



Manage broadcast domains

ONTAP 9.6 REST API reference

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Table of Contents

- Manage broadcast domains 1
 - Network Ethernet broadcast-domains endpoint overview 1
 - Retrieve broadcast domains for the entire cluster 10
 - Create a new broadcast domain 18
 - Delete a broadcast domain 22
 - Retrieve broadcast domain details 25
 - Update broadcast domain properties 29

Manage broadcast domains

Network Ethernet broadcast-domains endpoint overview

Overview

A broadcast domain is a collection of Ethernet ports that have layer2 connectivity. They are used to determine which Ethernet ports can host interfaces of various types. The broadcast domain REST API allows you to retrieve, create, modify, and delete broadcast domains. The broadcast domain APIs do not manage port membership. To add a port to a broadcast domain or to move a port to a different broadcast domain, use `PATCH /network/ethernet/ports/<uuid>.</uuid>`

Retrieving network Ethernet broadcast domain information

The broadcast domains GET API retrieves and displays relevant information pertaining to the broadcast domains configured in the cluster. The API retrieves the list of all broadcast domains configured in the cluster, or a specific broadcast domain.

Examples

Retrieving all broadcast domains in the cluster

The following output shows the list of all broadcast domains configured in a cluster.

```
# The API:
/api/network/ethernet/broadcast-domains

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

# The response:
{
  "records": [
    {
      "uuid": "6970c2a9-f34f-11e8-8373-005056bb6b85",
      "name": "Cluster",
      "ipspace": {
        "uuid": "6267eff8-f34f-11e8-8373-005056bb6b85",
        "name": "Cluster",
        "_links": {
          "self": {
            "href": "/api/network/ipspaces/6267eff8-f34f-11e8-8373-
005056bb6b85"
          }
        }
      }
    }
  ]
}
```

```

    }
  },
  "ports": [
    {
      "uuid": "626b4d19-f34f-11e8-8373-005056bb6b85",
      "name": "e0a",
      "node": {
        "name": "examplecluster-node01"
      },
      "_links": {
        "self": {
          "href": "/api/network/ethernet/ports/626b4d19-f34f-11e8-8373-005056bb6b85"
        }
      }
    },
    {
      "uuid": "626b77b9-f34f-11e8-8373-005056bb6b85",
      "name": "e0b",
      "node": {
        "name": "examplecluster-node01"
      },
      "_links": {
        "self": {
          "href": "/api/network/ethernet/ports/626b77b9-f34f-11e8-8373-005056bb6b85"
        }
      }
    }
  ],
  "mtu": 9000,
  "_links": {
    "self": {
      "href": "/api/network/ethernet/broadcast-domains/6970c2a9-f34f-11e8-8373-005056bb6b85"
    }
  }
},
{
  "uuid": "6972416c-f34f-11e8-8373-005056bb6b85",
  "name": "Default",
  "ipspace": {
    "uuid": "5f650349-f34f-11e8-8373-005056bb6b85",
    "name": "Default",
    "_links": {

```

```

    "self": {
      "href": "/api/network/ipspaces/5f650349-f34f-11e8-8373-005056bb6b85"
    }
  },
  "ports": [
    {
      "uuid": "626bae19-f34f-11e8-8373-005056bb6b85",
      "name": "e0c",
      "node": {
        "name": "examplecluster-node01"
      },
      "_links": {
        "self": {
          "href": "/api/network/ethernet/ports/626bae19-f34f-11e8-8373-005056bb6b85"
        }
      }
    },
    {
      "uuid": "626bd677-f34f-11e8-8373-005056bb6b85",
      "name": "e0d",
      "node": {
        "name": "examplecluster-node01"
      },
      "_links": {
        "self": {
          "href": "/api/network/ethernet/ports/626bd677-f34f-11e8-8373-005056bb6b85"
        }
      }
    }
  ],
  "mtu": 1500,
  "_links": {
    "self": {
      "href": "/api/network/ethernet/broadcast-domains/6972416c-f34f-11e8-8373-005056bb6b85"
    }
  }
},
"num_records": 2,
"_links": {
  "self": {

```

```
    "href": "/api/network/ethernet/broadcast-domains?fields=*"
  }
}
}
```

Retrieving a specific broadcast domain

The following output shows the response returned when a specific broadcast domain is requested. The system returns an error if there is no broadcast domain with the requested UUID.

```
# The API:
/api/network/ethernet/broadcast-domains/{uuid}

# The call:
curl -X GET "https://<mgmt-ip>/api/network/ethernet/broadcast-
domains/4475a2c8-f8a0-11e8-8d33-005056bb986f/?fields=*" -H "accept:
application/hal+json"

# The response:
{
  "uuid": "4475a2c8-f8a0-11e8-8d33-005056bb986f",
  "name": "Cluster",
  "ipspace": {
    "uuid": "3e518ed5-f8a0-11e8-8d33-005056bb986f",
    "name": "Cluster",
    "_links": {
      "self": {
        "href": "/api/network/ipspaces/3e518ed5-f8a0-11e8-8d33-005056bb986f"
      }
    }
  },
  "ports": [
    {
      "uuid": "3e539a62-f8a0-11e8-8d33-005056bb986f",
      "name": "e0a",
      "node": {
        "name": "examplecluster-node01"
      },
      "_links": {
        "self": {
          "href": "/api/network/ethernet/ports/3e539a62-f8a0-11e8-8d33-
005056bb986f"
        }
      }
    }
  ]
}
```

```
    }
  },
  {
    "uuid": "3e53c94a-f8a0-11e8-8d33-005056bb986f",
    "name": "e0b",
    "node": {
      "name": "examplecluster-node01"
    },
    "_links": {
      "self": {
        "href": "/api/network/ethernet/ports/3e53c94a-f8a0-11e8-8d33-005056bb986f"
      }
    }
  }
],
"mtu": 9000,
"_links": {
  "self": {
    "href": "/api/network/ethernet/broadcast-domains/4475a2c8-f8a0-11e8-8d33-005056bb986f/"
  }
}
}
```

Retrieving all broadcast domains with a specific name

The following output shows the response returned when broadcast domains with a specific name in any IPspace are requested.

```
# The API:
/api/network/ethernet/broadcast-domains

# The call:
curl -X GET "https://10.224.87.121/api/network/ethernet/broadcast-
domains/?name=bd1" -H "accept: application/hal+json"

# The response:
{
  "records": [
    {
      "uuid": "66b607e5-4bee-11e9-af6a-005056bb13c0",
      "name": "bd1",
      "_links": {
        "self": {
          "href": "/api/network/ethernet/broadcast-domains/66b607e5-4bee-
11e9-af6a-005056bb13c0"
        }
      }
    }
  ],
  "num_records": 1,
  "_links": {
    "self": {
      "href": "/api/network/ethernet/broadcast-domains/?name=bd1"
    }
  }
}
```

Retrieving the broadcast domains for an IPspace

The following output shows the response returned when the broadcast domains for a specified IPspace are requested.

```
# The API:
/api/network/ethernet/broadcast-domains

# The call:
curl -X GET "https://10.224.87.121/api/network/ethernet/broadcast-
domains/?ipspace.name=Cluster&fields=*" -H "accept: application/hal+json"

# The response:
```



```

{
  "records": [
    {
      "uuid": "ae69070c-4bed-11e9-af6a-005056bb13c0",
      "name": "Cluster",
      "ipspace": {
        "uuid": "ac466a88-4bed-11e9-af6a-005056bb13c0",
        "name": "Cluster",
        "_links": {
          "self": {
            "href": "/api/network/ipspaces/ac466a88-4bed-11e9-af6a-005056bb13c0"
          }
        }
      },
      "ports": [
        {
          "uuid": "acd67884-4bed-11e9-af6a-005056bb13c0",
          "name": "e0a",
          "node": {
            "name": "examplecluster-node-1"
          },
          "_links": {
            "self": {
              "href": "/api/network/ethernet/ports/acd67884-4bed-11e9-af6a-005056bb13c0"
            }
          }
        },
        {
          "uuid": "acela36f-4bed-11e9-af6a-005056bb13c0",
          "name": "e0b",
          "node": {
            "name": "examplecluster-node-1"
          },
          "_links": {
            "self": {
              "href": "/api/network/ethernet/ports/acela36f-4bed-11e9-af6a-005056bb13c0"
            }
          }
        }
      ],
      "mtu": 1500,
      "_links": {
        "self": {

```

```
        "href": "/api/network/ethernet/broadcast-domains/ae69070c-4bed-
11e9-af6a-005056bb13c0"
      }
    }
  ],
  "num_records": 1,
  "_links": {
    "self": {
      "href": "/api/network/ethernet/broadcast-
domains/?ipstack.name=Cluster&fields=*"
    }
  }
}
```

Creating network Ethernet broadcast domains

The broadcast domains POST API is used to create broadcast domains.

Example

Creating a new broadcast domain

The following example shows how to create a broadcast domain with a name of 'bd1' and an MTU of 1500.

```
# The API:
/api/network/ethernet/broadcast-domains

# The call:
curl -X POST "https://<mgmt-ip>/api/network/ethernet/broadcast-
domains?return_records=true" -H "accept: application/hal+json" -d '{
"name": "bd1", "mtu": 1500 }'

# The response:
{
  "num_records": 1,
  "records": [
    {
      "name": "bd1",
      "mtu": 1500,
      "_links": {
        "self": {
          "href": "/api/network/ethernet/broadcast-domains/"
        }
      }
    }
  ]
}
```

Updating network Ethernet broadcast domains

The broadcast domain PATCH API is used to update attributes of broadcast domains.

Example

Updating the name and MTU of a specific broadcast domain

The following example shows how the PATCH request changes the broadcast domain name to 'bd2' and the broadcast domain MTU to 9000.

```
# The API:
/api/network/ethernet/broadcast-domains/{uuid}

# The call:
curl -X PATCH "https://<mgmt-ip>/api/network/ethernet/broadcast-
domains/6cde03b2-f8a2-11e8-8d33-005056bb986f/" -d '{ "name": "bd2", "mtu":
9000 }'
{
}
```

Deleting network Ethernet broadcast domains

The broadcast domain DELETE API is used to delete a broadcast domain from the cluster configuration.

Example

Deleting a specific broadcast domain

The following DELETE request deletes a broadcast domain.

```
# The API:
/api/network/ethernet/broadcast-domains/{uuid}

# The call:
curl -X DELETE "https://<mgmt-ip>/api/network/ethernet/broadcast-
domains/6cde03b2-f8a2-11e8-8d33-005056bb986f/"
```

Retrieve broadcast domains for the entire cluster

GET /network/ethernet/broadcast-domains

Retrieves a collection of broadcast domains for the entire cluster.

Related ONTAP commands

- `network port broadcast-domain show`

Learn more

- [DOC /network/ethernet/broadcast-domains](#)

Parameters

Name	Type	In	Required	Description
ports.node.name	string	query	False	Filter by ports.node.name
ports.name	string	query	False	Filter by ports.name
ports.uuid	string	query	False	Filter by ports.uuid
name	string	query	False	Filter by name
mtu	integer	query	False	Filter by mtu
uuid	string	query	False	Filter by uuid
ipspace.uuid	string	query	False	Filter by ipspace.uuid
ipspace.name	string	query	False	Filter by ipspace.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.
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.

Name	Type	In	Required	Description
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	
records	array[broadcast_domain]	

Example response

A large, empty rectangular box with a thin, dashed border, occupying most of the page. It is intended for an example response.

```

{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "ipospace": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "exchange",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      },
      "mtu": 1500,
      "name": "bd1",
      "ports": [
        {
          "_links": {
            "self": {
              "href": "/api/resourcelink"
            }
          },
          "name": "elb",
          "node": {
            "name": "node1"
          },
          "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
        }
      ],
      "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	href	
self	href	

_links

Name	Type	Description
self	href	

ipspace

Applies to both SVM and cluster-scoped objects. Either the UUID or name is supplied on input.

Name	Type	Description
_links	_links	
name	string	IPspace name
uuid	string	IPspace UUID

node

Name	Type	Description
name	string	Name of node on which the port is located.

ports

Port UUID along with readable names

Name	Type	Description
_links	_links	
name	string	
node	node	
uuid	string	

broadcast_domain

Set of ports that will receive a broadcast Ethernet packet from any of them

Name	Type	Description
_links	_links	
ipspace	ipspace	Applies to both SVM and cluster-scoped objects. Either the UUID or name is supplied on input.
mtu	integer	Maximum transmission unit, largest packet size on this network
name	string	Name of the broadcast domain, scoped to its IPspace
ports	array[ports]	Ports that belong to the broadcast domain
uuid	string	Broadcast domain UUID

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 new broadcast domain

POST /network/ethernet/broadcast-domains

Creates a new broadcast domain.

Required properties

- `name` - Name of the broadcast-domain to create.
- `mtu` - Maximum transmission unit of the broadcast domain.

Recommended optional properties

- `ipspace.name` or `ipspace.uuid` - IPspace the broadcast domain belongs to.

Default property values

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

- `ipspace` - *Default*

Related ONTAP commands

- `network port broadcast-domain create`

Learn more

- [DOC /network/ethernet/broadcast-domains](#)

Request Body

Name	Type	Description
<code>_links</code>	<code>_links</code>	
<code>ipspace</code>	<code>ipspace</code>	Applies to both SVM and cluster-scoped objects. Either the UUID or name is supplied on input.
<code>mtu</code>	integer	Maximum transmission unit, largest packet size on this network
<code>name</code>	string	Name of the broadcast domain, scoped to its IPspace
<code>ports</code>	array[<code>ports</code>]	Ports that belong to the broadcast domain
<code>uuid</code>	string	Broadcast domain UUID

Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "ipospace": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "exchange",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "mtu": 1500,
  "name": "bd1",
  "ports": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "e1b",
      "node": {
        "name": "node1"
      },
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    }
  ],
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
}
```

Response

Status: 201, Created

Error

Status: Default

ONTAP Error Response Codes

Error Code	Description
1967082	The specified ipspace.name does not match the IPspace name of ipspace.uuid.
1967102	POST operation might have left the configuration in an inconsistent state. Check the configuration.
1377267	The specified IPspace 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	

ipSPACE

Applies to both SVM and cluster-scoped objects. Either the UUID or name is supplied on input.

Name	Type	Description
_links	_links	
name	string	IPspace name
uuid	string	IPspace UUID

node

Name	Type	Description
name	string	Name of node on which the port is located.

ports

Port UUID along with readable names

Name	Type	Description
_links	_links	
name	string	
node	node	
uuid	string	

broadcast_domain

Set of ports that will receive a broadcast Ethernet packet from any of them

Name	Type	Description
_links	_links	

Name	Type	Description
ipspace	ipspace	Applies to both SVM and cluster-scoped objects. Either the UUID or name is supplied on input.
mtu	integer	Maximum transmission unit, largest packet size on this network
name	string	Name of the broadcast domain, scoped to its IPspace
ports	array[ports]	Ports that belong to the broadcast domain
uuid	string	Broadcast domain UUID

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 broadcast domain

DELETE /network/ethernet/broadcast-domains/{uuid}

Deletes a broadcast domain.

Related ONTAP commands

- `network port broadcast-domain delete`

Learn more

- [DOC /network/ethernet/broadcast-domains](#)

Parameters

Name	Type	In	Required	Description
uuid	string	path	True	

Response

Status: 200, Ok

Error

Status: Default

ONTAP Error Response Codes

Error Code	Description
1967103	A broadcast domain with ports cannot be deleted.

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 broadcast domain details

GET /network/ethernet/broadcast-domains/{uuid}

Retrieves details of a broadcast domain.

Related ONTAP commands

- `network port broadcast-domain show`

Learn more

- [DOC /network/ethernet/broadcast-domains](#)

Parameters

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

Response

Status: 200, Ok

Name	Type	Description
_links	_links	
ipspace	ipspace	Applies to both SVM and cluster-scoped objects. Either the UUID or name is supplied on input.
mtu	integer	Maximum transmission unit, largest packet size on this network
name	string	Name of the broadcast domain, scoped to its IPspace
ports	array[ports]	Ports that belong to the broadcast domain
uuid	string	Broadcast domain UUID

Example response

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "ipospace": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "exchange",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "mtu": 1500,
  "name": "bd1",
  "ports": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "e1b",
      "node": {
        "name": "node1"
      },
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    }
  ],
  "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	href	

ipSPACE

Applies to both SVM and cluster-scoped objects. Either the UUID or name is supplied on input.

Name	Type	Description
_links	_links	
name	string	IPspace name
uuid	string	IPspace UUID

node

Name	Type	Description
name	string	Name of node on which the port is located.

ports

Port UUID along with readable names

Name	Type	Description
_links	_links	
name	string	
node	node	
uuid	string	

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.

Update broadcast domain properties

PATCH `/network/ethernet/broadcast-domains/{uuid}`

Updates the properties of a broadcast domain.

Related ONTAP commands

- `network port broadcast-domain modify`
- `network port broadcast-domain rename`

Learn more

- [DOC /network/ethernet/broadcast-domains](#)

Parameters

Name	Type	In	Required	Description
uuid	string	path	True	Broadcast domain UUID

Request Body

Name	Type	Description
<code>_links</code>	_links	

Name	Type	Description
ipspace	ipspace	Applies to both SVM and cluster-scoped objects. Either the UUID or name is supplied on input.
mtu	integer	Maximum transmission unit, largest packet size on this network
name	string	Name of the broadcast domain, scoped to its IPspace
ports	array[ports]	Ports that belong to the broadcast domain
uuid	string	Broadcast domain UUID

Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "ipospace": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "exchange",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "mtu": 1500,
  "name": "bd1",
  "ports": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "e1b",
      "node": {
        "name": "node1"
      },
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    }
  ],
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
}
```

Response

Status: 200, Ok

Error

Status: Default

ONTAP Error Response Codes

Error Code	Description
1967082	The specified ipspace.name does not match the IPspace name of ipspace.uuid.
1377267	The specified IPspace 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	

ipSPACE

Applies to both SVM and cluster-scoped objects. Either the UUID or name is supplied on input.

Name	Type	Description
_links	_links	
name	string	IPspace name
uuid	string	IPspace UUID

node

Name	Type	Description
name	string	Name of node on which the port is located.

ports

Port UUID along with readable names

Name	Type	Description
_links	_links	
name	string	
node	node	
uuid	string	

broadcast_domain

Set of ports that will receive a broadcast Ethernet packet from any of them

Name	Type	Description
_links	_links	

Name	Type	Description
ipspace	ipspace	Applies to both SVM and cluster-scoped objects. Either the UUID or name is supplied on input.
mtu	integer	Maximum transmission unit, largest packet size on this network
name	string	Name of the broadcast domain, scoped to its IPspace
ports	array[ports]	Ports that belong to the broadcast domain
uuid	string	Broadcast domain UUID

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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