



# Manage network IPspaces

## ONTAP 9.14.1 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	Number of records
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="#">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>	

\_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

returned\_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
_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: 201, Created

## Headers

Name	Description	Type
Location	Useful for tracking the resource location	string

## 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.
9240588	The name is too long.
9240589	Invalid character in name.
9240590	The name is reserved by the system.
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.

Error Code	Description
53281576	Cannot create IPspace because the maximum number of custom IPspaces has already been reached on the cluster.

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

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

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.

# 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
```

## Error

```
Status: Default
```

## ONTAP Error Response Codes

Error Code	Description
1966333	IPspace can't be removed because it has SVMs assigned.
1966407	Cannot delete an IPspace with an existing broadcast domain.

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

#### 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.

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

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.

## 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

## Error

Status: Default

## ONTAP Error Response Codes

Error Code	Description
1377256	Another IPspace with the same name exists.

Error Code	Description
1377259	System-defined IPspaces cannot be modified or removed.
9240587	IPspace name cannot be empty.
9240588	The specified name is too long.
9240589	Invalid character in specified name.
9240591	The specified name is already in use.

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

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

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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