



Cluster creation API methods

Element Software

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Cluster creation API methods

CheckProposedCluster

You can use the `CheckProposedCluster` method to test a set of storage nodes before creating a storage cluster with them to identify possible errors or faults that would occur from the attempt, such as unbalanced mixed node capabilities or node types that are not supported for two-node storage clusters.

Parameters

This method has the following input parameter:

| Name | Description | Type | Default value | Required |
|-------|---|--------------|---------------|----------|
| nodes | A list of storage IP addresses of the initial set of storage nodes making up the storage cluster. | string array | None | Yes |
| force | Set to true to run on all storage nodes in the storage cluster. | boolean | None | No |

Return values

This method has the following return values:

| Name | Description | Type |
|-----------------------|---|--------------|
| proposedClusterValid | Indicates whether or not the proposed storage nodes would make up a valid storage cluster. Possible values: <ul style="list-style-type: none">• true• false | boolean |
| proposedClusterErrors | Errors that would occur if a storage cluster was created using the proposed storage nodes. | string array |

Request example

Requests for this method are similar to the following example:

```
{  
  "method": "CheckProposedCluster",  
  "params": {  
    "nodes": [  
      "192.168.1.11",  
      "192.168.1.12",  
      "192.168.1.13",  
      "192.168.1.14"  
    ]  
  },  
  "id": 1  
}
```

Response example

This method returns a response similar to the following example:

```
{  
  "id": 1,  
  "result": {  
    "proposedClusterValid": true,  
    "proposedClusterErrors": [ ]  
  }  
}
```

New since version

11.0

CreateCluster

You can use the `CreateCluster` method to initialize the node in a cluster that has ownership of the "mvip" and "svip" addresses. Each new cluster is initialized using the management IP (MIP) of the first node in the cluster. This method also automatically adds all the nodes being configured into the cluster. You only need to use this method once each time a new cluster is initialized.



After you log in to the master node for the cluster and run the [GetBootStrapConfig](#) method to get the IP addresses for the rest of the nodes that you want to include in the cluster, you can run the `CreateCluster` method against the master node for the cluster.

Parameters

This method has the following input parameters:

| Name | Description | Type | Default value | Required |
|--------------------------------|--|--------------|---------------|---|
| acceptEula | Indicate your acceptance of the End User License Agreement when creating this cluster. To accept the EULA, set this parameter to true. | boolean | None | Yes |
| attributes | List of name-value pairs in JSON object format. | JSON object | None | No |
| enableSoftwareEncryptionAtRest | Enable this parameter to use software-based encryption at rest. Defaults to false on all clusters. After software encryption at rest is enabled, it cannot be disabled on the cluster. | boolean | true | No |
| mvip | Floating (virtual) IP address for the cluster on the management network. | string | None | Yes |
| nodes | CIP/SIP addresses of the initial set of nodes making up the cluster. This node's IP must be in the list. | string array | None | Yes |
| orderNumber | Alphanumeric sales order number. Required on software-based platforms. | string | None | No (hardware-based platforms) Yes (software-based platforms) |
| password | Initial password for the cluster admin account. | string | None | Yes |

| Name | Description | Type | Default value | Required |
|--------------|---|--------|---------------|---|
| serialNumber | Nine-digit alphanumeric Serial Number. May be required on software-based platforms. | string | None | No (hardware-based platforms) Yes (software-based platforms) |
| svip | Floating (virtual) IP address for the cluster on the storage (iSCSI) network. | string | None | Yes |
| username | User name for the cluster admin. | string | None | Yes |

Return values

This method has no return values.

Request example

Requests for this method are similar to the following example:

```
{
  "method": "CreateCluster",
  "params": {
    "acceptEula": true,
    "mvip": "10.0.3.1",
    "svip": "10.0.4.1",
    "username": "Admin1",
    "password": "9R7ka4rEPa2uREtE",
    "attributes": {
      "clusteraccountnumber": "axdf323456"
    },
    "nodes": [
      "10.0.2.1",
      "10.0.2.2",
      "10.0.2.3",
      "10.0.2.4"
    ]
  },
  "id": 1
}
```

Response example

This method returns a response similar to the following example:

```
{  
  "id" : 1,  
  "result" : {}  
}
```

New since version

9.6

Find more information

- [GetBootstrapConfig](#)
- [SolidFire and Element Software Documentation](#)
- [Documentation for earlier versions of NetApp SolidFire and Element products](#)

GetBootstrapConfig

You can use the `GetBootstrapConfig` method to get cluster and node information from the bootstrap configuration file. Use this API method on an individual node before it has been joined with a cluster. The information this method returns is used in the cluster configuration interface when you create a cluster.

Parameters

This method has no input parameters.

Return values

This method has the following return values:

| Name | Description | Type |
|-------------|---|--------|
| clusterName | Name of the cluster. | string |
| mvip | Cluster MVIP address. Empty if the node is not part of a cluster. | string |
| nodeName | Name of the node. | string |

| Name | Description | Type |
|---------|--|-------------------|
| nodes | <p>List of information about each node that is actively waiting to join the cluster. Possible values:</p> <ul style="list-style-type: none"> • chassisType: (string) Hardware platform of the node. • cip: (string) Cluster IP address of the node. • compatible: (boolean) Indicates if the node is compatible with the node the API call was executed against. • hostname: (string) Host name of the node. • mip: (string) The IPv4 management IP address of the node. • mipV6: (string) The IPv6 management IP address of the node. • nodeType: (string) Model name of the node. • version: (string) Version of software currently installed on the node. | JSON object array |
| svip | Cluster SVIP address. Null if the node is not part of a cluster. | string |
| version | Version of Element software currently installed on the node that was called by this API method. | string |

Request example

Requests for this method are similar to the following example:

```
{
  "method": "GetBootstrapConfig",
  "params": { },
  "id" : 1
}
```

Response example

This method returns a response similar to the following example:

```

{
  "id":1,
  "result":{
    "clusterName":"testname",
    "nodeName":"testnode",
    "svip": "10.117.1.5",
    "mvip": "10.117.1.6",
    "nodes": [
      {
        "chassisType": "R630",
        "cip": "10.117.115.16",
        "compatible": true,
        "hostname": "NLABP1132",
        "mip": "10.117.114.16",
        "mipV6": "fd20:8b1e:b256:45a::16",
        "nodeType": "SF2405",
        "role": "Storage",
        "version": "11.0"
      },
      {
        "chassisType": "R630",
        "cip": "10.117.115.17",
        "compatible": true,
        "hostname": "NLABP1133",
        "mip": "10.117.114.17",
        "mipV6": "fd20:8b1e:b256:45a::17",
        "nodeType": "SF2405",
        "role": "Storage",
        "version": "11.0"
      },
      {
        "chassisType": "R630",
        "cip": "10.117.115.18",
        "compatible": true,
        "hostname": "NLABP1134",
        "mip": "10.117.114.18",
        "mipV6": "fd20:8b1e:b256:45a::18",
        "nodeType": "SF2405",
        "role": "Storage",
        "version": "11.0"
      }
    ],
    "version": "11.0"
  }
}

```

New since version

9.6

Find more information

[CreateCluster](#)

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