



Manage Kerberos realms

ONTAP 9.11.1 REST API reference

NetApp
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Table of Contents

- Manage Kerberos realms 1
 - Protocols NFS Kerberos realms endpoint overview 1
 - Retrieve Kerberos realms 2
 - Create a Kerberos realm 9
 - Delete a Kerberos realm 14
 - Retrieve a Kerberos realm 17
 - Update Kerberos realm properties 21

Manage Kerberos realms

Protocols NFS Kerberos realms endpoint overview

Examples

Retrieving the Kerberos realm details

```
# The API:
GET /api/protocols/nfs/kerberos/realms

# The call:
curl -X GET "https://<mgmt-ip>/api/protocols/nfs/kerberos/realms"
```

Creating the Kerberos realm for an SVM

```
# The API:
POST /api/protocols/nfs/kerberos/realms

# The call:
curl -d "@test_post_kerb_realm.txt" -X POST "https://<mgmt-
ip>/api/protocols/nfs/kerberos/realms"
test_post_kerb_realm.txt (body):
{
  "svm.uuid": "05c90dc2-7343-11e8-9eb4-0050568be2b7",
  "name": "NFS-NSR-W02.RTP.NETAPP.COM",
  "kdc": {
    "vendor": "microsoft",
    "ip": "10.225.185.112",
    "port": 88
  },
  "comment": "realm",
  "ad_server": {
    "name": "nfs-nsr-w02.rtp.netapp.com",
    "address": "10.225.185.112"
  }
}
```

Updating the Kerberos realm for an SVM

```
# The API:
PATCH /api/protocols/nfs/kerberos/realms/{svm.uuid}/{name}

# The call:
curl -d "@test_patch_kerb_realm.txt" -X PATCH "https://<mgmt-
ip>/api/protocols/nfs/kerberos/realms/05c90dc2-7343-11e8-9eb4-
0050568be2b7/NFS-NSR-W02.RTP.NETAPP.COM"
test_patch_kerb_realm.txt (body):
{
  "kdc": {
    "vendor": "Microsoft",
    "ip": "100.225.185.112",
    "port": 88
  },
  "comment": "realm modify",
  "ad_server": {
    "name": "nfs.netapp.com",
    "address": "192.2.18.112"
  }
}
```

Deleting the Kerberos realm for an SVM

```
# The API:
DELETE /api/protocols/nfs/kerberos/realms/{svm.uuid}/{name}

# The call:
curl -X DELETE "https://<mgmt-
ip>/api/protocols/nfs/kerberos/realms/05c90dc2-7343-11e8-9eb4-
0050568be2b7/NFS-NSR-W02.RTP.NETAPP.COM"
```

Retrieve Kerberos realms

```
GET /protocols/nfs/kerberos/realms
```

Introduced In: 9.6

Retrieves Kerberos realms.

Related ONTAP commands

- `vserver nfs kerberos realm show`

Learn more

- [DOC /protocols/nfs/kerberos/realms](#)

Parameters

| Name | Type | In | Required | Description |
|-------------------|---------------|-------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| kdc.vendor | string | query | False | Filter by kdc.vendor |
| kdc.ip | string | query | False | Filter by kdc.ip |
| kdc.port | integer | query | False | Filter by kdc.port <ul style="list-style-type: none">• Max value: 65535• Min value: 1 |
| encryption_types | string | query | False | Filter by encryption_types |
| svm.uuid | string | query | False | Filter by svm.uuid |
| svm.name | string | query | False | Filter by svm.name |
| ad_server.name | string | query | False | Filter by ad_server.name |
| ad_server.address | string | query | False | Filter by ad_server.address |
| comment | string | query | False | Filter by comment |
| name | string | query | False | Filter by name |
| 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"> • Max value: 120 • Min value: 0 • Default value: 1 |
| 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[kerberos_realm] | |

Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "ad_server": {
        "address": "1.2.3.4",
        "name": "string"
      },
      "comment": "string",
      "encryption_types": [
        "string"
      ],
      "kdc": {
        "ip": "1.2.3.4",
        "port": 88,
        "vendor": "string"
      },
      "name": "string",
      "svm": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      }
    }
  ]
}
```

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 | |

ad_server

| Name | Type | Description |
|---------|--------|------------------------------------|
| address | string | Active Directory server IP address |
| name | string | Active Directory server name |

kdc

| Name | Type | Description |
|--------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ip | string | KDC IP address |
| port | integer | KDC port |
| vendor | string | Key Distribution Center (KDC) vendor. Following values are supported: <ul style="list-style-type: none">• microsoft - Microsoft Active Directory KDC• other - MIT Kerberos KDC or other KDC |

svm

| Name | Type | Description |
|--------|------------------------|-----------------------------------|
| _links | _links | |
| name | string | The name of the SVM. |
| uuid | string | The unique identifier of the SVM. |

kerberos_realm

| Name | Type | Description |
|------------------|---------------------------|----------------|
| _links | _links | |
| ad_server | ad_server | |
| comment | string | Comment |
| encryption_types | array[string] | |
| kdc | kdc | |
| name | string | Kerberos realm |
| svm | svm | |

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 a Kerberos realm

POST /protocols/nfs/kerberos/realms

Introduced In: 9.6

Creates a Kerberos realm.

Required properties

- `svm.uuid` or `svm.name` - Existing SVM on which to create the Kerberos realm.
- `name` - Base name for the Kerberos realm.
- `kdc.vendor` - Vendor of the Key Distribution Center (KDC) server for this Kerberos realm. If the configuration uses a Microsoft Active Directory domain for authentication, this field must be `microsoft`.
- `kdc.ip` - IP address of the KDC server for this Kerberos realm.

Recommended optional properties

- `ad_server.name` - Host name of the Active Directory Domain Controller (DC). This is a mandatory parameter if the `kdc-vendor` is `microsoft`.
- `ad_server.address` - IP address of the Active Directory Domain Controller (DC). This is a mandatory parameter if the `kdc-vendor` is `microsoft`.

Default property values

If not specified in POST, the following default property value is assigned:

- `kdc.port` - 88

Related ONTAP commands

- `vserver nfs kerberos realm create`

Learn more

- [DOC /protocols/nfs/kerberos/realms](#)

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 |
|------------------|---------------------------|----------------|
| _links | _links | |
| ad_server | ad_server | |
| comment | string | Comment |
| encryption_types | array[string] | |
| kdc | kdc | |
| name | string | Kerberos realm |
| svm | svm | |

Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "ad_server": {
    "address": "1.2.3.4",
    "name": "string"
  },
  "comment": "string",
  "encryption_types": [
    "string"
  ],
  "kdc": {
    "ip": "1.2.3.4",
    "port": 88,
    "vendor": "string"
  },
  "name": "string",
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  }
}
```

Response

Status: 201, Created

Error

Status: Default

ONTAP Error Response codes

| Error codes | Description |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| 2949121 | Active Directory server name required. |
| 2949122 | Active Directory server address required |
| 2949123 | Failed to create Kerberos realm. |
| 2949124 | Failed to create hosts file entry. |
| 3276949 | Kerberos realm creation failed. Reason: The parameters "ad_server.name" and "ad_server.address" are only valid when "kdc.vendor" is Microsoft |
| 3276976 | "realm" is a required input |
| 3276998 | Only the data Vservers can own NFS Kerberos realms. |

| 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 | |

ad_server

| Name | Type | Description |
|---------|--------|------------------------------------|
| address | string | Active Directory server IP address |
| name | string | Active Directory server name |

kdc

| Name | Type | Description |
|--------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ip | string | KDC IP address |
| port | integer | KDC port |
| vendor | string | Key Distribution Center (KDC) vendor. Following values are supported: <ul style="list-style-type: none">• microsoft - Microsoft Active Directory KDC• other - MIT Kerberos KDC or other KDC |

svm

| Name | Type | Description |
|--------|------------------------|-----------------------------------|
| _links | _links | |
| name | string | The name of the SVM. |
| uuid | string | The unique identifier of the SVM. |

kerberos_realm

| Name | Type | Description |
|------------------|---------------------------|----------------|
| _links | _links | |
| ad_server | ad_server | |
| comment | string | Comment |
| encryption_types | array[string] | |
| kdc | kdc | |
| name | string | Kerberos realm |
| svm | svm | |

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. |

Delete a Kerberos realm

```
DELETE /protocols/nfs/kerberos/realms/{svm.uuid}/{name}
```

Introduced In: 9.6

Deletes a Kerberos realm.

- `vserver nfs kerberos realm delete`

Learn more

- [DOC /protocols/nfs/kerberos/realms](#)

Parameters

| Name | Type | In | Required | Description |
|----------|--------|------|----------|----------------|
| svm.uuid | string | path | True | SVM UUID |
| name | string | path | True | Kerberos realm |

Response

```
Status: 200, Ok
```

Error

```
Status: Default
```

ONTAP Error Response codes

| Error codes | Description |
|-------------|------------------------------------------------------------------------------------------------|
| 1966125 | Failed to remove hosts entry. |
| 1966126 | Failed to lookup hosts entry. |
| 2949141 | Failed to lookup Kerberos realm. |
| 2949142 | Failed to remove Kerberos realm. |
| 3276942 | Service principal name is invalid. It must of the format:"nfs/<LIF-FQDN>@REALM\\\\"</LIF-FQDN> |
| 3276976 | "realm" is a required input |
| 3276998 | Only the data Vservers can own NFS Kerberos realms. |

| 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

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. |

Retrieve a Kerberos realm

GET /protocols/nfs/kerberos/realms/{svm.uuid}/{name}

Introduced In: 9.6

Retrieves a Kerberos realm.

- `vserver nfs kerberos realm show`

Learn more

- [DOC /protocols/nfs/kerberos/realms](#)

Parameters

| Name | Type | In | Required | Description |
|----------|---------------|-------|----------|-------------------------------|
| svm.uuid | string | path | True | SVM UUID |
| name | string | path | True | Kerberos realm |
| fields | array[string] | query | False | Specify the fields to return. |

Response

Status: 200, Ok

| Name | Type | Description |
|------------------|---------------------------|----------------|
| _links | _links | |
| ad_server | ad_server | |
| comment | string | Comment |
| encryption_types | array[string] | |
| kdc | kdc | |
| name | string | Kerberos realm |
| svm | svm | |

Example response

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "ad_server": {
    "address": "1.2.3.4",
    "name": "string"
  },
  "comment": "string",
  "encryption_types": [
    "string"
  ],
  "kdc": {
    "ip": "1.2.3.4",
    "port": 88,
    "vendor": "string"
  },
  "name": "string",
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  }
}
```

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

ad_server

| Name | Type | Description |
|---------|--------|------------------------------------|
| address | string | Active Directory server IP address |
| name | string | Active Directory server name |

kdc

| Name | Type | Description |
|--------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ip | string | KDC IP address |
| port | integer | KDC port |
| vendor | string | Key Distribution Center (KDC) vendor. Following values are supported: <ul style="list-style-type: none">• microsoft - Microsoft Active Directory KDC• other - MIT Kerberos KDC or other KDC |

svm

| Name | Type | Description |
|--------|------------------------|-----------------------------------|
| _links | _links | |
| name | string | The name of the SVM. |
| uuid | string | The unique identifier of the SVM. |

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. |

Update Kerberos realm properties

PATCH /protocols/nfs/kerberos/realms/{svm.uuid}/{name}

Introduced In: 9.6

Updates the properties of a Kerberos realm.

- `vserver nfs kerberos realm modify`

Learn more

- [DOC /protocols/nfs/kerberos/realms](#)

Parameters

| Name | Type | In | Required | Description |
|----------|--------|------|----------|----------------|
| svm.uuid | string | path | True | SVM UUID |
| name | string | path | True | Kerberos realm |

Request Body

| Name | Type | Description |
|------------------|---------------------------|----------------|
| _links | _links | |
| ad_server | ad_server | |
| comment | string | Comment |
| encryption_types | array[string] | |
| kdc | kdc | |
| name | string | Kerberos realm |
| svm | svm | |

Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "ad_server": {
    "address": "1.2.3.4",
    "name": "string"
  },
  "comment": "string",
  "encryption_types": [
    "string"
  ],
  "kdc": {
    "ip": "1.2.3.4",
    "port": 88,
    "vendor": "string"
  },
  "name": "string",
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  }
}
```

Response

Status: 200, Ok

Error

Status: Default

ONTAP Error Response codes

| Error codes | Description |
|-------------|-----------------------------------------------------|
| 1966125 | Failed to remove hosts entry. |
| 1966126 | Failed to lookup hosts entry. |
| 1966131 | Failed to create hosts entry. |
| 1966132 | Failed to modify hosts entry. |
| 2949121 | Active Directory server name required. |
| 2949122 | Active Directory server address required |
| 2949123 | Failed to create Kerberos realm. |
| 2949124 | Failed to create hosts file entry. |
| 2949141 | Failed to lookup Kerberos realm. |
| 2949148 | Failed to modify Kerberos realm. |
| 3276976 | "realm" is a required input |
| 3276998 | Only the data Vservers can own NFS Kerberos realms. |

| 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 | |

ad_server

| Name | Type | Description |
|---------|--------|------------------------------------|
| address | string | Active Directory server IP address |
| name | string | Active Directory server name |

kdc

| Name | Type | Description |
|--------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ip | string | KDC IP address |
| port | integer | KDC port |
| vendor | string | Key Distribution Center (KDC) vendor. Following values are supported: <ul style="list-style-type: none">• microsoft - Microsoft Active Directory KDC• other - MIT Kerberos KDC or other KDC |

svm

| Name | Type | Description |
|--------|------------------------|-----------------------------------|
| _links | _links | |
| name | string | The name of the SVM. |
| uuid | string | The unique identifier of the SVM. |

kerberos_realm

| Name | Type | Description |
|---------------------------|---------------------------|----------------|
| _links | _links | |
| ad_server | ad_server | |
| comment | string | Comment |
| encryption_types | array[string] | |
| kdc | kdc | |
| name | string | Kerberos realm |
| svm | svm | |

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. |

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