

Manage broadcast domains

ONTAP 9.12.1 REST API reference

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Manage broadcast domains

Network Ethernet broadcast-domains endpoint overview

Overview

A broadcast domain is a collection of Ethernet ports that have layer 2 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://<mqmt-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": {
        "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": {
```

```
"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://<mqmt-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": {
```

Creating network Ethernet broadcast domains

You can use the POST API 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

You can use the PATCH API to update the attributes of broadcast domains.

Examples

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 }'
{
}
```

Updating the IPspace of a specific broadcast domain

The following example shows how the PATCH request changes the IPspace of a broadcast domain to 'ipspace2'.

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

# The call:
curl -X PATCH "https://<mgmt-ip>/api/network/ethernet/broadcast-
domains/c6fe2541-61f4-11e9-a66e-005056bbe83e" -d '{ "ipspace" : { "name" :
   "ipspace2" } }'
{
}
```

Deleting network Ethernet broadcast domains

You can use the DELETE API 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/broadcastdomains/6cde03b2-f8a2-11e8-8d33-005056bb986f/"

Retrieve broadcast domains for the entire cluster

GET /network/ethernet/broadcast-domains

Introduced In: 9.6

Retrieves a collection of broadcast domains for the entire cluster.

Related ONTAP commands

network port broadcast-domain show

Parameters

Name	Туре	In	Required	Description
ipspace.uuid	string	query	False	Filter by ipspace.uuid
ipspace.name	string	query	False	Filter by ipspace.name
uuid	string	query	False	Filter by uuid
name	string	query	False	Filter by name
mtu	integer	query	False	• Min value: 68
ports.uuid	string	query	False	Filter by ports.uuid
ports.name	string	query	False	Filter by ports.name
ports.node.name	string	query	False	Filter by ports.node.name

Name	Туре	In	Required	Description
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. • Default value: 1
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. • Min value: 0 • Default value: 1 • Max value: 120
order_by	array[string]	query	False	Order results by specified fields and optional [asc

Response

Status: 200, Ok

Name	Туре	Description
_links	_links	
num_records	integer	Number of records
records	array[broadcast_domain]	

```
" links": {
    "next": {
     "href": "/api/resourcelink"
   },
   "self": {
    "href": "/api/resourcelink"
   }
 },
  "num records": 1,
  "records": {
    " links": {
     "self": {
       "href": "/api/resourcelink"
    },
    "ipspace": {
     " 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	Туре	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	Туре	Description
href	string	

_links

Name	Туре	Description
next	href	
self	href	

_links

Name	Туре	Description
self	href	

ipspace

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

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

node

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

ports

Port UUID along with readable names

Name	Туре	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	Туре	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	Туре	Description
code	string	Argument code
message	string	Message argument

error

Name	Туре	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

Introduced In: 9.6

Creates a new broadcast domain.

Required properties

- name Name of the broadcast-domain to create.
- mtu Maximum transmission unit (MTU) 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

Parameters

Name	Туре	In	Required	Description
return_records	boolean	query	False	The default is false. If set to true, the records are returned. • Default value:

Request Body

Name	Туре	Description
_links	_links	
ipspace	ipspace	Applies to both SVM and cluster- scoped objects. Either the UUID or name is supplied on input.

Name	Туре	Description
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"
 }
},
"ipspace": {
 " 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
```

Headers

Name	Description	Туре
Location	Useful for tracking the resource location	string

Error

```
Status: Default
```

ONTAP Error Response Codes

Error Code	Description
1377267	The specified IPspace does not exist.
1967082	The specified ipspace.name does not match the IPspace name of ipspace.uuid.
1967102	A POST operation might have left the configuration in an inconsistent state. Check the configuration.
53281982	The specified broadcast domain name is reserved by the system.

Name	Туре	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	Туре	Description
href	string	

links

Name	Туре	Description
self	href	

ipspace

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

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

node

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

ports

Port UUID along with readable names

Name	Туре	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	Туре	Description
_links	_links	

Name	Туре	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	Туре	Description
code	string	Argument code
message	string	Message argument

error

Name	Туре	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}

Introduced In: 9.6

Deletes a broadcast domain.

Related ONTAP commands

• network port broadcast-domain delete

Parameters

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

Response

```
Status: 200, Ok
```

Error

```
Status: Default
```

ONTAP Error Response Codes

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

Name	Туре	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	Туре	Description
code	string	Argument code
message	string	Message argument

error

Name	Туре	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}

Introduced In: 9.6

Retrieves details of a broadcast domain.

Related ONTAP commands

• network port broadcast-domain show

Parameters

Name	Туре	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	Туре	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"
 }
},
"ipspace": {
 " 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	Туре	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	Туре	Description
href	string	

_links

Name	Туре	Description
self	href	

ipspace

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

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

node

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

ports

Port UUID along with readable names

Name	Туре	Description
_links	_links	
name	string	
node	node	
uuid	string	

error_arguments

Name	Туре	Description
code	string	Argument code

Name	Туре	Description
message	string	Message argument

error

Name	Туре	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}

Introduced In: 9.6

Updates the properties of a broadcast domain.

Related ONTAP commands

- network port broadcast-domain modify
- network port broadcast-domain rename
- network port broadcast-domain move

Parameters

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

Request Body

Name	Туре	Description
_links	_links	

Name	Туре	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"
 }
},
"ipspace": {
 " 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
1377267	The specified IPspace does not exist.
1377269	Failed to lookup the specified IPspace.
1377560	Broadcast domain already exists in specified IPspace.
1377605	Moving the system-generated broadcast domain to another IPspace is not supported.
1967082	The specified ipspace.name does not match the IPspace name of ipspace.uuid.
1967150	The specified ipspace.uuid is not valid.
1967151	The specified ipspace.uuid and ipspace.name do not match.
1967152	Patching IPspace for a broadcast domain requires an effective cluster version of 9.7 or later.
53280884	The MTU of the broadcast domain cannot be modified on this platform.

Name	Туре	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	Туре	Description
href	string	

links

Name	Туре	Description
self	href	

ipspace

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

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

node

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

ports

Port UUID along with readable names

Name	Туре	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	Туре	Description
_links	_links	

Name	Туре	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	Туре	Description
code	string	Argument code
message	string	Message argument

error

Name	Туре	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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