of days since creation after which objects can be deleted.
object_expiry_date	string	Specific date from when objects can expire.

non_current_version_expiration

Specifies a way to perform non_current_version_expiration action on filtered objects within a bucket.

Name	Type	Description
new_non_current_versions	integer	Number of latest non-current versions to be retained.
non_current_days	integer	Number of days after which non-current versions can be deleted.

object_filter

Specifies a way to filter objects within a bucket.

Name	Type	Description
prefix	string	A prefix that is matched against object-names within a bucket.
size_greater_than	integer	Size of the object greater than specified for which the corresponding lifecycle rule is to be applied.
size_less_than	integer	Size of the object smaller than specified for which the corresponding lifecycle rule is to be applied.
tags	array[string]	An array of key-value paired tags of the form <tag> or <tag>=value</tag>

rules

Information about the lifecycle management rule of a bucket.

Name	Type	Description
abort_incomplete_multipart_upload	abort_incomplete_multipart_upload	Specifies a way to perform abort_incomplete_multipart_upload action on filtered objects within a bucket.
enabled	boolean	Specifies whether or not the associated rule is enabled.
expiration	expiration	Specifies a way to perform expiration action on filtered objects within a bucket.
non_current_version_expiration	non_current_version_expiration	Specifies a way to perform non_current_version_expiration action on filtered objects within a bucket.

lifecycle_management

Lifecycle management is implemented as an object associated with a bucket. It defines rules to be applied against objects within a bucket. These rules are applied in the background and can delete objects.

Name	Type	Description
rules	array[rules]	Specifies an object store lifecycle management policy.

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.

Name	Type	Description
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_external_cloud	boolean	Specifies whether a bucket is protected on external Cloud providers.
is_ontap	boolean	Specifies whether a bucket is protected within ONTAP. <ul style="list-style-type: none"> • Default value: 1 • readOnly: 1 • Introduced in: 9.10 • x-nullable: true

protection_status

Specifies attributes of bucket protection.

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

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
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	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
name	string	The name of the SVM.

Name	Type	Description
uuid	string	The unique identifier of the SVM.

volume

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

Name	Type	Description
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"> example: 028baa66-41bd-11e9-81d5-00a0986138f7 Introduced in: 9.6 x-nullable: true

s3_bucket_svm

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
audit_event_selector	audit_event_selector	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.
encryption	encryption	
lifecycle_management	lifecycle_management	Lifecycle management is implemented as an object associated with a bucket. It defines rules to be applied against objects within a bucket. These rules are applied in the background and can delete objects.

Name	Type	Description
logical_used_size	integer	Specifies the bucket logical used size up to this point.
nas_path	string	Specifies the NAS path to which the nas bucket corresponds to.
policy	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.
protection_status	protection_status	Specifies attributes of bucket protection.
qos_policy	qos_policy	Specifies "qos_policy.max_throughput_iops" and/or "qos_policy.max_throughput_mb_ps" 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.

Name	Type	Description
svm	svm	
type	string	Specifies the bucket type. Valid values are "s3" and "nas".
uuid	string	Specifies the unique identifier of the bucket.
versioning_state	string	Specifies the versioning state of the bucket. Valid values are "disabled", "enabled" or "suspended". Note that the versioning state cannot be modified to 'disabled' from any other state.
volume	volume	Specifies the FlexGroup volume name and UUID where the bucket is hosted.

job_link

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

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

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