



# Manage multi-admin-verify rules

ONTAP 9.14.1 REST API reference

NetApp  
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# Manage multi-admin-verify rules

## Security multi-admin-verify rules endpoint overview

### Overview

Rules define the ONTAP commands (operations) that should be protected by multi-admin approval. While the feature is turned on, any ONTAP operation that is defined with a rule will be enforced with multi-admin approval to execute the command (operation).

---

### Examples

#### Creating a multi-admin-verify rule

Creates a rule for the specified ONTAP operation.

---

```
# The API:
/api/security/multi-admin-verify/rules

# The call:
curl -X POST "https://<mgmt-ip>/api/security/multi-admin-verify/rules?return_records=true" -H "accept: application/hal+json" -d '{"owner.uuid": "c109634f-7011-11ec-a23d-005056a78fd5", "operation": "volume delete", "query": "-vserver vs0", "required_approvers": 1}'

# The response:
{
  "num_records": 1,
  "records": [
    {
      "owner": {
        "uuid": "c109634f-7011-11ec-a23d-005056a78fd5",
        "_links": {
          "self": {
            "href": "/api/svm/svms/c109634f-7011-11ec-a23d-005056a78fd5"
          }
        }
      },
      "operation": "volume delete",
      "auto_request_create": true,
      "query": "-vserver vs0",
      "required_approvers": 1,
      "create_time": "2022-01-07T22:14:03-05:00",
      "system_defined": false,
      "_links": {
        "self": {
          "href": "/api/security/multi-admin-verify/rules/c109634f-7011-11ec-a23d-005056a78fd5/volume%20delete"
        }
      }
    }
  ]
}
```

---

## Retrieving multi-admin-verify rules

Displays information about multi admin verification rules.

---

```

# The API:
/api/security/multi-admin-verify/rules

# The call:
curl -X GET "https://<cluster-ip>/api/security/multi-admin-verify/rules"

# The response:
{
"records": [
  {
    "owner": {
      "uuid": "52b75787-7011-11ec-a23d-005056a78fd5",
      "name": "cluster1",
      "_links": {
        "self": {
          "href": "/api/svm/svms/52b75787-7011-11ec-a23d-005056a78fd5"
        }
      }
    },
    "operation": "security login password",
    "_links": {
      "self": {
        "href": "/api/security/multi-admin-verify/rules/52b75787-7011-11ec-a23d-005056a78fd5/security%20login%20password"
      }
    }
  },
  {
    "owner": {
      "uuid": "52b75787-7011-11ec-a23d-005056a78fd5",
      "name": "cluster1",
      "_links": {
        "self": {
          "href": "/api/svm/svms/52b75787-7011-11ec-a23d-005056a78fd5"
        }
      }
    },
    "operation": "security login unlock",
    "_links": {
      "self": {
        "href": "/api/security/multi-admin-verify/rules/52b75787-7011-11ec-a23d-005056a78fd5/security%20login%20unlock"
      }
    }
  },
  {

```

```

"owner": {
  "uuid": "52b75787-7011-11ec-a23d-005056a78fd5",
  "name": "cluster1",
  "_links": {
    "self": {
      "href": "/api/svm/svms/52b75787-7011-11ec-a23d-005056a78fd5"
    }
  }
},
"operation": "security multi-admin-verify approval-group create",
"_links": {
  "self": {
    "href": "/api/security/multi-admin-verify/rules/52b75787-7011-11ec-a23d-005056a78fd5/security%20multi-admin-verify%20approval-group%20create"
  }
}
},
{
  "owner": {
    "uuid": "52b75787-7011-11ec-a23d-005056a78fd5",
    "name": "cluster1",
    "_links": {
      "self": {
        "href": "/api/svm/svms/52b75787-7011-11ec-a23d-005056a78fd5"
      }
    }
  },
  "operation": "security multi-admin-verify approval-group delete",
  "_links": {
    "self": {
      "href": "/api/security/multi-admin-verify/rules/52b75787-7011-11ec-a23d-005056a78fd5/security%20multi-admin-verify%20approval-group%20delete"
    }
  }
}
},
{
  "owner": {
    "uuid": "52b75787-7011-11ec-a23d-005056a78fd5",
    "name": "cluster1",
    "_links": {
      "self": {
        "href": "/api/svm/svms/52b75787-7011-11ec-a23d-005056a78fd5"
      }
    }
  }
}
}

```

```

    },
    "operation": "security multi-admin-verify approval-group modify",
    "_links": {
      "self": {
        "href": "/api/security/multi-admin-verify/rules/52b75787-7011-11ec-a23d-005056a78fd5/security%20multi-admin-verify%20approval-group%20modify"
      }
    }
  },
  {
    "owner": {
      "uuid": "52b75787-7011-11ec-a23d-005056a78fd5",
      "name": "cluster1",
      "_links": {
        "self": {
          "href": "/api/svm/svms/52b75787-7011-11ec-a23d-005056a78fd5"
        }
      }
    },
    "operation": "security multi-admin-verify approval-group replace",
    "_links": {
      "self": {
        "href": "/api/security/multi-admin-verify/rules/52b75787-7011-11ec-a23d-005056a78fd5/security%20multi-admin-verify%20approval-group%20replace"
      }
    }
  },
  {
    "owner": {
      "uuid": "52b75787-7011-11ec-a23d-005056a78fd5",
      "name": "cluster1",
      "_links": {
        "self": {
          "href": "/api/svm/svms/52b75787-7011-11ec-a23d-005056a78fd5"
        }
      }
    },
    "operation": "security multi-admin-verify modify",
    "_links": {
      "self": {
        "href": "/api/security/multi-admin-verify/rules/52b75787-7011-11ec-a23d-005056a78fd5/security%20multi-admin-verify%20modify"
      }
    }
  }
}

```

```

},
{
  "owner": {
    "uuid": "52b75787-7011-11ec-a23d-005056a78fd5",
    "name": "cluster1",
    "_links": {
      "self": {
        "href": "/api/svm/svms/52b75787-7011-11ec-a23d-005056a78fd5"
      }
    }
  },
  "operation": "security multi-admin-verify rule create",
  "_links": {
    "self": {
      "href": "/api/security/multi-admin-verify/rules/52b75787-7011-11ec-a23d-005056a78fd5/security%20multi-admin-verify%20rule%20create"
    }
  }
},
{
  "owner": {
    "uuid": "52b75787-7011-11ec-a23d-005056a78fd5",
    "name": "cluster1",
    "_links": {
      "self": {
        "href": "/api/svm/svms/52b75787-7011-11ec-a23d-005056a78fd5"
      }
    }
  },
  "operation": "security multi-admin-verify rule delete",
  "_links": {
    "self": {
      "href": "/api/security/multi-admin-verify/rules/52b75787-7011-11ec-a23d-005056a78fd5/security%20multi-admin-verify%20rule%20delete"
    }
  }
},
{
  "owner": {
    "uuid": "52b75787-7011-11ec-a23d-005056a78fd5",
    "name": "cluster1",
    "_links": {
      "self": {
        "href": "/api/svm/svms/52b75787-7011-11ec-a23d-005056a78fd5"
      }
    }
  }
}

```



```

    },
    "operation": "security multi-admin-verify rule modify",
    "_links": {
      "self": {
        "href": "/api/security/multi-admin-verify/rules/52b75787-7011-11ec-a23d-005056a78fd5/security%20multi-admin-verify%20rule%20modify"
      }
    }
  },
  {
    "owner": {
      "uuid": "52b75787-7011-11ec-a23d-005056a78fd5",
      "name": "cluster1",
      "_links": {
        "self": {
          "href": "/api/svm/svms/52b75787-7011-11ec-a23d-005056a78fd5"
        }
      }
    },
    "operation": "volume delete",
    "_links": {
      "self": {
        "href": "/api/security/multi-admin-verify/rules/52b75787-7011-11ec-a23d-005056a78fd5/volume%20delete"
      }
    }
  }
],
"num_records": 11,
"_links": {
  "self": {
    "href": "/api/security/multi-admin-verify/rules"
  }
}
}
}

```

## Retrieve multi-admin-verify rules

GET /security/multi-admin-verify/rules

**Introduced In:** 9.11

Retrieves multi-admin-verify rules.

## Parameters

| Name                 | Type          | In    | Required | Description   |
|----------------------|---------------|-------|----------|---|
| query                | string        | query | False    | Filter by query   |
| execution_expiry     | string        | query | False    | Filter by execution_expiry  |
| required_approvers   | integer       | query | False    | Filter by required_approvers  |
| system_defined       | boolean       | query | False    | Filter by system_defined  |
| auto_request_create  | boolean       | query | False    | Filter by auto_request_create   |
| owner.uuid           | string        | query | False    | Filter by owner.uuid  |
| owner.name           | string        | query | False    | Filter by owner.name  |
| approval_groups.name | string        | query | False    | Filter by approval_groups.name  |
| approval_expiry      | string        | query | False    | Filter by approval_expiry   |
| create_time          | string        | query | False    | Filter by create_time   |
| operation            | string        | query | False    | Filter by operation   |
| 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.<br><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="#">_links</a>                           |                   |
| num_records | integer  | Number of records |
| records     | array[ <a href="#">multi_admin_verify_rule</a> ] |                   |

## Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": {
    "approval_groups": {
    },
    "create_time": "string",
    "owner": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "svm1",
      "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
    }
  }
}
```

## Error

Status: Default, Error

| Name  | Type                           | Description |
|-------|--------------------------------|-------------|
| error | <a href="#">returned_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 |
|------|----------------------|-------------|
| next | <a href="#">href</a> |             |
| self | <a href="#">href</a> |             |

approval\_groups

| Name | Type   | Description                 |
|------|--------|-----------------------------|
| name | string | Name of the approval group. |

\_links

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

owner

The owner of the rule. The only valid owner is currently the cluster.

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

multi\_admin\_verify\_rule

| Name            | Type   | Description  |
|-----------------|--------|--|
| approval_expiry | string | Time for requests to be approved, in ISO-8601 duration format. If not set, the global setting is used. |

| Name                | Type                   | Description   |
|---------------------|------------------------|---|
| approval_groups     | array[approval_groups] | List of approval groups that are allowed to approve requests for rules that don't have approval groups.   |
| auto_request_create | boolean                | When true, ONTAP automatically creates a request for any failed operation where there is no matching pending request. <ul style="list-style-type: none"> <li>• Default value:</li> <li>• Introduced in: 9.11</li> <li>• x-nullable: true</li> </ul> |
| create_time         | string                 |   |
| execution_expiry    | string                 | Time for requests to be executed once approved, in ISO-8601 duration format. If not set, the global setting is used.  |
| operation           | string                 | Command that requires one or more approvals.  |
| owner               | owner                  | The owner of the rule. The only valid owner is currently the cluster.   |
| query               | string                 | When specified, this property limits the entries that require approvals to those that match the specified query.  |
| required_approvers  | integer                | The number of required approvers, excluding the user that made the request.   |
| system_defined      | boolean                | Specifies whether the rule is system-defined or user-defined.   |

#### error\_arguments

| Name    | Type   | Description      |
|---------|--------|------------------|
| code    | string | Argument code    |
| message | string | Message argument |

returned\_error

| Name      | Type                                     | Description                                 |
|-----------|--|---|
| arguments | array[ <a href="#">error_arguments</a> ] | Message arguments                           |
| code      | string                                   | Error code                                  |
| message   | string                                   | Error message                               |
| target    | string                                   | The target parameter that caused the error. |

## Create a multi-admin-verify rule

POST /security/multi-admin-verify/rules

Introduced In: 9.11

Creates a multi-admin-verify rule.

### Parameters

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

### Request Body

| Name            | Type                                     | Description   |
|-----------------|--|---|
| approval_expiry | string                                   | Time for requests to be approved, in ISO-8601 duration format. If not set, the global setting is used.  |
| approval_groups | array[ <a href="#">approval_groups</a> ] | List of approval groups that are allowed to approve requests for rules that don't have approval groups. |



| Name                | Type                  | Description   |
|---------------------|-----------------------|---|
| auto_request_create | boolean               | When true, ONTAP automatically creates a request for any failed operation where there is no matching pending request. <ul style="list-style-type: none"> <li>• Default value: 1</li> <li>• Introduced in: 9.11</li> <li>• x-nullable: true</li> </ul> |
| create_time         | string                |   |
| execution_expiry    | string                | Time for requests to be executed once approved, in ISO-8601 duration format. If not set, the global setting is used.  |
| operation           | string                | Command that requires one or more approvals.  |
| owner               | <a href="#">owner</a> | The owner of the rule. The only valid owner is currently the cluster.   |
| query               | string                | When specified, this property limits the entries that require approvals to those that match the specified query.  |
| required_approvers  | integer               | The number of required approvers, excluding the user that made the request.   |
| system_defined      | boolean               | Specifies whether the rule is system-defined or user-defined.   |

## Example request

```
{
  "approval_groups": {
  },
  "create_time": "string",
  "owner": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
  },
  "name": "svm1",
  "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
}
```

## Response

Status: 201, Created

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

## Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": {
    "approval_groups": {
    },
    "create_time": "string",
    "owner": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "svm1",
      "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
    }
  }
}
```

## Headers

| Name     | Description                               | Type   |
|----------|---|--------|
| Location | Useful for tracking the resource location | string |

## Error

Status: Default

## ONTAP Error Response Codes

| Error Code | Description                              |
|------------|--|
| 262148     | The specified command is not recognized. |

| Error Code | Description   |
|------------|---|
| 262308     | The specified command is not supported by this feature.   |
| 262309     | The feature must be enabled first.  |
| 262311     | Value must be greater than zero.  |
| 262312     | Number of required approvers must be less than the total number of unique approvers in the approval-groups. |
| 262313     | Number of unique approvers in the approval-groups must be greater than the number of required approvers.    |
| 262314     | Some approval-groups were not found.  |
| 262316     | Value must be in the range one second to two weeks.   |
| 262326     | Failed to parse query.  |
| 262335     | The query string must be contained in either the "operation" or "query" parameters but not in both.         |

Also see the table of common errors in the [Response body](#) overview section of this documentation.

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

### Example error

```

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

```

## Definitions

## See Definitions

### approval\_groups

| Name | Type   | Description                 |
|------|--------|-----------------------------|
| name | string | Name of the approval group. |

### href

| Name | Type   | Description |
|------|--------|-------------|
| href | string |             |

### \_links

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

### owner

The owner of the rule. The only valid owner is currently the cluster.

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

### multi\_admin\_verify\_rule

| Name            | Type                                     | Description   |
|-----------------|--|---|
| approval_expiry | string                                   | Time for requests to be approved, in ISO-8601 duration format. If not set, the global setting is used.  |
| approval_groups | array[ <a href="#">approval_groups</a> ] | List of approval groups that are allowed to approve requests for rules that don't have approval groups. |

| Name                | Type                  | Description   |
|---------------------|-----------------------|---|
| auto_request_create | boolean               | When true, ONTAP automatically creates a request for any failed operation where there is no matching pending request. <ul style="list-style-type: none"> <li>• Default value: 1</li> <li>• Introduced in: 9.11</li> <li>• x-nullable: true</li> </ul> |
| create_time         | string                |   |
| execution_expiry    | string                | Time for requests to be executed once approved, in ISO-8601 duration format. If not set, the global setting is used.  |
| operation           | string                | Command that requires one or more approvals.  |
| owner               | <a href="#">owner</a> | The owner of the rule. The only valid owner is currently the cluster.   |
| query               | string                | When specified, this property limits the entries that require approvals to those that match the specified query.  |
| required_approvers  | integer               | The number of required approvers, excluding the user that made the request.   |
| system_defined      | boolean               | Specifies whether the rule is system-defined or user-defined.   |

#### \_links

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

#### error\_arguments

| Name | Type   | Description   |
|------|--------|---------------|
| code | string | Argument code |

| Name    | Type   | Description      |
|---------|--------|------------------|
| message | string | Message argument |

returned\_error

| Name      | Type                                     | Description                                 |
|-----------|--|---|
| arguments | array[ <a href="#">error_arguments</a> ] | Message arguments                           |
| code      | string                                   | Error code                                  |
| message   | string                                   | Error message                               |
| target    | string                                   | The target parameter that caused the error. |

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