



# Manage protocols S3 services

## REST API reference

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# Manage protocols S3 services

## Manage protocols S3 services

### Overview

An S3 server is an object store server that is compatible with the Amazon S3 protocol. In the initial version, only a subset of the protocol features necessary to support Fabric Pool capacity tier usecases are implemented. S3 server allows you to store objects in ONTAP using Amazon S3 protocol. This feature can be used as a target object store server for ONTAP FabricPools.

### Performance monitoring

Performance of the SVM can be monitored by the `metric.*` and `statistics.*` properties. These show the performance of the SVM in terms of IOPS, latency and throughput. The `metric.*` properties denote an average whereas `statistics.*` properties denote a real-time monotonically increasing value aggregated across all nodes.

### Examples

#### Retrieving all of the S3 configurations

```
# The API:  
/api/protocols/s3/services  
  
# The call:  
curl -X GET "https://<mgmt-  
ip>/api/protocols/s3/services?fields=*&return_records=true&return_timeout=15" -H "accept: application/json"  
  
# The response:  
{  
  "records": [  
    {  
      "svm": {  
        "uuid": "cf90b8f2-8071-11e9-8190-0050568eae21",  
        "name": "vs2"  
      },  
      "name": "vs1",  
      "comment": "S3 server",  
      "enabled": false,  
      "max_lock_retention_period": "none",  
      "min_lock_retention_period": "none"  
    },  
    {  
      "svm": {  
        "uuid": "d7f1219c-7f8e-11e9-9124-0050568eae21",  
        "name": "vs3",  
        "comment": "S3 server",  
        "enabled": false,  
        "max_lock_retention_period": "none",  
        "min_lock_retention_period": "none"  
      },  
      "name": "vs4",  
      "comment": "S3 server",  
      "enabled": false,  
      "max_lock_retention_period": "none",  
      "min_lock_retention_period": "none"  
    }  
  ]  
}
```

```
        "name": "vs1"
    },
    "name": "Server-1",
    "comment": "S3 server",
    "enabled": true,
    "max_lock_retention_period": "none",
    "min_lock_retention_period": "none",
    "buckets": [
        {
            "uuid": "e08665af-8114-11e9-8190-0050568eae21",
            "name": "bucket-1",
            "volume": {
                "name": "fg_oss_1559026220",
                "uuid": "de146bff-8114-11e9-8190-0050568eae21"
            },
            "size": 209715200,
            "logical_used_size": 157286400,
            "encryption": {
                "enabled": false
            },
            "comment": "s3 bucket"
        },
        {
            "uuid": "fb1912ef-8114-11e9-8190-0050568eae21",
            "name": "bucket-2",
            "volume": {
                "name": "fg_oss_1559026269",
                "uuid": "f9b1cdd0-8114-11e9-8190-0050568eae21"
            },
            "size": 1048576000,
            "logical_used_size": 78643200,
            "encryption": {
                "enabled": false
            },
            "comment": "s3 bucket"
        }
    ],
    "users": [
        {
            "name": "user-1",
            "comment": "S3 user",
            "access_key": "<AWS-ACCESS-KEY-ID>"
        },
        {
            "name": "user-2",
            "comment": ""
        }
    ]
}
```

```

        "access_key": "<AWS-ACCESS-KEY-ID>"
    }
]
}
],
"num_records": 2
}

```

## Retrieving all S3 configurations for a particular SVM

```

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

# The call:
curl -X GET "https://<mgmt-ip>/api/protocols/s3/services/24c2567a-f269-
11e8-8852-0050568e5298?fields=*" -H "accept: application/json"

# The response:
{
"svm": {
    "uuid": "d7f1219c-7f8e-11e9-9124-0050568eae21",
    "name": "vs1"
},
"name": "Server-1",
"comment": "S3 server",
"enabled": true,
"max_lock_retention_period": "none",
"min_lock_retention_period": "none",
"buckets": [
{
    "uuid": "e08665af-8114-11e9-8190-0050568eae21",
    "name": "bucket-1",
    "volume": {
        "name": "fg_oss_1559026220",
        "uuid": "de146bff-8114-11e9-8190-0050568eae21"
    },
    "size": 209715200,
    "logical_used_size": 157286400,
    "encryption": {
        "enabled": false
    },
    "comment": "s3 bucket",
    "policy": {
        "statements": [
{

```

```
        "effect": "deny",
        "actions": [
            "*Object"
        ],
        " principals": [
            "mike"
        ],
        "resources": [
            "bucket-1/policy-docs/*",
            "bucket-1/confidential-*"
        ],
        "sid": "DenyAccessToGetPutDeleteObjectForMike"
    },
    {
        "effect": "allow",
        "actions": [
            "GetObject"
        ],
        " principals": [
            "*"
        ],
        "resources": [
            "bucket-1/readme"
        ],
        "sid": "AccessToGetObjectForAnonymousUser"
    }
]
},
"cors": {
    "rules": [
        {
            "id": "string",
            "allowed_origins": [
                "http://www.example.com"
            ],
            "allowed_methods": [
                "PUT",
                "DELETE"
            ],
            "allowed_headers": [
                "x-amz-request-id"
            ],
            "expose_headers": [
                "http://www.example.com"
            ],
            "max_age_seconds": 1024
        }
    ]
}
```

```

        }
    ]
}
},
{
  "uuid": "fb1912ef-8114-11e9-8190-0050568eae21",
  "name": "bucket-2",
  "volume": {
    "name": "fg_oss_1559026269",
    "uuid": "f9b1cdd0-8114-11e9-8190-0050568eae21"
  },
  "size": 1677721600,
  "logical_used_size": 1075838976,
  "encryption": {
    "enabled": false
  },
  "comment": "s3 bucket"
}
],
"users": [
{
  "name": "user-1",
  "comment": "s3 user",
  "access_key": "<AWS-ACCESS-KEY-ID>"
},
{
  "name": "user-2",
  "comment": "",
  "access_key": "<AWS-ACCESS-KEY-ID>"
}
]
}

```

## Creating an S3 server, users, and buckets configurations with required fields specified

```

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

# The call:
curl -X POST "https://<mgmt-ip>/api/protocols/s3/services" -H "accept: application/hal+json" -H "Content-Type: application/json" -d "{\"buckets\": [ { \"name\": \"bucket-1\" }, { \"name\": \"bucket-2\" } ], \"enabled\": true, \"name\": \"Server-1\", \"svm\": { \"uuid\": \"d49ef663-7f8e-11e9-9b2c-0050568e4594\" }, \"users\": [ { \"name\": \"user-1\" }, { \"name\": \"user-2\" } ]}"

```

```

# The response:
HTTP/1.1 201 Created
Date: Fri, 31 May 2019 08:44:16 GMT
Server: libzapid-httpd
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Location: /api/protocols/s3/services/
Content-Length: 623
Content-Type: application/hal+json
{
  "num_records": 1,
  "records": [
    {
      "users": [
        {
          "name": "user-1",
          "access_key": "<AWS-ACCESS-KEY-ID>",
          "secret_key": "<AWS-SECRET-ACCESS-KEY>"
        },
        {
          "name": "user-2",
          "access_key": "<AWS-ACCESS-KEY-ID>",
          "secret_key": "<AWS-SECRET-ACCESS-KEY>"
        }
      ],
      "job": {
        "uuid": "f51675dd-820a-11e9-a762-0050568e4594",
        "_links": {
          "self": {
            "href": "/api/cluster/jobs/f51675dd-820a-11e9-a762-0050568e4594"
          }
        }
      },
      "_links": {
        "self": {
          "href": "/api/protocols/s3/services/"
        }
      }
    }
  ]
}

```

## Creating an S3 server, users, and buckets configurations

```

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

# The call:

curl -X POST "https://<mgmt-ip>/api/protocols/s3/services" -H "accept: application/hal+json" -H "Content-Type: application/json" -d "{
  \"buckets\": [ { \"aggregates\": [ { \"name\": \"aggr1\", \"uuid\": \"1cd8a442-86d1-11e0-ae1c-123478563412\" } ], \"constituents_per_aggregate\": 4, \"name\": \"bucket-1\", \"size\": \"209715200\", \"policy\": { \"statements\": [ { \"actions\": [ \"*\" ], \"conditions\": [ { \"operator\": \"ip_address\", \"source_ips\": [ \"1.1.1.1/23\", \"1.2.2.2/20\" ] } ], \"effect\": \"allow\", \"resources\": [ \"bucket-1\", \"bucket-1*\" ], \"sid\": \"fullAccessForAllPrincipalsToBucket\" } ] } }, { \"aggregates\": [ { \"name\": \"aggr1\", \"uuid\": \"1cd8a442-86d1-11e0-ae1c-123478563412\" }, { \"name\": \"aggr2\", \"uuid\": \"982fc4d0-d1a2-4da4-9c47-5b433f24757d\" } ], \"constituents_per_aggregate\": 4, \"name\": \"bucket-2\" } ], \"enabled\": true, \"name\": \"Server-1\", \"max_lock_retention_period\": \"P41Y\", \"max_lock_retention_period\": \"P1Y\", \"svm\": { \"name\": \"vs1\", \"uuid\": \"d49ef663-7f8e-11e9-9b2c-0050568e4594\" }, \"users\": [ { \"name\": \"user-1\" }, { \"name\": \"user-2\" } ] }"

# The response:
HTTP/1.1 201 Created
Date: Fri, 31 May 2019 08:44:16 GMT
Server: libzapid-httdp
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Location: /api/protocols/s3/services/
Content-Length: 623
Content-Type: application/hal+json
{
  "num_records": 1,
  "records": [
    {
      "users": [
        {
          "name": "user-1",
          "access_key": "<AWS-ACCESS-KEY-ID>",
          "secret_key": "<AWS-SECRET-ACCESS-KEY>"
        },
        {
          "name": "user-2",
        }
      ]
    }
  ]
}

```

```

        "access_key": "<AWS-ACCESS-KEY-ID>",
        "secret_key": "<AWS-SECRET-ACCESS-KEY>"
    }
],
"job": {
    "uuid": "f51675dd-820a-11e9-a762-0050568e4594",
    "_links": {
        "self": {
            "href": "/api/cluster/jobs/f51675dd-820a-11e9-a762-0050568e4594"
        }
    }
},
"_links": {
    "self": {
        "href": "/api/protocols/s3/services/"
    }
}
}
]
}
}

```

## Creating an S3 server configuration

```

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

# The call:
curl -X POST "https://<mgmt-ip>/api/protocols/s3/services" -H "accept: application/json" -H "Content-Type: application/json" -d "{ \"comment\": \"S3 server\", \"enabled\": true, \"name\": \"Server-1\", \"svm\": { \"name\": \"vs1\", \"uuid\": \"db2ec036-8375-11e9-99e1-0050568e3ed9\" } }"

```

## Disable s3 server for the specified SVM

```

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

# The call:
curl -X PATCH "https://<mgmt-ip>/api/protocols/s3/services/03ce5c36-f269-11e8-8852-0050568e5298" -H "accept: application/json" -H "Content-Type: application/json" -d "{ \"enabled\": false }"

```

## Deleting the S3 server for a specified SVM

```
# The API:  
/api/protocols/s3/services/{svm.uuid}  
  
# The call:  
curl -X DELETE "https://<mgmt-ip>/api/protocols/s3/services/a425f10b-ad3b-  
11e9-b559-0050568e8222?delete_all=false" -H "accept: application/json"  
HTTP/1.1 200 OK  
Date: Wed, 14 Aug 2019 07:04:24 GMT  
Server: libzapid-httdp  
X-Content-Type-Options: nosniff  
Cache-Control: no-cache,no-store,must-revalidate  
Content-Length: 132  
Content-Type: application/json  
{  
"num_records": 1,  
"records": [  
 {  
 "job": {  
 "uuid": "bf74ba50-be61-11e9-bea8-0050568e8222"  
 }  
 }  
 ]  
}
```

## Deleting all of the S3 server configuration for a specified SVM

```

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

# The call:
curl -X DELETE "https://<mgmt-ip>/api/protocols/s3/services/03ce5c36-f269-11e8-8852-0050568e5298?delete_all=true" -H "accept: application/json"

# The response:
HTTP/1.1 202 Accepted
Date: Sat, 01 Jun 2019 15:46:39 GMT
Server: libzapid-httdp
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Content-Length: 189
Content-Type: application/hal+json
{
"job": {
  "uuid": "71eaaf02-8484-11e9-91f7-0050568ebc5f",
  "_links": {
    "self": {
      "href": "/api/cluster/jobs/71eaaf02-8484-11e9-91f7-0050568ebc5f"
    }
  }
}
}

```

## Retrieve the S3 server configuration for all SVMs

GET /protocols/s3/services

**Introduced In:** 9.7

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

### Expensive properties

There is an added computational cost to retrieving values for these properties. They are not included by default in GET results and must be explicitly requested using the `fields` query parameter. See [Requesting specific fields](#) to learn more.

- `statistics.*`
- `metric.*`

## Related ONTAP commands

- `vserver object-store-server show`

## Learn more

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

## Parameters

Name	Type	In	Required	Description
users.key_expiry_time	string	query	False	Filter by users.key_expiry_time <ul style="list-style-type: none"><li>• Introduced in: 9.14</li></ul>
users.name	string	query	False	Filter by users.name <ul style="list-style-type: none"><li>• maxLength: 64</li><li>• minLength: 1</li></ul>
users.svm.name	string	query	False	Filter by users.svm.name
users.svm.uuid	string	query	False	Filter by users.svm.uuid
users.comment	string	query	False	Filter by users.comment <ul style="list-style-type: none"><li>• maxLength: 256</li><li>• minLength: 0</li></ul>
users.key_time_to_live	string	query	False	Filter by users.key_time_to_live <ul style="list-style-type: none"><li>• Introduced in: 9.14</li></ul>
users.access_key	string	query	False	Filter by users.access_key

Name	Type	In	Required	Description
certificate.name	string	query	False	Filter by certificate.name <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
certificate.uuid	string	query	False	Filter by certificate.uuid <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
svm.name	string	query	False	Filter by svm.name
svm.uuid	string	query	False	Filter by svm.uuid
is_https_enabled	boolean	query	False	Filter by is_https_enabled <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
metric.iops.other	integer	query	False	Filter by metric.iops.other <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
metric.iops.total	integer	query	False	Filter by metric.iops.total <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
metric.iops.read	integer	query	False	Filter by metric.iops.read <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
metric.iops.write	integer	query	False	Filter by metric.iops.write <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>

Name	Type	In	Required	Description
metric.status	string	query	False	Filter by metric.status <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
metric.latency.other	integer	query	False	Filter by metric.latency.other <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
metric.latency.total	integer	query	False	Filter by metric.latency.total <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
metric.latency.read	integer	query	False	Filter by metric.latency.read <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
metric.latency.write	integer	query	False	Filter by metric.latency.write <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
metric.duration	string	query	False	Filter by metric.duration <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
metric.timestamp	string	query	False	Filter by metric.timestamp <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
metric.throughput.read	integer	query	False	Filter by metric.throughput.read <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>

Name	Type	In	Required	Description
metric.throughput.total	integer	query	False	Filter by metric.throughput.total <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
metric.throughput.write	integer	query	False	Filter by metric.throughput.write <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
comment	string	query	False	Filter by comment <ul style="list-style-type: none"> <li>• maxLength: 256</li> <li>• minLength: 0</li> </ul>
secure_port	integer	query	False	Filter by secure_port <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> <li>• Max value: 65535</li> <li>• Min value: 1</li> </ul>
default_unix_user	string	query	False	Filter by default_unix_user <ul style="list-style-type: none"> <li>• Introduced in: 9.12</li> </ul>
port	integer	query	False	Filter by port <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> <li>• Max value: 65535</li> <li>• Min value: 1</li> </ul>
buckets.svm.name	string	query	False	Filter by buckets.svm.name
buckets.svm.uuid	string	query	False	Filter by buckets.svm.uuid

Name	Type	In	Required	Description
buckets.lifecycle_management.rules.uuid	string	query	False	Filter by buckets.lifecycle_management.rules.uuid <ul style="list-style-type: none"> <li>• Introduced in: 9.14</li> </ul>
buckets.lifecycle_management.rules.name	string	query	False	Filter by buckets.lifecycle_management.rules.name <ul style="list-style-type: none"> <li>• Introduced in: 9.13</li> <li>• maxLength: 256</li> <li>• minLength: 0</li> </ul>
buckets.lifecycle_management.rules.bucket_name	string	query	False	Filter by buckets.lifecycle_management.rules.bucket_name <ul style="list-style-type: none"> <li>• Introduced in: 9.14</li> <li>• maxLength: 63</li> <li>• minLength: 3</li> </ul>
buckets.lifecycle_management.rules.non_current_version_expiration.new_non_current_versions	integer	query	False	Filter by buckets.lifecycle_management.rules.non_current_version_expiration.new_non_current_versions <ul style="list-style-type: none"> <li>• Introduced in: 9.13</li> </ul>
buckets.lifecycle_management.rules.non_current_version_expiration.non_current_days	integer	query	False	Filter by buckets.lifecycle_management.rules.non_current_version_expiration.non_current_days <ul style="list-style-type: none"> <li>• Introduced in: 9.13</li> </ul>

Name	Type	In	Required	Description
buckets.lifecycle_ma nagement.rules.expir ation.object_age_da ys	integer	query	False	Filter by buckets.lifecycle_ma nagement.rules.expi ration.object_age_d ays <ul style="list-style-type: none"> <li>• Introduced in: 9.13</li> </ul>
buckets.lifecycle_ma nagement.rules.expir ation.expired_object _delete_marker	boolean	query	False	Filter by buckets.lifecycle_ma nagement.rules.expi ration.expired_objec t_delete_marker <ul style="list-style-type: none"> <li>• Introduced in: 9.13</li> </ul>
buckets.lifecycle_ma nagement.rules.expir ation.object_expiry_ date	string	query	False	Filter by buckets.lifecycle_ma nagement.rules.expi ration.object_expiry_ date <ul style="list-style-type: none"> <li>• Introduced in: 9.13</li> </ul>
buckets.lifecycle_ma nagement.rules.obje ct_filter.tags	string	query	False	Filter by buckets.lifecycle_ma nagement.rules.obje ct_filter.tags <ul style="list-style-type: none"> <li>• Introduced in: 9.13</li> </ul>
buckets.lifecycle_ma nagement.rules.obje ct_filter.prefix	string	query	False	Filter by buckets.lifecycle_ma nagement.rules.obje ct_filter.prefix <ul style="list-style-type: none"> <li>• Introduced in: 9.13</li> </ul>

Name	Type	In	Required	Description
buckets.lifecycle_management.rules.object_filter.size_greater_than	integer	query	False	Filter by buckets.lifecycle_management.rules.object_filter.size_greater_than <ul style="list-style-type: none"> <li>• Introduced in: 9.13</li> </ul>
buckets.lifecycle_management.rules.object_filter.size_less_than	integer	query	False	Filter by buckets.lifecycle_management.rules.object_filter.size_less_than <ul style="list-style-type: none"> <li>• Introduced in: 9.13</li> </ul>
buckets.lifecycle_management.rules.enabled	boolean	query	False	Filter by buckets.lifecycle_management.rules.enabled <ul style="list-style-type: none"> <li>• Introduced in: 9.13</li> </ul>
buckets.lifecycle_management.rules.abort_incomplete multipart_upload.after_initiation_days	integer	query	False	Filter by buckets.lifecycle_management.rules.abort_incomplete multipart_upload.after_initiation_days <ul style="list-style-type: none"> <li>• Introduced in: 9.13</li> </ul>
buckets.lifecycle_management.rules.svm.name	string	query	False	Filter by buckets.lifecycle_management.rules.svm.name <ul style="list-style-type: none"> <li>• Introduced in: 9.14</li> </ul>

Name	Type	In	Required	Description
buckets.lifecycle_ma nagement.rules.svm. uuid	string	query	False	Filter by buckets.lifecycle_ma nagement.rules.svm .uuid  • Introduced in: 9.14
buckets.comment	string	query	False	Filter by buckets.comment  • maxLength: 256 • minLength: 0
buckets.encrypted enabled	boolean	query	False	Filter by buckets.encrypted enabled
buckets.policy.state ments.resources	string	query	False	Filter by buckets.policy.state ments.resources  • Introduced in: 9.8
buckets.policy.state ments.actions	string	query	False	Filter by buckets.policy.state ments.actions  • Introduced in: 9.8
buckets.policy.state ments.effect	string	query	False	Filter by buckets.policy.state ments.effect  • Introduced in: 9.8
buckets.policy.state ments.conditions.us ernames	string	query	False	Filter by buckets.policy.state ments.conditions.us ernames  • Introduced in: 9.8

Name	Type	In	Required	Description
buckets.policy.state ments.conditions.so urce_ips	string	query	False	Filter by buckets.policy.state ments.conditions.so urce_ips  • Introduced in: 9.8
buckets.policy.state ments.conditions.ma x_keys	integer	query	False	Filter by buckets.policy.state ments.conditions.ma x_keys  • Introduced in: 9.8
buckets.policy.state ments.conditions.del imiters	string	query	False	Filter by buckets.policy.state ments.conditions.del imiters  • Introduced in: 9.8
buckets.policy.state ments.conditions.op erator	string	query	False	Filter by buckets.policy.state ments.conditions.op erator  • Introduced in: 9.8
buckets.policy.state ments.conditions.pre fixes	string	query	False	Filter by buckets.policy.state ments.conditions.pre fixes  • Introduced in: 9.8
buckets.policy.state ments.principals	string	query	False	Filter by buckets.policy.state ments.principals  • Introduced in: 9.8

Name	Type	In	Required	Description
buckets.policy.state ments.sid	string	query	False	<p>Filter by buckets.policy.state ments.sid</p> <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> <li>• maxLength: 256</li> <li>• minLength: 0</li> </ul>
buckets.qos_policy. min_throughput_mb ps	integer	query	False	<p>Filter by buckets.qos_policy. min_throughput_mb ps</p> <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> <li>• Max value: 4194303</li> <li>• Min value: 0</li> </ul>
buckets.qos_policy. max_throughput_mb ps	integer	query	False	<p>Filter by buckets.qos_policy. max_throughput_mb ps</p> <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> <li>• Max value: 4194303</li> <li>• Min value: 0</li> </ul>
buckets.qos_policy.n ame	string	query	False	<p>Filter by buckets.qos_policy. name</p> <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
buckets.qos_policy.u uid	string	query	False	<p>Filter by buckets.qos_policy. uid</p> <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>

Name	Type	In	Required	Description
buckets.qos_policy.max_throughput	string	query	False	<p>Filter by buckets.qos_policy.max_throughput</p> <ul style="list-style-type: none"> <li>• Introduced in: 9.17</li> </ul>
buckets.qos_policy.max_throughput_iops	integer	query	False	<p>Filter by buckets.qos_policy.max_throughput_iops</p> <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> <li>• Max value: 2147483647</li> <li>• Min value: 0</li> </ul>
buckets.qos_policy.min_throughput_iops	integer	query	False	<p>Filter by buckets.qos_policy.min_throughput_iops</p> <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> <li>• Max value: 2147483647</li> <li>• Min value: 0</li> </ul>
buckets.qos_policy.min_throughput	string	query	False	<p>Filter by buckets.qos_policy.min_throughput</p> <ul style="list-style-type: none"> <li>• Introduced in: 9.17</li> </ul>
buckets.role	string	query	False	<p>Filter by buckets.role</p> <ul style="list-style-type: none"> <li>• Introduced in: 9.10</li> </ul>

Name	Type	In	Required	Description
buckets.size	integer	query	False	Filter by buckets.size <ul style="list-style-type: none"> <li>• Max value: 62672162783232000</li> <li>• Min value: 199229440</li> </ul>
buckets.is_nas_path Mutable	boolean	query	False	Filter by buckets.is_nas_path Mutable <ul style="list-style-type: none"> <li>• Introduced in: 9.17</li> </ul>
buckets.uuid	string	query	False	Filter by buckets.uuid
buckets.logical_used_size	integer	query	False	Filter by buckets.logical_use_size
buckets.allowed	boolean	query	False	Filter by buckets.allowed <ul style="list-style-type: none"> <li>• Introduced in: 9.12</li> </ul>
buckets.versioning_state	string	query	False	Filter by buckets.versioning_state <ul style="list-style-type: none"> <li>• Introduced in: 9.11</li> </ul>
buckets.cors.rules.Expose_Headers	string	query	False	Filter by buckets.cors.rules.Expose_Headers <ul style="list-style-type: none"> <li>• Introduced in: 9.16</li> </ul>
buckets.cors.rules.Max_Age_Seconds	integer	query	False	Filter by buckets.cors.rules.Max_Age_Seconds <ul style="list-style-type: none"> <li>• Introduced in: 9.16</li> </ul>

Name	Type	In	Required	Description
buckets.cors.rules.all owed_origins	string	query	False	Filter by buckets.cors.rules.allowed_origins <ul style="list-style-type: none"> <li>• Introduced in: 9.16</li> </ul>
buckets.cors.rules.all owed_methods	string	query	False	Filter by buckets.cors.rules.allowed_methods <ul style="list-style-type: none"> <li>• Introduced in: 9.16</li> </ul>
buckets.cors.rules.all owed_headers	string	query	False	Filter by buckets.cors.rules.allowed_headers <ul style="list-style-type: none"> <li>• Introduced in: 9.16</li> </ul>
buckets.cors.rules.id	string	query	False	Filter by buckets.cors.rules.id <ul style="list-style-type: none"> <li>• Introduced in: 9.16</li> <li>• maxLength: 256</li> <li>• minLength: 0</li> </ul>
buckets.nas_path	string	query	False	Filter by buckets.nas_path <ul style="list-style-type: none"> <li>• Introduced in: 9.12</li> </ul>
buckets.retention.mode	string	query	False	Filter by buckets.retention.mode <ul style="list-style-type: none"> <li>• Introduced in: 9.14</li> </ul>
buckets.retention.default_period	string	query	False	Filter by buckets.retention.default_period <ul style="list-style-type: none"> <li>• Introduced in: 9.14</li> </ul>

Name	Type	In	Required	Description
buckets.snapshot_policy.uuid	string	query	False	Filter by buckets.snapshot_policy.uuid <ul style="list-style-type: none"> <li>• Introduced in: 9.16</li> </ul>
buckets.snapshot_policy.name	string	query	False	Filter by buckets.snapshot_policy.name <ul style="list-style-type: none"> <li>• Introduced in: 9.16</li> </ul>
buckets.audit_event_selector.permission	string	query	False	Filter by buckets.audit_event_selector.permission <ul style="list-style-type: none"> <li>• Introduced in: 9.10</li> </ul>
buckets.audit_event_selector.access	string	query	False	Filter by buckets.audit_event_selector.access <ul style="list-style-type: none"> <li>• Introduced in: 9.10</li> </ul>
buckets.protection_status.is_protected	boolean	query	False	Filter by buckets.protection_status.is_protected <ul style="list-style-type: none"> <li>• Introduced in: 9.10</li> </ul>
buckets.protection_status.destination.is_ontap	boolean	query	False	Filter by buckets.protection_status.destination.is_ontap <ul style="list-style-type: none"> <li>• Introduced in: 9.10</li> </ul>

Name	Type	In	Required	Description
buckets.protection_status.destination.is_external_cloud	boolean	query	False	Filter by buckets.protection_status.destination.is_external_cloud <ul style="list-style-type: none"> <li>• Introduced in: 9.12</li> </ul>
buckets.protection_status.destination.is_cloud	boolean	query	False	Filter by buckets.protection_status.destination.is_cloud <ul style="list-style-type: none"> <li>• Introduced in: 9.10</li> </ul>
buckets.type	string	query	False	Filter by buckets.type <ul style="list-style-type: none"> <li>• Introduced in: 9.12</li> </ul>
buckets.volume.uuid	string	query	False	Filter by buckets.volume.uuid
buckets.volume.name	string	query	False	Filter by buckets.volume.name
buckets.is_consistent_etag	boolean	query	False	Filter by buckets.is_consistent_etag <ul style="list-style-type: none"> <li>• Introduced in: 9.17</li> </ul>
buckets.name	string	query	False	Filter by buckets.name <ul style="list-style-type: none"> <li>• maxLength: 63</li> <li>• minLength: 3</li> </ul>
statistics.latency_raw.other	integer	query	False	Filter by statistics.latency_raw.other <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>

Name	Type	In	Required	Description
statistics.latency_rw.total	integer	query	False	Filter by statistics.latency_rw.total <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
statistics.latency_rw.read	integer	query	False	Filter by statistics.latency_rw.read <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
statistics.latency_rw.write	integer	query	False	Filter by statistics.latency_rw.write <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
statistics.throughput_raw.read	integer	query	False	Filter by statistics.throughput_raw.read <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
statistics.throughput_raw.total	integer	query	False	Filter by statistics.throughput_raw.total <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
statistics.throughput_raw.write	integer	query	False	Filter by statistics.throughput_raw.write <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
statistics.iops_raw.other	integer	query	False	Filter by statistics.iops_raw.other <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>

Name	Type	In	Required	Description
statistics.iops_raw.total	integer	query	False	Filter by statistics.iops_raw.total <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
statistics.iops_raw.read	integer	query	False	Filter by statistics.iops_raw.read <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
statistics.iops_raw.write	integer	query	False	Filter by statistics.iops_raw.write <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
statistics.status	string	query	False	Filter by statistics.status <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
statistics.timestamp	string	query	False	Filter by statistics.timestamp <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
is_http_enabled	boolean	query	False	Filter by is_http_enabled <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
enabled	boolean	query	False	Filter by enabled
min_lock_retention_period	string	query	False	Filter by min_lock_retention_period <ul style="list-style-type: none"> <li>• Introduced in: 9.16</li> </ul>

Name	Type	In	Required	Description
default_win_user	string	query	False	Filter by default_win_user <ul style="list-style-type: none"> <li>• Introduced in: 9.12</li> </ul>
max_key_time_to_live	string	query	False	Filter by max_key_time_to_live <ul style="list-style-type: none"> <li>• Introduced in: 9.15</li> </ul>
name	string	query	False	Filter by name <ul style="list-style-type: none"> <li>• maxLength: 253</li> <li>• minLength: 3</li> </ul>
max_lock_retention_period	string	query	False	Filter by max_lock_retention_period <ul style="list-style-type: none"> <li>• Introduced in: 9.16</li> </ul>
fields	array[string]	query	False	Specify the fields to return.
max_records	integer	query	False	Limit the number of records returned.
return_records	boolean	query	False	The default is true for GET calls. When set to false, only the number of records is returned. <ul style="list-style-type: none"> <li>• Default value: 1</li> </ul>

Name	Type	In	Required	Description
return_timeout	integer	query	False	<p>The number of seconds to allow the call to execute before returning. When iterating over a collection, the default is 15 seconds. ONTAP returns earlier if either max records or the end of the collection is reached.</p> <ul style="list-style-type: none"> <li>• Max value: 120</li> <li>• Min value: 0</li> <li>• Default value: 15</li> </ul>
order_by	array[string]	query	False	Order results by specified fields and optional [asc]

## Response

Status: 200, Ok

Name	Type	Description
_links	<a href="#">collection_links</a>	
num_records	integer	Number of records
records	array[ <a href="#">s3_service</a> ]	

## Example response

```
{  
  "_links": {  
    "next": {  
      "href": "/api/resourcelink"  
    },  
    "self": {  
      "href": "/api/resourcelink"  
    }  
  },  
  "num_records": 1,  
  "records": [  
    {  
      "_links": {  
        "self": {  
          "href": "/api/resourcelink"  
        }  
      },  
      "buckets": [  
        {  
          "audit_event_selector": {  
            "access": "string",  
            "permission": "string"  
          },  
          "comment": "S3 bucket.",  
          "cors": {  
            "rules": [  
              {  
                "_links": {  
                  "self": {  
                    "href": "/api/resourcelink"  
                  }  
                },  
                "allowed_headers": [  
                  "x-amz-request-id"  
                ],  
                "allowed_methods": [  
                  "PUT",  
                  "DELETE"  
                ],  
                "allowed_origins": [  
                  "http://www.example.com"  
                ],  
                "expose_headers": [  
                  "x-amz-date"  
                ]  
              }  
            ]  
          }  
        ]  
      }  
    }  
  ]  
}
```

```

        ],
        "id": "string",
        "max_age_seconds": 1024
    }
]
},
"lifecycle_management": {
    "rules": [
        {
            "_links": {
                "self": {
                    "href": "/api/resourcelink"
                }
            },
            "abort_incomplete_multipart_upload": {
                "_links": {
                    "self": {
                        "href": "/api/resourcelink"
                    }
                }
            }
        },
        {
            "bucket_name": "bucket1",
            "expiration": {
                "_links": {
                    "self": {
                        "href": "/api/resourcelink"
                    }
                },
                "object_age_days": 100,
                "object_expiry_date": "2039-09-22 20:00:00 -0400"
            },
            "name": "string",
            "non_current_version_expiration": {
                "_links": {
                    "self": {
                        "href": "/api/resourcelink"
                    }
                }
            }
        },
        {
            "object_filter": {
                "_links": {
                    "self": {
                        "href": "/api/resourcelink"
                    }
                }
            },
            "prefix": "/logs",
            "rule": {
                "id": "string",
                "max_age_seconds": 1024
            }
        }
    ]
}

```

```

        "size_greater_than": 10240,
        "size_less_than": 10485760,
        "tags": [
            "project1=projA",
            "project2=projB"
        ],
    },
    "svm": {
        "_links": {
            "self": {
                "href": "/api/resourcelink"
            }
        },
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
    },
    "uuid": "414b29a1-3b26-11e9-bd58-0050568ea055"
}
],
},
"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",
    "nasgroup/group1"
],
"resources": [
    "bucket1",
    "bucket1/*"
],
"sid": "FullAccessToUser1"
}
]
},
"qos_policy": {
    "_links": {
        "self": {
            "href": "/api/resourcelink"
        }
    },
    "max_throughput": [
        "900KB/s",
        "500MB/s",
        "120GB/s",
        "5000IOPS",
        "5000IOPS,500KB/s",
        "2500IOPS,100MB/s",
        "1000IOPS,25MB/s"
    ],
    "max_throughput_iops": 10000,
    "max_throughput_mbps": 500,
    "min_throughput": [
        "900KB/s",
        "500MB/s",
        "120GB/s",
        "5000IOPS",
        "5000IOPS,500KB/s",
        "2500IOPS,100MB/s",
        "1000IOPS,25MB/s"
    ]
}
}

```

```

        ],
        "min_throughput_iops": 2000,
        "min_throughput_mbps": 500,
        "name": "performance",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    },
    "retention": {
        "default_period": "P10Y",
        "mode": "governance"
    },
    "role": "string",
    "size": 1677721600,
    "snapshot_policy": {
        "name": "default-1weekly",
        "uuid": "3675af31-431c-12fa-114a-20675afefbc12"
    },
    "svm": {
        "_links": {
            "self": {
                "href": "/api/resourcelink"
            }
        },
        "name": "svml1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
    },
    "type": "s3",
    "use_mirrored_aggregates": true,
    "uuid": "414b29a1-3b26-11e9-bd58-0050568ea055",
    "versioning_state": "enabled",
    "volume": {
        "_links": {
            "self": {
                "href": "/api/resourcelink"
            }
        },
        "name": "volume1",
        "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
    }
}
],
"certificate": {
    "_links": {
        "self": {
            "href": "/api/resourcelink"
        }
    }
},

```

```

  "name": "string",
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
},
"comment": "S3 server",
"default_unix_user": "string",
"default_win_user": "string",
"max_key_time_to_live": "PT6H3M",
"max_lock_retention_period": "P10Y",
"metric": {
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "duration": "PT15S",
  "iops": {
    "read": 200,
    "total": 1000,
    "write": 100
  },
  "latency": {
    "read": 200,
    "total": 1000,
    "write": 100
  },
  "status": "ok",
  "throughput": {
    "read": 200,
    "total": 1000,
    "write": 100
  },
  "timestamp": "2017-01-25 06:20:13 -0500"
},
"min_lock_retention_period": "P10Y",
"name": "Server-1",
"port": 80,
"secure_port": 443,
"statistics": {
  "iops_raw": {
    "read": 200,
    "total": 1000,
    "write": 100
  },
  "latency_raw": {
    "read": 200,
    "total": 1000,
    "write": 100
  }
}

```

```

        "write": 100
    },
    "status": "ok",
    "throughput_raw": {
        "read": 200,
        "total": 1000,
        "write": 100
    },
    "timestamp": "2017-01-25 06:20:13 -0500"
},
"svm": {
    "_links": {
        "self": {
            "href": "/api/resourcelink"
        }
    },
    "name": "svml",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
},
"users": [
    {
        "access_key": "<AWS-ACCESS-KEY-ID>",
        "comment": "S3 user",
        "key_expiry_time": "2023-12-31 19:00:00 -0500",
        "key_time_to_live": "PT6H3M",
        "name": "user-1",
        "svm": {
            "_links": {
                "self": {
                    "href": "/api/resourcelink"
                }
            },
            "name": "svml",
            "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
        }
    }
]
}
}

```

## Error

Status: Default, Error

Name	Type	Description
error	returned_error	

### Example error

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

### Definitions

## See Definitions

href

Name	Type	Description
href	string	

collection\_links

Name	Type	Description
next	href	
self	href	

self\_link

Name	Type	Description
self	href	

\_links

Name	Type	Description
self	href	

aggregates

Aggregate

Name	Type	Description
_links	_links	
name	string	
uuid	string	

audit\_event\_selector

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

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

rules

Information about the CORS rule of an S3 bucket.

Name	Type	Description
_links	<a href="#">_links</a>	
allowed_headers	array[string]	An array of HTTP headers allowed in the cross-origin requests.
allowed_methods	array[string]	An array of HTTP methods allowed in the cross-origin requests.
allowed_origins	array[string]	List of origins from where a cross-origin request is allowed to originate from for the S3 bucket.
expose_headers	array[string]	List of extra headers sent in the response that customers can access from their applications.
id	string	Bucket CORS rule identifier. The length of the name can range from 0 to 256 characters.
max_age_seconds	integer	The time in seconds for your browser to cache the preflight response for the specified resource.

cors

Cross-origin resource sharing (CORS) specifies an object associated with a bucket. The CORS configuration enables the bucket to service the cross-origin requests. A request might typically come from an origin with a domain that is different to that of the bucket. By configuring a CORS rule, you can define a combination of allowed origins, HTTP headers and methods that a bucket can use to filter out the cross-origin requests that it can service successfully.

Name	Type	Description
rules	array[ <a href="#">rules</a> ]	Specifies an object store bucket CORS rule.

encryption

Name	Type	Description
enabled	boolean	Specifies whether encryption is enabled on the bucket. By default, encryption is disabled on a bucket. This field cannot be specified in a POST method.

#### abort\_incomplete\_multipart\_upload

Specifies a way to perform abort\_incomplete\_multipart\_upload action on filtered objects within a bucket. It cannot be specified with tags.

Name	Type	Description
_links	<a href="#">_links</a>	
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	<a href="#">_links</a>	
expired_object_delete_marker	boolean	Cleanup object delete markers.
object_age_days	integer	Number of days since creation after which objects can be deleted. This cannot be used along with object_expiry_date.
object_expiry_date	string	Specific date from when objects can expire. This cannot be used with object_age_days.

#### non\_current\_version\_expiration

Specifies a way to perform non\_current\_version\_expiration action on filtered objects within a bucket.

Name	Type	Description
_links	<a href="#">_links</a>	
new_non_current_versions	integer	Number of latest non-current versions to be retained.

Name	Type	Description
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	<a href="#">_links</a>	
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 &lt;tag=value&gt;.</tag>

### svm

Specifies the name of the SVM where this bucket exists.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	The name of the SVM. This field cannot be specified in a PATCH method.
uuid	string	The unique identifier of the SVM. This field cannot be specified in a PATCH method.

### rules

Information about the lifecycle management rule of a bucket.

Name	Type	Description
_links	<a href="#">_links</a>	
abort_incomplete_multipart_upload	<a href="#">abort_incomplete_multipart_upload</a>	Specifies a way to perform abort_incomplete_multipart_upload action on filtered objects within a bucket. It cannot be specified with tags.
bucket_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 "-".
enabled	boolean	Specifies whether or not the associated rule is enabled.
expiration	<a href="#">expiration</a>	Specifies a way to perform expiration action on filtered objects within a bucket.
name	string	Bucket lifecycle management rule identifier. The length of the name can range from 0 to 256 characters.
non_current_version_expiration	<a href="#">non_current_version_expiration</a>	Specifies a way to perform non_current_version_expiration action on filtered objects within a bucket.
object_filter	<a href="#">object_filter</a>	Specifies a way to filter objects within a bucket.
svm	<a href="#">svm</a>	Specifies the name of the SVM where this bucket exists.
uuid	string	Specifies the unique identifier of the 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[ <a href="#">rules</a> ]	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. The sid length can range from 1 to 256 characters and can only contain the following combination of characters 0-9, A-Z, and a-z. Special characters are not valid.

## 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. This field cannot be specified using a POST method.

Name	Type	Description
is_external_cloud	boolean	Specifies whether a bucket is protected on external Cloud providers. This field cannot be specified using a POST method.
is_ontap	boolean	Specifies whether a bucket is protected within ONTAP. This field cannot be specified using a POST method. <ul style="list-style-type: none"> <li>• Default value: 1</li> <li>• readOnly: 1</li> <li>• Introduced in: 9.10</li> <li>• x-nullable: true</li> </ul>

#### protection\_status

Specifies attributes of bucket protection.

Name	Type	Description
destination	<a href="#">destination</a>	
is_protected	boolean	Specifies whether a bucket is a source and if it is protected within ONTAP and/or an external cloud. This field cannot be specified using a POST method. <ul style="list-style-type: none"> <li>• Default value: 1</li> <li>• readOnly: 1</li> <li>• Introduced in: 9.10</li> <li>• x-nullable: true</li> </ul>

#### qos\_policy

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

Name	Type	Description
_links	<a href="#">_links</a>	

Name	Type	Description
max_throughput	string	Specifies the maximum throughput in Kilobytes per sec, Megabytes per sec or Gigabytes per sec along with or without IOPS. 0 means none. This is mutually exclusive with name and UUID during POST and PATCH. This cannot be set when either max_throughput_mbps or max_throughput_iops are set during POST or PATCH. During GET, the returned value is rounded to the largest unit with a value greater than 1.
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. This cannot be set when max_throughput is set during POST or 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. This cannot be set when max_throughput is set during POST or PATCH.
min_throughput	string	Specifies the minimum throughput in Kilobytes per sec, Megabytes per sec or Gigabytes per sec along with or without 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. This cannot be set when either min_throughput_mbps or min_throughput_iops are set during POST or PATCH. During GET, the returned value is rounded to the largest unit with a value greater than 1.

Name	Type	Description
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. This cannot be set when min_throughput is set during POST or 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. This cannot be set when min_throughput is set during POST or 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.

#### retention

Specifies the retention mode and default retention period configured on the bucket.

Name	Type	Description
default_period	string	Specifies the default retention period that is applied to objects while committing them to the WORM state without an associated retention period. The retention period can be in years, or days. The retention period value represents a duration and must be specified in the ISO-8601 duration format. A period specified for years and days is represented in the ISO-8601 format as "P<num>Y" and "P<num>D" respectively, for example "P10Y" represents a duration of 10 years. The period string must contain only a single time element that is, either years, or days. A duration which combines different periods is not supported, for example "P1Y10D" is not supported.</num></num>
mode	string	The lock mode of the bucket. compliance – A SnapLock Compliance (SLC) bucket provides the highest level of WORM protection and an administrator cannot destroy a compliance bucket if it contains unexpired WORM objects. governance – An administrator can delete a Governance bucket. no_lock – Indicates the bucket does not support object locking.

#### snapshot\_policy

Specifies the bucket snapshot policy.

Name	Type	Description
name	string	Specifies the name of the snapshot policy.
uuid	string	Specifies the unique identifier of the snapshot policy.

#### svm

SVM, applies only to SVM-scoped objects.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	The name of the SVM. This field cannot be specified in a PATCH method.
uuid	string	The unique identifier of the SVM. This field cannot be specified in a PATCH method.

## volume

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

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	The name of the volume. This field cannot be specified in a PATCH method.
uuid	string	<p>Unique identifier for the volume. This corresponds to the instance-uuid that is exposed in the CLI and ONTAPI. It does not change due to a volume move.</p> <ul style="list-style-type: none"> <li>example: 028baa66-41bd-11e9-81d5-00a0986138f7</li> <li>Introduced in: 9.6</li> <li>x-nullable: true</li> </ul>

## s3\_bucket

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

Name	Type	Description
allowed	boolean	If this is set to true, an SVM administrator can manage the S3 service. If it is false, only the cluster administrator can manage the service. This field cannot be specified in a POST method.

Name	Type	Description
audit_event_selector	<a href="#">audit_event_selector</a>	Audit event selector allows you to specify access and permission types to audit.
comment	string	Can contain any additional information about the bucket being created or modified.
cors	<a href="#">cors</a>	Cross-origin resource sharing (CORS) specifies an object associated with a bucket. The CORS configuration enables the bucket to service the cross-origin requests. A request might typically come from an origin with a domain that is different to that of the bucket. By configuring a CORS rule, you can define a combination of allowed origins, HTTP headers and methods that a bucket can use to filter out the cross-origin requests that it can service successfully.
encryption	<a href="#">encryption</a>	
is_consistent_etag	boolean	Specifies whether the NAS bucket returns a consistent ETag across different S3 requests.
is_nas_path Mutable	boolean	Specifies whether the NAS bucket mapping or association with a NAS volume can change according to the changes in the NAS volume junction-path due to volume operations like mount and unmount and therefore the NAS bucket will have access to any path in a NAS volume that matches the specified nas-path. Or is immutable and therefore the NAS bucket will always have access to the same nas-path that was specified during bucket creation even if the volume junction-path has undergone changes after the bucket creation.

Name	Type	Description
lifecycle_management	<a href="#">lifecycle_management</a>	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. This field cannot be specified using a POST or PATCH method.
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	<a href="#">policy</a>	A policy is an object associated with a bucket. It defines resource (bucket, folder, or object) permissions. These policies get evaluated when an S3 user makes a request by executing a specific command. The user must be part of the principal (user or group) specified in the policy. Permissions in the policies determine whether the request is allowed or denied.
protection_status	<a href="#">protection_status</a>	Specifies attributes of bucket protection.

Name	Type	Description
qos_policy	<a href="#">qos_policy</a>	Specifies "qos_policy.max_throughput_iops" and/or "qos_policy.max_throughput_mbps" or "qos_policy.min_throughput_iops" and/or "qos_policy.min_throughput_mbps". Specifying "min_throughput_iops" or "min_throughput_mbps" is only supported on volumes hosted on a node that is flash optimized. A pre-created QoS policy can also be used by specifying "qos_policy.name" or "qos_policy.uuid" properties. Setting or assigning a QoS policy to a bucket is not supported if its containing volume or SVM already has a QoS policy attached.
retention	<a href="#">retention</a>	Specifies the retention mode and default retention period configured on the bucket.
role	string	Specifies the role of the bucket. This field cannot be specified using a POST method.
size	integer	Specifies the bucket size in bytes; ranges from 190MB to 62PB.
snapshot_policy	<a href="#">snapshot_policy</a>	Specifies the bucket snapshot policy.
svm	<a href="#">svm</a>	SVM, applies only to SVM-scoped objects.
type	string	Specifies the bucket type. Valid values are "s3" and "nas".
uuid	string	Specifies the unique identifier of the bucket.

Name	Type	Description
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	<a href="#">volume</a>	Specifies the FlexGroup volume name and UUID where the bucket is hosted.

#### certificate

Specifies the certificate that will be used for creating HTTPS connections to the S3 server.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	Certificate name
uuid	string	Certificate UUID

#### iops

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

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

#### latency

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

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

## throughput

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

Name	Type	Description
read	integer	Performance metric for read I/O operations.
total	integer	Performance metric aggregated over all types of I/O operations.
write	integer	Performance metric for write I/O operations.

## metric

Performance numbers, such as IOPS latency and throughput, for SVM protocols.

Name	Type	Description
_links	<a href="#">_links</a>	
duration	string	The duration over which this sample is calculated. The time durations are represented in the ISO-8601 standard format. Samples can be calculated over the following durations:
iops	<a href="#">iops</a>	The rate of I/O operations observed at the storage object.

Name	Type	Description
latency	<a href="#">latency</a>	The round trip latency in microseconds observed at the storage object.
status	string	Any errors associated with the sample. For example, if the aggregation of data over multiple nodes fails then any of the partial errors might be returned, "ok" on success, or "error" on any internal uncategorized failure. Whenever a sample collection is missed but done at a later time, it is back filled to the previous 15 second timestamp and tagged with "backfilled_data". "Inconsistent_delta_time" is encountered when the time between two collections is not the same for all nodes. Therefore, the aggregated value might be over or under inflated. "Negative_delta" is returned when an expected monotonically increasing value has decreased in value. "Inconsistent_old_data" is returned when one or more nodes do not have the latest data.
throughput	<a href="#">throughput</a>	The rate of throughput bytes per second observed at the storage object.
timestamp	string	The timestamp of the performance data.

### iops\_raw

The number of I/O operations observed at the storage object. This should be used along with delta time to calculate the rate of I/O operations per unit of time.

Name	Type	Description
other	integer	Performance metric for other I/O operations. Other I/O operations can be metadata operations, such as directory lookups and so on.

Name	Type	Description
read	integer	Performance metric for read I/O operations.
total	integer	Performance metric aggregated over all types of I/O operations.
write	integer	Performance metric for write I/O operations.

### latency\_raw

The raw latency in microseconds observed at the storage object. This should be divided by the raw IOPS value to calculate the average latency per I/O operation.

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

### throughput\_raw

Throughput bytes observed at the storage object. This should be used along with delta time to calculate the rate of throughput bytes per unit of time.

Name	Type	Description
read	integer	Performance metric for read I/O operations.
total	integer	Performance metric aggregated over all types of I/O operations.
write	integer	Performance metric for write I/O operations.

## statistics

These are raw performance numbers, such as IOPS latency and throughput for SVM protocols. These numbers are aggregated across all nodes in the cluster and increase with the uptime of the cluster.

Name	Type	Description
iops_raw	<a href="#">iops_raw</a>	The number of I/O operations observed at the storage object. This should be used along with delta time to calculate the rate of I/O operations per unit of time.
latency_raw	<a href="#">latency_raw</a>	The raw latency in microseconds observed at the storage object. This should be divided by the raw IOPS value to calculate the average latency per I/O operation.
status	string	Any errors associated with the sample. For example, if the aggregation of data over multiple nodes fails then any of the partial errors might be returned, "ok" on success, or "error" on any internal uncategorized failure. Whenever a sample collection is missed but done at a later time, it is back filled to the previous 15 second timestamp and tagged with "backfilled_data". "Inconsistent_delta_time" is encountered when the time between two collections is not the same for all nodes. Therefore, the aggregated value might be over or under inflated. "Negative_delta" is returned when an expected monotonically increasing value has decreased in value. "Inconsistent_old_data" is returned when one or more nodes do not have the latest data.
throughput_raw	<a href="#">throughput_raw</a>	Throughput bytes observed at the storage object. This should be used along with delta time to calculate the rate of throughput bytes per unit of time.

Name	Type	Description
timestamp	string	The timestamp of the performance data.

## s3\_user

This is a container of S3 users.

Name	Type	Description
access_key	string	Specifies the access key for the user.
comment	string	Can contain any additional information about the user being created or modified.
key_expiry_time	string	Specifies the date and time after which keys expire and are no longer valid.
key_time_to_live	string	Indicates the time period from when this parameter is specified: <ul style="list-style-type: none"> <li>when creating or modifying a user or</li> <li>when the user keys were last regenerated, after which the user keys expire and are no longer valid.</li> <li>Valid format is: 'PnDTnHnMnS PnW'. For example, P2DT6H3M10S specifies a time period of 2 days, 6 hours, 3 minutes, and 10 seconds.</li> <li>If the value specified is '0' seconds, then the keys won't expire.</li> </ul>
name	string	Specifies the name of the user. A user name length can range from 1 to 64 characters and can only contain the following combination of characters 0-9, A-Z, a-z, "_", "+", "=", "", ".", "@", and "-".

Name	Type	Description
svm	svm	SVM, applies only to SVM-scoped objects.

## s3\_service

Specifies the S3 server configuration.

Name	Type	Description
_links	<a href="#">self_link</a>	
buckets	array[s3_bucket]	This field cannot be specified in a PATCH method.
certificate	<a href="#">certificate</a>	Specifies the certificate that will be used for creating HTTPS connections to the S3 server.
comment	string	Can contain any additional information about the server being created or modified.
default_unix_user	string	Specifies the default UNIX user for NAS Access.
default_win_user	string	Specifies the default Windows user for NAS Access.
enabled	boolean	Specifies whether the S3 server being created or modified should be up or down.
is_http_enabled	boolean	Specifies whether HTTP is enabled on the S3 server being created or modified. By default, HTTP is disabled on the S3 server.
is_https_enabled	boolean	Specifies whether HTTPS is enabled on the S3 server being created or modified. By default, HTTPS is enabled on the S3 server.

Name	Type	Description
max_key_time_to_live	string	<p>Indicates the maximum time period that an S3 user can specify for the 'key_time_to_live' property.</p> <ul style="list-style-type: none"> <li>• Valid format is: 'PnDTnHnMnS PnW'. For example, P2DT6H3M10S specifies a time period of 2 days, 6 hours, 3 minutes, and 10 seconds.</li> <li>• If no value is specified for this property or the value specified is '0' seconds, then a user can specify any valid value.</li> </ul>
max_lock_retention_period	string	<p>Specifies the maximum value that can be set as the retention period for an object in a bucket with locking enabled. The value for this property can be in years or days, not both. The value represents a duration and must be specified in the ISO-8601 duration format. A period specified for years and days is represented in the ISO-8601 format as "P&lt;num&gt;Y" and "P&lt;num&gt;D" respectively, for example "P10Y" represents a duration of 10 years.&lt;/num&gt;&lt;/num&gt;</p>
metric	metric	<p>Performance numbers, such as IOPS latency and throughput, for SVM protocols.</p>

Name	Type	Description
min_lock_retention_period	string	Specifies the minimum value that can be set as the retention period for an object in a bucket with locking enabled. The value for this property can be in years or days, not both. The value represents a duration and must be specified in the ISO-8601 duration format. A period specified for years and days is represented in the ISO-8601 format as "P<num>Y" and "P<num>D" respectively, for example "P10Y" represents a duration of 10 years.</num></num>
name	string	Specifies the name of the S3 server. A server name can contain 3 to 253 characters using only the following combination of characters: 0-9, A-Z, a-z, ".", and "-".
port	integer	Specifies the HTTP listener port for the S3 server. By default, HTTP is enabled on port 80. Valid values range from 1 to 65535.
secure_port	integer	Specifies the HTTPS listener port for the S3 server. By default, HTTPS is enabled on port 443. Valid values range from 1 to 65535.
statistics	<a href="#">statistics</a>	These are raw performance numbers, such as IOPS latency and throughput for SVM protocols. These numbers are aggregated across all nodes in the cluster and increase with the uptime of the cluster.
svm	<a href="#">svm</a>	SVM, applies only to SVM-scoped objects.
users	array[ <a href="#">s3_user</a> ]	This field cannot be specified in a PATCH method.

## error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

## returned\_error

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

# Create S3 server, users, and buckets configurations

POST /protocols/s3/services

**Introduced In:** 9.7

Creates an S3 server, users, and buckets configurations.

## Important notes

- Each SVM can have one S3 server configuration.
- One or more buckets and users can also be created using this end-point.
- If creating a user configuration fails, buckets are not created either and already created users are not saved.
- If creating a bucket configuration fails, all buckets already created are saved with no new buckets created.

## Required properties

- `svm.uuid` - Existing SVM in which to create an S3 server configuration.

## Recommended optional properties

- `enabled` - Specifies the state of the server created.
- `comment` - Any information related to the server created.

## Default property values

- `comment` - `""`
- `enabled` - `true`

## Related ONTAP commands

- `vserver object-store-server create`
- `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 cors-rule create`
- `vserver object-store-server user create`

## Learn more

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

## Parameters

Name	Type	In	Required	Description
return_records	boolean	query	False	<p>The default is false. If set to true, the records are returned.</p> <ul style="list-style-type: none"><li>• Default value:</li></ul>

## Request Body

Name	Type	Description
buckets	array[ <a href="#">s3_bucket</a> ]	This field cannot be specified in a PATCH method.
certificate	<a href="#">certificate</a>	Specifies the certificate that will be used for creating HTTPS connections to the S3 server.
comment	string	Can contain any additional information about the server being created or modified.
default_unix_user	string	Specifies the default UNIX user for NAS Access.

Name	Type	Description
default_win_user	string	Specifies the default Windows user for NAS Access.
enabled	boolean	Specifies whether the S3 server being created or modified should be up or down.
is_http_enabled	boolean	Specifies whether HTTP is enabled on the S3 server being created or modified. By default, HTTP is disabled on the S3 server.
is_https_enabled	boolean	Specifies whether HTTPS is enabled on the S3 server being created or modified. By default, HTTPS is enabled on the S3 server.
max_key_time_to_live	string	<p>Indicates the maximum time period that an S3 user can specify for the 'key_time_to_live' property.</p> <ul style="list-style-type: none"> <li>• Valid format is: 'PnDTnHnMnS PnW'. For example, P2DT6H3M10S specifies a time period of 2 days, 6 hours, 3 minutes, and 10 seconds.</li> <li>• If no value is specified for this property or the value specified is '0' seconds, then a user can specify any valid value.</li> </ul>
max_lock_retention_period	string	Specifies the maximum value that can be set as the retention period for an object in a bucket with locking enabled. The value for this property can be in years or days, not both. The value represents a duration and must be specified in the ISO-8601 duration format. A period specified for years and days is represented in the ISO-8601 format as "P<num>Y" and "P<num>D" respectively, for example "P10Y" represents a duration of 10 years.</num></num>

Name	Type	Description
min_lock_retention_period	string	Specifies the minimum value that can be set as the retention period for an object in a bucket with locking enabled. The value for this property can be in years or days, not both. The value represents a duration and must be specified in the ISO-8601 duration format. A period specified for years and days is represented in the ISO-8601 format as "P<num>Y" and "P<num>D" respectively, for example "P10Y" represents a duration of 10 years.</num></num>
name	string	Specifies the name of the S3 server. A server name can contain 3 to 253 characters using only the following combination of characters': 0-9, A-Z, a-z, ".", and "-".
port	integer	Specifies the HTTP listener port for the S3 server. By default, HTTP is enabled on port 80. Valid values range from 1 to 65535.
secure_port	integer	Specifies the HTTPS listener port for the S3 server. By default, HTTPS is enabled on port 443. Valid values range from 1 to 65535.
svm	<a href="#">svm</a>	SVM, applies only to SVM-scoped objects.
users	array[ <a href="#">s3_user</a> ]	This field cannot be specified in a PATCH method.

## Example request

```
{  
  "buckets": [  
    {  
      "aggregates": [  
        {  
          "name": "aggr1",  
          "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"  
        }  
      ],  
      "audit_event_selector": {  
        "access": "string",  
        "permission": "string"  
      },  
      "comment": "S3 bucket.",  
      "constituents_per_aggregate": 4,  
      "cors": {  
        "rules": [  
          {  
            "allowed_headers": [  
              "x-amz-request-id"  
            ],  
            "allowed_methods": [  
              "PUT",  
              "DELETE"  
            ],  
            "allowed_origins": [  
              "http://www.example.com"  
            ],  
            "expose_headers": [  
              "x-amz-date"  
            ],  
            "id": "string",  
            "max_age_seconds": 1024  
          }  
        ]  
      },  
      "lifecycle_management": {  
        "rules": [  
          {  
            "bucket_name": "bucket1",  
            "expiration": {  
              "object_age_days": 100,  
              "object_expiry_date": "2039-09-22 20:00:00 -0400"  
            }  
          },  
          {  
            "bucket_name": "bucket2",  
            "rule": "rule2"  
          }  
        ]  
      }  
    }  
  ]  
}
```

```

        "name": "string",
        "object_filter": {
            "prefix": "/logs",
            "size_greater_than": 10240,
            "size_less_than": 10485760,
            "tags": [
                "project1=projA",
                "project2=projB"
            ]
        },
        "svm": {
            "name": "svm1",
            "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
        },
        "uuid": "414b29a1-3b26-11e9-bd58-0050568ea055"
    }
]
},
"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"
                    ],
                    "tags": [
                        "tag1=tagA",
                        "tag2=tagB"
                    ]
                }
            ]
        }
    ]
}

```

```

        "usernames": [
            "user1"
        ]
    },
    "effect": "allow",
    "principals": [
        "user1",
        "group/grp1",
        "nasgroup/group1"
    ],
    "resources": [
        "bucket1",
        "bucket1/*"
    ],
    "sid": "FullAccessToUser1"
}
]
},
"qos_policy": {
    "max_throughput": [
        "900KB/s",
        "500MB/s",
        "120GB/s",
        "5000IOPS",
        "5000IOPS,500KB/s",
        "2500IOPS,100MB/s",
        "1000IOPS,25MB/s"
    ],
    "max_throughput_iops": 10000,
    "max_throughput_mbps": 500,
    "min_throughput": [
        "900KB/s",
        "500MB/s",
        "120GB/s",
        "5000IOPS",
        "5000IOPS,500KB/s",
        "2500IOPS,100MB/s",
        "1000IOPS,25MB/s"
    ],
    "min_throughput_iops": 2000,
    "min_throughput_mbps": 500,
    "name": "performance",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
},
"retention": {

```

```

        "default_period": "P10Y",
        "mode": "governance"
    },
    "role": "string",
    "size": 1677721600,
    "snapshot_policy": {
        "name": "default-1weekly",
        "uuid": "3675af31-431c-12fa-114a-20675afebc12"
    },
    "storage_service_level": "value",
    "svm": {
        "name": "svm1",
        "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"
    }
}
],
"certificate": {
    "name": "string",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
},
"comment": "S3 server",
"default_unix_user": "string",
"default_win_user": "string",
"max_key_time_to_live": "PT6H3M",
"max_lock_retention_period": "P10Y",
"min_lock_retention_period": "P10Y",
"name": "Server-1",
"port": 80,
"secure_port": 443,
"svm": {
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
},
"users": [
{
    "access_key": "<AWS-ACCESS-KEY-ID>",
    "comment": "S3 user",
    "key_expiry_time": "2023-12-31 19:00:00 -0500",
    "key_time_to_live": "PT6H3M",
}
]
}

```

```

        "name": "user-1",
        "secret_key": "<AWS-SECRET-ACCESS-KEY>",
        "svm": {
            "name": "svm1",
            "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
        }
    }
]
}

```

## Response

Status: 201, Created

Name	Type	Description
num_records	integer	Number of Records
records	array[records]	

### Example response

```
{
    "num_records": 1,
    "records": [
        {
            "job": {
                "uuid": "string"
            },
            "users": [
                {
                    "access_key": "<AWS-ACCESS-KEY-ID>",
                    "key_expiry_time": "2023-12-31 19:00:00 -0500",
                    "name": "user-1",
                    "secret_key": "<AWS-SECRET-ACCESS-KEY>"
                }
            ]
        }
    ]
}
```

## Headers

Name	Description	Type
Location	Useful for tracking the resource location	string

## Error

Status: Default

### ONTAP Error Response Codes

Error Code	Description
1115127	The cluster lacks a valid S3 license.
	2621706
The specified "{svm.uuid}" and "{svm.name}" refer to different SVMs.	
92405789	The specified object server name contains invalid characters or not a fully qualified domain name. Valid characters for an object store server name are 0-9, A-Z, a-z, ".", and "-".
	92405790
Object store server names must have between 3 and 253 characters.	
92405839	Creating an object store server requires an effective cluster version of data ONTAP 9.7.0 or later. Upgrade all the nodes to 9.7.0 or later and try the operation again.
	92405853
Failed to create the object store server because Cloud Volumes ONTAP does not support object store servers.	
92405863	An error occurs when creating an S3 user or bucket. The reason for failure is detailed in the error message. Follow the error codes specified for the user or bucket endpoints to see details for the failure.
	92405863

Error Code	Description
Failed to create bucket "{bucket name}". Reason: "Failed to create bucket "{bucket name}" for SVM "{svm.name}"". Reason: Bucket name "{bucket name}" contains invalid characters or invalid character combinations. Valid characters for a bucket name are 0-9, a-z, ".", and "-". Invalid character combinations are ".-", "-.", and "...". Resolve all the issues and retry the operation.	
92405863	Failed to create bucket "{bucket name}". Reason: "Failed to create bucket "{bucket name}" for SVM "{svm.name}"". Reason: Invalid QoS policy group specified "{qos policy}". The specified QoS policy group has a min-throughput value set, and the workload being assigned resides on a platform that does not support min-throughput or the cluster is in a mixed version state and the effective cluster version of ONTAP does not support min-throughput on this platform. Resolve all the issues and retry the operation.
	92405863
Failed to create bucket "{bucket name}". Reason: "User(s) "{user name(s)}" specified in the principal list do not exist for SVM "{svm.name}". Use the "object-store-server user create" command to create a user.". Resolve all the issues and retry the operation.	
92405863	Failed to create user "{user name}". Reason: "SVM "Cluster" is not a data SVM. Specify a data SVM.". Resolve all the issues and retry the operation.
	92405884
An object store server can only be created on a data SVM. An object store server can also be created on a system SVM on a mixed platform cluster.	
92405903	Failed to configure HTTPS on an object store server for SVM "{svm.name}". Reason: {Reason of failure}.
	92405900
Certificate not found for SVM "{svm.name}".	
92405917	The specified certificate name and UUID do not refer to the same certificate.
	92406020
Only certificates of type "server" are supported.	
92406044	Failed to set default UNIX user for SVM "{svm.name}". Reason: UNIX user can only be created on a Data SVM.
	92406071

Error Code	Description
S3 protocol is not present in the allowed protocol list for SVM "{svm.name}".	
92406196	The specified value for the "key_time_to_live" field cannot be greater than the maximum limit specified for the "max_key_time_to_live" field in the object store server.
	92406197
Object store user "user-2" must have a non-zero value for the "key_time_to_live" field because the maximum limit specified for the "max_key_time_to_live" field in the object store server is not zero.	92406230
The value for "retention.default_period" parameter for object store bucket "<bucket>" cannot be greater than the maximum lock retention period set in the object store server for SVM "<SVM>". Check the maximum allowed lock retention period present in the object store server for SVM "<SVM>" and try the operation again. //end row //start row	92406231 //end row //start row
One or more object store buckets exist with a default retention period greater than the "max_lock_retention_period" specified. Check the default retention period set for each bucket in the specified SVM and try the operation again. //end row //start row	92406236 //end row //start row
The value for "retention.default_period" parameter for object store bucket "<bucket>" cannot be less than the minimum lock retention period set in the object store server for SVM "<SVM>". Check the minimum allowed lock retention period present in the object store server for SVM "<SVM>" and try the operation again. //end row //start row	92406237 //end row //start row
One or more object store buckets exist with a default retention period less than the "min_lock_retention_period" specified. Check the default retention period set for each bucket in the specified SVM and try the operation again. //end row //start row	92406238 //end row //start row
The value for the "min_lock_retention_period" parameter cannot be greater than the "max_lock_retention_period" parameter for the object store server for SVM "vs1". //end row //start row	92406217 //end row //start row
The specified "-allowed-headers" is not valid because it contains more than one wild card ("*") character.; //end row //start row	92406224 //end row //start row

Error Code	Description
A Cross-Origin Resource Sharing (CORS) rule must have an origin and HTTP method specified.; //end row //start row	92406211 //end row //start row
The specified method "DONE" is not valid. Valid methods are GET, PUT, DELETE, HEAD, and POST.; //end row //start row	92405863 //end row //start row
Failed to create CORS rules for bucket "bb1". Reason: "Field "index" cannot be specified for this operation.". Resolve all the issues and retry the operation.; //end row //start row	92406228 //end row //start row
Cannot exceed the maximum limit of 100 Cross-Origin Resource Sharing (CORS) rules per S3 bucket "<bucket>" in SVM "<SVM>".; //end row	<pre>==&gt; //end table&lt;/SVM&gt;&lt;/bucket&gt;&lt;/SVM&gt;&lt;/SVM&gt;&lt;/bucket&gt;&lt;/SVM&gt;&lt;/SVM&gt;&lt;/bucket&gt;</pre> <p>== Definitions</p> <p>[.api-def-first-level] .See Definitions  [%collapsible%closed] ==&gt; [#href] [.api-collapsible-fifth-title] href</p> <p>[cols=3*,options=header]</p>

|Name |Type |Description

|href |string a|

[#self\_link] [.api-collapsible-fifth-title] self\_link [#\_links] [.api-collapsible-fifth-title] \_links [#aggregates] [.api-collapsible-fifth-title] aggregates

Aggregate

[cols=3\*,options=header]

|Name |Type |Description

|name |string a|

|uuid |string a|

[#audit\_event\_selector] [.api-collapsible-fifth-title] audit\_event\_selector

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

[cols=3\*,options=header]

|Name |Type |Description

|access |string a|Specifies read and write access types.

|permission |string a|Specifies allow and deny permission types.

[#rules] [.api-collapsible-fifth-title] rules

Information about the CORS rule of an S3 bucket.

[cols=3\*,options=header]

|Name |Type |Description

|allowed\_headers |array[string] a|An array of HTTP headers allowed in the cross-origin requests.

|allowed\_methods |array[string] a|An array of HTTP methods allowed in the cross-origin requests.

|allowed\_origins |array[string] a|List of origins from where a cross-origin request is allowed to originate from for the S3 bucket.

|expose\_headers |array[string] a|List of extra headers sent in the response that customers can access from their applications.

|id |string a|Bucket CORS rule identifier. The length of the name can range from 0 to 256 characters.

|max\_age\_seconds |integer a|The time in seconds for your browser to cache the preflight response for the specified resource.

[#cors] [.api-collapsible-fifth-title] cors

Cross-origin resource sharing (CORS) specifies an object associated with a bucket. The CORS configuration enables the bucket to service the cross-origin requests. A request might typically come from an origin with a domain that is different to that of the bucket. By configuring a CORS rule, you can define a combination of allowed origins, HTTP headers and methods that a bucket can use to filter out the cross-origin requests that it can service successfully.

[cols=3\*,options=header]

|Name |Type |Description

|rules |array[rules] a|Specifies an object store bucket CORS rule.

[#encryption] [.api-collapsible-fifth-title] encryption

[cols=3\*,options=header]

|Name |Type |Description

|enabled |boolean a|Specifies whether encryption is enabled on the bucket. By default, encryption is disabled on a bucket. This field cannot be specified in a POST method.

[#abort\_incomplete\_multipart\_upload] [.api-collapsible-fifth-title] abort\_incomplete\_multipart\_upload

Specifies a way to perform abort\_incomplete\_multipart\_upload action on filtered objects within a bucket. It cannot be specified with tags.

[cols=3\*,options=header]

|Name |Type |Description

|after\_initiation\_days |integer a|Number of days of initiation after which uploads can be aborted.

[#expiration] [.api-collapsible-fifth-title] expiration

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

[cols=3\*,options=header]

|Name |Type |Description

|expired\_object\_delete\_marker |boolean a|Cleanup object delete markers.

|object\_age\_days |integer a|Number of days since creation after which objects can be deleted. This cannot be used along with object\_expiry\_date.

|object\_expiry\_date |string a|Specific date from when objects can expire. This cannot be used with object\_age\_days.

[#non\_current\_version\_expiration] [.api-collapsible-fifth-title] non\_current\_version\_expiration

Specifies a way to perform non\_current\_version\_expiration action on filtered objects within a bucket.

[cols=3\*,options=header]

|Name |Type |Description

|new\_non\_current\_versions |integer a|Number of latest non-current versions to be retained.

|non\_current\_days |integer a|Number of days after which non-current versions can be deleted.

[#object\_filter] [.api-collapsible-fifth-title] object\_filter

Specifies a way to filter objects within a bucket.

[cols=3\*,options=header]

|Name |Type |Description

|prefix |string a|A prefix that is matched against object-names within a bucket.

|size\_greater\_than |integer a|Size of the object greater than specified for which the corresponding lifecycle rule is to be applied.

|size\_less\_than |integer a|Size of the object smaller than specified for which the corresponding lifecycle rule is to be applied.

|tags |array[string] a|An array of key-value paired tags of the form <tag>or &lt;tag=value&gt;.</tag>

[#svm] [.api-collapsible-fifth-title] svm

Specifies the name of the SVM where this bucket exists.

[cols=3\*,options=header]

|Name |Type |Description

|name |string a|The name of the SVM. This field cannot be specified in a PATCH method.

|uuid |string a|The unique identifier of the SVM. This field cannot be specified in a PATCH method.

[#rules] [.api-collapsible-fifth-title] rules

Information about the lifecycle management rule of a bucket.

[cols=3\*,options=header]

|Name |Type |Description

|abort\_incomplete\_multipart\_upload |[abort\\_incomplete\\_multipart\\_upload](#) a|Specifies a way to perform abort\_incomplete\_multipart\_upload action on filtered objects within a bucket. It cannot be specified with tags.

|bucket\_name |string a|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 "-".

|enabled |boolean a|Specifies whether or not the associated rule is enabled.

|expiration |[expiration](#) a|Specifies a way to perform expiration action on filtered objects within a bucket.

|name |string a|Bucket lifecycle management rule identifier. The length of the name can range from 0 to 256 characters.

|non\_current\_version\_expiration |[non\\_current\\_version\\_expiration](#) a|Specifies a way to perform non\_current\_version\_expiration action on filtered objects within a bucket.

|object\_filter |[object\\_filter](#) a|Specifies a way to filter objects within a bucket.

|svm |[svm](#) a|Specifies the name of the SVM where this bucket exists.

|uuid |string a|Specifies the unique identifier of the bucket.

[#lifecycle\_management] [.api-collapsible-fifth-title] 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.

[cols=3\*,options=header]

|Name |Type |Description

|rules |array[[rules](#)] a|Specifies an object store lifecycle management policy.

## [#s3\_bucket\_policy\_condition] [.api-collapsible-fifth-title] s3\_bucket\_policy\_condition

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

[cols=3\*,options=header]

Name	Type	Description
------	------	-------------

|delimiters |array[string] a|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] a|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 a|Condition operator that is applied to the specified condition key.

|prefixes |array[string] a|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] a|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] a|An array of usernames that a current user in the context is evaluated against using the condition operators.

## [#s3\_bucket\_policy\_statement] [.api-collapsible-fifth-title] s3\_bucket\_policy\_statement

Specifies information about a single access permission.

[cols=3\*,options=header]

Name	Type	Description
------	------	-------------

|actions |array[string] a|

|conditions |array[s3\_bucket\_policy\_condition] a|Specifies bucket policy conditions.

|effect |string a|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] a|

|resources |array[string] a|

|sid |string a|Specifies the statement identifier used to differentiate between statements. The sid length can range from 1 to 256 characters and can only contain the following combination of characters 0-9, A-Z, and a-z. Special characters are not valid.

## [#policy] [.api-collapsible-fifth-title] 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.

[cols=3\*,options=header]

|Name |Type |Description

|statements |array[[s3\\_bucket\\_policy\\_statement](#)] a|Specifies bucket access policy statement.

## [#destination] [.api-collapsible-fifth-title] destination

[cols=3\*,options=header]

|Name |Type |Description

|is\_cloud |boolean a|Specifies whether a bucket is protected within the Cloud. This field cannot be specified using a POST method.

|is\_external\_cloud |boolean a|Specifies whether a bucket is protected on external Cloud providers. This field cannot be specified using a POST method.

|is\_ontap |boolean a|Specifies whether a bucket is protected within ONTAP. This field cannot be specified using a POST method.

- Default value: 1
- readOnly: 1
- Introduced in: 9.10
- x-nullable: true

## [#protection\_status] [.api-collapsible-fifth-title] protection\_status

Specifies attributes of bucket protection.

[cols=3\*,options=header]

|Name |Type |Description

|destination |[destination](#) a|

|is\_protected |boolean a|Specifies whether a bucket is a source and if it is protected within ONTAP and/or an external cloud. This field cannot be specified using a POST method.

- Default value: 1
- readOnly: 1
- Introduced in: 9.10
- x-nullable: true

## [#qos\_policy] [.api-collapsible-fifth-title] 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.

[cols=3\*,options=header]

Name	Type	Description
------	------	-------------

max_throughput	string a	Specifies the maximum throughput in Kilobytes per sec, Megabytes per sec or Gigabytes per sec along with or without IOPS. 0 means none. This is mutually exclusive with name and UUID during POST and PATCH. This cannot be set when either max_throughput_mbps or max_throughput_iops are set during POST or PATCH. During GET, the returned value is rounded to the largest unit with a value greater than 1.
----------------	----------	---

max_throughput_iops	integer a	Specifies the maximum throughput in IOPS, 0 means none. This is mutually exclusive with name and UUID during POST and PATCH. This cannot be set when max_throughput is set during POST or PATCH.
---------------------	-----------	--

max_throughput_mbps	integer a	Specifies the maximum throughput in Megabytes per sec, 0 means none. This is mutually exclusive with name and UUID during POST and PATCH. This cannot be set when max_throughput is set during POST or PATCH.
---------------------	-----------	---

min_throughput	string a	Specifies the minimum throughput in Kilobytes per sec, Megabytes per sec or Gigabytes per sec along with or without 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. This cannot be set when either min_throughput_mbps or min_throughput_iops are set during POST or PATCH. During GET, the returned value is rounded to the largest unit with a value greater than 1.
----------------	----------	--

min_throughput_iops	integer a	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. This cannot be set when min_throughput is set during POST or PATCH.
---------------------	-----------	---

min_throughput_mbps	integer a	Specifies the minimum throughput in Megabytes per sec, 0 means none. This is mutually exclusive with name and UUID during POST and PATCH. This cannot be set when min_throughput is set during POST or PATCH.
---------------------	-----------	---

name	string a	The QoS policy group name. This is mutually exclusive with UUID and other QoS attributes during POST and PATCH.
------	----------	---

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

## [#retention] [.api-collapsible-fifth-title] retention

Specifies the retention mode and default retention period configured on the bucket.

[cols=3\*,options=header]

|Name |Type |Description

|default\_period |string a|Specifies the default retention period that is applied to objects while committing them to the WORM state without an associated retention period. The retention period can be in years, or days. The retention period value represents a duration and must be specified in the ISO-8601 duration format. A period specified for years and days is represented in the ISO-8601 format as "P<num>Y" and "P<num>D" respectively, for example "P10Y" represents a duration of 10 years. The period string must contain only a single time element that is, either years, or days. A duration which combines different periods is not supported, for example "P1Y10D" is not supported.</num></num>

|mode |string a|The lock mode of the bucket. compliance – A SnapLock Compliance (SLC) bucket provides the highest level of WORM protection and an administrator cannot destroy a compliance bucket if it contains unexpired WORM objects. governance – An administrator can delete a Governance bucket. no\_lock – Indicates the bucket does not support object locking.

[#snapshot\_policy] [.api-collapsible-fifth-title] snapshot\_policy

Specifies the bucket snapshot policy.

[cols=3\*,options=header]

|Name |Type |Description

|name |string a|Specifies the name of the snapshot policy.

|uuid |string a|Specifies the unique identifier of the snapshot policy.

[#svm] [.api-collapsible-fifth-title] svm

SVM, applies only to SVM-scoped objects.

[cols=3\*,options=header]

|Name |Type |Description

|name |string a|The name of the SVM. This field cannot be specified in a PATCH method.

|uuid |string a|The unique identifier of the SVM. This field cannot be specified in a PATCH method.

[#volume] [.api-collapsible-fifth-title] volume

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

[cols=3\*,options=header]

|Name |Type |Description

|name |string a|The name of the volume. This field cannot be specified in a PATCH method.

|uuid |string a|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.

- example: 028baa66-41bd-11e9-81d5-00a0986138f7

- Introduced in: 9.6
- x-nullable: true

[#s3\_bucket] [.api-collapsible-fifth-title] s3\_bucket

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

[cols=3\*,options=header]

|Name |Type |Description

|aggregates |array[[aggregates](#)] a|A list of aggregates for FlexGroup volume constituents where the bucket is hosted. If this option is not specified, the bucket is auto-provisioned as a FlexGroup volume.

|allowed |boolean a|If this is set to true, an SVM administrator can manage the S3 service. If it is false, only the cluster administrator can manage the service. This field cannot be specified in a POST method.

|audit\_event\_selector |[audit\\_event\\_selector](#) a|Audit event selector allows you to specify access and permission types to audit.

|comment |string a|Can contain any additional information about the bucket being created or modified.

|constituents\_per\_aggregate |integer a|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.

|cors |[cors](#) a|Cross-origin resource sharing (CORS) specifies an object associated with a bucket. The CORS configuration enables the bucket to service the cross-origin requests. A request might typically come from an origin with a domain that is different to that of the bucket. By configuring a CORS rule, you can define a combination of allowed origins, HTTP headers and methods that a bucket can use to filter out the cross-origin requests that it can service successfully.

|encryption |[encryption](#) a|

|is\_consistent\_etag |boolean a|Specifies whether the NAS bucket returns a consistent ETag across different S3 requests.

|is\_nas\_path Mutable |boolean a|Specifies whether the NAS bucket mapping or association with a NAS volume can change according to the changes in the NAS volume junction-path due to volume operations like mount and unmount and therefore the NAS bucket will have access to any path in a NAS volume that matches the specified nas-path. Or is immutable and therefore the NAS bucket will always have access to the same nas-path that was specified during bucket creation even if the volume junction-path has undergone changes after the bucket creation.

|lifecycle\_management |[lifecycle\\_management](#) a|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 a|Specifies the bucket logical used size up to this point. This field cannot be specified using a POST or PATCH method.

|name |string a|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 a|Specifies the NAS path to which the nas bucket corresponds to.

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

|protection\_status |protection\_status a|Specifies attributes of bucket protection.

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

|retention |retention a|Specifies the retention mode and default retention period configured on the bucket.

|role |string a|Specifies the role of the bucket. This field cannot be specified using a POST method.

|size |integer a|Specifies the bucket size in bytes; ranges from 190MB to 62PB.

|snapshot\_policy |snapshot\_policy a|Specifies the bucket snapshot policy.

|storage\_service\_level |string a|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 a|SVM, applies only to SVM-scoped objects.

|type |string a|Specifies the bucket type. Valid values are "s3" and "nas".

|use\_mirrored\_aggregates |boolean a|Specifies whether mirrored aggregates are selected when provisioning a FlexGroup. Only mirrored aggregates are used if this parameter is set to "true" and only unmirrored aggregates are used if this parameter is set to "false". The default value is "true" for a MetroCluster configuration and is "false" for a non-MetroCluster configuration.

|uuid |string a|Specifies the unique identifier of the bucket.

|versioning\_state |string a|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 a|Specifies the FlexGroup volume name and UUID where the bucket is hosted.

[#certificate] [.api-collapsible-fifth-title] certificate

Specifies the certificate that will be used for creating HTTPS connections to the S3 server.

[cols=3\*,options=header]

|Name |Type |Description

|name |string a|Certificate name

|uuid |string a|Certificate UUID

[#iops] [.api-collapsible-fifth-title] iops

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

[cols=3\*,options=header]

|Name |Type |Description

|other |integer a|Performance metric for other I/O operations. Other I/O operations can be metadata operations, such as directory lookups and so on.

|read |integer a|Performance metric for read I/O operations.

|total |integer a|Performance metric aggregated over all types of I/O operations.

|write |integer a|Performance metric for write I/O operations.

[#latency] [.api-collapsible-fifth-title] latency

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

[cols=3\*,options=header]

|Name |Type |Description

|other |integer a|Performance metric for other I/O operations. Other I/O operations can be metadata operations, such as directory lookups and so on.

|read |integer a|Performance metric for read I/O operations.

|total |integer a|Performance metric aggregated over all types of I/O operations.

|write |integer a|Performance metric for write I/O operations.

[#throughput] [.api-collapsible-fifth-title] throughput

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

[cols=3\*,options=header]

|Name |Type |Description

|read |integer a|Performance metric for read I/O operations.

|total |integer a|Performance metric aggregated over all types of I/O operations.

|write |integer a|Performance metric for write I/O operations.

[#metric] [.api-collapsible-fifth-title] metric

Performance numbers, such as IOPS latency and throughput, for SVM protocols.

[cols=3\*,options=header]

|Name |Type |Description

|duration |string a|The duration over which this sample is calculated. The time durations are represented in the ISO-8601 standard format. Samples can be calculated over the following durations:

|iops |[iops](#) a|The rate of I/O operations observed at the storage object.

|latency |[latency](#) a|The round trip latency in microseconds observed at the storage object.

|status |string a|Any errors associated with the sample. For example, if the aggregation of data over multiple nodes fails then any of the partial errors might be returned, "ok" on success, or "error" on any internal uncategorized failure. Whenever a sample collection is missed but done at a later time, it is back filled to the previous 15 second timestamp and tagged with "backfilled\_data". "Inconsistent\_delta\_time" is encountered when the time between two collections is not the same for all nodes. Therefore, the aggregated value might be over or under inflated. "Negative\_delta" is returned when an expected monotonically increasing value has decreased in value. "Inconsistent\_old\_data" is returned when one or more nodes do not have the latest data.

|throughput |[throughput](#) a|The rate of throughput bytes per second observed at the storage object.

|timestamp |string a|The timestamp of the performance data.

[#iops\_raw] [.api-collapsible-fifth-title] iops\_raw

The number of I/O operations observed at the storage object. This should be used along with delta time to calculate the rate of I/O operations per unit of time.

[cols=3\*,options=header]

|Name |Type |Description

|other |integer a|Performance metric for other I/O operations. Other I/O operations can be metadata operations, such as directory lookups and so on.

|read |integer a|Performance metric for read I/O operations.

|total |integer a|Performance metric aggregated over all types of I/O operations.

|write |integer a|Performance metric for write I/O operations.

[#latency\_raw] [.api-collapsible-fifth-title] latency\_raw

The raw latency in microseconds observed at the storage object. This should be divided by the raw IOPS value to calculate the average latency per I/O operation.

[cols=3\*,options=header]

|Name |Type |Description

|other |integer a|Performance metric for other I/O operations. Other I/O operations can be metadata operations, such as directory lookups and so on.

|read |integer a|Performance metric for read I/O operations.

|total |integer a|Performance metric aggregated over all types of I/O operations.

|write |integer a|Performance metric for write I/O operations.

[#throughput\_raw] [.api-collapsible-fifth-title] throughput\_raw

Throughput bytes observed at the storage object. This should be used along with delta time to calculate the rate of throughput bytes per unit of time.

[cols=3\*,options=header]

|Name |Type |Description

|read |integer a|Performance metric for read I/O operations.

|total |integer a|Performance metric aggregated over all types of I/O operations.

|write |integer a|Performance metric for write I/O operations.

[#statistics] [.api-collapsible-fifth-title] statistics

These are raw performance numbers, such as IOPS latency and throughput for SVM protocols. These numbers are aggregated across all nodes in the cluster and increase with the uptime of the cluster.

[cols=3\*,options=header]

|Name |Type |Description

|iops\_raw |iops\_raw a|The number of I/O operations observed at the storage object. This should be used along with delta time to calculate the rate of I/O operations per unit of time.

|latency\_raw |latency\_raw a|The raw latency in microseconds observed at the storage object. This should be divided by the raw IOPS value to calculate the average latency per I/O operation.

|status |string a|Any errors associated with the sample. For example, if the aggregation of data over multiple nodes fails then any of the partial errors might be returned, "ok" on success, or "error" on any internal uncategorized failure. Whenever a sample collection is missed but done at a later time, it is back filled to the previous 15 second timestamp and tagged with "backfilled\_data". "Inconsistent\_delta\_time" is encountered when the time between two collections is not the same for all nodes. Therefore, the aggregated value might be over or under inflated. "Negative\_delta" is returned when an expected monotonically increasing value has decreased in value. "Inconsistent\_old\_data" is returned when one or more nodes do not have the latest data.

|throughput\_raw |throughput\_raw a|Throughput bytes observed at the storage object. This should be used along with delta time to calculate the rate of throughput bytes per unit of time.

|timestamp |string a|The timestamp of the performance data.

[#s3\_user] [.api-collapsible-fifth-title] s3\_user

This is a container of S3 users.

[cols=3\*,options=header]

|Name |Type |Description

|access\_key |string a|Specifies the access key for the user.

|comment |string a|Can contain any additional information about the user being created or modified.

|key\_expiry\_time |string a|Specifies the date and time after which keys expire and are no longer valid.

|key\_time\_to\_live |string a|Indicates the time period from when this parameter is specified:

- when creating or modifying a user or
- when the user keys were last regenerated, after which the user keys expire and are no longer valid.
- Valid format is: 'PnDTnHnMnS\|PnW'. For example, P2DT6H3M10S specifies a time period of 2 days, 6 hours, 3 minutes, and 10 seconds.
- If the value specified is '0' seconds, then the keys won't expire.

|name |string a|Specifies the name of the user. A user name length can range from 1 to 64 characters and can only contain the following combination of characters 0-9, A-Z, a-z, "\_", "+", "=", ",", ".", "@", and "-".

|secret\_key |string a|Specifies the secret key for the user.

|svm |svm a|SVM, applies only to SVM-scoped objects.

```
[#s3_service] [.api-collapsible-fifth-title] s3_service
```

Specifies the S3 server configuration.

```
[cols=3*,options=header]
```

|Name |Type |Description

|buckets |array[s3\_bucket] a|This field cannot be specified in a PATCH method.

|certificate |certificate a|Specifies the certificate that will be used for creating HTTPS connections to the S3 server.

|comment |string a|Can contain any additional information about the server being created or modified.

|default\_unix\_user |string a|Specifies the default UNIX user for NAS Access.

|default\_win\_user |string a|Specifies the default Windows user for NAS Access.

|enabled |boolean a|Specifies whether the S3 server being created or modified should be up or down.

|is\_http\_enabled |boolean a|Specifies whether HTTP is enabled on the S3 server being created or modified. By default, HTTP is disabled on the S3 server.

|is\_https\_enabled |boolean a|Specifies whether HTTPS is enabled on the S3 server being created or modified. By default, HTTPS is enabled on the S3 server.

|max\_key\_time\_to\_live |string a|Indicates the maximum time period that an S3 user can specify for the 'key\_time\_to\_live' property.

- Valid format is: 'PnDTnHnMnS\|PnW'. For example, P2DT6H3M10S specifies a time period of 2 days, 6 hours, 3 minutes, and 10 seconds.

- If no value is specified for this property or the value specified is '0' seconds, then a user can specify any valid value.

|max\_lock\_retention\_period |string a|Specifies the maximum value that can be set as the retention period for an object in a bucket with locking enabled. The value for this property can be in years or days, not both. The value represents a duration and must be specified in the ISO-8601 duration format. A period specified for years and days is represented in the ISO-8601 format as "P<num>Y" and "P<num>D" respectively, for example "P10Y" represents a duration of 10 years.</num></num>

|min\_lock\_retention\_period |string a|Specifies the minimum value that can be set as the retention period for an object in a bucket with locking enabled. The value for this property can be in years or days, not both. The value represents a duration and must be specified in the ISO-8601 duration format. A period specified for years and days is represented in the ISO-8601 format as "P<num>Y" and "P<num>D" respectively, for example "P10Y" represents a duration of 10 years.</num></num>

|name |string a|Specifies the name of the S3 server. A server name can contain 3 to 253 characters using only the following combination of characters: 0-9, A-Z, a-z, ".", and "-".

|port |integer a|Specifies the HTTP listener port for the S3 server. By default, HTTP is enabled on port 80. Valid values range from 1 to 65535.

|secure\_port |integer a|Specifies the HTTPS listener port for the S3 server. By default, HTTPS is enabled on port 443. Valid values range from 1 to 65535.

|svm |svm a|SVM, applies only to SVM-scoped objects.

|users |array[s3\_user] a|This field cannot be specified in a PATCH method.

[#collection_links] [.api-collapsible-fifth-title] collection_links [#job_link] [.api-collapsible-fifth-title] job_link		
[cols=3*,options=header]		

|Name |Type |Description

|uuid |string a|The UUID of the asynchronous job that is triggered by a POST, PATCH, or DELETE operation.

[#s3_service_user_post_response] [.api-collapsible-fifth-title] s3_service_user_post_response		
[cols=3*,options=header]		

|Name |Type |Description

|access\_key |string a|Specifies the access key for the user.

|key\_expiry\_time |string a|Specifies the date and time after which the keys expire and are no longer valid.

|name |string a|The name of the user.

|secret\_key |string a|Specifies the secret key for the user.

```
[#warning] [.api-collapsible-fifth-title] warning
```

Specifies a warning message sent from the S3 server during a POST or PATCH operation.

```
[cols=3*,options=header]
```

|Name |Type |Description

|code |integer a|Warning code of the warning encountered.

|message |string a|Details of the warning sent from the S3 server.

```
[#records] [.api-collapsible-fifth-title] records
```

```
[cols=3*,options=header]
```

|Name |Type |Description

|job |[job\\_link](#) a|

|users |array[[s3\\_service\\_user\\_post\\_response](#)] a|

```
[#error_arguments] [.api-collapsible-fifth-title] error_arguments
```

```
[cols=3*,options=header]
```

|Name |Type |Description

|code |string a|Argument code

|message |string a|Message argument

```
[#returned_error] [.api-collapsible-fifth-title] returned_error
```

```
[cols=3*,options=header]
```

|Name |Type |Description

|arguments |array[[error\\_arguments](#)] a|Message arguments

|code |string a|Error code

|message |string a|Error message

|target |string a|The target parameter that caused the error.

====

<a id="IDb2d6f598faced4a947d9b17af3fd35a5"></a> = Delete the S3 server configuration for an SVM

<span class="api-doc-operation api-doc-operation-delete">DELETE</span> <span class="api-doc-code-block"><code>/protocols/s3/services/{svm.uuid}</code></span>

<strong>Introduced In:</strong> 9.7

Deletes the S3 server configuration of an SVM. If the 'delete\_all' parameter is set to false, only the S3 server is deleted. Otherwise S3 users and buckets present on the SVM are also deleted. Note that only empty buckets can be deleted. This endpoint returns the S3 server delete job-uuid in response. To monitor the job status follow /api/cluster/jobs/<job-uuid>.</job-uuid>

== Related ONTAP commands

\* <code>vserver object-store-server delete</code>

== Learn more

\* <a href="https://docs.netapp.com/us-en/ontap-restapi-9171/{relative\_path}manage\_protocols\_s3\_services.html">DOC /protocols/s3/services</a>

== Parameters

[cols=5\*,options=header]

Name	Type	In	Required	Description
------	------	----	----------	-------------

|delete\_all |boolean |query |False a|Delete S3 server and associated users and empty buckets.

- Default value: 1

|return\_timeout |integer |query |False a|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.

- Default value: 0
- Max value: 120
- Min value: 0

|svm.uuid |string |path |True a|UUID of the SVM to which this object belongs.

== Response

` Status: 200, Ok `

[cols=3\*,options=header]

Name	Type	Description
------	------	-------------

|job |job\_link a|

.Example response [%collapsible%closed] ====[source,json,subs=+macros] { "job": { "\_links": { "self": { "href": "/api/resourcelink" } }, "uuid": "string" } } ====[/source]

== Response

` Status: 202, Accepted`

== Error

` Status: Default`

ONTAP Error Response Codes

| Error Code | Description

| 92405864 | An error occurs when deleting an S3 user or bucket. The reason for failure is detailed in the error message. Follow the error codes specified for the user or bucket endpoints to see details for the failure.

[cols=3\*,options=header]

|Name |Type |Description

|error |returned\_error a|

.Example error [%collapsible%closed] ====[source,json,subs=+macros] { "error": { "arguments": [ { "code": "string", "message": "string" } ], "code": "4", "message": "entry doesn't exist", "target": "uuid" } } ====[/source]

== Definitions

[.api-def-first-level] .See Definitions [%collapsible%closed] ====[#href] [.api-collapsible-fifth-title] href

[cols=3\*,options=header]

|Name |Type |Description

|href |string a|

[#\_links] [.api-collapsible-fifth-title] \_links

[cols=3\*,options=header]

|Name |Type |Description

|self |href a|

[#job\_link] [.api-collapsible-fifth-title] job\_link

[cols=3\*,options=header]

|Name |Type |Description

|\_links |\_links a|

|uuid |string a|The UUID of the asynchronous job that is triggered by a POST, PATCH, or DELETE operation.

[#error\_arguments] [.api-collapsible-fifth-title] error\_arguments

[cols=3\*,options=header]

|Name |Type |Description

|code |string a|Argument code

|message |string a|Message argument

[#returned\_error] [.api-collapsible-fifth-title] returned\_error

[cols=3\*,options=header]

|Name |Type |Description

|arguments |array[error\_arguments] a|Message arguments

|code |string a|Error code

|message |string a|Error message

|target |string a|The target parameter that caused the error.

====

= Retrieve the S3 server configuration for an SVM

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

**Introduced In:** 9.7

Retrieves the S3 Server 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 show**

**== Learn more**

\* **DOC /protocols/s3/services**

**== Parameters**

[cols=5,options=header]

|Name |Type |In |Required |Description

|svm.uuid |string |path |True a|UUID of the SVM to which this object belongs.

|fields |array[string] |query |False a|Specify the fields to return.

```
== Response
```

```
` Status: 200, Ok`
```

```
[cols=3*,options=header]
```

|Name |Type |Description

|\_links |self\_link a|

|buckets |array[s3\_bucket] a|This field cannot be specified in a PATCH method.

|certificate |certificate a|Specifies the certificate that will be used for creating HTTPS connections to the S3 server.

|comment |string a|Can contain any additional information about the server being created or modified.

|default\_unix\_user |string a|Specifies the default UNIX user for NAS Access.

|default\_win\_user |string a|Specifies the default Windows user for NAS Access.

|enabled |boolean a|Specifies whether the S3 server being created or modified should be up or down.

|is\_http\_enabled |boolean a|Specifies whether HTTP is enabled on the S3 server being created or modified. By default, HTTP is disabled on the S3 server.

|is\_https\_enabled |boolean a|Specifies whether HTTPS is enabled on the S3 server being created or modified. By default, HTTPS is enabled on the S3 server.

|max\_key\_time\_to\_live |string a|Indicates the maximum time period that an S3 user can specify for the 'key\_time\_to\_live' property.

- Valid format is: 'PnDTnHnMnS\|PnW'. For example, P2DT6H3M10S specifies a time period of 2 days, 6 hours, 3 minutes, and 10 seconds.
- If no value is specified for this property or the value specified is '0' seconds, then a user can specify any valid value.

|max\_lock\_retention\_period |string a|Specifies the maximum value that can be set as the retention period for an object in a bucket with locking enabled. The value for this property can be in years or days, not both. The value represents a duration and must be specified in the ISO-8601 duration format. A period specified for years and days is represented in the ISO-8601 format as "P<num>Y" and "P<num>D" respectively, for example "P10Y" represents a duration of 10 years.</num></num>

|metric |metric a|Performance numbers, such as IOPS latency and throughput, for SVM protocols.

|min\_lock\_retention\_period |string a|Specifies the minimum value that can be set as the retention period for an object in a bucket with locking enabled. The value for this property can be in years or days, not both. The value represents a duration and must be specified in the ISO-8601 duration format. A period specified for years and days is represented in the ISO-8601 format as "P<num>Y" and "P<num>D" respectively, for example "P10Y" represents a duration of 10 years.</num></num>

|name |string a|Specifies the name of the S3 server. A server name can contain 3 to 253 characters using only the following combination of characters: '0-9, A-Z, a-z, ".", and "-".

|port |integer a|Specifies the HTTP listener port for the S3 server. By default, HTTP is enabled on port 80. Valid values range from 1 to 65535.

|secure\_port |integer a|Specifies the HTTPS listener port for the S3 server. By default, HTTPS is enabled on port 443. Valid values range from 1 to 65535.

|statistics |statistics a|These are raw performance numbers, such as IOPS latency and throughput for SVM protocols. These numbers are aggregated across all nodes in the cluster and increase with the uptime of the cluster.

|svm |svm a|SVM, applies only to SVM-scoped objects.

|users |array[s3\_user] a|This field cannot be specified in a PATCH method.

```
.Example response [%collapsible%closed] ====
[source.json,subs=+macros] { "_links": { "self": { "href": "/api/resourcelink" } }, "buckets": [ { "audit_event_selector": { "access": "string", "permission": "string" }, "comment": "S3 bucket.", "cors": { "rules": [ { "_links": { "self": { "href": "/api/resourcelink" } } } ], "allowed_headers": [ "x-amz-request-id" ], "allowed_methods": [ "PUT", "DELETE" ], "allowed_origins": [ "http://www.example.com" ], "expose_headers": [ "x-amz-date" ], "id": "string", "max_age_seconds": 1024 } ] }, "lifecycle_management": { "rules": [ { "_links": { "self": { "href": "/api/resourcelink" } } } ], "abort_incomplete multipart_upload": { "_links": { "self": { "href": "/api/resourcelink" } } }, "bucket_name": "bucket1", "expiration": { "_links": { "self": { "href": "/api/resourcelink" } } }, "object_age_days": 100, "object_expiry_date": "2039-09-22 20:00:00 -0400", "name": "string", "non_current_version_expiration": { "_links": { "self": { "href": "/api/resourcelink" } } }, "object_filter": { "_links": { "self": { "href": "/api/resourcelink" } } }, "prefix": "/logs", "size_greater_than": 10240, "size_less_than": 10485760, "tags": [ "project1=projA", "project2=projB" ] }, "svm": { "_links": { "self": { "href": "/api/resourcelink" } } }, "name": "svm1", "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7", "uuid": "414b29a1-3b26-11e9-bd58-0050568ea055" ] }, "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", "nasgroup/group1" ], "resources": [ "bucket1", "bucket1/" ], "sid": "FullAccessToUser1" } ] }, "qos_policy": { "_links": { "self": { "href": "/api/resourcelink" } } }, "max_throughput": [ "900KB/s", "500MB/s", "120GB/s", "5000IOPS", "5000IOPS,500KB/s", "2500IOPS,100MB/s", "1000IOPS,25MB/s" ], "max_throughput_iops": 10000, "max_throughput_mbps": 500, "min_throughput": [ "900KB/s", "500MB/s", "120GB/s", "5000IOPS", "5000IOPS,500KB/s", "2500IOPS,100MB/s", "1000IOPS,25MB/s" ], "min_throughput_iops": 2000, "min_throughput_mbps": 500, "name": "performance", "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412", "retention": { "default_period": "P10Y", "mode": "governance" }, "role": "string", "size": 1677721600, "snapshot_policy": { "name": "default-1weekly", "uuid": "3675af31-431c-12fa-114a-20675afebc12" }, "svm": { "_links": { "self": { "href": "/api/resourcelink" } } }, "name": "svm1", "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7", "type": "s3", "use_mirrored_aggregates": true, "uuid": "414b29a1-3b26-11e9-bd58-0050568ea055", "versioning_state": "enabled", "volume": { "_links": { "self": { "href": "/api/resourcelink" } } }, "name": "volume1", "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7" ] }, "certificate": { "_links": { "self": { "href": "/api/resourcelink" } } }, "name": "string", "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412", "comment": "S3 server", "default_unix_user": "string", "default_win_user": "string", "max_key_time_to_live": "PT6H3M", "max_lock_retention_period": "P10Y", "metric": { "_links": { "self": { "href": "/api/resourcelink" } } }, "duration": "PT15S", "iops": { "read": 200, "total": 1000, "write": 100 }, "latency": { "read": 200, "total": 1000, "write": 100 }, "status": "ok", "throughput": { "read": 200, "total": 1000, "write": 100 }, "timestamp": "2017-01-25 06:20:13 -0500", "min_lock_retention_period": "P10Y", "name": "Server-1", "port": 80, "secure_port": 443, "statistics": { "iops_raw": { "read": 200, "total": 1000, "write": 100 } }, "latency_raw": { "read": 200, "total": 1000, "write": 100 }, "status": "ok", "throughput_raw": { "read": 200, "total": 1000, "write": 100 }, "timestamp": "2017-01-25 06:20:13 -0500" }, "svm": { "_links": { "self": { "href": "/api/resourcelink" } } }, "name": "svm1", "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7" }, "users": [ { "access_key": "<AWS-ACCESS-KEY-ID>", "comment": "S3 user", "key_expiry_time": "2023-12-31 19:00:00 -0500", "key_time_to_live": "PT6H3M", "name": "user-1", "svm": { "_links": { "self": { "href": "/api/resourcelink" } } } }, { "name": "svm1", "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7" } ] } ====

```

== Error

```
` Status: Default, Error`
```

[cols=3,options=header]

|Name |Type |Description

|error |returned\_error a|

```
.Example error [%collapsible%closed] ====[source,json,subs=+macros] { "error": { "arguments": [ { "code": "string", "message": "string" } ], "code": "4", "message": "entry doesn't exist", "target": "uuid" } } ====[/source]
```

== Definitions

[.api-def-first-level] .See Definitions [%collapsible%closed] ====[#href] [.api-collapsible-fifth-title] href

[cols=3\*,options=header]

|Name |Type |Description

|href |string a|

[#self\_link] [.api-collapsible-fifth-title] self\_link

[cols=3\*,options=header]

|Name |Type |Description

|self |href a|

[#\_links] [.api-collapsible-fifth-title] \_links

[cols=3\*,options=header]

|Name |Type |Description

|self |href a|

[#aggregates] [.api-collapsible-fifth-title] aggregates

Aggregate

[cols=3\*,options=header]

|Name |Type |Description

|\_links |\_links a|

|name |string a|

|uuid |string a|

[#audit\_event\_selector] [.api-collapsible-fifth-title] audit\_event\_selector

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

[cols=3\*,options=header]

|Name |Type |Description

|access |string a|Specifies read and write access types.

|permission |string a|Specifies allow and deny permission types.

[#rules] [.api-collapsible-fifth-title] rules

Information about the CORS rule of an S3 bucket.

[cols=3\*,options=header]

|Name |Type |Description

|\_links |[\\_links](#) a|

|allowed\_headers |array[string] a|An array of HTTP headers allowed in the cross-origin requests.

|allowed\_methods |array[string] a|An array of HTTP methods allowed in the cross-origin requests.

|allowed\_origins |array[string] a|List of origins from where a cross-origin request is allowed to originate from for the S3 bucket.

|expose\_headers |array[string] a|List of extra headers sent in the response that customers can access from their applications.

|id |string a|Bucket CORS rule identifier. The length of the name can range from 0 to 256 characters.

|max\_age\_seconds |integer a|The time in seconds for your browser to cache the preflight response for the specified resource.

[#cors] [.api-collapsible-fifth-title] cors

Cross-origin resource sharing (CORS) specifies an object associated with a bucket. The CORS configuration enables the bucket to service the cross-origin requests. A request might typically come from an origin with a domain that is different to that of the bucket. By configuring a CORS rule, you can define a combination of allowed origins, HTTP headers and methods that a bucket can use to filter out the cross-origin requests that it can service successfully.

[cols=3\*,options=header]

|Name |Type |Description

|rules |array[[rules](#)] a|Specifies an object store bucket CORS rule.

[#encryption] [.api-collapsible-fifth-title] encryption

[cols=3\*,options=header]

|Name |Type |Description

|enabled |boolean a|Specifies whether encryption is enabled on the bucket. By default, encryption is disabled on a bucket. This field cannot be specified in a POST method.

```
[#abort_incomplete_multipart_upload] [.api-collapsible-fifth-title] abort_incomplete_multipart_upload
```

Specifies a way to perform abort\_incomplete\_multipart\_upload action on filtered objects within a bucket. It cannot be specified with tags.

```
[cols=3*,options=header]
```

|Name |Type |Description

|\_links |\_links a|

|after\_initiation\_days |integer a|Number of days of initiation after which uploads can be aborted.

```
[#expiration] [.api-collapsible-fifth-title] expiration
```

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

```
[cols=3*,options=header]
```

|Name |Type |Description

|\_links |\_links a|

|expired\_object\_delete\_marker |boolean a|Cleanup object delete markers.

|object\_age\_days |integer a|Number of days since creation after which objects can be deleted. This cannot be used along with object\_expiry\_date.

|object\_expiry\_date |string a|Specific date from when objects can expire. This cannot be used with object\_age\_days.

```
[#non_current_version_expiration] [.api-collapsible-fifth-title] non_current_version_expiration
```

Specifies a way to perform non\_current\_version\_expiration action on filtered objects within a bucket.

```
[cols=3*,options=header]
```

|Name |Type |Description

|\_links |\_links a|

|new\_non\_current\_versions |integer a|Number of latest non-current versions to be retained.

|non\_current\_days |integer a|Number of days after which non-current versions can be deleted.

```
[#object_filter] [.api-collapsible-fifth-title] object_filter
```

Specifies a way to filter objects within a bucket.

```
[cols=3*,options=header]
```

|Name |Type |Description

|[\\_links](#) |[\\_links](#) a|

|prefix |string a|A prefix that is matched against object-names within a bucket.

|size\_greater\_than |integer a|Size of the object greater than specified for which the corresponding lifecycle rule is to be applied.

|size\_less\_than |integer a|Size of the object smaller than specified for which the corresponding lifecycle rule is to be applied.

|tags |array[string] a|An array of key-value paired tags of the form <tag>or &lt;tag=value&gt;.</tag>

[#svm] [.api-collapsible-fifth-title] svm

Specifies the name of the SVM where this bucket exists.

[cols=3\*,options=header]

|Name |Type |Description

|[\\_links](#) |[\\_links](#) a|

|name |string a|The name of the SVM. This field cannot be specified in a PATCH method.

|uuid |string a|The unique identifier of the SVM. This field cannot be specified in a PATCH method.

[#rules] [.api-collapsible-fifth-title] rules

Information about the lifecycle management rule of a bucket.

[cols=3\*,options=header]

|Name |Type |Description

|[\\_links](#) |[\\_links](#) a|

|abort\_incomplete\_multipart\_upload |[abort\\_incomplete\\_multipart\\_upload](#) a|Specifies a way to perform abort\_incomplete\_multipart\_upload action on filtered objects within a bucket. It cannot be specified with tags.

|bucket\_name |string a|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 "-".

|enabled |boolean a|Specifies whether or not the associated rule is enabled.

|expiration |[expiration](#) a|Specifies a way to perform expiration action on filtered objects within a bucket.

|name |string a|Bucket lifecycle management rule identifier. The length of the name can range from 0 to 256 characters.

|non\_current\_version\_expiration |[non\\_current\\_version\\_expiration](#) a|Specifies a way to perform non\_current\_version\_expiration action on filtered objects within a bucket.

|object\_filter |[object\\_filter](#) a|Specifies a way to filter objects within a bucket.

|svm |[svm](#) a|Specifies the name of the SVM where this bucket exists.

|uuid |string a|Specifies the unique identifier of the bucket.

#### [#lifecycle\_management] [.api-collapsible-fifth-title] 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.

[cols=3\*,options=header]

|Name |Type |Description

|rules |array[[rules](#)] a|Specifies an object store lifecycle management policy.

#### [#s3\_bucket\_policy\_condition] [.api-collapsible-fifth-title] s3\_bucket\_policy\_condition

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

[cols=3\*,options=header]

|Name |Type |Description

|delimiters |array[string] a|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] a|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 a|Condition operator that is applied to the specified condition key.

|prefixes |array[string] a|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] a|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] a|An array of usernames that a current user in the context is evaluated against using the condition operators.

#### [#s3\_bucket\_policy\_statement] [.api-collapsible-fifth-title] s3\_bucket\_policy\_statement

Specifies information about a single access permission.

[cols=3\*,options=header]

|Name |Type |Description

|actions |array[string] a|

|conditions |array[[s3\\_bucket\\_policy\\_condition](#)] a|Specifies bucket policy conditions.

|effect |string a|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] a|

|resources |array[string] a|

|sid |string a|Specifies the statement identifier used to differentiate between statements. The sid length can range from 1 to 256 characters and can only contain the following combination of characters 0-9, A-Z, and a-z. Special characters are not valid.

[#policy] [.api-collapsible-fifth-title] 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.

[cols=3\*,options=header]

|Name |Type |Description

|statements |array[s3\_bucket\_policy\_statement] a|Specifies bucket access policy statement.

[#destination] [.api-collapsible-fifth-title] destination

[cols=3\*,options=header]

|Name |Type |Description

|is\_cloud |boolean a|Specifies whether a bucket is protected within the Cloud. This field cannot be specified using a POST method.

|is\_external\_cloud |boolean a|Specifies whether a bucket is protected on external Cloud providers. This field cannot be specified using a POST method.

|is\_ontap |boolean a|Specifies whether a bucket is protected within ONTAP. This field cannot be specified using a POST method.

- Default value: 1
- readOnly: 1
- Introduced in: 9.10
- x-nullable: true

[#protection\_status] [.api-collapsible-fifth-title] protection\_status

Specifies attributes of bucket protection.

[cols=3\*,options=header]

|Name |Type |Description

|destination |destination a|

|is\_protected |boolean a|Specifies whether a bucket is a source and if it is protected within ONTAP and/or an external cloud. This field cannot be specified using a POST method.

- Default value: 1
- readOnly: 1
- Introduced in: 9.10
- x-nullable: true

#### [#qos\_policy] [.api-collapsible-fifth-title] 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.

[cols=3\*,options=header]

|Name |Type |Description

|\_links |[\\_links](#) a|

|max\_throughput |string a|Specifies the maximum throughput in Kilobytes per sec, Megabytes per sec or Gigabytes per sec along with or without IOPS. 0 means none. This is mutually exclusive with name and UUID during POST and PATCH. This cannot be set when either max\_throughput\_mbps or max\_throughput\_iops are set during POST or PATCH. During GET, the returned value is rounded to the largest unit with a value greater than 1.

|max\_throughput\_iops |integer a|Specifies the maximum throughput in IOPS, 0 means none. This is mutually exclusive with name and UUID during POST and PATCH. This cannot be set when max\_throughput is set during POST or PATCH.

|max\_throughput\_mbps |integer a|Specifies the maximum throughput in Megabytes per sec, 0 means none. This is mutually exclusive with name and UUID during POST and PATCH. This cannot be set when max\_throughput is set during POST or PATCH.

|min\_throughput |string a|Specifies the minimum throughput in Kilobytes per sec, Megabytes per sec or Gigabytes per sec along with or without 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. This cannot be set when either min\_throughput\_mbps or min\_throughput\_iops are set during POST or PATCH. During GET, the returned value is rounded to the largest unit with a value greater than 1.

|min\_throughput\_iops |integer a|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. This cannot be set when min\_throughput is set during POST or PATCH.

|min\_throughput\_mbps |integer a|Specifies the minimum throughput in Megabytes per sec, 0 means none. This is mutually exclusive with name and UUID during POST and PATCH. This cannot be set when min\_throughput is set during POST or PATCH.

|name |string a|The QoS policy group name. This is mutually exclusive with UUID and other QoS attributes during POST and PATCH.

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

[#retention] [.api-collapsible-fifth-title] retention

Specifies the retention mode and default retention period configured on the bucket.

[cols=3\*,options=header]

|Name |Type |Description

|default\_period |string a|Specifies the default retention period that is applied to objects while committing them to the WORM state without an associated retention period. The retention period can be in years, or days. The retention period value represents a duration and must be specified in the ISO-8601 duration format. A period specified for years and days is represented in the ISO-8601 format as "P<num>Y" and "P<num>D" respectively, for example "P10Y" represents a duration of 10 years. The period string must contain only a single time element that is, either years, or days. A duration which combines different periods is not supported, for example "P1Y10D" is not supported.</num></num>

|mode |string a|The lock mode of the bucket. compliance &dash; A SnapLock Compliance (SLC) bucket provides the highest level of WORM protection and an administrator cannot destroy a compliance bucket if it contains unexpired WORM objects. governance &dash; An administrator can delete a Governance bucket. no\_lock &dash; Indicates the bucket does not support object locking.

[#snapshot\_policy] [.api-collapsible-fifth-title] snapshot\_policy

Specifies the bucket snapshot policy.

[cols=3\*,options=header]

|Name |Type |Description

|name |string a|Specifies the name of the snapshot policy.

|uuid |string a|Specifies the unique identifier of the snapshot policy.

[#svm] [.api-collapsible-fifth-title] svm

SVM, applies only to SVM-scoped objects.

[cols=3\*,options=header]

|Name |Type |Description

|\_links |[\\_links](#) a|

|name |string a|The name of the SVM. This field cannot be specified in a PATCH method.

|uuid |string a|The unique identifier of the SVM. This field cannot be specified in a PATCH method.

[#volume] [.api-collapsible-fifth-title] volume

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

[cols=3\*,options=header]

|Name |Type |Description

|\_links |[\\_links](#) a|

|name |string a|The name of the volume. This field cannot be specified in a PATCH method.

|uuid |string a|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.

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

[#s3\_bucket] [.api-collapsible-fifth-title] s3\_bucket

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

[cols=3\*,options=header]

|Name |Type |Description

|allowed |boolean a|If this is set to true, an SVM administrator can manage the S3 service. If it is false, only the cluster administrator can manage the service. This field cannot be specified in a POST method.

|audit\_event\_selector |[audit\\_event\\_selector](#) a|Audit event selector allows you to specify access and permission types to audit.

|comment |string a|Can contain any additional information about the bucket being created or modified.

|cors |[cors](#) a|Cross-origin resource sharing (CORS) specifies an object associated with a bucket. The CORS configuration enables the bucket to service the cross-origin requests. A request might typically come from an origin with a domain that is different to that of the bucket. By configuring a CORS rule, you can define a combination of allowed origins, HTTP headers and methods that a bucket can use to filter out the cross-origin requests that it can service successfully.

|encryption |[encryption](#) a|

|is\_consistent\_etag |boolean a|Specifies whether the NAS bucket returns a consistent ETag across different S3 requests.

|is\_nas\_path Mutable |boolean a|Specifies whether the NAS bucket mapping or association with a NAS volume can change according to the changes in the NAS volume junction-path due to volume operations like mount and unmount and therefore the NAS bucket will have access to any path in a NAS volume that matches the specified nas-path. Or is immutable and therefore the NAS bucket will always have access to the same nas-path that was specified during bucket creation even if the volume junction-path has undergone changes after the bucket creation.

|lifecycle\_management |[lifecycle\\_management](#) a|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 a|Specifies the bucket logical used size up to this point. This field cannot be specified using a POST or PATCH method.

|name |string a|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 a|Specifies the NAS path to which the nas bucket corresponds to.

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

|protection\_status |[protection\\_status](#) a|Specifies attributes of bucket protection.

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

|retention |[retention](#) a|Specifies the retention mode and default retention period configured on the bucket.

|role |string a|Specifies the role of the bucket. This field cannot be specified using a POST method.

|size |integer a|Specifies the bucket size in bytes; ranges from 190MB to 62PB.

|snapshot\_policy |[snapshot\\_policy](#) a|Specifies the bucket snapshot policy.

|svm |[svm](#) a|SVM, applies only to SVM-scoped objects.

|type |string a|Specifies the bucket type. Valid values are "s3" and "nas".

|uuid |string a|Specifies the unique identifier of the bucket.

|versioning\_state |string a|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](#) a|Specifies the FlexGroup volume name and UUID where the bucket is hosted.

[#certificate] [.api-collapsible-fifth-title] certificate

Specifies the certificate that will be used for creating HTTPS connections to the S3 server.

[cols=3\*,options=header]

|Name |Type |Description

|\_links |[\\_links](#) a|

|name |string a|Certificate name

|uuid |string a|Certificate UUID

[#iops] [.api-collapsible-fifth-title] iops

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

[cols=3\*,options=header]

|Name |Type |Description

|other |integer a|Performance metric for other I/O operations. Other I/O operations can be metadata operations, such as directory lookups and so on.

|read |integer a|Performance metric for read I/O operations.

|total |integer a|Performance metric aggregated over all types of I/O operations.

|write |integer a|Performance metric for write I/O operations.

[#latency] [.api-collapsible-fifth-title] latency

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

[cols=3\*,options=header]

|Name |Type |Description

|other |integer a|Performance metric for other I/O operations. Other I/O operations can be metadata operations, such as directory lookups and so on.

|read |integer a|Performance metric for read I/O operations.

|total |integer a|Performance metric aggregated over all types of I/O operations.

|write |integer a|Performance metric for write I/O operations.

[#throughput] [.api-collapsible-fifth-title] throughput

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

[cols=3\*,options=header]

|Name |Type |Description

|read |integer a|Performance metric for read I/O operations.

|total |integer a|Performance metric aggregated over all types of I/O operations.

|write |integer a|Performance metric for write I/O operations.

```
[#metric] [.api-collapsible-fifth-title] metric
```

Performance numbers, such as IOPS latency and throughput, for SVM protocols.

```
[cols=3*,options=header]
```

|Name |Type |Description

|\_links |\_links a|

|duration |string a|The duration over which this sample is calculated. The time durations are represented in the ISO-8601 standard format. Samples can be calculated over the following durations:

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

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

|status |string a|Any errors associated with the sample. For example, if the aggregation of data over multiple nodes fails then any of the partial errors might be returned, "ok" on success, or "error" on any internal uncategorized failure. Whenever a sample collection is missed but done at a later time, it is back filled to the previous 15 second timestamp and tagged with "backfilled\_data". "Inconsistent\_delta\_time" is encountered when the time between two collections is not the same for all nodes. Therefore, the aggregated value might be over or under inflated. "Negative\_delta" is returned when an expected monotonically increasing value has decreased in value. "Inconsistent\_old\_data" is returned when one or more nodes do not have the latest data.

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

|timestamp |string a|The timestamp of the performance data.

```
[#iops_raw] [.api-collapsible-fifth-title] iops_raw
```

The number of I/O operations observed at the storage object. This should be used along with delta time to calculate the rate of I/O operations per unit of time.

```
[cols=3*,options=header]
```

|Name |Type |Description

|other |integer a|Performance metric for other I/O operations. Other I/O operations can be metadata operations, such as directory lookups and so on.

|read |integer a|Performance metric for read I/O operations.

|total |integer a|Performance metric aggregated over all types of I/O operations.

|write |integer a|Performance metric for write I/O operations.

```
[#latency_raw] [.api-collapsible-fifth-title] latency_raw
```

The raw latency in microseconds observed at the storage object. This should be divided by the raw IOPS value to calculate the average latency per I/O operation.

```
[cols=3*,options=header]
```

|Name |Type |Description

|other |integer a|Performance metric for other I/O operations. Other I/O operations can be metadata operations, such as directory lookups and so on.

|read |integer a|Performance metric for read I/O operations.

|total |integer a|Performance metric aggregated over all types of I/O operations.

|write |integer a|Performance metric for write I/O operations.

[#throughput\_raw] [.api-collapsible-fifth-title] throughput\_raw

Throughput bytes observed at the storage object. This should be used along with delta time to calculate the rate of throughput bytes per unit of time.

[cols=3\*,options=header]

|Name |Type |Description

|read |integer a|Performance metric for read I/O operations.

|total |integer a|Performance metric aggregated over all types of I/O operations.

|write |integer a|Performance metric for write I/O operations.

[#statistics] [.api-collapsible-fifth-title] statistics

These are raw performance numbers, such as IOPS latency and throughput for SVM protocols. These numbers are aggregated across all nodes in the cluster and increase with the uptime of the cluster.

[cols=3\*,options=header]

|Name |Type |Description

|iops\_raw |iops\_raw a|The number of I/O operations observed at the storage object. This should be used along with delta time to calculate the rate of I/O operations per unit of time.

|latency\_raw |latency\_raw a|The raw latency in microseconds observed at the storage object. This should be divided by the raw IOPS value to calculate the average latency per I/O operation.

|status |string a|Any errors associated with the sample. For example, if the aggregation of data over multiple nodes fails then any of the partial errors might be returned, "ok" on success, or "error" on any internal uncategorized failure. Whenever a sample collection is missed but done at a later time, it is back filled to the previous 15 second timestamp and tagged with "backfilled\_data". "Inconsistent\_delta\_time" is encountered when the time between two collections is not the same for all nodes. Therefore, the aggregated value might be over or under inflated. "Negative\_delta" is returned when an expected monotonically increasing value has decreased in value. "Inconsistent\_old\_data" is returned when one or more nodes do not have the latest data.

|throughput\_raw |throughput\_raw a|Throughput bytes observed at the storage object. This should be used along with delta time to calculate the rate of throughput bytes per unit of time.

|timestamp |string a|The timestamp of the performance data.

```
[#s3_user] [.api-collapsible-fifth-title] s3_user
```

This is a container of S3 users.

```
[cols=3*,options=header]
```

|Name |Type |Description

|access\_key |string a|Specifies the access key for the user.

|comment |string a|Can contain any additional information about the user being created or modified.

|key\_expiry\_time |string a|Specifies the date and time after which keys expire and are no longer valid.

|key\_time\_to\_live |string a|Indicates the time period from when this parameter is specified:

- when creating or modifying a user or
- when the user keys were last regenerated, after which the user keys expire and are no longer valid.
- Valid format is: 'PnDTnHnMnS\|PnW'. For example, P2DT6H3M10S specifies a time period of 2 days, 6 hours, 3 minutes, and 10 seconds.
- If the value specified is '0' seconds, then the keys won't expire.

|name |string a|Specifies the name of the user. A user name length can range from 1 to 64 characters and can only contain the following combination of characters 0-9, A-Z, a-z, "\_", "+", "=", ",", ".", "@", and "-".

|svm |svm a|SVM, applies only to SVM-scoped objects.

```
[#error_arguments] [.api-collapsible-fifth-title] error_arguments
```

```
[cols=3*,options=header]
```

|Name |Type |Description

|code |string a|Argument code

|message |string a|Message argument

```
[#returned_error] [.api-collapsible-fifth-title] returned_error
```

```
[cols=3*,options=header]
```

|Name |Type |Description

|arguments |array[error\_arguments] a|Message arguments

|code |string a|Error code

|message |string a|Error message

|target |string a|The target parameter that caused the error.

====

= Update the S3 server configuration for an SVM

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

**Introduced In:** 9.7

Updates the S3 Server configuration of an SVM.

**== Related ONTAP commands**

\* vserver object-store-server modify

**== Learn more**

\* [DOC /protocols/s3/services](#)

**== Parameters**

[cols=5\*,options=header]

|Name |Type |In |Required |Description

|svm.uuid |string |path |True a|UUID of the SVM to which this object belongs.

**== Request Body**

[cols=3\*,options=header]

|Name |Type |Description

|certificate |certificate a|Specifies the certificate that will be used for creating HTTPS connections to the S3 server.

|comment |string a|Can contain any additional information about the server being created or modified.

|default\_unix\_user |string a|Specifies the default UNIX user for NAS Access.

|default\_win\_user |string a|Specifies the default Windows user for NAS Access.

|enabled |boolean a|Specifies whether the S3 server being created or modified should be up or down.

|is\_http\_enabled |boolean a|Specifies whether HTTP is enabled on the S3 server being created or modified. By default, HTTP is disabled on the S3 server.

|is\_https\_enabled |boolean a|Specifies whether HTTPS is enabled on the S3 server being created or modified. By default, HTTPS is enabled on the S3 server.

|max\_key\_time\_to\_live |string a|Indicates the maximum time period that an S3 user can specify for the 'key\_time\_to\_live' property.

- Valid format is: 'PnDTnHnMnS\|PnW'. For example, P2DT6H3M10S specifies a time period of 2 days, 6 hours, 3 minutes, and 10 seconds.

- If no value is specified for this property or the value specified is '0' seconds, then a user can specify any valid value.

|max\_lock\_retention\_period|string a|Specifies the maximum value that can be set as the retention period for an object in a bucket with locking enabled. The value for this property can be in years or days, not both. The value represents a duration and must be specified in the ISO-8601 duration format. A period specified for years and days is represented in the ISO-8601 format as "P<num>Y" and "P<num>D" respectively, for example "P10Y" represents a duration of 10 years.</num></num>

|min\_lock\_retention\_period|string a|Specifies the minimum value that can be set as the retention period for an object in a bucket with locking enabled. The value for this property can be in years or days, not both. The value represents a duration and must be specified in the ISO-8601 duration format. A period specified for years and days is represented in the ISO-8601 format as "P<num>Y" and "P<num>D" respectively, for example "P10Y" represents a duration of 10 years.</num></num>

|name|string a|Specifies the name of the S3 server. A server name can contain 3 to 253 characters using only the following combination of characters: "0-9, A-Z, a-z, ".", and "-".

|port|integer a|Specifies the HTTP listener port for the S3 server. By default, HTTP is enabled on port 80. Valid values range from 1 to 65535.

|secure\_port|integer a|Specifies the HTTPS listener port for the S3 server. By default, HTTPS is enabled on port 443. Valid values range from 1 to 65535.

```
.Example request [%collapsible%closed] ====
[source,json,subs=+macros] { "certificate": { "name": "string",
"uuid": "1cd8a442-86d1-11e0-ae1c-123478563412" }, "comment": "S3 server", "default_unix_user": "string",
"default_win_user": "string", "max_key_time_to_live": "PT6H3M", "max_lock_retention_period": "P10Y",
"min_lock_retention_period": "P10Y", "name": "Server-1", "port": 80, "secure_port": 443 } ====

```

== Response

```
` Status: 200, Ok `
```

== Error

```
` Status: Default `
```

ONTAP Error Response Codes [cols=2\*,options=header]

| Error Code | Description | 92405789

| The name "{object server name}" is not valid. A valid object server name must be a fully qualified domain name. | 92405790

| Object store server name is not valid. Object store server names must have between 3 and 253 characters. | 92405900

| Certificate not found for SVM "{svm.name}".

| 92405917

| The specified certificate name and UUID do not refer to the same certificate.

| 92406020

| Only certificates of type "server" are supported.

| 92406153

| Set the enabled field of the server to "down" before modifying following fields: {field name} | 92406231

| One or more object store buckets exist with a default retention period greater than the "max\_lock\_retention\_period" specified. Check the default retention period set for each bucket in the specified SVM and try the operation again. | 92406237

|One or more object store buckets exist with a default retention period less than the "min\_lock\_retention\_period" specified. Check the default retention period set for each bucket in the specified SVM and try the operation again. |92406238

|The value for the "min\_lock\_retention\_period" parameter cannot be greater than the "max\_lock\_retention\_period" parameter for the object store server for SVM "vs1".

== Definitions

[.api-def-first-level] .See Definitions [%collapsible%closed] ===== [#href] [.api-collapsible-fifth-title] href

[cols=3\*,options=header]

|Name |Type |Description

|href |string a|

[#self\_link] [.api-collapsible-fifth-title] self\_link [#\_links] [.api-collapsible-fifth-title] \_links [#aggregates] [.api-collapsible-fifth-title] aggregates

Aggregate

[cols=3\*,options=header]

|Name |Type |Description

|name |string a|

|uuid |string a|

[#audit\_event\_selector] [.api-collapsible-fifth-title] audit\_event\_selector

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

[cols=3\*,options=header]

|Name |Type |Description

|access |string a|Specifies read and write access types.

|permission |string a|Specifies allow and deny permission types.

[#rules] [.api-collapsible-fifth-title] rules

Information about the CORS rule of an S3 bucket.

[cols=3\*,options=header]

|Name |Type |Description

|allowed\_headers |array[string] a|An array of HTTP headers allowed in the cross-origin requests.

|allowed\_methods |array[string] a|An array of HTTP methods allowed in the cross-origin requests.

|allowed\_origins |array[string] a|List of origins from where a cross-origin request is allowed to originate from for the S3 bucket.

|expose\_headers |array[string] a|List of extra headers sent in the response that customers can access from their applications.

|id |string a|Bucket CORS rule identifier. The length of the name can range from 0 to 256 characters.

|max\_age\_seconds |integer a|The time in seconds for your browser to cache the preflight response for the specified resource.

[#cors] [.api-collapsible-fifth-title] cors

Cross-origin resource sharing (CORS) specifies an object associated with a bucket. The CORS configuration enables the bucket to service the cross-origin requests. A request might typically come from an origin with a domain that is different to that of the bucket. By configuring a CORS rule, you can define a combination of allowed origins, HTTP headers and methods that a bucket can use to filter out the cross-origin requests that it can service successfully.

[cols=3\*,options=header]

|Name |Type |Description

|rules |array[rules] a|Specifies an object store bucket CORS rule.

[#encryption] [.api-collapsible-fifth-title] encryption

[cols=3\*,options=header]

|Name |Type |Description

|enabled |boolean a|Specifies whether encryption is enabled on the bucket. By default, encryption is disabled on a bucket. This field cannot be specified in a POST method.

[#abort\_incomplete\_multipart\_upload] [.api-collapsible-fifth-title] abort\_incomplete\_multipart\_upload

Specifies a way to perform abort\_incomplete\_multipart\_upload action on filtered objects within a bucket. It cannot be specified with tags.

[cols=3\*,options=header]

|Name |Type |Description

|after\_initiation\_days |integer a|Number of days of initiation after which uploads can be aborted.

[#expiration] [.api-collapsible-fifth-title] expiration

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

[cols=3\*,options=header]

|Name |Type |Description

|expired\_object\_delete\_marker |boolean a|Cleanup object delete markers.

|object\_age\_days |integer a|Number of days since creation after which objects can be deleted. This cannot be used along with object\_expiry\_date.

|object\_expiry\_date |string a|Specific date from when objects can expire. This cannot be used with object\_age\_days.

[#non\_current\_version\_expiration] [.api-collapsible-fifth-title] non\_current\_version\_expiration

Specifies a way to perform non\_current\_version\_expiration action on filtered objects within a bucket.

[cols=3\*,options=header]

|Name |Type |Description

|new\_non\_current\_versions |integer a|Number of latest non-current versions to be retained.

|non\_current\_days |integer a|Number of days after which non-current versions can be deleted.

[#object\_filter] [.api-collapsible-fifth-title] object\_filter

Specifies a way to filter objects within a bucket.

[cols=3\*,options=header]

|Name |Type |Description

|prefix |string a|A prefix that is matched against object-names within a bucket.

|size\_greater\_than |integer a|Size of the object greater than specified for which the corresponding lifecycle rule is to be applied.

|size\_less\_than |integer a|Size of the object smaller than specified for which the corresponding lifecycle rule is to be applied.

|tags |array[string] a|An array of key-value paired tags of the form <tag>or &lt;tag=value&gt;.</tag>

[#svm] [.api-collapsible-fifth-title] svm

Specifies the name of the SVM where this bucket exists.

[cols=3\*,options=header]

|Name |Type |Description

|name |string a|The name of the SVM. This field cannot be specified in a PATCH method.

|uuid |string a|The unique identifier of the SVM. This field cannot be specified in a PATCH method.

[#rules] [.api-collapsible-fifth-title] rules

Information about the lifecycle management rule of a bucket.

[cols=3\*,options=header]

|Name |Type |Description

|abort\_incomplete\_multipart\_upload |[abort\\_incomplete\\_multipart\\_upload](#) a|Specifies a way to perform abort\_incomplete\_multipart\_upload action on filtered objects within a bucket. It cannot be specified with tags.

|enabled |boolean a|Specifies whether or not the associated rule is enabled.

|expiration |[expiration](#) a|Specifies a way to perform expiration action on filtered objects within a bucket.

|non\_current\_version\_expiration |[non\\_current\\_version\\_expiration](#) a|Specifies a way to perform non\_current\_version\_expiration action on filtered objects within a bucket.

|svm |[svm](#) a|Specifies the name of the SVM where this bucket exists.

|uuid |string a|Specifies the unique identifier of the bucket.

[#lifecycle\_management] [.api-collapsible-fifth-title] 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.

[cols=3\*,options=header]

|Name |Type |Description

|rules |array[[rules](#)] a|Specifies an object store lifecycle management policy.

[#s3\_bucket\_policy\_condition] [.api-collapsible-fifth-title] s3\_bucket\_policy\_condition

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

[cols=3\*,options=header]

|Name |Type |Description

|delimiters |array[string] a|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] a|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 a|Condition operator that is applied to the specified condition key.

|prefixes |array[string] a|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] a|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] a|An array of usernames that a current user in the context is evaluated against using the condition operators.

```
[#s3_bucket_policy_statement] [.api-collapsible-fifth-title] s3_bucket_policy_statement
```

Specifies information about a single access permission.

```
[cols=3*,options=header]
```

|Name |Type |Description

|actions |array[string] a|

|conditions |array[s3\_bucket\_policy\_condition] a|Specifies bucket policy conditions.

|effect |string a|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] a|

|resources |array[string] a|

|sid |string a|Specifies the statement identifier used to differentiate between statements. The sid length can range from 1 to 256 characters and can only contain the following combination of characters 0-9, A-Z, and a-z. Special characters are not valid.

```
[#policy] [.api-collapsible-fifth-title] 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.

```
[cols=3*,options=header]
```

|Name |Type |Description

|statements |array[s3\_bucket\_policy\_statement] a|Specifies bucket access policy statement.

```
[#destination] [.api-collapsible-fifth-title] destination
```

```
[cols=3*,options=header]
```

|Name |Type |Description

|is\_cloud |boolean a|Specifies whether a bucket is protected within the Cloud. This field cannot be specified using a POST method.

|is\_external\_cloud |boolean a|Specifies whether a bucket is protected on external Cloud providers. This field cannot be specified using a POST method.

|is\_ontap |boolean a|Specifies whether a bucket is protected within ONTAP. This field cannot be specified using a POST method.

- Default value: 1
- readOnly: 1
- Introduced in: 9.10
- x-nullable: true

[#protection\_status] [.api-collapsible-fifth-title] protection\_status

Specifies attributes of bucket protection.

[cols=3\*,options=header]

|Name |Type |Description

|destination |destination a|

|is\_protected |boolean a|Specifies whether a bucket is a source and if it is protected within ONTAP and/or an external cloud. This field cannot be specified using a POST method.

- Default value: 1
- readOnly: 1
- Introduced in: 9.10
- x-nullable: true

[#qos\_policy] [.api-collapsible-fifth-title] 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.

[cols=3\*,options=header]

|Name |Type |Description

|max\_throughput |string a|Specifies the maximum throughput in Kilobytes per sec, Megabytes per sec or Gigabytes per sec along with or without IOPS. 0 means none. This is mutually exclusive with name and UUID during POST and PATCH. This cannot be set when either max\_throughput\_mbps or max\_throughput\_iops are set during POST or PATCH. During GET, the returned value is rounded to the largest unit with a value greater than 1.

|max\_throughput\_iops |integer a|Specifies the maximum throughput in IOPS, 0 means none. This is mutually exclusive with name and UUID during POST and PATCH. This cannot be set when max\_throughput is set during POST or PATCH.

|max\_throughput\_mbps |integer a|Specifies the maximum throughput in Megabytes per sec, 0 means none. This is mutually exclusive with name and UUID during POST and PATCH. This cannot be set when

max\_throughput is set during POST or PATCH.

|min\_throughput |string a|Specifies the minimum throughput in Kilobytes per sec, Megabytes per sec or Gigabytes per sec along with or without 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. This cannot be set when either min\_throughput\_mbps or min\_throughput\_iops are set during POST or PATCH. During GET, the returned value is rounded to the largest unit with a value greater than 1.

|min\_throughput\_iops |integer a|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. This cannot be set when min\_throughput is set during POST or PATCH.

|min\_throughput\_mbps |integer a|Specifies the minimum throughput in Megabytes per sec, 0 means none. This is mutually exclusive with name and UUID during POST and PATCH. This cannot be set when min\_throughput is set during POST or PATCH.

|name |string a|The QoS policy group name. This is mutually exclusive with UUID and other QoS attributes during POST and PATCH.

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

[#retention] [.api-collapsible-fifth-title] retention

Specifies the retention mode and default retention period configured on the bucket.

[cols=3\*,options=header]

|Name |Type |Description

|default\_period |string a|Specifies the default retention period that is applied to objects while committing them to the WORM state without an associated retention period. The retention period can be in years, or days. The retention period value represents a duration and must be specified in the ISO-8601 duration format. A period specified for years and days is represented in the ISO-8601 format as "P<num>Y" and "P<num>D" respectively, for example "P10Y" represents a duration of 10 years. The period string must contain only a single time element that is, either years, or days. A duration which combines different periods is not supported, for example "P1Y10D" is not supported.</num></num>

[#snapshot\_policy] [.api-collapsible-fifth-title] snapshot\_policy

Specifies the bucket snapshot policy.

[cols=3\*,options=header]

|Name |Type |Description

|name |string a|Specifies the name of the snapshot policy.

|uuid |string a|Specifies the unique identifier of the snapshot policy.

[#svm] [.api-collapsible-fifth-title] svm

SVM, applies only to SVM-scoped objects.

[cols=3\*,options=header]

|Name |Type |Description

|name |string a|The name of the SVM. This field cannot be specified in a PATCH method.

|uuid |string a|The unique identifier of the SVM. This field cannot be specified in a PATCH method.

[#volume] [.api-collapsible-fifth-title] volume

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

[cols=3\*,options=header]

|Name |Type |Description

|name |string a|The name of the volume. This field cannot be specified in a PATCH method.

|uuid |string a|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.

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

[#s3\_bucket] [.api-collapsible-fifth-title] s3\_bucket

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

[cols=3\*,options=header]

|Name |Type |Description

|allowed |boolean a|If this is set to true, an SVM administrator can manage the S3 service. If it is false, only the cluster administrator can manage the service. This field cannot be specified in a POST method.

|audit\_event\_selector |audit\_event\_selector a|Audit event selector allows you to specify access and permission types to audit.

|comment |string a|Can contain any additional information about the bucket being created or modified.

|cors |cors a|Cross-origin resource sharing (CORS) specifies an object associated with a bucket. The CORS configuration enables the bucket to service the cross-origin requests. A request might typically come from an origin with a domain that is different to that of the bucket. By configuring a CORS rule, you can define a combination of allowed origins, HTTP headers and methods that a bucket can use to filter out the cross-origin requests that it can service successfully.

|encryption |[encryption](#) a|

|is\_consistent\_etag |boolean a|Specifies whether the NAS bucket returns a consistent ETag across different S3 requests.

|logical\_used\_size |integer a|Specifies the bucket logical used size up to this point. This field cannot be specified using a POST or PATCH method.

|nas\_path |string a|Specifies the NAS path to which the nas bucket corresponds to.

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

|protection\_status |[protection\\_status](#) a|Specifies attributes of bucket protection.

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

|retention |[retention](#) a|Specifies the retention mode and default retention period configured on the bucket.

|role |string a|Specifies the role of the bucket. This field cannot be specified using a POST method.

|size |integer a|Specifies the bucket size in bytes; ranges from 190MB to 62PB.

|snapshot\_policy |[snapshot\\_policy](#) a|Specifies the bucket snapshot policy.

|type |string a|Specifies the bucket type. Valid values are "s3" and "nas".

|uuid |string a|Specifies the unique identifier of the bucket.

|versioning\_state |string a|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](#) a|Specifies the FlexGroup volume name and UUID where the bucket is hosted.

[#certificate] [.api-collapsible-fifth-title] certificate

Specifies the certificate that will be used for creating HTTPS connections to the S3 server.

[cols=3\*,options=header]

|Name |Type |Description

|name |string a|Certificate name

|uuid |string a|Certificate UUID

#### [#iops] [.api-collapsible-fifth-title] iops

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

[cols=3\*,options=header]

|Name |Type |Description

|other |integer a|Performance metric for other I/O operations. Other I/O operations can be metadata operations, such as directory lookups and so on.

|read |integer a|Performance metric for read I/O operations.

|total |integer a|Performance metric aggregated over all types of I/O operations.

|write |integer a|Performance metric for write I/O operations.

#### [#latency] [.api-collapsible-fifth-title] latency

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

[cols=3\*,options=header]

|Name |Type |Description

|other |integer a|Performance metric for other I/O operations. Other I/O operations can be metadata operations, such as directory lookups and so on.

|read |integer a|Performance metric for read I/O operations.

|total |integer a|Performance metric aggregated over all types of I/O operations.

|write |integer a|Performance metric for write I/O operations.

#### [#throughput] [.api-collapsible-fifth-title] throughput

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

[cols=3\*,options=header]

|Name |Type |Description

|read |integer a|Performance metric for read I/O operations.

|total |integer a|Performance metric aggregated over all types of I/O operations.

|write |integer a|Performance metric for write I/O operations.

#### [#metric] [.api-collapsible-fifth-title] metric

Performance numbers, such as IOPS latency and throughput, for SVM protocols.

[cols=3\*,options=header]

|Name |Type |Description

|duration |string a|The duration over which this sample is calculated. The time durations are represented in the ISO-8601 standard format. Samples can be calculated over the following durations:

|iops |[iops](#) a|The rate of I/O operations observed at the storage object.

|latency |[latency](#) a|The round trip latency in microseconds observed at the storage object.

|status |string a|Any errors associated with the sample. For example, if the aggregation of data over multiple nodes fails then any of the partial errors might be returned, "ok" on success, or "error" on any internal uncategorized failure. Whenever a sample collection is missed but done at a later time, it is back filled to the previous 15 second timestamp and tagged with "backfilled\_data". "Inconsistent\_delta\_time" is encountered when the time between two collections is not the same for all nodes. Therefore, the aggregated value might be over or under inflated. "Negative\_delta" is returned when an expected monotonically increasing value has decreased in value. "Inconsistent\_old\_data" is returned when one or more nodes do not have the latest data.

|throughput |[throughput](#) a|The rate of throughput bytes per second observed at the storage object.

|timestamp |string a|The timestamp of the performance data.

[#iops\_raw] [.api-collapsible-fifth-title] iops\_raw

The number of I/O operations observed at the storage object. This should be used along with delta time to calculate the rate of I/O operations per unit of time.

[cols=3\*,options=header]

|Name |Type |Description

|other |integer a|Performance metric for other I/O operations. Other I/O operations can be metadata operations, such as directory lookups and so on.

|read |integer a|Performance metric for read I/O operations.

|total |integer a|Performance metric aggregated over all types of I/O operations.

|write |integer a|Performance metric for write I/O operations.

[#latency\_raw] [.api-collapsible-fifth-title] latency\_raw

The raw latency in microseconds observed at the storage object. This should be divided by the raw IOPS value to calculate the average latency per I/O operation.

[cols=3\*,options=header]

|Name |Type |Description

|other |integer a|Performance metric for other I/O operations. Other I/O operations can be metadata operations, such as directory lookups and so on.

|read |integer a|Performance metric for read I/O operations.

|total |integer a|Performance metric aggregated over all types of I/O operations.

|write |integer a|Performance metric for write I/O operations.

[#throughput\_raw] [.api-collapsible-fifth-title] throughput\_raw

Throughput bytes observed at the storage object. This should be used along with delta time to calculate the rate of throughput bytes per unit of time.

[cols=3\*,options=header]

|Name |Type |Description

|read |integer a|Performance metric for read I/O operations.

|total |integer a|Performance metric aggregated over all types of I/O operations.

|write |integer a|Performance metric for write I/O operations.

[#statistics] [.api-collapsible-fifth-title] statistics

These are raw performance numbers, such as IOPS latency and throughput for SVM protocols. These numbers are aggregated across all nodes in the cluster and increase with the uptime of the cluster.

[cols=3\*,options=header]

|Name |Type |Description

|iops\_raw |iops\_raw a|The number of I/O operations observed at the storage object. This should be used along with delta time to calculate the rate of I/O operations per unit of time.

|latency\_raw |latency\_raw a|The raw latency in microseconds observed at the storage object. This should be divided by the raw IOPS value to calculate the average latency per I/O operation.

|status |string a|Any errors associated with the sample. For example, if the aggregation of data over multiple nodes fails then any of the partial errors might be returned, "ok" on success, or "error" on any internal uncategorized failure. Whenever a sample collection is missed but done at a later time, it is back filled to the previous 15 second timestamp and tagged with "backfilled\_data". "Inconsistent\_delta\_time" is encountered when the time between two collections is not the same for all nodes. Therefore, the aggregated value might be over or under inflated. "Negative\_delta" is returned when an expected monotonically increasing value has decreased in value. "Inconsistent\_old\_data" is returned when one or more nodes do not have the latest data.

|throughput\_raw |throughput\_raw a|Throughput bytes observed at the storage object. This should be used along with delta time to calculate the rate of throughput bytes per unit of time.

|timestamp |string a|The timestamp of the performance data.

[#s3\_user] [.api-collapsible-fifth-title] s3\_user

This is a container of S3 users.

[cols=3\*,options=header]

|Name |Type |Description

|access\_key |string a|Specifies the access key for the user.

|comment |string a|Can contain any additional information about the user being created or modified.

|key\_expiry\_time |string a|Specifies the date and time after which keys expire and are no longer valid.

|key\_time\_to\_live |string a|Indicates the time period from when this parameter is specified:

- when creating or modifying a user or
- when the user keys were last regenerated, after which the user keys expire and are no longer valid.
- Valid format is: 'PnDTnHnMnS\|PnW'. For example, P2DT6H3M10S specifies a time period of 2 days, 6 hours, 3 minutes, and 10 seconds.
- If the value specified is '0' seconds, then the keys won't expire.

|secret\_key |string a|Specifies the secret key for the user.

|svm |svm a|SVM, applies only to SVM-scoped objects.

[#s3\_service] [.api-collapsible-fifth-title] s3\_service

Specifies the S3 server configuration.

[cols=3\*,options=header]

|Name |Type |Description

|certificate |certificate a|Specifies the certificate that will be used for creating HTTPS connections to the S3 server.

|comment |string a|Can contain any additional information about the server being created or modified.

|default\_unix\_user |string a|Specifies the default UNIX user for NAS Access.

|default\_win\_user |string a|Specifies the default Windows user for NAS Access.

|enabled |boolean a|Specifies whether the S3 server being created or modified should be up or down.

|is\_http\_enabled |boolean a|Specifies whether HTTP is enabled on the S3 server being created or modified. By default, HTTP is disabled on the S3 server.

|is\_https\_enabled |boolean a|Specifies whether HTTPS is enabled on the S3 server being created or modified. By default, HTTPS is enabled on the S3 server.

|max\_key\_time\_to\_live |string a|Indicates the maximum time period that an S3 user can specify for the 'key\_time\_to\_live' property.

- Valid format is: 'PnDTnHnMnS\|PnW'. For example, P2DT6H3M10S specifies a time period of 2 days, 6 hours, 3 minutes, and 10 seconds.
- If no value is specified for this property or the value specified is '0' seconds, then a user can specify any valid value.

|max\_lock\_retention\_period |string a|Specifies the maximum value that can be set as the retention period for an object in a bucket with locking enabled. The value for this property can be in years or days, not both. The

value represents a duration and must be specified in the ISO-8601 duration format. A period specified for years and days is represented in the ISO-8601 format as "P<num>Y" and "P<num>D" respectively, for example "P10Y" represents a duration of 10 years.</num></num>

|min\_lock\_retention\_period |string a|Specifies the minimum value that can be set as the retention period for an object in a bucket with locking enabled. The value for this property can be in years or days, not both. The value represents a duration and must be specified in the ISO-8601 duration format. A period specified for years and days is represented in the ISO-8601 format as "P<num>Y" and "P<num>D" respectively, for example "P10Y" represents a duration of 10 years.</num></num>

|name |string a|Specifies the name of the S3 server. A server name can contain 3 to 253 characters using only the following combination of characters: '0-9, A-Z, a-z, '.', and '-'.

|port |integer a|Specifies the HTTP listener port for the S3 server. By default, HTTP is enabled on port 80. Valid values range from 1 to 65535.

|secure\_port |integer a|Specifies the HTTPS listener port for the S3 server. By default, HTTPS is enabled on port 443. Valid values range from 1 to 65535.

```
[#error_arguments] [.api-collapsible-fifth-title] error_arguments
```

```
[cols=3*,options=header]
```

|Name |Type |Description

|code |string a|Argument code

|message |string a|Message argument

```
[#returned_error] [.api-collapsible-fifth-title] returned_error
```

```
[cols=3*,options=header]
```

|Name |Type |Description

|arguments |array[error\_arguments] a|Message arguments

|code |string a|Error code

|message |string a|Error message

|target |string a|The target parameter that caused the error.

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:leveloffset: -1

:leveloffset: -1

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