



Manage storage pools

ONTAP 9.12.1 REST API reference

NetApp
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Manage storage pools

Storage pools endpoint overview

Retrieving storage pool information

The Storage Pools GET API retrieves all shared storage pools in the cluster.

The collection GET returns the storage pool identifiers, UUID and name. The instance GET, by default, returns all of the properties defined in the storage_pool object. The "show_spare" query returns a response outside of the records body, which includes the groups of usable spares in the cluster. The usable count for each class of spares does not include reserved spare capacity recommended by ONTAP best practices.

Creating storage pools

Creating a shared storage pool is recommended when distributing flash capacity across the cache tiers of HDD aggregates across an HA pair. POST can be used with specific properties to create a storage pool as requested. At a minimum, the storage pool name, disk count, and the nodes where it should reside, are required to create a new instance.

When using POST with input properties, three properties are required. These are:

- name - Name of the storage pool.
- node.name or node.uuid - Node that can use capacity from the storage pool in their cache tiers.
- capacity.disk_count - Number of disks to be used to create the storage pool.

Examples

Retrieving a list of storage pools from the cluster

The following example shows the response with a list of storage pools in the cluster:

```

{
"records": [
{
  "uuid": "8255fef7-4737-11ec-bd1b-005056bbb879",
  "nodes": [
    {
      "uuid": "caf95bec-f801-11e8-8af9-005056bbe5c1",
      "name": "node-1",
    },
    {
      "uuid": "cf9ab500-ff3e-4bce-bfd7-d679e6078f47",
      "name": "node-2",
    }
  ],
  "_links": {
    "self": {
      "href": "/api/storage/pools/8255fef7-4737-11ec-bd1b-005056bbb879"
    }
  }
}
],
"num_records": 1,
"_links": {
  "self": {
    "href": "/api/storage/pools"
  }
}
}

```

```

# The API:
/api/storage/pools

# The call:
curl -X GET "https://<mgmt-ip>/api/storage/pools?fields=*" -H "accept:
application/json"

# The response:
{
"records": [
{
  "uuid": "8255fef7-4737-11ec-bd1b-005056bbb879",
  "name": "new_sp",
  "nodes": [
    {

```

```

    "uuid": "caf95bec-f801-11e8-8af9-005056bbe5c1",
    "name": "node-1",
  },
  {
    "uuid": "cf9ab500-ff3e-4bce-bfd7-d679e6078f47",
    "name": "node-2",
  }
],
"storage_type": "ssd",
"capacity": {
  "remaining": 1846542336,
  "total": 7386169344,
  "spare_allocation_units": [
    {
      "node": {
        "uuid": "caf95bec-f801-11e8-8af9-005056bbe5c1",
        "name": "node-1",
      },
      "count": 1,
      "syncmirror_pool": "pool0",
      "size": 1846542336,
      "available_size": 1846542336
    },
    {
      "node": {
        "uuid": "cf9ab500-ff3e-4bce-bfd7-d679e6078f47",
        "name": "node-2",
      },
      "count": 0,
      "syncmirror_pool": "pool0",
      "size": 1846542336,
      "available_size": 0
    }
  ],
  "used_allocation_units": [
    {
      "aggregate": {
        "uuid": "19425837-f2fa-4a9f-8f01-712f626c983c",
        "name": "test_a"
      },
      "allocated_unit_count": 2,
      "node": {
        "uuid": "caf95bec-f801-11e8-8af9-005056bbe5c1",
        "name": "node-1",
      },
      "capacity": 2769813504
    }
  ]
}

```

```

},
{
  "aggregate": {
    "uuid": "f4cc30d5-b052-493a-a49f-19781425f987",
    "name": "test_b"
  },
  "allocated_unit_count": 1,
  "node": {
    "uuid": "cf9ab500-ff3e-4bce-bfd7-d679e6078f47",
    "name": "node-2",
  },
  "capacity": 1384906752
}
],
"disk_count": 4,
"disks": [
  {
    "disk": {
      "name": "VMw-1.11"
    },
    "usable_size": 1902379008,
    "total_size": 1908871168,
  },
  {
    "disk": {
      "name": "VMw-1.12"
    },
    "usable_size": 1902379008,
    "total_size": 1908871168,
  },
  {
    "disk": {
      "name": "VMw-1.23"
    },
    "usable_size": 1902379008,
    "total_size": 1908871168,
  },
  {
    "disk": {
      "name": "VMw-1.24"
    },
    "usable_size": 1902379008,
    "total_size": 1908871168,
  }
]
},

```

```

    "health": {
      "state": "normal",
      "is_healthy": true
    },
  ],
  "num_records": 1,
}

```

Retrieving the usable spare information for the cluster

The following example shows the response from retrieving usable spare information according to ONTAP best practices.

```

# The API:
/api/storage/pools?show_spare=true

# The call:
curl -X GET "https://<mgmt-ip>/api/storage/pools?show_spare=true" -H
"accept: application/json"

# The response:
{
  "records": [],
  "num_records": 0,
  "spares": [
    {
      "disk_class": "solid_state",
      "disk_type": "ssd",
      "size": 3720609792,
      "checksum_style": "block",
      "syncmirror_pool": "pool0",
      "usable": 12,
      "nodes": [
        {
          "uuid": "54af4069-c1f7-11ec-884e-005056bb6e0b",
          "name": "node-1",
          "_links": {
            "self": {
              "href": "/api/cluster/nodes/54af4069-c1f7-11ec-884e-
005056bb6e0b"
            }
          }
        }
      ],
    },
    {
      "uuid": "d50f1acb-c1f6-11ec-9dfd-005056bb8d04",

```

```

        "name": "node-2",
        "_links": {
            "self": {
                "href": "/api/cluster/nodes/d50f1acb-c1f6-11ec-9dfd-
005056bb8d04"
            }
        }
    ]
}
],
"_link": {
    "self": {
        "href": "/api/storage/aggregates?show_spare=true"
    }
}
}

```

Simulating the creation of a storage pool

The following example shows the response containing the simulated layout details of a new storage pool in the cluster.



Each storage pool UUID provided in this response is not guaranteed to be the same UUID for the storage pool if it is created.

```

# The API:
/api/storage/pools

# The call:
curl -X POST "https://<mgmt-ip>/api/storage/pools?simulate=true&fields=*"
-d "{\"nodes\": [{\"name\": \"node1\"}, {\"name\": \"node2\"}], \"name\":
\"storage_pool_1\", \"capacity\": {\"disk_count\": \"4\"}}" -H "accept:
application/json"

# The response:
{
  "records": [
    {
      "uuid": "cae60cfe-deae-42bd-babb-ef437d118314",
      "name": "new_sp",
      "nodes": [
        {
          "uuid": "caf95bec-f801-11e8-8af9-005056bbe5c1",
          "name": "node-1",
        },

```



```

    {
      "uuid": "cf9ab500-ff3e-4bce-bfd7-d679e6078f47",
      "name": "node-2",
    }
  ],
  "capacity": {
    "total": 7386169344,
    "disk_count": 4,
    "disks": [
      {
        "disk": {
          "name": "VMw-1.11"
        },
      },
      {
        "disk": {
          "name": "VMw-1.12"
        },
      },
      {
        "disk": {
          "name": "VMw-1.23"
        },
      },
      {
        "disk": {
          "name": "VMw-1.24"
        },
      }
    ]
  }
}
]
}

```

Retrieve storage pools for the entire cluster

GET /storage/pools

Introduced In: 9.11

Retrieves the collection of storage pools for the entire cluster.

Related ONTAP commands

- storage pool show

Parameters

| Name | Type | In | Required | Description |
|---|---------|-------|----------|---|
| uuid | string | query | False | Filter by uuid |
| name | string | query | False | Filter by name |
| capacity.spare_allocation_units.available_size | integer | query | False | Filter by capacity.spare_allocation_units.available_size |
| capacity.spare_allocation_units.node.uuid | string | query | False | Filter by capacity.spare_allocation_units.node.uuid |
| capacity.spare_allocation_units.node.name | string | query | False | Filter by capacity.spare_allocation_units.node.name |
| capacity.spare_allocation_units.size | integer | query | False | Filter by capacity.spare_allocation_units.size |
| capacity.spare_allocation_units.syncmirror_pool | string | query | False | Filter by capacity.spare_allocation_units.syncmirror_pool |
| capacity.spare_allocation_units.count | integer | query | False | Filter by capacity.spare_allocation_units.count |
| capacity.used_allocation_units.node.uuid | string | query | False | Filter by capacity.used_allocation_units.node.uuid |
| capacity.used_allocation_units.node.name | string | query | False | Filter by capacity.used_allocation_units.node.name |

| Name | Type | In | Required | Description |
|---|---------|-------|----------|---|
| capacity.used_allocation_units.aggregate.name | string | query | False | Filter by capacity.used_allocation_units.aggregate.name |
| capacity.used_allocation_units.aggregate.uuid | string | query | False | Filter by capacity.used_allocation_units.aggregate.uuid |
| capacity.used_allocation_units.current_usage | integer | query | False | Filter by capacity.used_allocation_units.current_usage |
| capacity.used_allocation_units.count | integer | query | False | Filter by capacity.used_allocation_units.count |
| capacity.disks.total_size | integer | query | False | Filter by capacity.disks.total_size |
| capacity.disks.disk.name | string | query | False | Filter by capacity.disks.disk.name |
| capacity.disks.usable_size | integer | query | False | Filter by capacity.disks.usable_size |
| capacity.disk_count | integer | query | False | Filter by capacity.disk_count |
| capacity.total | integer | query | False | Filter by capacity.total |
| capacity.remaining | integer | query | False | Filter by capacity.remaining |
| health.is_healthy | boolean | query | False | Filter by health.is_healthy |
| health.state | string | query | False | Filter by health.state |

| Name | Type | In | Required | Description |
|---|---------------|-------|----------|---|
| health.unhealthy_reason.target | string | query | False | Filter by health.unhealthy_reason.target |
| health.unhealthy_reason.arguments.message | string | query | False | Filter by health.unhealthy_reason.arguments.message |
| health.unhealthy_reason.arguments.code | string | query | False | Filter by health.unhealthy_reason.arguments.code |
| health.unhealthy_reason.code | string | query | False | Filter by health.unhealthy_reason.code |
| health.unhealthy_reason.message | string | query | False | Filter by health.unhealthy_reason.message |
| nodes.uuid | string | query | False | Filter by nodes.uuid |
| nodes.name | string | query | False | Filter by nodes.name |
| storage_type | string | query | False | Filter by storage_type |
| 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 | <p>The default is true for GET calls. When set to false, only the number of records is returned.</p> <ul style="list-style-type: none"> • Default value: 1 |

| Name | Type | In | Required | Description |
|----------------|---------------|-------|----------|--|
| return_timeout | integer | query | False | <p>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.</p> <ul style="list-style-type: none"> • Default value: 1 • Max value: 120 • Min value: 0 |
| order_by | array[string] | query | False | Order results by specified fields and optional [asc |

Response

Status: 200, Ok

| Name | Type | Description |
|-------------|---|--|
| _links | _links | |
| error | error | |
| num_records | integer | Number of shared storage pools in the cluster. |
| records | array[storage_pool] | |
| spares | array[storage_pool_show_spares] | |

Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "error": {
    "arguments": {
      "code": "string",
      "message": "string"
    },
    "code": "4",
    "message": "entry doesn't exist",
    "target": "uuid"
  },
  "num_records": 1,
  "records": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "capacity": {
      "disks": {
        "disk": {
          "_links": {
            "self": {
              "href": "/api/resourcelink"
            }
          },
          "name": "1.0.1"
        },
        "total_size": 0,
        "usable_size": 0
      },
      "remaining": 0,
      "spare_allocation_units": {
        "available_size": 0,
        "node": {
          "_links": {
            "self": {
```

```

        "href": "/api/resourcelink"
      }
    },
    "name": "node1",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "size": 0,
  "syncmirror_pool": "pool0"
},
"total": 0,
"used_allocation_units": {
  "aggregate": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "aggr1",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "current_usage": 0,
  "node": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "node1",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  }
}
},
"health": {
  "state": "normal",
  "unhealthy_reason": {
    "arguments": {
      "code": "string",
      "message": "string"
    },
    "code": "4",
    "message": "entry doesn't exist",
    "target": "uuid"
  }
},
"nodes": {
  "_links": {

```

```

    "self": {
      "href": "/api/resourcelink"
    }
  },
  "name": "node1",
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
},
"storage_type": "SSD",
"uuid": "string"
},
"spares": {
  "checksum_style": "block",
  "disk_class": "solid_state",
  "disk_type": "fc",
  "nodes": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "node1",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "size": 10156769280,
  "syncmirror_pool": "pool0",
  "usable": 9
}
}

```

Error

Status: Default

ONTAP Error Response Codes

| Error Code | Description |
|------------|---|
| 10944513 | Unable to retrieve shared disk capability information. |
| 10944514 | Unable to enable shared disk capability. |
| 10944527 | Storage pools are not supported in MetroCluster configurations. |
| 10944528 | Unable to retrieve MetroCluster configuration information. |

| Error Code | Description |
|------------|---|
| 11206662 | There is no storage pool matching the specified UUID or name. |
| 11206667 | Storage pool feature is not enabled. |

| 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 | |

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. |

_links

| Name | Type | Description |
|------|----------------------|-------------|
| self | href | |

disk

Reference to the constituent disk object.

| Name | Type | Description |
|--------|------------------------|-------------|
| _links | _links | |
| name | string | |

storage_pool_disk

| Name | Type | Description |
|-------------|----------------------|---|
| disk | disk | Reference to the constituent disk object. |
| total_size | integer | Raw capacity of the disk, in bytes. |
| usable_size | integer | Usable capacity of this disk, in bytes. |

node

Specifies what node can use this set of allocation units.

| Name | Type | Description |
|------------------------|------------------------|-------------|
| _links | _links | |
| name | string | |
| uuid | string | |

storage_pool_spare_allocation_unit

| Name | Type | Description |
|-----------------|----------------------|---|
| available_size | integer | The usable capacity of this set of allocation units. |
| count | integer | The number of spare allocation units on this node. |
| node | node | Specifies what node can use this set of allocation units. |
| size | integer | Size of each allocation unit. |
| syncmirror_pool | string | The RAID SyncMirror Pool to which this allocation unit is assigned. |

aggregate

The aggregate that is using this cache capacity.

| Name | Type | Description |
|------------------------|------------------------|-------------|
| _links | _links | |

| Name | Type | Description |
|------|--------|-------------|
| name | string | |
| uuid | string | |

node

The node hosting the aggregate using this set of allocation units.

| Name | Type | Description |
|--------|------------------------|-------------|
| _links | _links | |
| name | string | |
| uuid | string | |

storage_pool_used_allocation_unit

| Name | Type | Description |
|---------------|---------------------------|--|
| aggregate | aggregate | The aggregate that is using this cache capacity. |
| count | integer | The number of allocation units used by this aggregate. |
| current_usage | integer | The amount of cache space used by this aggregate. |
| node | node | The node hosting the aggregate using this set of allocation units. |

capacity

| Name | Type | Description |
|------------------------|---|--|
| disk_count | integer | The number of disks in the storage pool. |
| disks | array[storage_pool_disk] | Properties of each disk used in the shared storage pool. |
| remaining | integer | Remaining usable capacity in the flash pool, in bytes. |
| spare_allocation_units | array[storage_pool_spare_allocation_unit] | Properties of spare allocation units. |

| Name | Type | Description |
|-----------------------|--|--|
| total | integer | Total size of the flash pool, in bytes. |
| used_allocation_units | array[storage_pool_used_allocation_unit] | Information about the storage pool allocation units participating in the cache tier of an aggregate. |

error

Indicates why the storage pool is unhealthy. This property is not returned for healthy storage pools.

| 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. |

health

Properties that outline shared storage pool health.

| Name | Type | Description |
|------------------|-----------------------|---|
| is_healthy | boolean | Indicates whether the storage pool is able to participate in provisioning operations. |
| state | string | The state of the shared storage pool. |
| unhealthy_reason | error | Indicates why the storage pool is unhealthy. This property is not returned for healthy storage pools. |

node_reference

| Name | Type | Description |
|--------|------------------------|-------------|
| _links | _links | |
| name | string | |

| Name | Type | Description |
|------|--------|-------------|
| uuid | string | |

storage_pool

| Name | Type | Description |
|--------------|---|---|
| _links | _links | |
| capacity | capacity | |
| health | health | Properties that outline shared storage pool health. |
| name | string | Storage pool name. |
| nodes | array[node_reference] | Nodes that can use this storage pool for their aggregates. |
| storage_type | string | Storage type for the disks used to create the storage pool. |
| uuid | string | Storage pool UUID. |

storage_pool_show_spares

Available spares for storage pool.

| Name | Type | Description |
|-----------------|---|---|
| checksum_style | string | The checksum type that has been assigned to the spares. |
| disk_class | string | Disk class of spares. |
| disk_type | string | Type of disk. |
| nodes | array[node_reference] | Nodes that can use the usable spares for storage pool. |
| size | integer | Usable size of each spare, in bytes. |
| syncmirror_pool | string | SyncMirror spare pool. |

| Name | Type | Description |
|--------|---------|--|
| usable | integer | <p>Total number of usable spares in the bucket. The usable count for each class of spares does not include reserved spare capacity recommended by ONTAP best practices.</p> <ul style="list-style-type: none"> • example: 9 • readOnly: 1 • Introduced in: 9.12 |

Create a new storage pool

POST /storage/pools

Introduced In: 9.11

Creates a new storage pool using available solid state capacity attached to the nodes specified.

Required properties

The following properties are required in the POST body:

- name - Name of the new storage pool.
- nodes[].name or nodes[].uuid - Nodes that can use cache capacity from the new storage pool. Only nodes in the same HA pair can be specified for a given storage pool. Spare cache capacity will be distributed evenly among the specified nodes.
- capacity.disk_count - Number of SSDs to be used to create the storage pool.

Related ONTAP commands

- storage pool create

Example:

```
POST /api/storage/pools {"nodes": [{"name": "node1"}, {"name": "node2"}],
"name": "storage_pool_1", "capacity": {"disk_count": "4"}}
```

Parameters

| Name | Type | In | Required | Description |
|----------------|---------|-------|----------|--|
| disk_size | integer | query | False | If set, POST only selects SSDs within five percent of the specified size. |
| simulate | boolean | query | False | When set to "true", the end point returns a simulated layout of the proposed new storage pool, without changing system state. <ul style="list-style-type: none"> • Introduced in: 9.12 |
| return_timeout | integer | query | False | The number of seconds to allow the call to execute before returning. When doing a POST, PATCH, or DELETE operation on a single record, the default is 0 seconds. This means that if an asynchronous operation is started, the server immediately returns HTTP code 202 (Accepted) along with a link to the job. If a non-zero value is specified for POST, PATCH, or DELETE operations, ONTAP waits that length of time to see if the job completes so it can return something other than 202. <ul style="list-style-type: none"> • Default value: 1 • Max value: 120 • Min value: 0 |

| Name | Type | In | Required | Description |
|----------------|---------|-------|----------|---|
| return_records | boolean | query | False | <p>The default is false. If set to true, the records are returned.</p> <ul style="list-style-type: none"> • Default value: |

Request Body

| Name | Type | Description |
|--------------|---|---|
| _links | _links | |
| capacity | capacity | |
| health | health | Properties that outline shared storage pool health. |
| name | string | Storage pool name. |
| nodes | array[node_reference] | Nodes that can use this storage pool for their aggregates. |
| storage_type | string | Storage type for the disks used to create the storage pool. |
| uuid | string | Storage pool UUID. |

Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "capacity": {
    "disks": {
      "disk": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "1.0.1"
      },
      "total_size": 0,
      "usable_size": 0
    },
    "remaining": 0,
    "spare_allocation_units": {
      "available_size": 0,
      "node": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "node1",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      },
      "size": 0,
      "syncmirror_pool": "pool0"
    },
    "total": 0,
    "used_allocation_units": {
      "aggregate": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "aggr1",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      }
    }
  }
}
```

```

    },
    "current_usage": 0,
    "node": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "node1",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    }
  },
  "health": {
    "state": "normal",
    "unhealthy_reason": {
      "arguments": {
        "code": "string",
        "message": "string"
      },
      "code": "4",
      "message": "entry doesn't exist",
      "target": "uuid"
    }
  },
  "nodes": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "node1",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "storage_type": "SSD",
  "uuid": "string"
}

```

Response

Status: 202, Accepted

| Name | Type | Description |
|------|----------|-------------|
| job | job_link | |

Example response

```
{
  "job": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "uuid": "string"
  }
}
```

Headers

| Name | Description | Type |
|----------|---|--------|
| Location | Useful for tracking the resource location | string |

Response

Status: 201, Created

Error

Status: Default

ONTAP Error Response Codes

| Error Code | Description |
|------------|---|
| 11206666 | Storage pool is unhealthy. |
| 11208658 | A storage pool already uses the specified name. |
| 11208660 | Disk does not exist. |
| 11208661 | Disk is not a spare disk. |
| 11208662 | Disk is not an SSD. |
| 11208663 | Disk is reserved for core dump. |

| Error Code | Description |
|-------------------|--|
| 11208664 | Could not determine checksum type of disk. |
| 11208666 | Could not determine usable size of disk. |
| 11208668 | Could not determine connectivity between controller and disk. |
| 11208670 | Could not determine original owner of disk. |
| 11208671 | Could not determine SyncMirror pool of disk. |
| 11208673 | Could not determine HA mode of node. |
| 11208674 | Could not determine HA partner of node. |
| 11208675 | Disks specified in the disk list are not visible to node. |
| 11208678 | The disk list contains disks from nodes which are not in HA pair. |
| 11208679 | Storage pools are not supported on nodes. |
| 11208680 | Internal error. Cannot determine configuration for node. |
| 11208681 | Node is not online. |
| 11208682 | Internal error. Sharing configuration mismatch. |
| 11208684 | Unable to share disk. |
| 11208686 | Disk cannot be shared. |
| 11208687 | Unable to retrieve expected sharing configuration. |
| 11208688 | Storage pool create job failed. |
| 11208690 | Not all nodes sharing the storage pool view disk as a shared disk. |
| 11208691 | Not enough matching spares available. |
| 11208692 | A disk list or count is a required parameter for storage pool creation. |
| 11208693 | Invalid number of disks specified. |
| 11208698 | Internal error. Missing node name. |
| 11208699 | Internal error. Missing partner name for node configured for HA. |
| 11208701 | Node is a standalone node. Do not specify other nodes with a standalone node. |
| 11208703 | Incorrect number of nodes specified. Specify one node or both nodes in an HA pair. |
| 11208704 | Specified nodes are not part of HA relationship. Specify one node or both nodes in an HA pair. |
| 11208705 | Disk is a data center SSD, which cannot be used in storage pools. |

| Error Code | Description |
|------------|---|
| 11208706 | Disk is a SSD-ZNS, which cannot be used in storage pools. |
| 11215756 | Missing a required field for POST request. |

| 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 | |

disk

Reference to the constituent disk object.

| Name | Type | Description |
|--------|------------------------|-------------|
| _links | _links | |
| name | string | |

storage_pool_disk

| Name | Type | Description |
|-------------|----------------------|---|
| disk | disk | Reference to the constituent disk object. |
| total_size | integer | Raw capacity of the disk, in bytes. |
| usable_size | integer | Usable capacity of this disk, in bytes. |

node

Specifies what node can use this set of allocation units.

| Name | Type | Description |
|--------|------------------------|-------------|
| _links | _links | |
| name | string | |
| uuid | string | |

storage_pool_spare_allocation_unit

| Name | Type | Description |
|-----------------|----------------------|---|
| available_size | integer | The usable capacity of this set of allocation units. |
| count | integer | The number of spare allocation units on this node. |
| node | node | Specifies what node can use this set of allocation units. |
| size | integer | Size of each allocation unit. |
| syncmirror_pool | string | The RAID SyncMirror Pool to which this allocation unit is assigned. |

aggregate

The aggregate that is using this cache capacity.

| Name | Type | Description |
|--------|------------------------|-------------|
| _links | _links | |
| name | string | |
| uuid | string | |

node

The node hosting the aggregate using this set of allocation units.

| Name | Type | Description |
|--------|------------------------|-------------|
| _links | _links | |
| name | string | |
| uuid | string | |

storage_pool_used_allocation_unit

| Name | Type | Description |
|-----------|---------------------------|--|
| aggregate | aggregate | The aggregate that is using this cache capacity. |
| count | integer | The number of allocation units used by this aggregate. |

| Name | Type | Description |
|---------------|----------------------|--|
| current_usage | integer | The amount of cache space used by this aggregate. |
| node | node | The node hosting the aggregate using this set of allocation units. |

capacity

| Name | Type | Description |
|------------------------|---|--|
| disk_count | integer | The number of disks in the storage pool. |
| disks | array[storage_pool_disk] | Properties of each disk used in the shared storage pool. |
| remaining | integer | Remaining usable capacity in the flash pool, in bytes. |
| spare_allocation_units | array[storage_pool_spare_allocation_unit] | Properties of spare allocation units. |
| total | integer | Total size of the flash pool, in bytes. |
| used_allocation_units | array[storage_pool_used_allocation_unit] | Information about the storage pool allocation units participating in the cache tier of an aggregate. |

error_arguments

| Name | Type | Description |
|---------|--------|------------------|
| code | string | Argument code |
| message | string | Message argument |

error

Indicates why the storage pool is unhealthy. This property is not returned for healthy storage pools.

| Name | Type | Description |
|-----------|--|-------------------|
| arguments | array[error_arguments] | Message arguments |
| code | string | Error code |

| Name | Type | Description |
|---------|--------|---|
| message | string | Error message |
| target | string | The target parameter that caused the error. |

health

Properties that outline shared storage pool health.

| Name | Type | Description |
|------------------|-----------------------|---|
| is_healthy | boolean | Indicates whether the storage pool is able to participate in provisioning operations. |
| state | string | The state of the shared storage pool. |
| unhealthy_reason | error | Indicates why the storage pool is unhealthy. This property is not returned for healthy storage pools. |

node_reference

| Name | Type | Description |
|------------------------|------------------------|-------------|
| _links | _links | |
| name | string | |
| uuid | string | |

storage_pool

| Name | Type | Description |
|------------------------|---|--|
| _links | _links | |
| capacity | capacity | |
| health | health | Properties that outline shared storage pool health. |
| name | string | Storage pool name. |
| nodes | array[node_reference] | Nodes that can use this storage pool for their aggregates. |

| Name | Type | Description |
|--------------|--------|---|
| storage_type | string | Storage type for the disks used to create the storage pool. |
| uuid | string | Storage pool UUID. |

job_link

| Name | Type | Description |
|--------|------------------------|---|
| _links | _links | |
| uuid | string | The UUID of the asynchronous job that is triggered by a POST, PATCH, or DELETE operation. |

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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