



# **View and update MetroCluster interconnects**

**ONTAP 9.9.1 REST API reference**

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# View and update MetroCluster interconnects

## Cluster MetroCluster interconnects endpoint overview

### Overview

You can use this API to retrieve and display relevant information pertaining to MetroCluster interconnect status. The `/cluster/metrocluster/interconnects` endpoint returns a list of all the interconnects in MetroCluster and their status. Each individual interconnect can be queried individually using the `/cluster/metrocluster/interconnects/{node.uuid}/{partner_type}/{adapter}` endpoint.

### Examples

#### Retrieving MetroCluster interconnects

```
GET https://<mgmt-ip>/api/cluster/metrocluster/interconnects
{
  "records": [
    {
      "node": {
        "name": "cluster1_01",
        "uuid": "6fead8fe-8d81-11e9-b5a9-005056826931",
        "_links": {
          "self": {
            "href": "/api/cluster/nodes/6fead8fe-8d81-11e9-b5a9-005056826931"
          }
        }
      },
      "partner_type": "ha",
      "adapter": "e0f",
      "_links": {
        "self": {
          "href": "/api/cluster/metrocluster/interconnects/6fead8fe-8d81-11e9-b5a9-005056826931/ha/e0f"
        }
      }
    },
    {
      "node": {
        "name": "cluster1_01",
        "uuid": "6fead8fe-8d81-11e9-b5a9-005056826931",
        "_links": {
```

```

        "self": {
            "href": "/api/cluster/nodes/6fead8fe-8d81-11e9-b5a9-005056826931"
        }
    },
    "partner_type": "ha",
    "adapter": "e0g",
    "_links": {
        "self": {
            "href":
"/api/cluster/metrocluster/interconnects/6fead8fe-8d81-11e9-b5a9-005056826931/ha/e0g"
        }
    }
},
{
    "node": {
        "name": "cluster1_01",
        "uuid": "6fead8fe-8d81-11e9-b5a9-005056826931",
        "_links": {
            "self": {
                "href": "/api/cluster/nodes/6fead8fe-8d81-11e9-b5a9-005056826931"
            }
        }
    },
    "partner_type": "dr",
    "adapter": "e0f",
    "_links": {
        "self": {
            "href":
"/api/cluster/metrocluster/interconnects/6fead8fe-8d81-11e9-b5a9-005056826931/dr/e0f"
        }
    }
},
{
    "node": {
        "name": "cluster1_01",
        "uuid": "6fead8fe-8d81-11e9-b5a9-005056826931",
        "_links": {
            "self": {
                "href": "/api/cluster/nodes/6fead8fe-8d81-11e9-b5a9-005056826931"
            }
        }
    }
}

```

```

    }
  },
  "partner_type": "dr",
  "adapter": "e0g",
  "_links": {
    "self": {
      "href":
"/api/cluster/metrocluster/interconnects/6fead8fe-8d81-11e9-b5a9-
005056826931/dr/e0g"
    }
  }
},
{
  "node": {
    "name": "cluster1_01",
    "uuid": "6fead8fe-8d81-11e9-b5a9-005056826931",
    "_links": {
      "self": {
        "href": "/api/cluster/nodes/6fead8fe-8d81-11e9-b5a9-
005056826931"
      }
    }
  },
  "partner_type": "aux",
  "adapter": "e0f",
  "_links": {
    "self": {
      "href":
"/api/cluster/metrocluster/interconnects/6fead8fe-8d81-11e9-b5a9-
005056826931/aux/e0f"
    }
  }
},
{
  "node": {
    "name": "cluster1_01",
    "uuid": "6fead8fe-8d81-11e9-b5a9-005056826931",
    "_links": {
      "self": {
        "href": "/api/cluster/nodes/6fead8fe-8d81-11e9-b5a9-
005056826931"
      }
    }
  },
  "partner_type": "aux",
  "adapter": "e0g",

```

```

    "_links": {
      "self": {
        "href":
"/api/cluster/metrocluster/interconnects/6fead8fe-8d81-11e9-b5a9-
005056826931/aux/e0g"
      }
    },
    {
      "node": {
        "name": "cluster1_02",
        "uuid": "f5435191-8d81-11e9-9d4b-00505682dc8b",
        "_links": {
          "self": {
            "href": "/api/cluster/nodes/f5435191-8d81-11e9-9d4b-
00505682dc8b"
          }
        }
      },
      "partner_type": "ha",
      "adapter": "e0f",
      "_links": {
        "self": {
          "href":
"/api/cluster/metrocluster/interconnects/f5435191-8d81-11e9-9d4b-
00505682dc8b/ha/e0f"
        }
      }
    },
    {
      "node": {
        "name": "cluster1_02",
        "uuid": "f5435191-8d81-11e9-9d4b-00505682dc8b",
        "_links": {
          "self": {
            "href": "/api/cluster/nodes/f5435191-8d81-11e9-9d4b-
00505682dc8b"
          }
        }
      },
      "partner_type": "ha",
      "adapter": "e0g",
      "_links": {
        "self": {
          "href":
"/api/cluster/metrocluster/interconnects/f5435191-8d81-11e9-9d4b-

```

```

00505682dc8b/ha/e0g"
    }
  },
  {
    "node": {
      "name": "cluster1_02",
      "uuid": "f5435191-8d81-11e9-9d4b-00505682dc8b",
      "_links": {
        "self": {
          "href": "/api/cluster/nodes/f5435191-8d81-11e9-9d4b-
00505682dc8b"
        }
      }
    },
    "partner_type": "dr",
    "adapter": "e0f",
    "_links": {
      "self": {
        "href":
"/api/cluster/metrocluster/interconnects/f5435191-8d81-11e9-9d4b-
00505682dc8b/dr/e0f"
      }
    }
  },
  {
    "node": {
      "name": "cluster1_02",
      "uuid": "f5435191-8d81-11e9-9d4b-00505682dc8b",
      "_links": {
        "self": {
          "href": "/api/cluster/nodes/f5435191-8d81-11e9-9d4b-
00505682dc8b"
        }
      }
    },
    "partner_type": "dr",
    "adapter": "e0g",
    "_links": {
      "self": {
        "href":
"/api/cluster/metrocluster/interconnects/f5435191-8d81-11e9-9d4b-
00505682dc8b/dr/e0g"
      }
    }
  },

```

```

    {
      "node": {
        "name": "cluster1_02",
        "uuid": "f5435191-8d81-11e9-9d4b-00505682dc8b",
        "_links": {
          "self": {
            "href": "/api/cluster/nodes/f5435191-8d81-11e9-9d4b-
00505682dc8b"
          }
        }
      },
      "partner_type": "aux",
      "adapter": "e0f",
      "_links": {
        "self": {
          "href":
"/api/cluster/metrocluster/interconnects/f5435191-8d81-11e9-9d4b-
00505682dc8b/aux/e0f"
        }
      }
    },
    {
      "node": {
        "name": "cluster1_02",
        "uuid": "f5435191-8d81-11e9-9d4b-00505682dc8b",
        "_links": {
          "self": {
            "href": "/api/cluster/nodes/f5435191-8d81-11e9-9d4b-
00505682dc8b"
          }
        }
      },
      "partner_type": "aux",
      "adapter": "e0g",
      "_links": {
        "self": {
          "href":
"/api/cluster/metrocluster/interconnects/f5435191-8d81-11e9-9d4b-
00505682dc8b/aux/e0g"
        }
      }
    }
  ],
  "num_records": 12,
  "_links": {
    "self": {

```



```

    "href": "/api/cluster/metrocluster/interconnects"
  }
}

```

### Retrieves information about a specific MetroCluster interconnect

```

https://<mgmt-ip>/api/cluster/metrocluster/interconnects/774b4fbc-86f9-
11e9-9051-005056825c71/aux/e0f
{
  "node": {
    "name": "cluster1_01",
    "uuid": "46147363-9857-11e9-9a55-005056828eb9",
    "_links": {
      "self": {
        "href": "/api/cluster/nodes/46147363-9857-11e9-9a55-
005056828eb9"
      }
    }
  },
  "partner_type": "ha",
  "adapter": "e0f",
  "state": "up",
  "type": "iwarp",
  "_links": {
    "self": {
      "href": "/api/cluster/metrocluster/interconnects/46147363-9857-
11e9-9a55-005056828eb9/ha/e0f"
    }
  }
}

```

## Retrieve interconnect adapter information for nodes in MetroCluster

GET /cluster/metrocluster/interconnects

Introduced In: 9.8

Retrieves a list of interconnect adapter information for nodes in the MetroCluster.

### Related ONTAP Commands

- metrocluster interconnect show

## Learn more

- [DOC /cluster/metrocluster/interconnects](#)

## Parameters

Name	Type	In	Required	Description
state	string	query	False	Filter by state
vlan_id	integer	query	False	Filter by vlan_id <ul style="list-style-type: none"><li>• Introduced in: 9.9</li></ul>
partner_type	string	query	False	Filter by partner_type
interfaces.address	string	query	False	Filter by interfaces.address <ul style="list-style-type: none"><li>• Introduced in: 9.9</li></ul>
interfaces.gateway	string	query	False	Filter by interfaces.gateway <ul style="list-style-type: none"><li>• Introduced in: 9.9</li></ul>
interfaces.netmask	string	query	False	Filter by interfaces.netmask <ul style="list-style-type: none"><li>• Introduced in: 9.9</li></ul>
adapter	string	query	False	Filter by adapter
type	string	query	False	Filter by type
node.name	string	query	False	Filter by node.name
node.uuid	string	query	False	Filter by node.uuid
fields	array[string]	query	False	Specify the fields to return.
max_records	integer	query	False	Limit the number of records returned.

Name	Type	In	Required	Description
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="#">collection_links</a>	
num_records	integer	Number of Records
records	array[ <a href="#">metrocluster_interconnect</a> ]	

## Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "records": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "adapter": "string",
    "interfaces": {
      "address": "10.10.10.7",
      "gateway": "10.1.1.1",
      "netmask": "24"
    },
    "node": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "node1",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    },
    "partner_type": "aux",
    "state": "down",
    "type": "roce",
    "vlan_id": 0
  }
}
```

## Error

Status: Default

## ONTAP Error Response Codes

Error Code	Description
2425734	An internal error occurred. Wait a few minutes, and try the operation again. For further assistance, contact technical support.
2427132	MetroCluster is not configured on this cluster.

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	

collection\_links

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

self\_link

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

interfaces

Object to setup an interface along with its default router.

Name	Type	Description
address	string	IPv4 or IPv6 address
gateway	string	The IPv4 or IPv6 address of the default router.
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.

\_links

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

node

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

## metrocluster\_interconnect

Data for a MetroCluster interconnect. REST: /api/cluster/metrocluster/interconnects

Name	Type	Description
_links	<a href="#">self_link</a>	
adapter	string	Adapter
interfaces	array[ <a href="#">interfaces</a> ]	List of objects which contain interface information such as its IP address, netmask and gateway.
node	<a href="#">node</a>	
partner_type	string	Partner type
state	string	Adapter status
type	string	Adapter type
vlan_id	integer	VLAN ID

## 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.

# Retrieve information about a MetroCluster interconnect for a partner type and adapter

GET /cluster/metrocluster/interconnects/{node.uuid}/{partner\_type}/{adapter}

Introduced In: 9.8

Retrieves information about a MetroCluster Interconnect for a specific partner type and adapter.

## Related ONTAP Commands

- `metrocluster interconnect show`

## Parameters

Name	Type	In	Required	Description
node.uuid	string	path	True	Node UUID
partner_type	string	path	True	DR Partner type
adapter	string	path	True	Interconnect adapter.
fields	array[string]	query	False	Specify the fields to return.

## Response

Status: 200, Ok

Name	Type	Description
_links	<a href="#">self_link</a>	
adapter	string	Adapter
interfaces	array[ <a href="#">interfaces</a> ]	List of objects which contain interface information such as its IP address, netmask and gateway.
node	<a href="#">node</a>	
partner_type	string	Partner type
state	string	Adapter status



Name	Type	Description
type	string	Adapter type
vlan_id	integer	VLAN ID

### Example response

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "adapter": "string",
  "interfaces": {
    "address": "10.10.10.7",
    "gateway": "10.1.1.1",
    "netmask": "24"
  },
  "node": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "node1",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "partner_type": "aux",
  "state": "down",
  "type": "roce",
  "vlan_id": 0
}
```

### Error

Status: Default

### ONTAP Error Response Codes

Error Code	Description
2425734	An internal error occurred. Wait a few minutes, and try the operation again. For further assistance, contact technical support.
2427132	MetroCluster is not configured on this cluster.

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

### Example error

```
{
  "error": {
    "arguments": {
      "code": "string",
      "message": "string"
    },
    "code": "4",
    "message": "entry doesn't exist",
    "target": "uuid"
  }
}
```

### Definitions

## See Definitions

href

Name	Type	Description
href	string	

self\_link

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

interfaces

Object to setup an interface along with its default router.

Name	Type	Description
address	string	IPv4 or IPv6 address
gateway	string	The IPv4 or IPv6 address of the default router.
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.

\_links

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

node

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

error\_arguments

Name	Type	Description
code	string	Argument code

Name	Type	Description
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.

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