



## **Manage role privilege details**

ONTAP 9.12.1 REST API reference

NetApp

February 13, 2024

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# Manage role privilege details

## Security roles owner.uuid name privileges endpoint overview

### Overview

This API is used to configure the role privileges (tuples of REST URI paths or command/command directory paths, their access levels and optional queries, where the tuples refer to command/command directory paths). It also retrieves all of the privilege tuples for a role and can add a tuple to an existing role. The "path" attribute can be a resource-qualified endpoint. Currently, the only supported resource-qualified endpoints are the following:

### Snapshots APIs

&ndash; `<em>/api/storage/volumes/{volume.uuid}/snapshots</em>`

### File System Analytics APIs

&ndash; `<em>/api/storage/volumes/{volume.uuid}/files</em>`

&ndash; `<em>/api/storage/volumes/{volume.uuid}/top-metrics/clients</em>`

&ndash; `<em>/api/storage/volumes/{volume.uuid}/top-metrics/directories</em>`

&ndash; `<em>/api/storage/volumes/{volume.uuid}/top-metrics/files</em>`

&ndash; `<em>/api/storage/volumes/{volume.uuid}/top-metrics/users</em>`

&ndash; `<em>/api/svm/svms/{svm.uuid}/top-metrics/clients</em>`

&ndash; `<em>/api/svm/svms/{svm.uuid}/top-metrics/directories</em>`

&ndash; `<em>/api/svm/svms/{svm.uuid}/top-metrics/files</em>`

&ndash; `<em>/api/svm/svms/{svm.uuid}/top-metrics/users</em>`

In the above APIs, wildcard character \* could be used in place of `{volume.uuid}` or `{svm.uuid}` to denote *all* volumes or *all* SVMs, depending upon whether the REST endpoint references volumes or SVMs.

The role can be SVM-scoped or cluster-scoped.

Specify the owner UUID and the role name in the URI path. The owner UUID corresponds to the UUID of the SVM for which the role has been created and can be obtained from the response body of a GET request performed on one of the following APIs:

- `/api/security/roles` for all the roles
- `/api/security/roles/?scope=svm` for SVM-scoped roles
- `<em>/api/security/roles/?owner.name=<svm-name>&lt;i>&lt;/i>&lt;/em>` for roles in a specific SVM This API response contains the complete URI for each role and can be used after suffixing it with `_"privileges"</em>.</svm-name>_`



The pre-defined roles can be retrieved but cannot be updated.

## Examples

### Adding a privilege tuple for a REST URI/endpoint to an existing custom role

```
# The API:
POST "/security/roles/{owner.uuid}/{name}/privileges"

# The call:
curl -X POST "https://<mgmt-ip>/api/security/roles/aaef7c38-4bd3-11e9-b238-0050568e2e25/svm_role1/privileges" -d
'{"access":"readonly","path":"/api/protocols"}'
```

### Adding a privilege tuple for a command or command directory to an existing custom role

```
# The API:
POST "/security/roles/{owner.uuid}/{name}/privileges"

# The call:
curl -X POST "https://<mgmt-ip>/api/security/roles/aaef7c38-4bd3-11e9-b238-0050568e2e25/svm_role1/privileges" -d
'{"access":"all","path":"statistics volume show","query":"-vserver vs1&#124;vs2 -aggregate aggr1&#124;aggr2"}'
```

### Retrieving all the privilege tuples for a REST role

```
# The API:
GET "/api/security/roles/{owner.uuid}/{name}/privileges"

# The call:
curl -X GET "https://<mgmt-ip>/api/security/roles/aaef7c38-4bd3-11e9-b238-0050568e2e25/svm_role1/privileges"

# The response:
{
  "records": [
    {
      "path": "/api/application",
      "access": "all",
      "_links": {
        "self": {
          "href": "/api/security/roles/aaef7c38-4bd3-11e9-b238-0050568e2e25/svm_role1/privileges/%2Fapi%2Fapplication"
```

```

    }
  },
  {
    "path": "/api/protocols",
    "access": "readonly",
    "_links": {
      "self": {
        "href": "/api/security/roles/aaef7c38-4bd3-11e9-b238-0050568e2e25/svm_role1/privileges/%2Fapi%2Fprotocols"
      }
    }
  },
  {
    "path": "/api/storage/volumes/1385d680-74fc-4adb-a348-9a740e83702a/snapshots",
    "access": "all",
    "_links": {
      "self": {
        "href": "/api/security/roles/aaef7c38-4bd3-11e9-b238-0050568e2e25/svm_role1/privileges/%2Fapi%2Fstorage%2Fvolumes%2F1385d680-74fc-4adb-a348-9a740e83702a%2Fsnapshots"
      }
    }
  },
  {
    "path": "/api/storage/volumes/*/top-metrics/users",
    "access": "read_create_modify",
    "_links": {
      "self": {
        "href": "/api/security/roles/aaef7c38-4bd3-11e9-b238-0050568e2e25/svm_role1/privileges/%2Fapi%2Fstorage%2Fvolumes%2F%2A%2Ftop-metrics%2Fusers"
      }
    }
  }
],
"num_records": 4,
"_links": {
  "self": {
    "href": "/api/security/roles/aaef7c38-4bd3-11e9-b238-0050568e2e25/svm_role1/privileges"
  }
}
}

```

## Retrieving all the privilege tuples for a custom legacy role

```
# The API:
GET "/api/security/roles/{owner.uuid}/{name}/privileges"

# The call:
curl -X GET "https://<mgmt-ip>/api/security/roles/aaef7c38-4bd3-11e9-b238-0050568e2e25/svm_role1/privileges"

# The response:
{
  "records": [
    {
      "path": "network interface",
      "access": "readonly",
      "_links": {
        "self": {
          "href": "/api/security/roles/aaef7c38-4bd3-11e9-b238-0050568e2e25/svm_role1/privileges/network%20interface"
        }
      }
    },
    {
      "path": "security",
      "access": "readonly",
      "_links": {
        "self": {
          "href": "/api/security/roles/aaef7c38-4bd3-11e9-b238-0050568e2e25/svm_role1/privileges/security"
        }
      }
    },
    {
      "path": "security certificate",
      "access": "all",
      "_links": {
        "self": {
          "href": "/api/security/roles/aaef7c38-4bd3-11e9-b238-0050568e2e25/svm_role1/privileges/security%20certificate"
        }
      }
    },
    {
      "path": "security password",
      "access": "all",
      "_links": {
```

```

    "self": {
      "href": "/api/security/roles/aaef7c38-4bd3-11e9-b238-0050568e2e25/svm_role1/privileges/security%20password"
    }
  }
],
"num_records": 4,
"_links": {
  "self": {
    "href": "/api/security/roles/aaef7c38-4bd3-11e9-b238-0050568e2e25/svm_role1/privileges"
  }
}
}

```

## Retrieve privilege details of the specified role

GET /security/roles/{owner.uuid}/{name}/privileges

**Introduced In:** 9.6

Retrieves privilege details of the specified role.

### Related ONTAP commands

- `security login rest-role show`
- `security login role show`

### Learn more

- [DOC /security/roles/{owner.uuid}/{name}/privileges](#)
- [DOC /security/roles](#)

### Parameters

Name	Type	In	Required	Description
owner.uuid	string	path	True	Role owner UUID
name	string	path	True	Role name
fields	array[string]	query	False	Specify the fields to return.

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

## Response

Status: 200, Ok

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



## Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "access": "all",
    "path": "volume move start",
    "query": "-vserver vs1|vs2|vs3 -destination-aggregate aggr1|aggr2"
  }
}
```

## Error

Status: Default, Error

Name	Type	Description
error	error	

### Example error

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

### Definitions

## See Definitions

href

Name	Type	Description
href	string	

\_links

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

\_links

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

role\_privilege

A tuple containing a REST endpoint or a command/command directory path and the access level assigned to that endpoint or command/command directory. If the "path" attribute refers to a command/command directory path, the tuple could additionally contain an optional query. The REST endpoint can be a resource-qualified endpoint. At present, the only supported resource-qualified endpoints are the following

Snapshots APIs

- */api/storage/volumes/{volume.uuid}/snapshots*

File System Analytics APIs

- */api/storage/volumes/{volume.uuid}/files*
- */api/storage/volumes/{volume.uuid}/top-metrics/clients*
- */api/storage/volumes/{volume.uuid}/top-metrics/directories*
- */api/storage/volumes/{volume.uuid}/top-metrics/files*
- */api/storage/volumes/{volume.uuid}/top-metrics/users*
- */api/svm/svms/{svm.uuid}/top-metrics/clients*
- */api/svm/svms/{svm.uuid}/top-metrics/directories*
- */api/svm/svms/{svm.uuid}/top-metrics/files*
- */api/svm/svms/{svm.uuid}/top-metrics/users*

In the above APIs, wildcard character \* could be used in place of *{volume.uuid}* or *{svm.uuid}* to denote *all* volumes or *all* SVMs, depending upon whether the REST endpoint references volumes or SVMs.

Name	Type	Description
_links	<a href="#">_links</a>	
access	string	Access level for the REST endpoint or command/command directory path. If it denotes the access level for a command/command directory path, the only supported enum values are 'none','readonly' and 'all'.
path	string	Either of REST URI/endpoint OR command/command directory path.
query	string	Optional attribute that can be specified only if the "path" attribute refers to a command/command directory path. The privilege tuple implicitly defines a set of objects the role can or cannot access at the specified access level. The query further reduces this set of objects to a subset of objects that the role is allowed to access. The query attribute must be applicable to the command/command directory specified by the "path" attribute. It is defined using one or more parameters of the command/command directory path specified by the "path" attribute.

#### error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

#### error

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

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

## Add a privilege tuple to an existing role

POST /security/roles/{owner.uuid}/{name}/privileges

**Introduced In:** 9.6

Adds a privilege tuple (of REST URI or command/command directory path, its access level and an optional query, if the "path" refers to a command/command directory path) to an existing role.

### Required parameters

- `owner.uuid` - UUID of the SVM that houses this role.
- `name` - Name of the role to be updated.
- `path` - REST URI path (example: `/api/storage/volumes`) or command/command directory path (example: `snaplock compliance-clock`). Can be a resource-qualified endpoint (example: `/api/storage/volumes/43256a71-be02-474d-a2a9-9642e12a6a2c/snapshots`). Currently, resource-qualified endpoints are limited to the following:

### Snapshots APIs

&ndash; `<em>/api/storage/volumes/{volume.uuid}/snapshots</em>`

### File System Analytics APIs

&ndash; `<em>/api/storage/volumes/{volume.uuid}/files</em>`

&ndash; `<em>/api/storage/volumes/{volume.uuid}/top-metrics/clients</em>`

&ndash; `<em>/api/storage/volumes/{volume.uuid}/top-metrics/directories</em>`

&ndash; `<em>/api/storage/volumes/{volume.uuid}/top-metrics/files</em>`

&ndash; `<em>/api/storage/volumes/{volume.uuid}/top-metrics/users</em>`

&ndash; `<em>/api/svm/svms/{svm.uuid}/top-metrics/clients</em>`

&ndash; `<em>/api/svm/svms/{svm.uuid}/top-metrics/directories</em>`

&ndash; `<em>/api/svm/svms/{svm.uuid}/top-metrics/files</em>`

&ndash; `<em>/api/svm/svms/{svm.uuid}/top-metrics/users</em>`

In the above APIs, wildcard character \* could be used in place of `{volume.uuid}` or `{svm.uuid}` to denote *all* volumes or *all* SVMs, depending upon whether the REST endpoint references volumes or SVMs.

- `access` - Desired access level for the REST URI path or command/command directory.

## Related ONTAP commands

- `security login rest-role create`
- `security login role create`

## Learn more

- [DOC /security/roles/{owner.uuid}/{name}/privileges](#)
- [DOC /security/roles](#)

## Parameters

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

## Request Body

Name	Type	Description
<code>_links</code>	<a href="#">_links</a>	
<code>access</code>	string	Access level for the REST endpoint or command/command directory path. If it denotes the access level for a command/command directory path, the only supported enum values are 'none', 'readonly' and 'all'.
<code>path</code>	string	Either of REST URI/endpoint OR command/command directory path.

Name	Type	Description
query	string	Optional attribute that can be specified only if the "path" attribute refers to a command/command directory path. The privilege tuple implicitly defines a set of objects the role can or cannot access at the specified access level. The query further reduces this set of objects to a subset of objects that the role is allowed to access. The query attribute must be applicable to the command/command directory specified by the "path" attribute. It is defined using one or more parameters of the command/command directory path specified by the "path" attribute.

#### Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "access": "all",
  "path": "volume move start",
  "query": "-vserver vs1|vs2|vs3 -destination-aggregate aggr1|aggr2"
}
```

#### Response

Status: 201, Created

#### Headers

Name	Description	Type
Location	Useful for tracking the resource location	string

## Error

Status: Default

### ONTAP Error Response Codes

Error Code	Description
5636129	A role with given name has not been defined.
5636143	A Vserver admin cannot use the API with this access level.
5636144	The value specified for the access level is not valid.
5636169	A character in the URI is not valid.
5636170	The URI does not exist.
5636173	This feature requires an effective cluster version of 9.6 or later.
5636175	Vserver admin cannot have access to given API.
5636184	Expanded REST roles for granular resource control feature is currently disabled.
5636185	The specified UUID was not found.
5636186	Expanded REST roles for granular resource control requires an effective cluster version of 9.10.1 or later.
13434890	Vserver-ID failed for Vserver roles.
13434891	UUID LookUp failed for Vserver roles.
13434892	Roles is a required field.
13434893	The SVM does not exist.

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



### Example error

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

### Definitions

## See Definitions

href

Name	Type	Description
href	string	

\_links

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

role\_privilege

A tuple containing a REST endpoint or a command/command directory path and the access level assigned to that endpoint or command/command directory. If the "path" attribute refers to a command/command directory path, the tuple could additionally contain an optional query. The REST endpoint can be a resource-qualified endpoint. At present, the only supported resource-qualified endpoints are the following

Snapshots APIs

- */api/storage/volumes/{volume.uuid}/snapshots*

File System Analytics APIs

- */api/storage/volumes/{volume.uuid}/files*
- */api/storage/volumes/{volume.uuid}/top-metrics/clients*
- */api/storage/volumes/{volume.uuid}/top-metrics/directories*
- */api/storage/volumes/{volume.uuid}/top-metrics/files*
- */api/storage/volumes/{volume.uuid}/top-metrics/users*
- */api/svm/svms/{svm.uuid}/top-metrics/clients*
- */api/svm/svms/{svm.uuid}/top-metrics/directories*
- */api/svm/svms/{svm.uuid}/top-metrics/files*
- */api/svm/svms/{svm.uuid}/top-metrics/users*

In the above APIs, wildcard character \* could be used in place of *{volume.uuid}* or *{svm.uuid}* to denote *all* volumes or *all* SVMs, depending upon whether the REST endpoint references volumes or SVMs.

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

Name	Type	Description
access	string	Access level for the REST endpoint or command/command directory path. If it denotes the access level for a command/command directory path, the only supported enum values are 'none','readonly' and 'all'.
path	string	Either of REST URI/endpoint OR command/command directory path.
query	string	Optional attribute that can be specified only if the "path" attribute refers to a command/command directory path. The privilege tuple implicitly defines a set of objects the role can or cannot access at the specified access level. The query further reduces this set of objects to a subset of objects that the role is allowed to access. The query attribute must be applicable to the command/command directory specified by the "path" attribute. It is defined using one or more parameters of the command/command directory path specified by the "path" attribute.

#### error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

#### error

Name	Type	Description
arguments	array[ <a href="#">error_arguments</a> ]	Message arguments
code	string	Error code

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

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