



# Manage network IP subnets

## ONTAP 9.13.1 REST API reference

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April 02, 2024

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# Manage network IP subnets

## Network IP subnets endpoint overview

### Overview

The following operations are supported:

- Creation: POST network/ip/subnets
- Collection Get: GET network/ip/subnets
- Instance Get: GET network/ip/subnets/{uuid}
- Instance Patch: PATCH network/ip/subnets/{uuid}
- Instance Delete: DELETE network/ip/subnets/{uuid}

### Retrieving IP subnet information

The IP subnets GET API retrieves and displays relevant information pertaining to the subnets configured in the cluster. The response can contain a list of multiple subnets or a specific subnet.

### Examples

#### Retrieving all subnets in the cluster

The following example shows the list of all subnets configured in a cluster.

---

```
# The API:
/api/network/ip/subnets

# The call:
curl -X GET "https://<mgmt-ip>/api/network/ip/subnets" -H "accept:
application/hal+json"

# The response:
{
  "records": [
    {
      "uuid": "451d8d99-582c-11ec-8572-005056acd597",
      "name": "Subnet-002",
      "_links": {
        "self": {
          "href": "/api/network/ip/subnets/451d8d99-582c-11ec-8572-
005056acd597"
        }
      }
    },
    {
      "uuid": "615b722f-5795-11ec-8572-005056acd597",
      "name": "Subnet-001",
      "_links": {
        "self": {
          "href": "/api/network/ip/subnets/615b722f-5795-11ec-8572-
005056acd597"
        }
      }
    }
  ],
  "num_records": 2,
  "_links": {
    "self": {
      "href": "/api/network/ip/subnets"
    }
  }
}
```

---

### Retrieving a specific subnet

The following example shows the response when a specific subnet is requested. This is equivalent to `fields=*`, which returns most of the fields. The system returns an error when there is no subnet with the requested UUID.

```
# The API:
/api/network/ip/subnets/{uuid}

# The call:
curl -X GET "https://<mgmt-ip>/api/network/ip/subnets/451d8d99-582c-11ec-8572-005056acd597" -H "accept: application/hal+json"

# The response:
{
  "uuid": "451d8d99-582c-11ec-8572-005056acd597",
  "name": "Subnet-002",
  "ipspace": {
    "uuid": "6f62c691-5780-11ec-8572-005056acd597",
    "name": "Default",
    "_links": {
      "self": {
        "href": "/api/network/ipspaces/6f62c691-5780-11ec-8572-005056acd597"
      }
    }
  },
  "broadcast_domain": {
    "uuid": "9a1dce3b-5780-11ec-8572-005056acd597",
    "name": "Default",
    "_links": {
      "self": {
        "href": "/api/network/ethernet/broadcast-domains/9a1dce3b-5780-11ec-8572-005056acd597"
      }
    }
  },
  "subnet": {
    "address": "10.2.1.0",
    "netmask": "24",
    "family": "ipv4"
  },
  "gateway": "10.2.1.1",
  "_links": {
    "self": {
      "href": "/api/network/ip/subnets/451d8d99-582c-11ec-8572-005056acd597"
    }
  }
}
```

## Retrieving all the fields for a specific subnet

The following example shows the response when all the fields for a specific subnet are requested, returning everything that `fields=*` returns plus the IP ranges and count fields. The system returns an error when there is no subnet with the requested UUID.

```
# The API:
/api/network/ip/subnets/{uuid}

# The call:
curl -X GET "https://<mgmt-ip>/api/network/ip/subnets/451d8d99-582c-11ec-8572-005056acd597?fields=*" -H "accept: application/hal+json"

# The response:
{
  "uuid": "451d8d99-582c-11ec-8572-005056acd597",
  "name": "Subnet-002",
  "ipspace": {
    "uuid": "6f62c691-5780-11ec-8572-005056acd597",
    "name": "Default",
    "_links": {
      "self": {
        "href": "/api/network/ipspaces/6f62c691-5780-11ec-8572-005056acd597"
      }
    }
  },
  "broadcast_domain": {
    "uuid": "9a1dce3b-5780-11ec-8572-005056acd597",
    "name": "Default",
    "_links": {
      "self": {
        "href": "/api/network/ethernet/broadcast-domains/9a1dce3b-5780-11ec-8572-005056acd597"
      }
    }
  },
  "subnet": {
    "address": "10.2.1.0",
    "netmask": "24",
    "family": "ipv4"
  },
  "gateway": "10.2.1.1",
  "ip_ranges": [
    {
      "start": "10.2.1.10",
```

```
    "end": "10.2.1.22",
    "family": "ipv4"
  },
  {
    "start": "10.2.1.101",
    "end": "10.2.1.200",
    "family": "ipv4"
  }
],
"available_ip_ranges": [
  {
    "start": "10.2.1.10",
    "end": "10.2.1.22",
    "family": "ipv4"
  },
  {
    "start": "10.2.1.101",
    "end": "10.2.1.200",
    "family": "ipv4"
  }
],
"total_count": 113,
"used_count": 0,
"available_count": 113,
"_links": {
  "self": {
    "href": "/api/network/ip/subnets/451d8d99-582c-11ec-8572-005056acd597?fields=**"
  }
}
}
```

---

## Creating IP subnets

You can use the IP subnets POST API to create IP subnets as shown in the following examples.

---

## Examples

### Creating an IP subnet using the minimum number of parameters.

The following example shows the record returned after the creation of an IP subnet.

---

```

# The API:
/api/network/ip/subnets

# The call:
curl -X POST "https://<mgmt-ip>/api/network/ip/subnets" -H "accept:
application/hal+json" -d '{ "name": "Subnet-003", "broadcast_domain": {
"uuid": "6577524b-5863-11ec-8981-005056a7077f" }, "subnet": { "address":
"10.3.0.0", "netmask": "16" } }'

# The response:
{
}

# The result:
curl -X GET "https://<mgmt-ip>/api/network/ip/subnets?name=Subnet-
003&fields=**" -H "accept: application/hal+json"
{
"records": [
  {
    "uuid": "79ff5a5e-59b7-11ec-8981-005056a7077f",
    "name": "Subnet-003",
    "ipspace": {
      "uuid": "36569d0f-5863-11ec-8981-005056a7077f",
      "name": "Default",
      "_links": {
        "self": {
          "href": "/api/network/ipspaces/36569d0f-5863-11ec-8981-
005056a7077f"
        }
      }
    },
    "broadcast_domain": {
      "uuid": "6577524b-5863-11ec-8981-005056a7077f",
      "name": "Default",
      "_links": {
        "self": {
          "href": "/api/network/ethernet/broadcast-domains/6577524b-5863-
11ec-8981-005056a7077f"
        }
      }
    },
    "subnet": {
      "address": "10.3.0.0",
      "netmask": "16",
      "family": "ipv4"
    },
  },
}

```



```

    "total_count": 0,
    "used_count": 0,
    "available_count": 0,
    "_links": {
      "self": {
        "href": "/api/network/ip/subnets/79ff5a5e-59b7-11ec-8981-005056a7077f?fields=**"
      }
    }
  },
  "num_records": 1,
  "_links": {
    "self": {
      "href": "/api/network/ip/subnets?name=Subnet-003&fields=**"
    }
  }
}

```

### Creating an IP subnet using all parameters.

The following example shows the record returned after the creation of an IP subnet setting all parameters.

```

# The API:
/api/network/ip/subnets

# The call:
curl -X POST "https://<mgmt-ip>/api/network/ip/subnets" -H "accept: application/hal+json" -d '{ "name": "Subnet-004", "ipspace": { "name": "Default", "uuid": "36569d0f-5863-11ec-8981-005056a7077f" }, "broadcast_domain": { "name": "Default", "uuid": "6577524b-5863-11ec-8981-005056a7077f" }, "subnet": { "address": "10.4.1.0", "netmask": "24" }, "gateway": "10.4.1.1", "ip_ranges": [ { "start": "10.4.1.30", "end": "10.4.1.39" }, { "start": "10.4.1.150", "end": "10.4.1.229" } ], "fail_if_lifs_conflict": "false" }'

# The response:
{
}

# The result:
curl -X GET "https://<mgmt-ip>/api/network/ip/subnets?name=Subnet-

```

```
004&fields=**" -H "accept: application/hal+json"
{
  "records": [
    {
      "uuid": "0e0a19e7-59ba-11ec-8981-005056a7077f",
      "name": "Subnet-004",
      "ipspace": {
        "uuid": "36569d0f-5863-11ec-8981-005056a7077f",
        "name": "Default",
        "_links": {
          "self": {
            "href": "/api/network/ipspaces/36569d0f-5863-11ec-8981-005056a7077f"
          }
        }
      },
      "broadcast_domain": {
        "uuid": "6577524b-5863-11ec-8981-005056a7077f",
        "name": "Default",
        "_links": {
          "self": {
            "href": "/api/network/ethernet/broadcast-domains/6577524b-5863-11ec-8981-005056a7077f"
          }
        }
      },
      "subnet": {
        "address": "10.4.1.0",
        "netmask": "24",
        "family": "ipv4"
      },
      "gateway": "10.4.1.1",
      "ip_ranges": [
        {
          "start": "10.4.1.30",
          "end": "10.4.1.39",
          "family": "ipv4"
        },
        {
          "start": "10.4.1.150",
          "end": "10.4.1.229",
          "family": "ipv4"
        }
      ],
      "available_ip_ranges": [
        {
```

```
    "start": "10.4.1.30",
    "end": "10.4.1.39",
    "family": "ipv4"
  },
  {
    "start": "10.4.1.150",
    "end": "10.4.1.229",
    "family": "ipv4"
  }
],
"total_count": 90,
"used_count": 0,
"available_count": 90,
"_links": {
  "self": {
    "href": "/api/network/ip/subnets/0e0a19e7-59ba-11ec-8981-005056a7077f?fields=**"
  }
}
],
"num_records": 1,
"_links": {
  "self": {
    "href": "/api/network/ip/subnets?name=Subnet-004&fields=**"
  }
}
}
```

---

## Updating IP subnets

You can use the IP subnets PATCH API to update the attributes of an IP subnet.

---

## Examples

### Updating the name of an IP subnet

The following example shows how the PATCH request changes the name.

---

```
# The API:
/api/network/ip/subnets/{uuid}

# The call:
curl -X PATCH "https://<mgmt-ip>/api/network/ip/subnets/0e0a19e7-59ba-11ec-8981-005056a7077f" -H "accept: application/hal+json" -d '{ "name": "Subnet-004-NewName" }'

# The response:
{
}

# The result:
curl -X GET "https://<mgmt-ip>/api/network/ip/subnets/0e0a19e7-59ba-11ec-8981-005056a7077f?fields=name" -H "accept: application/hal+json"
{
  "uuid": "0e0a19e7-59ba-11ec-8981-005056a7077f",
  "name": "Subnet-004-NewName",
  "_links": {
    "self": {
      "href": "/api/network/ip/subnets/0e0a19e7-59ba-11ec-8981-005056a7077f"
    }
  }
}
```

---

## Updating the ip\_ranges of an IP subnet

The following example shows how the PATCH request updates the ip\_ranges.

---

```
# The API:
/api/network/ip/subnets/{uuid}

# The call:
curl -X PATCH "https://<mgmt-ip>/api/network/ip/subnets/0e0a19e7-59ba-11ec-8981-005056a7077f" -H "accept: application/hal+json" -d '{
"ip_ranges": [ { "start": "10.4.1.20", "end": "10.4.1.239" } ] }'

# The response:
{
}

# The result:
curl -X GET "https://<mgmt-ip>/api/network/ip/subnets/0e0a19e7-59ba-11ec-8981-005056a7077f?fields=ip_ranges" -H "accept: application/hal+json"
{
"uuid": "0e0a19e7-59ba-11ec-8981-005056a7077f",
"name": "Subnet-004-NewName",
"ip_ranges": [
  {
    "start": "10.4.1.20",
    "end": "10.4.1.239",
    "family": "ipv4"
  }
],
"_links": {
  "self": {
    "href": "/api/network/ip/subnets/0e0a19e7-59ba-11ec-8981-005056a7077f"
  }
}
}
```

---

## Deleting IP subnets

You can use the IP subnets DELETE API to delete an IP subnet.

---

### Example

#### Deleting an IP subnet

The following DELETE request deletes a specific network IP subnet.

```

# The API:
/api/network/ip/subnets/{uuid}

# The call:
curl -X DELETE "https://<mgmt-ip>/api/network/ip/subnets/0e0a19e7-59ba-11ec-8981-005056a7077f"

# The response:
{
}

# The result:
curl -X GET "https://<mgmt-ip>/api/network/ip/subnets/0e0a19e7-59ba-11ec-8981-005056a7077f" -H "accept: application/hal+json"
{
  "error": {
    "message": "entry doesn't exist",
    "code": "4",
    "target": "uuid"
  }
}

```

## Retrieve details for all subnets

GET /network/ip/subnets

**Introduced In:** 9.11

Retrieves details for all subnets.

### Related ONTAP Commands

- network subnet show

### Parameters

Name	Type	In	Required	Description
used_count	integer	query	False	Filter by used_count
broadcast_domain.name	string	query	False	Filter by broadcast_domain.name

Name	Type	In	Required	Description
broadcast_domain.uuid	string	query	False	Filter by broadcast_domain.uuid
name	string	query	False	Filter by name
uuid	string	query	False	Filter by uuid
gateway	string	query	False	Filter by gateway
subnet.netmask	string	query	False	Filter by subnet.netmask
subnet.address	string	query	False	Filter by subnet.address
subnet.family	string	query	False	Filter by subnet.family
available_ip_ranges.start	string	query	False	Filter by available_ip_ranges.start
available_ip_ranges.end	string	query	False	Filter by available_ip_ranges.end
available_ip_ranges.family	string	query	False	Filter by available_ip_ranges.family
ip_ranges.start	string	query	False	Filter by ip_ranges.start
ip_ranges.end	string	query	False	Filter by ip_ranges.end
ip_ranges.family	string	query	False	Filter by ip_ranges.family
ipspace.name	string	query	False	Filter by ipspace.name
ipspace.uuid	string	query	False	Filter by ipspace.uuid

Name	Type	In	Required	Description
total_count	integer	query	False	Filter by total_count
available_count	integer	query	False	Filter by available_count
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="#">ip_subnet</a> ]	

## Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "available_count": 0,
    "available_ip_ranges": {
      "end": "10.10.10.7",
      "family": "ipv4",
      "start": "10.10.10.7"
    },
    "broadcast_domain": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "bd1",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    },
    "gateway": "10.1.1.1",
    "ip_ranges": {
      "end": "10.10.10.7",
      "family": "ipv4",
      "start": "10.10.10.7"
    },
    "ipspace": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "exchange",
```

```
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "name": "subnet1",
  "subnet": {
    "address": "10.10.10.7",
    "family": "ipv4",
    "netmask": "24"
  },
  "total_count": 0,
  "used_count": 0,
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
}
}
```

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

\_links

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

ip\_address\_range

IP address range

Name	Type	Description
end	string	IPv4 or IPv6 address
family	string	IPv4 or IPv6
start	string	IPv4 or IPv6 address

broadcast\_domain

The broadcast domain that the subnet is associated with. Either the UUID or name must be supplied on POST.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	Name of the broadcast domain, scoped to its IPspace
uuid	string	Broadcast domain UUID

ipspace

The IPspace that the subnet is associated with. Either the UUID or name must be supplied on POST.

Name	Type	Description
<a href="#">_links</a>	<a href="#">_links</a>	
name	string	IPspace name
uuid	string	IPspace UUID

ip\_info

IP information

Name	Type	Description
address	string	IPv4 or IPv6 address
family	string	IPv4 or IPv6
netmask	string	Input as netmask length (16) or IPv4 mask (255.255.0.0). For IPv6, the default value is 64 with a valid range of 1 to 127. Output is always netmask length.

ip\_subnet

Name	Type	Description
<a href="#">_links</a>	<a href="#">_links</a>	
available_count	integer	
available_ip_ranges	array[ <a href="#">ip_address_range</a> ]	
broadcast_domain	<a href="#">broadcast_domain</a>	The broadcast domain that the subnet is associated with. Either the UUID or name must be supplied on POST.
fail_if_lifs_conflict	boolean	This action will fail if any existing interface is using an IP address in the ranges provided. Set this to false to associate any manually addressed interfaces with the subnet and allow the action to succeed.
gateway	string	The IP address of the gateway for this subnet.
ip_ranges	array[ <a href="#">ip_address_range</a> ]	

Name	Type	Description
ipspace	<a href="#">ipspace</a>	The IPspace that the subnet is associated with. Either the UUID or name must be supplied on POST.
name	string	Subnet name
subnet	<a href="#">ip_info</a>	IP information
total_count	integer	
used_count	integer	
uuid	string	The UUID that uniquely identifies the subnet.

#### 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.

## Create a new named subnet

POST /network/ip/subnets

**Introduced In:** 9.11

Creates a new named subnet.

## Required properties

- `name` - Name of the subnet to create.
- `broadcast_domain` - Broadcast domain containing the subnet.
- `ipspace` - IPspace containing the subnet. Required only if `broadcast_domain.uuid` is not provided.
- `subnet.address` - IP address for the subnet.
- `subnet.netmask` - IP netmask of the subnet.

## Recommended property values

### Default property values

If not specified in POST, the following default property values are assigned:

- `gateway` - no gateway
- `ip_ranges` - empty
- `fail_if_lifs_conflict` - *true*

## Related ONTAP commands

- `network subnet 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.  • Default value:

## Request Body

Name	Type	Description
<code>_links</code>	<a href="#">_links</a>	
<code>available_count</code>	integer	
<code>available_ip_ranges</code>	array[ <a href="#">ip_address_range</a> ]	
<code>broadcast_domain</code>	<a href="#">broadcast_domain</a>	The broadcast domain that the subnet is associated with. Either the UUID or name must be supplied on POST.

Name	Type	Description
fail_if_lifs_conflict	boolean	This action will fail if any existing interface is using an IP address in the ranges provided. Set this to false to associate any manually addressed interfaces with the subnet and allow the action to succeed.
gateway	string	The IP address of the gateway for this subnet.
ip_ranges	array[ip_address_range]	
ipspace	ipspace	The IPspace that the subnet is associated with. Either the UUID or name must be supplied on POST.
name	string	Subnet name
subnet	ip_info	IP information
total_count	integer	
used_count	integer	
uuid	string	The UUID that uniquely identifies the subnet.



## Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "available_count": 0,
  "available_ip_ranges": {
    "end": "10.10.10.7",
    "family": "ipv4",
    "start": "10.10.10.7"
  },
  "broadcast_domain": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "bd1",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "gateway": "10.1.1.1",
  "ip_ranges": {
    "end": "10.10.10.7",
    "family": "ipv4",
    "start": "10.10.10.7"
  },
  "ipspace": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "exchange",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "name": "subnet1",
  "subnet": {
    "address": "10.10.10.7",
    "family": "ipv4",
    "netmask": "24"
  },
  "total_count": 0,
  "used_count": 0,
}
```

```
"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
1377660	A subnet with the name already exists in the IPspace.
1377661	Subnet in IPspace cannot use subnet address because that address is already used by another subnet in the same IPspace.
1377662	The IP range address is not within the subnet in IPspace.
1377663	The specified IP address range of subnet in IPspace contains an address already in use by a LIF.
1377664	The specified IP address range of subnet in IPspace contains an address already in use by the Service Processor.
1377673	The addresses provided must have the same address family.
1377681	Cannot update LIF associations for LIF. The broadcast domain of the LIF does not match the broadcast domain of the subnet.
1966269	IPv4 Addresses must have a prefix length between 1 and 32.
1967082	The specified ipspace.name does not match the IPspace name of specified ipspace.uuid

Error Code	Description
53282568	The subnet.address must be specified together with subnet.netmask.
53282569	The specified subnet.netmask is not valid.
53282570	Each pair of ranges must have ip_ranges.start less than or equal to ip_ranges.end.
53282571	The ip_ranges.start and ip_ranges.end fields must have the same number of items.
53282573	Broadcast domain is a required parameter. The broadcast_domain.name and/or the broadcast_domain.uuid must be specified.
53282574	The specified broadcast_domain and ipspace parameters do not match.
53282575	Operation might have left configuration in an inconsistent state. Unable to set UUID for created entry.
53282576	The specified ipspace.uuid is invalid.
53282577	The specified broadcast_domain.uuid is invalid.
53282578	The specified broadcast_domain.name does not match the IPspace name of specified broadcast_domain.uuid
53282579	Missing the ipspace.name or ipspace.uuid parameter.

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

ip\_address\_range

IP address range

Name	Type	Description
end	string	IPv4 or IPv6 address
family	string	IPv4 or IPv6
start	string	IPv4 or IPv6 address

broadcast\_domain

The broadcast domain that the subnet is associated with. Either the UUID or name must be supplied on POST.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	Name of the broadcast domain, scoped to its IPspace
uuid	string	Broadcast domain UUID

ipspace

The IPspace that the subnet is associated with. Either the UUID or name must be supplied on POST.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	IPspace name
uuid	string	IPspace UUID

## ip\_info

### IP information

Name	Type	Description
address	string	IPv4 or IPv6 address
family	string	IPv4 or IPv6
netmask	string	Input as netmask length (16) or IPv4 mask (255.255.0.0). For IPv6, the default value is 64 with a valid range of 1 to 127. Output is always netmask length.

## ip\_subnet

Name	Type	Description
_links	<a href="#">_links</a>	
available_count	integer	
available_ip_ranges	array[ <a href="#">ip_address_range</a> ]	
broadcast_domain	<a href="#">broadcast_domain</a>	The broadcast domain that the subnet is associated with. Either the UUID or name must be supplied on POST.
fail_if_lifs_conflict	boolean	This action will fail if any existing interface is using an IP address in the ranges provided. Set this to false to associate any manually addressed interfaces with the subnet and allow the action to succeed.
gateway	string	The IP address of the gateway for this subnet.
ip_ranges	array[ <a href="#">ip_address_range</a> ]	
ipspace	<a href="#">ipspace</a>	The IPspace that the subnet is associated with. Either the UUID or name must be supplied on POST.
name	string	Subnet name
subnet	<a href="#">ip_info</a>	IP information

Name	Type	Description
total_count	integer	
used_count	integer	
uuid	string	The UUID that uniquely identifies the subnet.

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 IP subnet

DELETE /network/ip/subnets/{uuid}

**Introduced In:** 9.11

Deletes an IP subnet.

### Related ONTAP commands

- `network subnet delete`

### Parameters

Name	Type	In	Required	Description
uuid	string	path	True	IP subnet UUID

## Response

Status: 200, Ok

## Retrieve IP subnet details

GET /network/ip/subnets/{uuid}

Introduced In: 9.11

Retrieves details for a specific IP subnet.

## Related ONTAP commands

- `network subnet show`

## Parameters

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

## Response

Status: 200, Ok

Name	Type	Description
_links	<a href="#">_links</a>	
available_count	integer	
available_ip_ranges	array[ <a href="#">ip_address_range</a> ]	
broadcast_domain	<a href="#">broadcast_domain</a>	The broadcast domain that the subnet is associated with. Either the UUID or name must be supplied on POST.



Name	Type	Description
fail_if_lifs_conflict	boolean	This action will fail if any existing interface is using an IP address in the ranges provided. Set this to false to associate any manually addressed interfaces with the subnet and allow the action to succeed.
gateway	string	The IP address of the gateway for this subnet.
ip_ranges	array[ip_address_range]	
ipspace	ipspace	The IPspace that the subnet is associated with. Either the UUID or name must be supplied on POST.
name	string	Subnet name
subnet	ip_info	IP information
total_count	integer	
used_count	integer	
uuid	string	The UUID that uniquely identifies the subnet.

## Example response

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "available_count": 0,
  "available_ip_ranges": {
    "end": "10.10.10.7",
    "family": "ipv4",
    "start": "10.10.10.7"
  },
  "broadcast_domain": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "bd1",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "gateway": "10.1.1.1",
  "ip_ranges": {
    "end": "10.10.10.7",
    "family": "ipv4",
    "start": "10.10.10.7"
  },
  "ipspace": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "exchange",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "name": "subnet1",
  "subnet": {
    "address": "10.10.10.7",
    "family": "ipv4",
    "netmask": "24"
  },
  "total_count": 0,
  "used_count": 0,
}
```

```
"uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
}
```

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

ip\_address\_range

IP address range

Name	Type	Description
end	string	IPv4 or IPv6 address
family	string	IPv4 or IPv6
start	string	IPv4 or IPv6 address

broadcast\_domain

The broadcast domain that the subnet is associated with. Either the UUID or name must be supplied on POST.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	Name of the broadcast domain, scoped to its IPspace
uuid	string	Broadcast domain UUID

ipspace

The IPspace that the subnet is associated with. Either the UUID or name must be supplied on POST.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	IPspace name
uuid	string	IPspace UUID

ip\_info

IP information

Name	Type	Description
address	string	IPv4 or IPv6 address
family	string	IPv4 or IPv6
netmask	string	Input as netmask length (16) or IPv4 mask (255.255.0.0). For IPv6, the default value is 64 with a valid range of 1 to 127. Output is always netmask length.

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 IP subnet

PATCH /network/ip/subnets/{uuid}

**Introduced In:** 9.11

Updates an IP subnet.

## Related ONTAP commands

- `network subnet modify`
- `network subnet rename`
- `network subnet add-ranges`
- `network subnet remove-ranges`

## Parameters

Name	Type	In	Required	Description
uuid	string	path	True	IP subnet UUID

## Request Body

Name	Type	Description
<code>_links</code>	<a href="#">_links</a>	
<code>available_count</code>	integer	
<code>available_ip_ranges</code>	array[ <a href="#">ip_address_range</a> ]	
<code>broadcast_domain</code>	<a href="#">broadcast_domain</a>	The broadcast domain that the subnet is associated with. Either the UUID or name must be supplied on POST.
<code>fail_if_lifs_conflict</code>	boolean	This action will fail if any existing interface is using an IP address in the ranges provided. Set this to false to associate any manually addressed interfaces with the subnet and allow the action to succeed.
<code>gateway</code>	string	The IP address of the gateway for this subnet.
<code>ip_ranges</code>	array[ <a href="#">ip_address_range</a> ]	
<code>ipspace</code>	<a href="#">ipspace</a>	The IPspace that the subnet is associated with. Either the UUID or name must be supplied on POST.
<code>name</code>	string	Subnet name
<code>subnet</code>	<a href="#">ip_info</a>	IP information
<code>total_count</code>	integer	

Name	Type	Description
used_count	integer	
uuid	string	The UUID that uniquely identifies the subnet.

## Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "available_count": 0,
  "available_ip_ranges": {
    "end": "10.10.10.7",
    "family": "ipv4",
    "start": "10.10.10.7"
  },
  "broadcast_domain": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    }
  },
  "name": "bd1",
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
},
"gateway": "10.1.1.1",
"ip_ranges": {
  "end": "10.10.10.7",
  "family": "ipv4",
  "start": "10.10.10.7"
},
"ipspace": {
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  }
},
"name": "exchange",
"uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
},
"name": "subnet1",
"subnet": {
  "address": "10.10.10.7",
  "family": "ipv4",
  "netmask": "24"
},
"total_count": 0,
"used_count": 0,
```



```
"uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"  
}
```

## Response

Status: 200, Ok

## Error

Status: Default

Fill error codes below. ONTAP Error Response Codes

Error Code	Description
1377658	Invalid gateway for subnet in IPspace.
1377659	Subnet would overlap with existing subnet named in IPspace.
1377660	A subnet with the name already exists in the IPspace.
1377661	Subnet in IPspace cannot use subnet address because that address is already used by subnet in the same IPspace.
1377662	The IP range address is not within the subnet in IPspace.
1377663	The specified IP address range of subnet in IPspace contains an address already in use by a LIF.
1377664	The specified IP address range of subnet in IPspace contains an address already in use by the Service Processor.
1377669	The specified gateway address exists in a configured range.
1377673	The addresses provided must have the same address family.
1377674	Modifying the netmask is not supported because the subnet has one or more interfaces associated with it.
1377675	The netmask of the interface did not match the netmask of the subnet.
1377681	Cannot update LIF associations for LIF. The broadcast domain of the LIF does not match the broadcast domain of the subnet.

Error Code	Description
1966269	IPv4 Addresses must have a prefix length between 1 and 32.
1966778	IPv6 addresses must have a prefix length between 1 and 127.
53282568	The subnet.address must be specified together with subnet.netmask.
53282569	The specified subnet.netmask is not valid.
53282570	Each pair of ranges must have ip_ranges.start less than or equal to ip_ranges.end.
53282571	The ip_ranges.start and ip_ranges.end fields must have the same number of items.
53282572	PATCH partially succeeded with error.

## Definitions

## See Definitions

href

Name	Type	Description
href	string	

\_links

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

ip\_address\_range

IP address range

Name	Type	Description
end	string	IPv4 or IPv6 address
family	string	IPv4 or IPv6
start	string	IPv4 or IPv6 address

broadcast\_domain

The broadcast domain that the subnet is associated with. Either the UUID or name must be supplied on POST.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	Name of the broadcast domain, scoped to its IPspace
uuid	string	Broadcast domain UUID

ipspace

The IPspace that the subnet is associated with. Either the UUID or name must be supplied on POST.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	IPspace name
uuid	string	IPspace UUID

## ip\_info

### IP information

Name	Type	Description
address	string	IPv4 or IPv6 address
family	string	IPv4 or IPv6
netmask	string	Input as netmask length (16) or IPv4 mask (255.255.0.0). For IPv6, the default value is 64 with a valid range of 1 to 127. Output is always netmask length.

## ip\_subnet

Name	Type	Description
_links	<a href="#">_links</a>	
available_count	integer	
available_ip_ranges	array[ <a href="#">ip_address_range</a> ]	
broadcast_domain	<a href="#">broadcast_domain</a>	The broadcast domain that the subnet is associated with. Either the UUID or name must be supplied on POST.
fail_if_lifs_conflict	boolean	This action will fail if any existing interface is using an IP address in the ranges provided. Set this to false to associate any manually addressed interfaces with the subnet and allow the action to succeed.
gateway	string	The IP address of the gateway for this subnet.
ip_ranges	array[ <a href="#">ip_address_range</a> ]	
ipspace	<a href="#">ipspace</a>	The IPspace that the subnet is associated with. Either the UUID or name must be supplied on POST.
name	string	Subnet name
subnet	<a href="#">ip_info</a>	IP information

<b>Name</b>	<b>Type</b>	<b>Description</b>
total_count	integer	
used_count	integer	
uuid	string	The UUID that uniquely identifies the subnet.

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