



# Manage network IPspaces

## ONTAP 9.9.1 REST API reference

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# Manage network IPspaces

## Network ipspaces endpoint overview

### Overview

An IPspace is an addressing domain within which each IP address is unique. The same address may appear in a different IPspace, but the matching addresses are considered to be distinct. SVMs and broadcast domains, and therefore IP interfaces and Ethernet ports, are associated with a single IPspace. This endpoint supports the following operations: GET (collection and instance), POST, PATCH, and DELETE.

### Retrieving IPspace information

You can use the IPspaces GET API to retrieve all IPspaces configured in the cluster, including built-in and custom IPspaces, and specifically requested IPspaces.

### Examples

#### Retrieving a list of the IPspaces in the cluster

The following example returns the requested list of IPspaces configured in the cluster.

```
# The API:
/api/network/ipspaces

# The call:
curl -X GET "https://<mgmt-ip>/api/network/ipspaces?fields=*" -H "accept:
application/hal+json"

# The response:
{
  "records": [
    {
      "uuid": "dcc7e79c-5acc-11e8-b9de-005056b42b32",
      "name": "Default",
      "_links": {
        "self": {
          "href": "/api/network/ipspaces/dcc7e79c-5acc-11e8-b9de-
005056b42b32"
        }
      }
    },
    {
      "uuid": "dfd3c1b2-5acc-11e8-b9de-005056b42b32",
      "name": "Cluster",
      "_links": {
        "self": {
```

```
    "href": "/api/network/ipspaces/dfd3c1b2-5acc-11e8-b9de-005056b42b32"
  }
}
},
{
  "uuid": "dedec1be-5aec-1eee-beee-0eee56be2b3e",
  "name": "IpSPACE1",
  "_links": {
    "self": {
      "href": "/api/network/ipspaces/dedec1be-5aec-1eee-beee-0eee56be2b3e"
    }
  }
}
],
"num_records": 3,
"_links": {
  "self": {
    "href": "/api/network/ipspaces?fields=*"
  }
}
}
```

---

### Retrieving a specific IPspace in the cluster

The following example returns the specific IPspace requested. The system returns an error if there is no IPspace with the requested UUID.

---

```
# The API:
/api/network/ipspaces/{uuid}

# The call:
curl -X GET "https://<mgmt-ip>/api/network/ipspaces/dfd3c1b2-5acc-11e8-
b9de-005056b42b32?fields=*" -H "accept: application/hal+json"

# The response:
{
  "uuid": "dcc7e79c-5acc-11e8-b9de-005056b42b32",
  "name": "Default",
  "_links": {
    "self": {
      "href": "/api/network/ipspaces/dcc7e79c-5acc-11e8-b9de-005056b42b32"
    }
  }
}
```

---

## Creating IPspaces

You can use the network IPspaces POST API to create IPspaces.

---

## Example

### Creating an IPspace

The following output displays the record returned after the creation of an IPspace with the name "ipspace1".

---

```
# The API:
/api/network/ipspaces

# The call:
curl -X POST "https://<mgmt-ip>/api/network/ipspaces?return_records=true"
-H "accept: application/hal+json" -d '{"name": "ipspace2"}'

# The response:
{
  "num_records": 1,
  "records": [
    {
      "uuid": "4165655e-0528-11e9-bd68-005056bb046a",
      "name": "ipspace2",
      "_links": {
        "self": {
          "href": "/api/network/ipspaces/4165655e-0528-11e9-bd68-005056bb046a"
        }
      }
    }
  ]
}
```

---

## Updating IPspaces

You can use the IPspaces PATCH API to update the attributes of the IPspace.

---

### Example

#### Updating the name of an IPspace

The following PATCH request is used to update the name of the IPspace from "ipspace2" to "ipspace20".

---

```
# The API:
/api/network/ipspaces/{uuid}

# The call:
curl -X PATCH "https://<mgmt-ip>/api/network/ipspaces/4165655e-0528-11e9-
bd68-005056bb046a" -H "accept: application/hal+json" -d "{ \"name\":
\"ipspace20\"}"
```

---

## Deleting IPspaces

You can use the IPspaces DELETE API to delete an IPspace.

---

### Example

#### Deleting an IPspace

The following DELETE request is used to delete an IPspace.

```
# The API:
/api/network/ipspaces/{uuid}

# The call:
curl -X DELETE "https://<mgmt-ip>/api/network/ipspaces/4165655e-0528-11e9-
bd68-005056bb046a" -H "accept: application/hal+json" -H "Content-Type:
application/json"
```

---

## Retrieve IPspaces for a cluster

GET /network/ipspaces

**Introduced In:** 9.6

Retrieves a collection of IPspaces for the entire cluster.

### Related ONTAP commands

- network ipspace show

## Parameters

Name	Type	In	Required	Description
uuid	string	query	False	Filter by uuid
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"><li>• Default value: 1</li></ul>
return_timeout	integer	query	False	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. <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	
records	array[ <a href="#">ipSPACE</a> ]	

### Example response

```

{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": "1",
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "ipSPACE1",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    }
  ]
}

```

### Error

Status: Default, Error

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
next	<a href="#">href</a>	
self	<a href="#">href</a>	

\_links

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

ipospace

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	IPspace name
uuid	string	The UUID that uniquely identifies the IPspace.

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
message	string	Error message

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

## Create a new domain with unique IP addresses

POST /network/ipspaces

**Introduced In:** 9.6

Creates a new domain within which IP addresses are unique. SVMs, ports, and networks are scoped to a single IPspace.

### Required properties

- name - Name of the IPspace to create.

### Related ONTAP commands

- `network ipspace create`

### Parameters

Name	Type	In	Required	Description
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
<a href="#">_links</a>	<a href="#">_links</a>	
name	string	IPspace name
uuid	string	The UUID that uniquely identifies the IPspace.

## Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "name": "ipspace1",
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
}
```

## Response

Status: 201, Created

## Error

Status: Default

### ONTAP Error Response Codes

Error Code	Description
1966586	The specified IPspace name is invalid because it is already used by a peered SVM.
1967102	A POST operation might have left the configuration in an inconsistent state. Check the configuration.

### ONTAP Error Response Codes

Error Code	Description
9240591	The name is not valid. The name is already in use by a cluster node, Vserver, or it is the name of the local cluster.

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>	

ipspace

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	IPspace name
uuid	string	The UUID that uniquely identifies the IPspace.

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
message	string	Error message
target	string	The target parameter that caused the error.

# Delete an IPspace object

DELETE /network/ipspaces/{uuid}

Introduced In: 9.6

Deletes an IPspace object.

## Related ONTAP commands

- `network ipspace delete`

## Parameters

Name	Type	In	Required	Description
uuid	string	path	True	IPspace UUID

## Response

```
Status: 200, Ok
```

# Retrieve information about an IPspace

GET /network/ipspaces/{uuid}

Introduced In: 9.6

Retrieves information about a specific IPspace.

## Related ONTAP commands

- `network ipspace show`

## Parameters

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

## Response



Status: 200, Ok

Name	Type	Description
<a href="#">_links</a>	<a href="#">_links</a>	
name	string	IPspace name
uuid	string	The UUID that uniquely identifies the IPspace.

### Example response

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "name": "ipspace1",
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
}
```

### Error

Status: Default, Error

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>	

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
message	string	Error message
target	string	The target parameter that caused the error.

## Update an IPspace object

PATCH /network/ipspaces/{uuid}

**Introduced In:** 9.6

Updates an IPspace object.

### Related ONTAP commands

- `network ipspace rename`

## Parameters

Name	Type	In	Required	Description
uuid	string	path	True	IPspace UUID

## Request Body

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	IPspace name
uuid	string	The UUID that uniquely identifies the IPspace.

## Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "name": "ipspace1",
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
}
```

## Response

Status: 200, Ok

## Definitions

## See Definitions

href

Name	Type	Description
href	string	

\_links

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

ipspace

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	IPspace name
uuid	string	The UUID that uniquely identifies the IPspace.

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