



Create or retrieve event filters

ONTAP 9.11.1 REST API reference

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April 02, 2024

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Create or retrieve event filters

Support EMS filters endpoint overview

Overview

Manages the list of available filters. A filter is a named collection of rules that enable the system to identify events that require additional handling. A filter is linked with a destination to which the system sends specific events.

When EMS processes an event, each filter is evaluated for a match. More than one filter can handle a single event.



The system defines default filters that cannot be removed or modified. These filters are specified by setting the "system_defined" field to "true".

Filter rule position

A filter's rules are evaluated sequentially, according to their position index. When a rule is added or modified, the position can be set to customize the filter's logic. If no position is specified, a new rule is appended to the end of the list.

Filter rule types

A filter rule can be one of two types: 'include' or 'exclude'. If an event matches the criteria of the rule, the type dictates whether it should be forwarded to the destination or ignored.

Filter rule matching criteria

A valid filter rule must contain at least one set of criteria.

Name pattern

A name pattern is matched against an event's name. Multiple characters can be matched using the wildcard character '*'.

Severity

The severity pattern is matched against an event's severity. Multiple severities can be specified in a comma separated list. A single wildcard '*' will match all severities. Valid values are:

- emergency
- alert
- error
- notice
- informational
- debug

SNMP trap type

The SNMP trap type pattern is matched against an event's trap type. Multiple trap types can be specified in a comma separated list. A single wildcard '*' matches all trap types. Valid values are:

- standard
- built_in
- severity_based

Examples

Retrieving a list of filters whose names contain a hyphen

```
# The API:
GET /api/support/ems/filters

# The call:
curl -X GET "https://<mgmt-ip>/api/support/ems/filters?name=*-*" -H
"accept: application/hal+json"

# The response:
200 OK

# JSON Body
{
  "records": [
    {
      "name": "default-trap-events",
      "_links": {
        "self": {
          "href": "/api/support/ems/filters/default-trap-events"
        }
      }
    },
    {
      "name": "important-events",
      "_links": {
        "self": {
          "href": "/api/support/ems/filters/important-events"
        }
      }
    },
    {
      "name": "no-info-debug-events",
      "_links": {
        "self": {
          "href": "/api/support/ems/filters/no-info-debug-events"
        }
      }
    }
  ],
  "num_records": 3,
  "_links": {
    "self": {
      "href": "/api/support/ems/filters?name=*-*"
    }
  }
}
```

Creating a new filter using various matching criteria

```
# The API:
POST /api/support/ems/filters

# The call:
curl -X POST "https://<mgmt-ip>/api/support/ems/filters" -H "accept:
application/hal+json" -H "Content-Type: application/json" -d
"@test_ems_filters_post.txt"
test_ems_filters_post.txt(body):
{
  "name": "test-filter",
  "rules": [
    {
      "index": 1,
      "type": "include",
      "message_criteria": {
        "name_pattern": "LUN.*",
        "severities": "alert,error",
        "snmp_trap_types": "severity_based"
      }
    }
  ]
}

# The response:
201 Created
```

Retrieve event filters

GET /support/ems/filters

Introduced In: 9.6

Retrieves a collection of event filters.

Related ONTAP commands

- event filter show

Parameters

| Name | Type | In | Required | Description |
|------|--------|-------|----------|----------------|
| name | string | query | False | Filter by name |

| Name | Type | In | Required | Description |
|--|---------------|-------|----------|---|
| rules.index | integer | query | False | Filter by rules.index |
| rules.type | string | query | False | Filter by rules.type |
| rules.message_criteria.name_pattern | string | query | False | Filter by rules.message_criteria.name_pattern |
| rules.message_criteria.severities | string | query | False | Filter by rules.message_criteria.severities |
| rules.message_criteria.snmp_trap_types | string | query | False | Filter by rules.message_criteria.snmp_trap_types |
| system_defined | boolean | query | False | Filter by system_defined • Introduced in: 9.10 |
| 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. • 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 | _links | |
| num_records | integer | Number of records |
| records | array[records] | |

Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 3,
  "records": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "snmp-traphost",
    "rules": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "index": 1,
      "message_criteria": {
        "_links": {
          "related": {
            "href": "/api/resourcelink"
          }
        },
        "name_pattern": "callhome.*",
        "severities": "error,informational",
        "snmp_trap_types": "standard|built_in"
      },
      "type": "include"
    },
    "system_defined": 1
  }
}
```

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 | href | |
| self | href | |

_links

| Name | Type | Description |
|------|----------------------|-------------|
| self | href | |

_links

| Name | Type | Description |
|---------|----------------------|-------------|
| related | href | |

message_criteria

Matching message definitions for the filter. A property must be specified.

| Name | Type | Description |
|-----------------|------------------------|--|
| _links | _links | |
| name_pattern | string | Message name filter on which to match. Supports wildcards. Defaults to * if not specified. |
| severities | string | A comma-separated list of severities or a wildcard. |
| snmp_trap_types | string | A comma separated list of snmp_trap_types or a wildcard. |

rules

Rule for an event filter

| Name | Type | Description |
|--------|------------------------|-------------|
| _links | _links | |

| Name | Type | Description |
|------------------|----------------------------------|--|
| index | integer | Rule index. Rules are evaluated in ascending order. If a rule's index order is not specified during creation, the rule is appended to the end of the list. |
| message_criteria | message_criteria | Matching message definitions for the filter. A property must be specified. |
| type | string | Rule type |

records

| Name | Type | Description |
|----------------|--------------------------------|--|
| _links | _links | |
| name | string | Filter name |
| rules | array[rules] | Array of event filter rules on which to match. |
| system_defined | boolean | Flag indicating system-defined filters. |

error_arguments

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

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 an event filter

POST /support/ems/filters

Introduced In: 9.6

Creates an event filter.

Required properties

- `name` - String that uniquely identifies the filter.

Recommended optional properties

- `rules` - List of criteria which is used to match a filter with an event.

Related ONTAP commands

- `event filter create`

Parameters

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

Request Body

| Name | Type | Description |
|-----------------------------|--------------------------------|--|
| <code>_links</code> | _links | |
| <code>name</code> | string | Filter name |
| <code>rules</code> | array[rules] | Array of event filter rules on which to match. |
| <code>system_defined</code> | boolean | Flag indicating system-defined filters. |

Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "name": "snmp-traphost",
  "rules": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "index": 1,
    "message_criteria": {
      "_links": {
        "related": {
          "href": "/api/resourcelink"
        }
      },
      "name_pattern": "callhome.*",
      "severities": "error,informational",
      "snmp_trap_types": "standard|built_in"
    },
    "type": "include"
  },
  "system_defined": 1
}
```

Response

Status: 201, Created

| Name | Type | Description |
|------------------------|----------------------------------|-------------------|
| _links | _links | |
| num_records | integer | Number of records |
| records | array[records] | |

Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 3,
  "records": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "snmp-traphost",
    "rules": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "index": 1,
      "message_criteria": {
        "_links": {
          "related": {
            "href": "/api/resourcelink"
          }
        },
        "name_pattern": "callhome.*",
        "severities": "error,informational",
        "snmp_trap_types": "standard|built_in"
      },
      "type": "include"
    },
    "system_defined": 1
  }
}
```

Error

Status: Default

ONTAP Error Response Codes

| Error Code | Description |
|------------|--|
| 983088 | The filter name provided is empty |
| 983089 | The filter name provided cannot contain spaces |
| 983092 | The index of the rule provided is outside the allowed range for the filter provided |
| 983094 | The filter name provided is invalid. The filter name must contain between 2 and 64 characters and start and end with an alphanumeric symbol or (underscore). The allowed special characters are (underscore) and -(hyphen) |
| 983095 | The rule index provided is invalid for the filter provided |
| 983101 | No event is matched by the rule provided |
| 983113 | Default filters cannot be modified or removed |
| 983114 | The maximum number of filters is reached |
| 983115 | The maximum number of filter rules is reached |
| 983126 | A rule requires at least one name_pattern, severities, or snmp_trap_types to be defined |
| 983127 | A property cannot contain a combination of the wildcard character and other values |
| 983128 | An invalid value is provided for the property 'snmp_trap_types' |
| 983146 | An invalid value is provided for the property 'severities' |
| 983147 | The severity provided are not supported |
| 983155 | The provided severities property does not match that of the name_pattern |
| 983156 | The provided snmp_trap_types property does not match that of the name_pattern |
| 983157 | The provided severities and snmp_trap_types do not match those of the name_pattern |
| 983158 | The name_pattern provided does not exist |

| 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 |
|------|----------------------|-------------|
| self | href | |

_links

| Name | Type | Description |
|---------|----------------------|-------------|
| related | href | |

message_criteria

Matching message definitions for the filter. A property must be specified.

| Name | Type | Description |
|-----------------|------------------------|--|
| _links | _links | |
| name_pattern | string | Message name filter on which to match. Supports wildcards. Defaults to * if not specified. |
| severities | string | A comma-separated list of severities or a wildcard. |
| snmp_trap_types | string | A comma separated list of snmp_trap_types or a wildcard. |

rules

Rule for an event filter

| Name | Type | Description |
|--------|------------------------|--|
| _links | _links | |
| index | integer | Rule index. Rules are evaluated in ascending order. If a rule's index order is not specified during creation, the rule is appended to the end of the list. |

| Name | Type | Description |
|------------------|----------------------------------|--|
| message_criteria | message_criteria | Matching message definitions for the filter. A property must be specified. |
| type | string | Rule type |

ems_filter

| Name | Type | Description |
|------------------------|--------------------------------|--|
| _links | _links | |
| name | string | Filter name |
| rules | array[rules] | Array of event filter rules on which to match. |
| system_defined | boolean | Flag indicating system-defined filters. |

[_links](#)

| Name | Type | Description |
|------|----------------------|-------------|
| next | href | |
| self | href | |

records

| Name | Type | Description |
|------------------------|--------------------------------|--|
| _links | _links | |
| name | string | Filter name |
| rules | array[rules] | Array of event filter rules on which to match. |
| system_defined | boolean | Flag indicating system-defined filters. |

error_arguments

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

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

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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