



# Manage S3 bucket lifecycle management rules

REST API reference

NetApp

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# Manage S3 bucket lifecycle management rules

## Protocols S3 services svm.uuid buckets s3\_bucket.uuid rules endpoint overview

### Overview

An S3 bucket lifecycle management rule is a list of objects. Each rule defines a set of actions to be performed on the object within the bucket.

### Adding a lifecycle management rule on a S3 bucket under an SVM

```

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

# The call:
curl -iku admin:netapp1! -X POST "https://<mgmt-
ip>/api/protocols/s3/services/259b4e78-2893-67ea-9785-
890456bbbec4/buckets/259b4e46-2893-67ea-9145-
909456bbbec4/rules?return_timeout=0&return_records=true" -H "accept:
application/json" -H "Content-Type: application/json" -d "{ \"name\":
\"rule1\", \"expiration\" : { \"object_age_days\" : \"1000\" },
\"abort_incomplete_multipart_upload\" : { \"after_initiation_days\" : 200
} , \"object_filter\": { \"prefix\" : \"obj1*/\" , \"size_greater_than\" :
\"1000\" } }"

# The response:
HTTP/1.1 202 Accepted
Date: Fri, 30 Novemeber 2022 11:22:14 GMT
Server: libzapid-httpp
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Location: /api/protocols/s3/services/259b4e78-2893-67ea-9785-
890456bbbec4/buckets/259b4e46-2893-67ea-9145-
909456bbbec4/rules?name=bucket-4
Content-Length: 353
Content-Type: application/json
{
"job": {
  "uuid": "2e880171-7e16-11e9-bfdc-0050568ea123",
  "_links": {
    "self": {
      "href": "/api/cluster/jobs/2e880171-7e16-11e9-bfdc-0050568ea123"
    }
  }
}
}

```

## Updating a lifecycle management rule on a S3 bucket under an SVM

```

# The call:
curl -iku admin:netapp1! -X PATCH "https://<mgmt-
ip>/api/protocols/s3/services/259b4e78-2893-67ea-9785-
890456bbbec4/buckets/259b4e46-2893-67ea-9145-
909456bbbec4/rules/rule1?return_timeout=0&return_records=true" -H "accept:
application/json" -H "Content-Type: application/json" -d "{ \"expiration\":
{ \"object_age_days\" : \"3000\" },
\"abort_incomplete_multipart_upload\" : { \"after_initiation_days\" :
\"5000\" } }"

# The response:
HTTP/1.1 202 Accepted
Date: Fri, 30 Novemeber 2022 11:22:14 GMT
Server: libzapid-httdp
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Location: /api/protocols/s3/services/259b4e78-2893-67ea-9785-
890456bbbec4/buckets/259b4e46-2893-67ea-9145-
909456bbbec4/rules?name=bucket-4
Content-Length: 353
Content-Type: application/json
{
"job": {
  "uuid": "2e880171-7e16-11e9-bfdc-0050568ea124",
  "_links": {
    "self": {
      "href": "/api/cluster/jobs/2e880171-7e16-11e9-bfdc-0050568ea124"
    }
  }
}
}

```

## Deleting a lifecycle management rule on a S3 bucket under an SVM

```

# The call:
curl -X DELETE "https://<mgmt-ip>/api/protocols/s3/services/259b4e78-2893-
67ea-9785-890456bbbec4/buckets/259b4e46-2893-67ea-9145-
909456bbbec4/rules/rule1" -H "accept: application/json"

```

To delete an action within a rule, pass null inside the action-object.

```

# The call:
curl -iku admin:netapp1! -X PATCH "https://<mgmt-
ip>/api/protocols/s3/services/259b4e78-2893-67ea-9785-
890456bbbec4/buckets/259b4e46-2893-67ea-9145-
909456bbbec4/rules/rule1?return_timeout=0&return_records=true" -H "accept:
application/json" -H "Content-Type: application/json" -d "{ \"expiration\":
null }"

# The response:
HTTP/1.1 202 Accepted
Date: Fri, 30 Novemeber 2022 11:22:14 GMT
Server: libzapid-httdp
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Location: /api/protocols/s3/services/259b4e78-2893-67ea-9785-
890456bbbec4/buckets/259b4e46-2893-67ea-9145-
909456bbbec4/rules?name=bucket-4
Content-Length: 353
Content-Type: application/json
{
"job": {
  "uuid": "2e880171-7e16-11e9-bfdc-0050568ea124",
  "_links": {
    "self": {
      "href": "/api/cluster/jobs/2e880171-7e16-11e9-bfdc-0050568ea124"
    }
  }
}
}

```

## Retrieve S3 lifecycle rules for a bucket

GET /protocols/s3/services/{svm.uuid}/buckets/{s3\_bucket.uuid}/rules

**Introduced In:** 9.13

Retrieves all S3 Lifecycle rules associated with a bucket. Note that in order to retrieve S3 bucket rule parameters, the 'fields' option should be set to \*\*\*.

### Related ONTAP commands

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

### Learn more

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

## Parameters

Name	Type	In	Required	Description
expiration.expired_object_delete_marker	boolean	query	False	Filter by expiration.expired_object_delete_marker
expiration.object_age_days	integer	query	False	Filter by expiration.object_age_days
expiration.object_expiry_date	string	query	False	Filter by expiration.object_expiry_date
svm.name	string	query	False	Filter by svm.name <ul style="list-style-type: none"> <li>• Introduced in: 9.14</li> </ul>
enabled	boolean	query	False	Filter by enabled
bucket_name	string	query	False	Filter by bucket_name <ul style="list-style-type: none"> <li>• Introduced in: 9.14</li> <li>• maxLength: 63</li> <li>• minLength: 3</li> </ul>
non_current_version_expiration.non_current_days	integer	query	False	Filter by non_current_version_expiration.non_current_days
non_current_version_expiration.new_non_current_versions	integer	query	False	Filter by non_current_version_expiration.new_non_current_versions
name	string	query	False	Filter by name <ul style="list-style-type: none"> <li>• maxLength: 256</li> <li>• minLength: 0</li> </ul>
object_filter.tags	string	query	False	Filter by object_filter.tags

Name	Type	In	Required	Description
object_filter.prefix	string	query	False	Filter by object_filter.prefix
object_filter.size_greater_than	integer	query	False	Filter by object_filter.size_greater_than
object_filter.size_lessthan	integer	query	False	Filter by object_filter.size_lessthan
abort_incomplete_multipart_upload.after_initiation_days	integer	query	False	Filter by abort_incomplete_multipart_upload.after_initiation_days
uuid	string	query	False	Filter by uuid <ul style="list-style-type: none"> <li>Introduced in: 9.14</li> </ul>
s3_bucket.uuid	string	path	True	The unique identifier of the bucket.
svm.uuid	string	path	True	UUID of the SVM to which this object belongs. <ul style="list-style-type: none"> <li>Introduced in: 9.14</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>• Default value: 1</li> <li>• Max value: 120</li> <li>• Min value: 0</li> </ul>
order_by	array[string]	query	False	Order results by specified fields and optional [asc]

## Response

Status: 200, Ok

Name	Type	Description
_links	<a href="#">collection_links</a>	
num_records	integer	Number of records
records	array[ <a href="#">s3_bucket_lifecycle_rule</a> ]	

## Example response

```
{  
  "_links": {  
    "next": {  
      "href": "/api/resourcelink"  
    },  
    "self": {  
      "href": "/api/resourcelink"  
    }  
  },  
  "num_records": 1,  
  "records": [  
    {  
      "_links": {  
        "self": {  
          "href": "/api/resourcelink"  
        }  
      },  
      "abort_incomplete_multipart_upload": {  
        "_links": {  
          "self": {  
            "href": "/api/resourcelink"  
          }  
        }  
      },  
      "bucket_name": "bucket1",  
      "expiration": {  
        "_links": {  
          "self": {  
            "href": "/api/resourcelink"  
          }  
        }  
      },  
      "object_expiry_date": "string"  
    },  
    {"name": "string",  
     "non_current_version_expiration": {  
       "_links": {  
         "self": {  
           "href": "/api/resourcelink"  
         }  
       }  
     },  
     "object_filter": {  
       "_links": {  
         "self": {  
           "href": "/api/resourcelink"  
         }  
       }  
     }  
   }  
 }
```

```

        "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": "svml",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
},
"uuid": "414b29a1-3b26-11e9-bd58-0050568ea055"
}
]
}

```

## 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	

\_links

Name	Type	Description
self	href	

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

expiration

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

Name	Type	Description
_links	_links	
expired_object_delete_marker	boolean	Cleanup object delete markers.
object_age_days	integer	Number of days since creation after which objects can be deleted. 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.
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 <tag>:value</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.

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

### s3\_bucket\_lifecycle\_rule

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.

Name	Type	Description
uuid	string	Specifies the unique identifier of the bucket.

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 the S3 bucket lifecycle rule configuration

POST /protocols/s3/services/{svm.uuid}/buckets/{s3\_bucket.uuid}/rules

**Introduced In:** 9.13

Creates the S3 bucket lifecycle rule configuration.

### Required properties

- name - Lifecycle Management rule to be created.
- actions - Lifecycle Management actions associated with the rule.

### Recommended optional properties

- enabled - Lifecycle Management rule is enabled or not.
- object\_filter.prefix - Lifecycle Management rule filter prefix.
- object\_filter.tags - Lifecycle Management rule filter tags.
- object\_filter.size\_greater\_than - Lifecycle Management rule filter minimum object size.

- `object_filter.size_less_than` - Lifecycle Management rule filter maximum object size.
- `object_age_days` - Number of days since creation after which objects can be deleted.
- `object_expiry_date` - Specific date from when objects can expire.
- `expired_object_delete_marker` - Cleanup object delete markers.
- `new_non_current_versions` - Number of latest non-current versions to be retained.
- `non_current_days` - Number of days after which non-current versions can be deleted.
- `after_initiation_days` - Number of days of initiation after which uploads can be aborted.

## Related ONTAP commands

- `vserver object-store-server bucket lifecycle-management-rule create`

## Learn more

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

## Parameters

Name	Type	In	Required	Description
<code>s3_bucket.uuid</code>	string	path	True	Unique identifier of a bucket.

Name	Type	In	Required	Description
return_timeout	integer	query	False	<p>The number of seconds to allow the call to execute before returning. When doing a POST, PATCH, or DELETE operation on a single record, the default is 0 seconds. This means that if an asynchronous operation is started, the server immediately returns HTTP code 202 (Accepted) along with a link to the job. If a non-zero value is specified for POST, PATCH, or DELETE operations, ONTAP waits that length of time to see if the job completes so it can return something other than 202.</p> <ul style="list-style-type: none"> <li>• Default value: 1</li> <li>• Max value: 120</li> <li>• Min value: 0</li> </ul>
return_records	boolean	query	False	<p>The default is false. If set to true, the records are returned.</p> <ul style="list-style-type: none"> <li>• Default value:</li> </ul>
svm.uuid	string	path	True	<p>UUID of the SVM to which this object belongs.</p> <ul style="list-style-type: none"> <li>• Introduced in: 9.14</li> </ul>

## Request Body

Name	Type	Description
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.

## Example request

```
{  
  "bucket_name": "bucket1",  
  "expiration": {  
    "object_expiry_date": "string"  
  },  
  "name": "string",  
  "object_filter": {  
    "prefix": "/logs",  
    "size_greater_than": 10240,  
    "size_less_than": 10485760,  
    "tags": [  
      "project1=projA",  
      "project2=projB"  
    ]  
  },  
  "svm": {  
    "name": "svml",  
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"  
  },  
  "uuid": "414b29a1-3b26-11e9-bd58-0050568ea055"  
}
```

## Response

Status: 202, Accepted

Name	Type	Description
job	job_link	

## Example response

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

## Headers

Name	Description	Type
Location	Useful for tracking the resource location	string

## Response

Status: 201, Created

## Error

Status: Default

### ONTAP Error Response Codes

Error code	Message
92405861	"The specified SVM UUID or bucket UUID does not exist.";
92406111	"Lifecycle Management rule for bucket in Vserver is invalid because of the number of tags specified. The maximum number of tags supported is four.";
92406113	"Lifecycle Management rule for bucket in Vserver is invalid because there is a mismatch in one of the filter-field. Filters must be the same for a particular rule identifier.";
92406114	"The Expiration action requires specifying either object_expiry_date, object_age_days or expired_object_delete_marker.";
92406115	"The NonCurrentVersionExpiration action requires either new_non_current_versions or non_current_days.";
92406116	"The AbortIncompleteMultipartUpload action requires after_initiation_days.";
92406117	"The Expiration action cannot have both an expiry date and an age.";
92406118	"Using Lifecycle Management rules requires an effective cluster version of 9.13.1 .";
92406119	"One or more object store buckets exist with Lifecycle Management rules. To list the buckets, run the vserver object-store-server bucket lifecycle-management-rule show command. To delete the buckets, use the vserver object-store-server bucket delete command.";

Error code	Message
92406120	"The AbortIncompleteMultipartUpload action cannot be specified with tags.";
92406121	"Expired object delete marker cannot be specified with tags.";
92406122	"Expired object delete marker cannot be specified with object age days or expiry date.";
92406123	"Expiration is supported on object store volumes only, bucket on Vserver is not an object store volume.";
92406126	"Lifecycle Management rule for bucket in Vserver is invalid because specified tags contain one or more invalid characters. Valid characters for a tag are 0-9, A-Z, a-z, +, -, =, ., _, :, /, @.";
92406127	"Lifecycle Management rule for bucket in Vserver is invalid because specified tag length is greater than maximum allowed length: {1}.";
92406128	"Lifecycle Management rule for bucket in Vserver has tags with duplicate keys. Ensure each tag has a unique key and try the operation again.";
92406129	"Lifecycle Management rule for bucket in Vserver has a prefix that is too long. The maximum length of the prefix is 1024 characters.";
92406130	"Lifecycle Management rule for bucket in Vserver is invalid because the minimum object size is larger than the maximum object size.";
92406131	"Lifecycle Management rule for bucket in Vserver cannot be created because non_current_days must be specified when new_non_current_versions is specified.";
92406132	"Lifecycle Management rule "<rule>" for bucket "<bucket>" in SVM "<SVM>" requires "object_age_days" to be greater than zero."; //end row //start row
92406132 //end row //start row	"Lifecycle Management rule "<rule>" for bucket "<bucket>" in SVM "<SVM>" requires "new_non_current_versions" to be greater than zero."; //end row //start row
92406132 //end row //start row	"Lifecycle Management rule "<rule>" for bucket "<bucket>" in SVM "<SVM>" requires "after_initiation_days" to be greater than zero."; //end row //start row
92406133 //end row //start row	"Lifecycle Management rule for bucket in Vserver is invalid. The object_expiry_date must be later than January 1, 1970."; //end row //start row

Error code	Message
92406134 //end row //start row	"Cannot exceed the max limit of 1000 Lifecycle Management rules per bucket."; //end row //start row
92406135 //end row //start row	"MetroCluster is configured on cluster. Object Expiration is not supported in a MetroCluster configuration."; //end row //start row
92406136 //end row //start row	"Lifecycle Management rule for bucket in Vserver is invalid. The object_expiry_date must be at midnight GMT."; //end row //start row
92406139 //end row //start row	"Lifecycle Management rule for bucket in Vserver with action is a stale entry. Contact technical support for assistance."; //end row //start row
92406140 //end row //start row	"Expired object delete marker must be enabled to create a Lifecycle Management rule."; //end row //start row
92406141 //end row //start row	"Lifecycle Management rule for bucket in Vserver with action cannot have expired_object_delete_marker disabled. To disable expired_object_delete_marker, run vserver object-store-server bucket lifecycle-management-rule delete"; //end row //start row
92406143 //end row //start row	"As part of Bucket Lifecycle, cannot create fabriclink relationship on bucket "<bucket name="">" in SVM "<SVM name="">". Reason : <error>."; //end row //start row
92406144 //end row //start row	"The "AbortIncompleteMultipartUpload" action cannot be specified with object size."; //end row //start row
92406150 //end row //start row	""expired_object_delete_marker" cannot be specified with "size_less_than"."; //end row //start row

|Name |Type |Description

|href |string a|

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

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

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.

[#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.

[#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.
--------	--------	---

```
=====
```

= Delete an S3 bucket lifecycle rule

```
DELETE /protocols/s3/services/{svm.uuid}/buckets/{s3_bucket.uuid}/rules/{name}
```

**Introduced In:** 9.13

Deletes the S3 bucket lifecycle rule configuration.

**== Related ONTAP commands**

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

**== Learn more**

```
* DOC /protocols/s3/services/{svm.uuid}/buckets/{s3\_bucket.uuid}/rules
```

**== Parameters**

```
[cols=5*,options=header]
```

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

s3_bucket.uuid	string	path	True	a The unique identifier of the bucket.
----------------	--------	------	------	--

name	string	path	True	a The unique identifier of the bucket lifecycle_management rule.
------	--------	------	------	--

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

- Introduced in: 9.14

```

== Response
` Status: 200, Ok `

== Error
` Status: Default `

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

```

Code	Message
92405861	"The specified SVM UUID or bucket UUID does not exist."; 92406123
92406139	"Expiration is supported on object store volumes only, bucket on Vserver is not an object store volume.";
92406141	"Lifecycle Management rule for bucket in Vserver with action is a stale entry. Contact technical support for assistance."; 92406141
92406144	"Lifecycle Management rule for bucket in Vserver with action cannot have expired_object_delete_marker disabled. To disable expired_object_delete_marker, run vserver object-store-server bucket lifecycle-management-rule delete"; 92406144
92406145	"Cannot delete fabriclink relationship between bucket A and bucket B. Reason : {2}.";

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

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

error	<a href="#">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" } } ====

```

== Definitions

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

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

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

code	string	Argument code
------	--------	---------------

message	string	Message argument
---------	--------	------------------

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

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

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

arguments	array[error_arguments]	Message arguments
-----------	------------------------	-------------------

code	string	Error code
------	--------	------------

|message |string a|Error message

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

====

= Retrieve all S3 lifecycle rules for a bucket

GET /protocols/s3/services/{svm.uuid}/buckets/{s3\_bucket.uuid}/rules/{name}

**Introduced In:** 9.13

Retrieves all S3 Lifecycle rules associated with a bucket. Note that in order to retrieve S3 bucket rule parameters, the 'fields' option should be set to '\*'.

**== Related ONTAP commands**

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

**== Learn more**

\* **DOC /protocols/s3/services/{svm.uuid}/buckets/{s3\_bucket.uuid}/rules**

**== Parameters**

[cols=5,options=header]

|Name |Type |In |Required |Description

|s3\_bucket.uuid |string |path |True a|The unique identifier of the bucket.

|name |string |path |True a|The name of the lifecycle management rule to be applied on the bucket.

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

- Introduced in: 9.14

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

**== Response**

` Status: 200, Ok`

[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.

```
.Example response [%collapsible%closed] ====
[source,json,subs=+macros] { "_links": { "self": { "href": "/api/resourcelink" } },
"abort_incomplete_multipart_upload": { "_links": { "self": { "href": "/api/resourcelink" } } },
"bucket_name": "bucket1", "expiration": { "_links": { "self": { "href": "/api/resourcelink" } } },
"object_expiry_date": "string", "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" } ====
== 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" } } ====
== 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|

[#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.

[#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 bucket lifecycle rule configuration

PATCH /protocols/s3/services/{svm.uuid}/buckets/{s3\_bucket.uuid}/rules/{name}

**Introduced In:** 9.13

Updates the S3 bucket lifecycle rule configuration.

**== Important notes**

\* The following fields can be modified for a bucket:  
\* actions - Lifecycle Management actions associated with the rule.  
\* enabled - Lifecycle Management rule is enabled or not..  
\* object\_age\_days - Number of days since creation after which objects can be deleted.  
\* object\_expiry\_date - Specific date from when objects can expire.  
\* expired\_object\_delete\_marker - Cleanup object delete markers.  
\* new\_non\_current\_versions - Number of latest non-current versions to be retained.  
\* non\_current\_days - Number of days after which non-current versions can be deleted.  
\* after\_initiation\_days - Number of days of initiation after which uploads can be aborted.

**== Related ONTAP commands**

\* vserver object-store-server bucket lifecycle-management-rule modify

**== Learn more**

\* [DOC /protocols/s3/services/{svm.uuid}/buckets/{s3\\_bucket.uuid}/rules](#)

**== Parameters**

[cols=5\*,options=header]

Name	Type	In	Required	Description
s3_bucket.uuid	string	path	True	a The unique identifier of the bucket.
name	string	path	True	a The name of the lifecycle management rule to be applied on the bucket.
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.
svm.uuid	string	path	True	a UUID of the SVM to which this object belongs.

|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: 1
- Max value: 120
- Min value: 0

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

- Introduced in: 9.14

== Request Body

[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.

.Example request [%collapsible%closed] ===== [source,json,subs=+macros] { "expiration": { "object\_expiry\_date": "string" }, "svm": { "name": "svm1", "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7" }, "uuid": "414b29a1-3b26-11e9-bd58-0050568ea055" } =====

== Response

` Status: 200, Ok `

[cols=3\*,options=header]

|Name |Type |Description

|num\_records |integer a|Number of records

|records |array[[s3\\_bucket\\_lifecycle\\_rule](#)] a|

.Example response [%collapsible%closed] ===== [source,json,subs=+macros] { "num\_records": 1, "records": [ { "expiration": { "object\_expiry\_date": "string" }, "svm": { "name": "svm1", "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7" }, "uuid": "414b29a1-3b26-11e9-bd58-0050568ea055" } ] } =====

== Response

` Status: 202, Accepted `

== Error

` Status: Default `

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

| Error code | Message |92405861<br>|"The specified SVM UUID or bucket UUID does not exist."; |92406114<br>|"The Expiration action requires specifying either object\_expiry\_date, object\_age\_days or expired\_object\_delete\_marker."; |92406115<br>|"The NonCurrentVersionExpiration action requires either

new\_non\_current\_versions or non\_current\_days."; |92406116<br>|"The AbortIncompleteMultipartUpload action requires after\_initiation\_days."; |92406117<br>|"The Expiration action cannot have both an expiry date and an age."; |92406118<br>|"Using Lifecycle Management rules requires an effective cluster version of 9.13.1 ."; |92406119<br>|"One or more object store buckets exist with Lifecycle Management rules. To list the buckets, run the vserver object-store-server bucket lifecycle-management-rule show command. To delete the buckets, use the vserver object-store-server bucket delete command."; |92406120<br>|"The AbortIncompleteMultipartUpload action cannot be specified with tags."; |92406121<br>|"Expired object delete marker cannot be specified with tags."; |92406122<br>|"Expired object delete marker cannot be specified with object age days or expiry date."; |92406123<br>|"Expiration is supported on object store volumes only, bucket on Vserver is not an object store volume."; |92406126<br>|"Lifecycle Management rule for bucket in Vserver is invalid because specified tags contain one or more invalid characters. Valid characters for a tag are 0-9, A-Z, a-z, +, -, =, ., \_, :, /, @."; |92406131<br>|"Lifecycle Management rule for bucket in Vserver cannot be created because non\_current\_days must be specified when new\_non\_current\_versions is specified."; |92406132<br>|"Lifecycle Management rule "<rule>" for bucket "<bucket>" in SVM "<SVM>" requires "object\_age\_days" to be greater than zero."; //end row //start row |92406132 //end row //start row|"Lifecycle Management rule "<rule>" for bucket "<bucket>" in SVM "<SVM>" requires "new\_non\_current\_versions" to be greater than zero."; //end row //start row |92406132 //end row //start row|"Lifecycle Management rule "<rule>" for bucket "<bucket>" in SVM "<SVM>" requires "after\_initiation\_days" to be greater than zero."; //end row //start row |92406133 //end row //start row|"Lifecycle Management rule for bucket in Vserver is invalid. The object\_expiry\_date must be later than January 1, 1970."; //end row //start row |92406135 //end row //start row|"MetroCluster is configured on cluster. Object Expiration is not supported in a MetroCluster configuration."; //end row //start row |92406136 //end row //start row|"Lifecycle Management rule for bucket in Vserver is invalid. The object\_expiry\_date must be at midnight GMT."; //end row //start row |92406139 //end row //start row|"Lifecycle Management rule for bucket in Vserver with action is a stale entry. Contact technical support for assistance."; //end row //start row |92406140 //end row //start row|"Expired object delete marker must be enabled to create a Lifecycle Management rule."; //end row //start row |92406141 //end row //start row|"Lifecycle Management rule for bucket in Vserver with action cannot have expired\_object\_delete\_marker disabled. To disable expired\_object\_delete\_marker, run vserver object-store-server bucket lifecycle-management-rule delete"; //end row //start row |92406144 //end row //start row|"The "AbortIncompleteMultipartUpload" action cannot be specified with object size."; //end row //start row |92406150 //end row //start row|""expired\_object\_delete\_marker" cannot be specified with "size\_less\_than"."; //end row|== //end table</SVM></bucket></rule></SVM></bucket></rule></SVM></bucket></rule>

## Definitions

## See Definitions

href

Name	Type	Description
href	string	

\_links

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

expiration

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

Name	Type	Description
expired_object_delete_marker	boolean	Cleanup object delete markers.
object_age_days	integer	Number of days since creation after which objects can be deleted. 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
new_non_current_versions	integer	Number of latest non-current versions to be retained.
non_current_days	integer	Number of days after which non-current versions can be deleted.

object\_filter

Specifies a way to filter objects within a bucket.

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

### svm

Specifies the name of the SVM where this bucket exists.

Name	Type	Description
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.

### s3\_bucket\_lifecycle\_rule

Information about the lifecycle management rule of a bucket.

Name	Type	Description
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.
enabled	boolean	Specifies whether or not the associated rule is enabled.

Name	Type	Description
expiration	expiration	Specifies a way to perform expiration action on filtered objects within a bucket.
non_current_version_expiration	non_current_version_expiration	Specifies a way to perform non_current_version_expiration action on filtered objects within a bucket.
svm	svm	Specifies the name of the SVM where this bucket exists.
uuid	string	Specifies the unique identifier of the bucket.

collection\_links

error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

returned\_error

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

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