



Manage S3 bucket lifecycle management rules

ONTAP 9.14.1 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-httpd
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-httpd
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-httpd
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 parametes, 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"> • Introduced in: 9.14
enabled	boolean	query	False	Filter by enabled
bucket_name	string	query	False	Filter by bucket_name <ul style="list-style-type: none"> • Introduced in: 9.14 • maxLength: 63 • minLength: 3
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"> • maxLength: 256 • minLength: 0
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_less_than	integer	query	False	Filter by object_filter.size_less_than
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"> • Introduced in: 9.14
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"> • Introduced in: 9.14
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"> • Default value: 1

Name	Type	In	Required	Description
return_timeout	integer	query	False	<p>The number of seconds to allow the call to execute before returning. When iterating over a collection, the default is 15 seconds. ONTAP returns earlier if either max records or the end of the collection is reached.</p> <ul style="list-style-type: none"> • Default value: 1 • Max value: 120 • Min value: 0
order_by	array[string]	query	False	Order results by specified fields and optional [asc

Response

Status: 200, Ok

Name	Type	Description
_links	collection_links	
num_records	integer	Number of records
records	array[s3_bucket_lifecycle_rule]	

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"
        }
      }
    },
    "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

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 <code>object_expiry_date</code> .
object_expiry_date	string	Specific date from when objects can expire. This cannot be used with <code>object_age_days</code> .

non_current_version_expiration

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

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

object_filter

Specifies a way to filter objects within a bucket.

Name	Type	Description
_links	_links	
prefix	string	A prefix that is matched against object-names within a bucket.
size_greater_than	integer	Size of the object greater than specified for which the corresponding lifecycle rule is to be applied.
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	_links	
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	_links	
abort_incomplete_multipart_upload	abort_incomplete_multipart_upload	Specifies a way to perform abort_incomplete_multipart_upload action on filtered objects within a bucket. 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	expiration	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	non_current_version_expiration	Specifies a way to perform non_current_version_expiration action on filtered objects within a bucket.
object_filter	object_filter	Specifies a way to filter objects within a bucket.
svm	svm	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"> • Default value: 1 • Max value: 120 • Min value: 0
return_records	boolean	query	False	<p>The default is false. If set to true, the records are returned.</p> <ul style="list-style-type: none"> • Default value:
svm.uuid	string	path	True	<p>UUID of the SVM to which this object belongs.</p> <ul style="list-style-type: none"> • Introduced in: 9.14

Request Body

Name	Type	Description
<code>_links</code>	<code>_links</code>	
<code>abort_incomplete_multipart_upload</code>	<code>abort_incomplete_multipart_upload</code>	Specifies a way to perform <code>abort_incomplete_multipart_upload</code> action on filtered objects within a bucket. It cannot be specified with tags.
<code>bucket_name</code>	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 "-".
<code>enabled</code>	boolean	Specifies whether or not the associated rule is enabled.
<code>expiration</code>	<code>expiration</code>	Specifies a way to perform expiration action on filtered objects within a bucket.
<code>name</code>	string	Bucket lifecycle management rule identifier. The length of the name can range from 0 to 256 characters.
<code>non_current_version_expiration</code>	<code>non_current_version_expiration</code>	Specifies a way to perform <code>non_current_version_expiration</code> action on filtered objects within a bucket.
<code>object_filter</code>	<code>object_filter</code>	Specifies a way to filter objects within a bucket.
<code>svm</code>	<code>svm</code>	Specifies the name of the SVM where this bucket exists.
<code>uuid</code>	string	Specifies the unique identifier of the bucket.

Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "abort_incomplete_multipart_upload": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    }
  },
  "bucket_name": "bucket1",
  "expiration": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    }
  },
  "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"
}

```

Response

Status: 202, Accepted

Name	Type	Description
job	job_link	

Example response

```

{
  "job": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "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.";
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.";

Error code	Message
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
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

Error code	Message
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

|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 <tag=value>.</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.

```
[#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

[_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.

```
[#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.

=====

= 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]

Error code	Message
------------	---------

92405861	"The specified SVM UUID or bucket UUID does not exist.";
----------	--

92406123	"Expiration is supported on object store volumes only, bucket on Vserver is not an object store volume.";
----------	---

92406139	"Lifecycle Management rule for bucket in Vserver with action is a stale entry. Contact technical support for assistance.";
----------	--

92406141	"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	"Cannot delete fabriclink relationship between bucket A and bucket B. Reason : {2}.";
----------	---

[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] ===== [#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 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" } } },  
"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 <tag=value>.</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
------	------	----	----------	-------------

<code>s3_bucket.uuid</code>	string	path	True	a The unique identifier of the bucket.
-----------------------------	--------	------	------	--

<code>name</code>	string	path	True	a The name of the lifecycle management rule to be applied on the bucket.
-------------------	--------	------	------	--

<code>return_timeout</code>	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

<code>svm.uuid</code>	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

|_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 request [%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" } } },  
"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" } =====
```

== Response

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

[cols=3*,options=header]

|Name |Type |Description

|_links |[collection_links](#) a|

|[num_records](#) |integer a|Number of records

|[records](#) |array[[s3_bucket_lifecycle_rule](#)] a|

```
.Example response [%collapsible%closed] ===== [source,json,subs==macros] { "_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" }
} }, "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" } } =====
```

== Response

```
` Status: 202, Accepted `
```

== Error

```
` Status: Default `
```

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

Error code	Message
92405861	"The specified SVM UUID or bucket UUID does not exist.";
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.";
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, +, -, =, ., _, :, /, @.";
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.";
92406132	"Lifecycle Management rule "<rule>" for bucket "<bucket>" in SVM "<SVM>" requires "new_non_current_versions" to be greater than zero.";
92406132	"Lifecycle Management rule "<rule>" for bucket "<bucket>" in SVM "<SVM>" requires "after_initiation_days" to be greater than zero.";
92406133	"Lifecycle Management rule for bucket in Vserver is invalid. The object_expiry_date must be later than January 1, 1970.";
92406135	"MetroCluster is configured on cluster. Object Expiration is not supported in a MetroCluster configuration.";
92406136	"Lifecycle Management rule for bucket in Vserver is invalid. The object_expiry_date must be at midnight GMT.";
92406139	"Lifecycle Management rule for bucket in Vserver with action is a stale entry. Contact technical support for assistance.";
92406140	"Expired object delete marker must be enabled to create a Lifecycle Management rule.";
92406141	"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	"The "AbortIncompleteMultipartUpload" action cannot be specified with object size.";
92406150	"expired_object_delete_marker" cannot be specified with "size_less_than".";

table</SVM></bucket></rule></SVM></bucket></rule></SVM></bucket></rule>

Name	Type	Description
error	returned_error	

Example error

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

Definitions

See Definitions

href

Name	Type	Description
href	string	

_links

Name	Type	Description
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	_links	

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
_links	_links	
prefix	string	A prefix that is matched against object-names within a bucket.
size_greater_than	integer	Size of the object greater than specified for which the corresponding lifecycle rule is to be applied.
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	_links	
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
_links	_links	
abort_incomplete_multipart_upload	abort_incomplete_multipart_upload	Specifies a way to perform abort_incomplete_multipart_upload action on filtered objects within a bucket. 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	expiration	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	non_current_version_expiration	Specifies a way to perform non_current_version_expiration action on filtered objects within a bucket.
object_filter	object_filter	Specifies a way to filter objects within a bucket.
svm	svm	Specifies the name of the SVM where this bucket exists.
uuid	string	Specifies the unique identifier of the bucket.

collection_links

Name	Type	Description
next	href	

Name	Type	Description
self	href	

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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