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[Alauda Container Platform](#) > [Справочники по API](#) > [Kubernetes APIs](#) > Storage APIs

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# Storage APIs

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## PersistentVolumeClaim [v1]

[PersistentVolumeClaim \[v1\]](#)

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## PersistentVolume [v1]

[PersistentVolume \[v1\]](#)

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## StorageClass [storage.k8s.io/v1]

[StorageClass \[storage.k8s.io/v1\]](#)

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## Ceph Storage APIs

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**CephCluster** [cephclusters.cep]   **CephFilesystem** [cephfilesystem]   **CephBlock**

**CephObjectStore** [cephobjectstore]   **CephObjectStoreUser** [cephobjectstoreusers.]

# PersistentVolumeClaim [v1]

## Description

PersistentVolumeClaim is a user's request for and claim to a persistent volume

## Type

object

## Specification

Property	Type	Description
<code>apiVersion</code>	<code>string</code>	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Property	Type	Description
kind	string	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	ObjectMeta	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
spec	object	PersistentVolumeClaimSpec describes the common attributes of storage devices and allows a Source for provider-specific attributes
status	object	PersistentVolumeClaimStatus is the current status of a persistent volume claim.

## .spec

### Description

PersistentVolumeClaimSpec describes the common attributes of storage devices and allows a Source for provider-specific attributes

### Type

object

Property	Type	Description
<code>accessModes</code>	<code>array</code>	<p><code>accessModes</code> contains the desired access modes volume should have. More info:</p> <p><a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a></p>
<code>dataSource</code>	<code>object</code>	<p><code>TypedLocalObjectReference</code> contains enough information to let you locate the typed referenced object inside the same namespace.</p>
<code>dataSourceRef</code>	<code>object</code>	<p><code>TypedObjectReference</code> contains enough information to let you locate the typed referenced object</p>
<code>resources</code>	<code>object</code>	<p><code>VolumeResourceRequirements</code> describes the storage resource requirements for a volume.</p>
<code>selector</code>	<code>object</code>	<p>A label selector is a label query over a set of resources. The result of <code>matchLabels</code> and <code>matchExpressions</code> are ANDed. An empty label selector matches all objects. A null label selector matches no objects.</p>
<code>storageClassName</code>	<code>string</code>	<p><code>storageClassName</code> is the name of the <code>StorageClass</code> required by the claim. More info:</p> <p><a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a></p>

Property	Type	Description
<p><code>volumeAttributesClassName</code></p>	<p><code>string</code></p>	<p><code>volumeAttributesClassName</code> may be used to set the <code>VolumeAttributesClass</code> used by this claim. If specified, the CSI driver will create or update the volume with attributes defined in the corresponding <code>VolumeAttributesClass</code>. This has a different purpose than <code>storageClassName</code>, it can be changed after the claim is created. An empty string value means that <code>VolumeAttributesClass</code> will be applied to the claim if it's not allowed to reset this field to empty string once it's set. If unspecified and the <code>PersistentVolumeClaim</code> is unbound, the default <code>VolumeAttributesClass</code> will be used by the persistentvolume controller if it exists. If the resource referred to by <code>volumeAttributesClass</code> does not exist, this <code>PersistentVolumeClaim</code> will be set to Pending state, as reflected by the <code>modifyVolumeStatus</code> field, until such as a resource exists. More info: <a href="https://kubernetes.io/docs/concepts/storage/volume-attributes-classes/">https://kubernetes.io/docs/concepts/storage/volume-attributes-classes/</a> (Beta) Using this field requires the <code>VolumeAttributesClass</code> feature gate to be enabled (off by default).</p>
<p><code>volumeMode</code></p>	<p><code>string</code></p>	<p><code>volumeMode</code> defines what type of volume is required by the claim. Value of <code>Filesystem</code> is implied when <code>volumeAttributesClass</code> is included in claim spec.</p> <p>Possible enum values:</p> <ul style="list-style-type: none"> <li><code>"Block"</code> means the volume will not be formatted with a filesystem and will remain a raw block device.</li> <li><code>"Filesystem"</code> means the volume will be or is formatted with a filesystem.</li> </ul>

Property	Type	Description
<code>volumeName</code>	<code>string</code>	<code>volumeName</code> is the binding reference to the PersistentVolume backing this claim.

## `.spec.accessModes`

### Description

`accessModes` contains the desired access modes the volume should have. More info: <https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1>

### Type

`array`

## `.spec.accessModes[]`

### Type

`string`

## `.spec.dataSource`

### Description

`TypedLocalObjectReference` contains enough information to let you locate the typed referenced object inside the same namespace.

### Type

`object`

### Required

`kind` `name`

Property	Type	Description
<code>apiGroup</code>	<code>string</code>	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
<code>kind</code>	<code>string</code>	Kind is the type of resource being referenced
<code>name</code>	<code>string</code>	Name is the name of resource being referenced

## .spec.dataSourceRef

### Description

TypedObjectReference contains enough information to let you locate the typed referenced object

### Type

`object`

### Required

`kind` `name`

Property	Type	Description
<code>apiGroup</code>	<code>string</code>	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Property	Type	Description
<code>kind</code>	<code>string</code>	Kind is the type of resource being referenced
<code>name</code>	<code>string</code>	Name is the name of resource being referenced
<code>namespace</code>	<code>string</code>	<p>Namespace is the namespace of resource being referenced</p> <p>Note that when a namespace is specified, a <code>gateway.networking.k8s.io/ReferenceGrant</code> object is required in the referent namespace to allow that namespace's owner to accept the reference. See the <code>ReferenceGrant</code> documentation for details. (Alpha) This field requires the <code>CrossNamespaceVolumeDataSource</code> feature gate to be enabled.</p>

## .spec.resources

### Description

`VolumeResourceRequirements` describes the storage resource requirements for a volume.

### Type

`object`

Property	Type	Description
<code>limits</code>	<code>object</code>	<p>Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/">https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/</a> ↗</p>

Property	Type	Description
requests	object	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. Requests cannot exceed Limits. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/">https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/</a>

## .spec.resources.limits

### Description

Limits describes the maximum amount of compute resources allowed. More info: <https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/>

### Type

object

## .spec.resources.requests

### Description

Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. Requests cannot exceed Limits. More info: <https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/>

### Type

object

## .spec.selector

### Description

A label selector is a label query over a set of resources. The result of `matchLabels` and `matchExpressions` are ANDed. An empty label selector matches all objects. A null label selector matches no objects.

## Type

object

Property	Type	Description
<code>matchExpressions</code>	array	<code>matchExpressions</code> is a list of label selector requirements. The requirements are ANDed.
<code>matchLabels</code>	object	<code>matchLabels</code> is a map of {key,value} pairs. A single {key,value} in the <code>matchLabels</code> map is equivalent to an element of <code>matchExpressions</code> , whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

## `.spec.selector.matchExpressions`

### Description

`matchExpressions` is a list of label selector requirements. The requirements are ANDed.

### Type

array

## `.spec.selector.matchExpressions[]`

### Description

A label selector requirement is a selector that contains values, a key, and an operator that relates the key and values.

### Type

object

## Required

key operator

Property	Type	Description
key	string	key is the label key that the selector applies to.
operator	string	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	array	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

## `.spec.selector.matchExpressions[].values`

### Description

values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

### Type

array

## `.spec.selector.matchExpressions[].values[]`

### Type

string

## `.spec.selector.matchLabels`

## Description

matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

## Type

object

## .status

## Description

PersistentVolumeClaimStatus is the current status of a persistent volume claim.

## Type

object

Property	Type	Description
accessModes	array	accessModes contains the actual access modes of the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/volumes#access-modes-1</a>
allocatedResourceStatuses	object	allocatedResourceStatuses stores status of resources being resized for the given PVC. Key name must follow standard Kubernetes label syntax. Valid values are either: * Un-prefixed keys: - storage - the class of the volume. * Custom resources must use implementation-defined prefixed names such as "example.com/my-custom-resource" Apart from the above values - keys that are unprefixed or have kubernetes.io prefix are considered reserved and hence may not be used.

Property	Type	Description
		<p>ClaimResourceStatus can be in any of following states:</p> <ul style="list-style-type: none"> <li>- ControllerResizeInProgress: State set when resize controller starts resizing the volume plane.</li> <li>- ControllerResizeFailed: State set when resize controller has failed in resize controller with a terminating error.</li> <li>- NodeResizePending: State set when resize controller has finished resizing the volume but further volume is needed on the node.</li> <li>- NodeResizeInProgress: State set when kubelet is resizing the volume.</li> <li>- NodeResizeFailed: State set when resizing has failed in kubelet with a terminating error. Transient errors don't set NodeResizeFailed.</li> </ul> <p>example: if expanding a PVC for more capacity, the pvc.status.allocatedResourceStatus["storageClassName"] field can be one of the following states:</p> <ul style="list-style-type: none"> <li>- pvc.status.allocatedResourceStatus["storageClassName"] = "ControllerResizeInProgress" - Controller is resizing the volume.</li> <li>- pvc.status.allocatedResourceStatus["storageClassName"] = "ControllerResizeFailed" - Controller has failed to resize the volume.</li> <li>- pvc.status.allocatedResourceStatus["storageClassName"] = "NodeResizePending" - Node is pending to receive the volume.</li> <li>- pvc.status.allocatedResourceStatus["storageClassName"] = "NodeResizeInProgress" - Node is resizing the volume.</li> <li>- pvc.status.allocatedResourceStatus["storageClassName"] = "NodeResizeFailed" - Node has failed to resize the volume.</li> </ul> <p>When this field is not set, it means that no resize operation is in progress for the given PVC.</p> <p>A controller that receives PVC update with unknown resourceName or ClaimResourceStatus should ignore the update for the purpose it was designed. For example - a controller that is responsible for resizing capacity of the volume should ignore PVC updates that change other values associated with PVC.</p>

Property	Type	Description
		This is an alpha field and requires enabling RecoverVolumeExpansionFailure feature.

Property	Type	Description
<p><code>allocatedResources</code></p>	<p>object</p>	<p>allocatedResources tracks the resources allocated to a PVC including its capacity. Key names follow standard Kubernetes label syntax. Valid values are either:</p> <ul style="list-style-type: none"> <li>* Un-prefixed keys: - storage - the capacity of the volume.</li> <li>* Custom resources must use implementation-defined prefixed names such as "example.com/my-custom-resource" Apart from these values - keys that are unprefixed or have the kubernetes.io prefix are considered reserved and hence may not be used.</li> </ul> <p>Capacity reported here may be larger than the actual capacity when a volume expansion operation is requested. For storage quota, the larger value of allocatedResources and PVC.spec.resources.requests.storage is used. If allocatedResources is not set, PVC.spec.resources.requests.storage alone is used for quota calculation. If a volume expansion capacity request is lowered, allocatedResources is only lowered if there are no expansion operations in progress and if the requested volume capacity is equal or lower than the current capacity.</p> <p>A controller that receives PVC update with unknown resourceName should ignore the update as it is outside the purpose it was designed. For example a storage controller that only is responsible for resizing of the volume, should ignore PVC updates that request to change other valid resources associated with the volume.</p> <p>This is an alpha field and requires enabling the RecoverVolumeExpansionFailure feature.</p>

Property	Type	Description
<code>capacity</code>	<code>object</code>	capacity represents the actual resources (CPU, memory, storage) of the underlying volume.
<code>conditions</code>	<code>array</code>	conditions is the current Condition of persistent volume claim. If underlying persistent volume is resized then the Condition will be set to 'Resizing'.
<code>currentVolumeAttributesClassName</code>	<code>string</code>	currentVolumeAttributesClassName is the name of the VolumeAttributesClass the PersistentVolumeClaim uses. When unset, there is no VolumeAttributesClass associated with this PersistentVolumeClaim. This is a beta feature and requires enabling VolumeAttributesClass feature gate (by default).
<code>modifyVolumeStatus</code>	<code>object</code>	ModifyVolumeStatus represents the status of the ControllerModifyVolume operation.
<code>phase</code>	<code>string</code>	<p>phase represents the current phase of PersistentVolumeClaim.</p> <p>Possible enum values:</p> <ul style="list-style-type: none"> <li><code>"Bound"</code> used for PersistentVolumeClaims that are bound.</li> <li><code>"Lost"</code> used for PersistentVolumeClaims that have lost their underlying PersistentVolume. A PersistentVolumeClaim that was bound to a PersistentVolume and that PersistentVolume does not exist any longer and all data on the PersistentVolume is lost.</li> </ul>

Property	Type	Description
		<ul style="list-style-type: none"> <li>"Pending" used for PersistentVolum are not yet bound</li> </ul>

## .status.accessModes

### Description

accessModes contains the actual access modes the volume backing the PVC has. More info: <https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1>

### Type

array

## .status.accessModes[]

### Type

string

## .status.allocatedResourceStatuses

### Description

allocatedResourceStatuses stores status of resource being resized for the given PVC. Key names follow standard Kubernetes label syntax. Valid values are either: \* Un-prefixed keys: - storage - the capacity of the volume. \* Custom resources must use implementation-defined prefixed names such as "example.com/my-custom-resource" Apart from above values - keys that are unprefixed or have kubernetes.io prefix are considered reserved and hence may not be used. ClaimResourceStatus can be in any of following states: - ControllerResizeInProgress: State set when resize controller starts resizing the volume in control-plane. - ControllerResizeFailed: State set when resize has failed in resize controller with a terminal error. - NodeResizePending: State set when resize controller has finished resizing the volume but further resizing of volume is needed on the node. - NodeResizeInProgress: State set when kubelet starts resizing the volume. - NodeResizeFailed: State set when resizing has failed in kubelet with a terminal error. Transient errors don't set NodeResizeFailed. For example: if expanding a PVC for more

capacity - this field can be one of the following states: -

pvc.status.allocatedResourceStatus[storage] = "ControllerResizeInProgress" -

pvc.status.allocatedResourceStatus[storage] = "ControllerResizeFailed" -

pvc.status.allocatedResourceStatus[storage] = "NodeResizePending" -

pvc.status.allocatedResourceStatus[storage] = "NodeResizeInProgress" -

pvc.status.allocatedResourceStatus[storage] = "NodeResizeFailed" When this field is not

set, it means that no resize operation is in progress for the given PVC. A controller that

receives PVC update with previously unknown resourceName or ClaimResourceStatus

should ignore the update for the purpose it was designed. For example - a controller that

only is responsible for resizing capacity of the volume, should ignore PVC updates that

change other valid resources associated with PVC. This is an alpha field and requires

enabling RecoverVolumeExpansionFailure feature.

## Type

object

## .status.allocatedResources

### Description

allocatedResources tracks the resources allocated to a PVC including its capacity. Key names follow standard Kubernetes label syntax. Valid values are either: \* Un-prefixed keys:

- storage - the capacity of the volume. \* Custom resources must use implementation-

defined prefixed names such as "example.com/my-custom-resource" Apart from above

values - keys that are unprefixed or have kubernetes.io prefix are considered reserved and

hence may not be used. Capacity reported here may be larger than the actual capacity

when a volume expansion operation is requested. For storage quota, the larger value from

allocatedResources and PVC.spec.resources is used. If allocatedResources is not set,

PVC.spec.resources alone is used for quota calculation. If a volume expansion capacity

request is lowered, allocatedResources is only lowered if there are no expansion operations

in progress and if the actual volume capacity is equal or lower than the requested capacity.

A controller that receives PVC update with previously unknown resourceName should

ignore the update for the purpose it was designed. For example - a controller that only is

responsible for resizing capacity of the volume, should ignore PVC updates that change

other valid resources associated with PVC. This is an alpha field and requires enabling

RecoverVolumeExpansionFailure feature.

## Type

object

## **.status.capacity**

### **Description**

capacity represents the actual resources of the underlying volume.

### **Type**

object

## **.status.conditions**

### **Description**

conditions is the current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'Resizing'.

### **Type**

array

## **.status.conditions[]**

### **Description**

PersistentVolumeClaimCondition contains details about state of pvc

### **Type**

object

### **Required**

type status

Property	Type	Description
lastProbeTime	string	Time is a wrapper around time.Time which supports correct JSON. Wrappers are provided for many of the factory methods.



`object`**Required**`status`

Property	Type	Description
<code>status</code>	<code>string</code>	<p>status is the status of the ControllerModifyVolume operation. It can be in any of following states:</p> <ul style="list-style-type: none"><li>• <b>Pending</b> Pending indicates that the PersistentVolumeClaim cannot be modified due to unmet requirements, such as the specified VolumeAttributesClass not existing.</li><li>• <b>InProgress</b> InProgress indicates that the volume is being modified.</li><li>• <b>Infeasible</b> Infeasible indicates that the request has been rejected as invalid by the CSI driver. To resolve the error, a valid VolumeAttributesClass needs to be specified. Note: New statuses can be added in the future. Consumers should check for unknown statuses and fail appropriately.</li></ul> <p>Possible enum values:</p> <ul style="list-style-type: none"><li>• <code>"InProgress"</code> InProgress indicates that the volume is being modified</li></ul>

Property	Type	Description
		<ul style="list-style-type: none"> <li>"Infeasible" Infeasible indicates that the request has been rejected as invalid by the CSI driver. To resolve the error, a valid VolumeAttributesClass needs to be specified</li> <li>"Pending" Pending indicates that the PersistentVolumeClaim cannot be modified due to unmet requirements, such as the specified VolumeAttributesClass not existing</li> </ul>
targetVolumeAttributesClassName	string	targetVolumeAttributesClassName is the name of the VolumeAttributesClass the PVC currently being reconciled

## API Endpoints

The following API endpoints are available:

- /kubernetes/{cluster}/api/v1/namespaces/{namespace}/persistentvolumeclaims
  - DELETE : delete collection of PersistentVolumeClaim
  - GET : list objects of kind PersistentVolumeClaim
  - POST : create a new PersistentVolumeClaim
- /kubernetes/{cluster}/api/v1/namespaces/{namespace}/persistentvolumeclaims/{name}
  - DELETE : delete the specified PersistentVolumeClaim

- **GET** : read the specified PersistentVolumeClaim
- **PATCH** : partially update the specified PersistentVolumeClaim
- **PUT** : replace the specified PersistentVolumeClaim
- `/kubernetes/{cluster}/api/v1/namespaces/{namespace}/persistentvolumeclaims/{name}/status`
  - **GET** : read status of the specified PersistentVolumeClaim
  - **PATCH** : partially update status of the specified PersistentVolumeClaim
  - **PUT** : replace status of the specified PersistentVolumeClaim

## `/kubernetes/{cluster}/api/v1/namespaces/{namespace}/persistentvolumeclaims`

### HTTP method

**DELETE**

### Description

delete collection of PersistentVolumeClaim

### HTTP responses

HTTP code	Response body
200 - OK	<b>Status</b> schema
401 - Unauthorized	Empty

### HTTP method

**GET**

### Description

list objects of kind PersistentVolumeClaim

### HTTP responses

HTTP code	Response body
200 - OK	<code>PersistentVolumeClaimList</code> schema
401 - Unauthorized	Empty

## HTTP method

POST

## Description

create a new PersistentVolumeClaim

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	<code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a <code>BadRequest</code> error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## Body parameters

Parameter	Type	Description
body	PersistentVolumeClaim schema	application/json formatted

## HTTP responses

HTTP code	Response body
200 - OK	PersistentVolumeClaim schema
201 - Created	PersistentVolumeClaim schema
202 - Accepted	PersistentVolumeClaim schema
401 - Unauthorized	Empty

# /kubernetes/{cluster}/api/v1/namespaces/{namespace}/persistentvolumeclaims/{name}

## HTTP method

DELETE

## Description

delete the specified PersistentVolumeClaim

## Query parameters

Parameter	Type	Description
dryRun	string	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

## HTTP responses

HTTP code	Response body
200 - OK	<code>Status</code> schema
202 - Accepted	<code>Status</code> schema
401 - Unauthorized	Empty

## HTTP method

GET

## Description

read the specified PersistentVolumeClaim

## HTTP responses

HTTP code	Response body
200 - OK	<code>PersistentVolumeClaim</code> schema
401 - Unauthorized	Empty

## HTTP method

PATCH

## Description

partially update the specified PersistentVolumeClaim

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	<code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore:

Parameter	Type	Description
		This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a BadRequest error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## HTTP responses

HTTP code	Response body
200 - OK	<code>PersistentVolumeClaim</code> schema
401 - Unauthorized	Empty

## HTTP method

PUT

## Description

replace the specified PersistentVolumeClaim

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

Parameter	Type	Description
<code>fieldValidation</code>	<code>string</code>	<p><code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are:</p> <ul style="list-style-type: none"> <li>- Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23.</li> <li>- Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+.</li> <li>- Strict: This will fail the request with a <code>BadRequest</code> error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.</li> </ul>

### Body parameters

Parameter	Type	Description
<code>body</code>	<code>PersistentVolumeClaim</code> schema	<code>application/json</code> formatted

### HTTP responses

HTTP code	Response body
200 - OK	<code>PersistentVolumeClaim</code> schema
201 - Created	<code>PersistentVolumeClaim</code> schema
401 - Unauthorized	Empty

**`/kubernetes/{cluster}/api/v1/namespaces/{namespace}/persistentvolumeclaims/{name}/status`**

## HTTP method

GET

## Description

read status of the specified PersistentVolumeClaim

## HTTP responses

HTTP code	Response body
200 - OK	<code>PersistentVolumeClaim</code> schema
401 - Unauthorized	Empty

## HTTP method

PATCH

## Description

partially update status of the specified PersistentVolumeClaim

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	<code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default

Parameter	Type	Description
		in v1.23+ - Strict: This will fail the request with a BadRequest error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## HTTP responses

HTTP code	Response body
200 - OK	<code>PersistentVolumeClaim</code> schema
401 - Unauthorized	Empty

## HTTP method

PUT

## Description

replace status of the specified PersistentVolumeClaim

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	fieldValidation instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request

Parameter	Type	Description
		will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a BadRequest error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## Body parameters

Parameter	Type	Description
body	PersistentVolumeClaim schema	application/json formatted

## HTTP responses

HTTP code	Response body
200 - OK	PersistentVolumeClaim schema
201 - Created	PersistentVolumeClaim schema
401 - Unauthorized	Empty

# PersistentVolume [v1]

## Description

PersistentVolume (PV) is a storage resource provisioned by an administrator. It is analogous to a node. More info: <https://kubernetes.io/docs/concepts/storage/persistent-volumes>

## Type

object

## Specification

Property	Type	Description
<code>apiVersion</code>	<code>string</code>	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
<code>kind</code>	<code>string</code>	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info:

Property	Type	Description
		<a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a> ↗
metadata	ObjectMeta	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
spec	object	PersistentVolumeSpec is the specification of a persistent volume.
status	object	PersistentVolumeStatus is the current status of a persistent volume.

## .spec

### Description

PersistentVolumeSpec is the specification of a persistent volume.

### Type

object

Property	Type	Description
accessModes	array	accessModes contains all ways the volume can be mounted. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes</a> ↗
awsElasticBlockStore	object	Represents a Persistent Disk resource in AWS:

Property	Type	Description
		An AWS EBS disk must exist before mounting container. The disk must also be in the same zone as the kubelet. An AWS EBS disk can be mounted as read/write once. AWS EBS volumes support ownership management and SELinux relabeling.
azureDisk	object	AzureDisk represents an Azure Data Disk mounted to the host and bind mount to the pod.
azureFile	object	AzureFile represents an Azure File Service mounted to the host and bind mount to the pod.
capacity	object	capacity is the description of the persistent volume resources and capacity. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#capacity">https://kubernetes.io/docs/concepts/storage/persistent-volumes#capacity</a>
cephfs	object	Represents a Ceph Filesystem mount that has the lifetime of a pod. Cephfs volumes do not support ownership management or SELinux relabeling.
cinder	object	Represents a cinder volume resource in OpenStack. Cinder volume must exist before mounting to container. The volume must also be in the same region as the kubelet. Cinder volumes support ownership management and SELinux relabeling.

Property	Type	Description
<code>claimRef</code>	object	ObjectReference contains enough information you inspect or modify the referred object.
<code>csi</code>	object	Represents storage that is managed by an external CSI volume driver
<code>fc</code>	object	Represents a Fibre Channel volume. Fibre Channel volumes can only be mounted as read/write or read-only. Fibre Channel volumes support ownership management and SELinux relabeling.
<code>flexVolume</code>	object	FlexPersistentVolumeSource represents a generic persistent volume resource that is provisioned/attached using an exec based plugin
<code>flocker</code>	object	Represents a Flocker volume mounted by the agent. One and only one of datasetName and datasetUUID should be set. Flocker volumes support ownership management or SELinux relabeling.
<code>gcePersistentDisk</code>	object	Represents a Persistent Disk resource in Google Compute Engine.  A GCE PD must exist before mounting to a container. The disk must also be in the same GCE project and zone as the kubelet. A GCE PD can only be mounted as read/write once or read-only many times. C

Property	Type	Description
		support ownership management and SELinux relabeling.
<code>glusterfs</code>	<code>object</code>	Represents a Glusterfs mount that lasts the lifetime of a pod. Glusterfs volumes do not support ownership management or SELinux relabeling.
<code>hostPath</code>	<code>object</code>	Represents a host path mapped into a pod. HostPath volumes do not support ownership management or SELinux relabeling.
<code>iscsi</code>	<code>object</code>	ISCSIPersistentVolumeSource represents an iSCSI disk. ISCSI volumes can only be mounted as read/write once. ISCSI volumes support ownership management and SELinux relabeling.
<code>local</code>	<code>object</code>	Local represents directly-attached storage with no special affinity.
<code>mountOptions</code>	<code>array</code>	mountOptions is the list of mount options, e.g. ["soft"]. Not validated - mount will simply fail if invalid. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes/#mount-options">https://kubernetes.io/docs/concepts/storage/persistent-volumes/#mount-options</a>
<code>nfs</code>	<code>object</code>	Represents an NFS mount that lasts the lifetime of a pod. NFS volumes do not support ownership

Property	Type	Description
		management or SELinux relabeling.
<code>nodeAffinity</code>	<code>object</code>	VolumeNodeAffinity defines constraints that limit which nodes this volume can be accessed from.
		<p><code>persistentVolumeReclaimPolicy</code> defines what to do to a persistent volume when released from its claim. Valid options are Retain (default for manually provisioned PersistentVolumes), Delete (default for dynamically provisioned PersistentVolumes), and Recycle (deprecated). Recycle must be supported by the underlying storage volume plugin underlying this PersistentVolume.</p> <p>info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#reclaiming">https://kubernetes.io/docs/concepts/storage/persistent-volumes#reclaiming</a></p>
<code>persistentVolumeReclaimPolicy</code>	<code>string</code>	<p>Possible enum values:</p> <ul style="list-style-type: none"> <li><code>"Delete"</code> means the volume will be deleted by Kubernetes on release from its claim. The underlying storage plugin must support Deletion.</li> <li><code>"Recycle"</code> means the volume will be recycled back into the pool of unbound persistent volumes available for use on release from its claim. The volume plugin must support Recycling.</li> <li><code>"Retain"</code> means the volume will be left in its current phase (Released) for manual reclamation by the administrator. The default policy is FirstFit.</li> </ul>

Property	Type	Description
<code>photonPersistentDisk</code>	object	Represents a Photon Controller persistent disk resource.
<code>portworxVolume</code>	object	PortworxVolumeSource represents a Portworx resource.
<code>quobyte</code>	object	Represents a Quobyte mount that lasts the lifetime of a pod. Quobyte volumes do not support ownership management or SELinux relabeling.
<code>rbid</code>	object	Represents a Rados Block Device mount that lasts the lifetime of a pod. RBD volumes support ownership management and SELinux relabeling.
<code>scaleIO</code>	object	ScaleIOPersistentVolumeSource represents a persistent ScaleIO volume
<code>storageClassName</code>	string	storageClassName is the name of StorageClass which this persistent volume belongs to. Empty string means that this volume does not belong to any StorageClass.
<code>storageos</code>	object	Represents a StorageOS persistent volume resource

Property	Type	Description
<code>volumeAttributesClassName</code>	<code>string</code>	<p>Name of VolumeAttributesClass to which this persistent volume belongs. Empty value is not allowed. When this field is not set, it indicates volume does not belong to any VolumeAttribu</p> <p>This field is mutable and can be changed by t driver after a volume has been updated succe a new class. For an unbound PersistentVolun volumeAttributesClassName will be matched unbound PersistentVolumeClaims during the process. This is a beta field and requires enal VolumeAttributesClass feature (off by default)</p>
<code>volumeMode</code>	<code>string</code>	<p>volumeMode defines if a volume is intended t used with a formatted filesystem or to remain block state. Value of Filesystem is implied wh included in spec.</p> <p>Possible enum values:</p> <ul style="list-style-type: none"> <li><code>"Block"</code> means the volume will not be fc with a filesystem and will remain a raw blo device.</li> <li><code>"Filesystem"</code> means the volume will be formatted with a filesystem.</li> </ul>
<code>vsphereVolume</code>	<code>object</code>	Represents a vSphere volume resource.

## .spec.accessModes

### Description

accessModes contains all ways the volume can be mounted. More info:

<https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes>

## Type

array

## .spec.accessModes[]

## Type

string

## .spec.awsElasticBlockStore

## Description

Represents a Persistent Disk resource in AWS. An AWS EBS disk must exist before mounting to a container. The disk must also be in the same AWS zone as the kubelet. An AWS EBS disk can only be mounted as read/write once. AWS EBS volumes support ownership management and SELinux relabeling.

## Type

object

## Required

volumeID

Property	Type	Description
fsType	string	fsType is the filesystem type of the volume that you want to mount. 1 Ensure that the filesystem type is supported by the host operating sy Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspe More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblo">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblo</a>

Property	Type	Description
<code>partition</code>	<code>integer</code>	partition is the partition in the volume that you want to mount. If omit the default is to mount by volume name. Examples: For volume /dev you specify the partition as "1". Similarly, the volume partition for /dev is "0" (or you can leave the property empty).
<code>readOnly</code>	<code>boolean</code>	readOnly value true will force the readOnly setting in VolumeMounts info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
<code>volumeID</code>	<code>string</code>	volumeID is unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

## .spec.azureDisk

### Description

AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.

### Type

`object`

### Required

`diskName`

`diskURI`

Property	Type	Description
<code>cachingMode</code>	<code>string</code>	cachingMode is the Host Caching mode: None, Read Only, Read Write.

Property	Type	Description
		<p>Possible enum values:</p> <ul style="list-style-type: none"><li>"None"</li><li>"ReadOnly"</li><li>"ReadWrite"</li></ul>
diskName	string	diskName is the Name of the data disk in the blob storage
diskURI	string	diskURI is the URI of data disk in the blob storage
fsType	string	fsType is Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	string	<p>kind expected values are Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared</p> <p>Possible enum values:</p> <ul style="list-style-type: none"><li>"Dedicated"</li><li>"Managed"</li><li>"Shared"</li></ul>

Property	Type	Description
<code>readOnly</code>	<code>boolean</code>	<code>readOnly</code> Defaults to false (read/write). <code>ReadOnly</code> here will force the <code>ReadOnly</code> setting in <code>VolumeMounts</code> .

## .spec.azureFile

### Description

AzureFile represents an Azure File Service mount on the host and bind mount to the pod.

### Type

`object`

### Required

`secretName`

`shareName`

Property	Type	Description
<code>readOnly</code>	<code>boolean</code>	<code>readOnly</code> defaults to false (read/write). <code>ReadOnly</code> here will force the <code>ReadOnly</code> setting in <code>VolumeMounts</code> .
<code>secretName</code>	<code>string</code>	<code>secretName</code> is the name of secret that contains Azure Storage Account Name and Key
<code>secretNamespace</code>	<code>string</code>	<code>secretNamespace</code> is the namespace of the secret that contains Azure Storage Account Name and Key default is the same as the Pod
<code>shareName</code>	<code>string</code>	<code>shareName</code> is the azure Share Name

## .spec.capacity

### Description

capacity is the description of the persistent volume's resources and capacity. More info:  
<https://kubernetes.io/docs/concepts/storage/persistent-volumes#capacity>

### Type

object

## .spec.cephfs

### Description

Represents a Ceph Filesystem mount that lasts the lifetime of a pod Cephfs volumes do not support ownership management or SELinux relabeling.

### Type

object

### Required

monitors

Property	Type	Description
monitors	array	monitors is Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	string	path is Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	boolean	readOnly is Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info:

Property	Type	Description
		<a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a> ↗
<code>secretFile</code>	<code>string</code>	secretFile is Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a> ↗
<code>secretRef</code>	<code>object</code>	SecretReference represents a Secret Reference. It has enough information to retrieve secret in any namespace
<code>user</code>	<code>string</code>	user is Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a> ↗

## .spec.cephfs.monitors

### Description

monitors is Required: Monitors is a collection of Ceph monitors More info: <https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it>

### Type

`array`

## .spec.cephfs.monitors[]

### Type

`string`

## .spec.cephfs.secretRef

### Description

SecretReference represents a Secret Reference. It has enough information to retrieve secret in any namespace

### Type

object

Property	Type	Description
name	string	name is unique within a namespace to reference a secret resource.
namespace	string	namespace defines the space within which the secret name must be unique.

## .spec.cinder

### Description

Represents a cinder volume resource in Openstack. A Cinder volume must exist before mounting to a container. The volume must also be in the same region as the kubelet. Cinder volumes support ownership management and SELinux relabeling.

### Type

object

### Required

volumeID

Property	Type	Description
<code>fsType</code>	<code>string</code>	<code>fsType</code> Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a> ↗
<code>readOnly</code>	<code>boolean</code>	<code>readOnly</code> is Optional: Defaults to false (read/write). <code>ReadOnly</code> here will force the <code>ReadOnly</code> setting in <code>VolumeMounts</code> . More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a> ↗
<code>secretRef</code>	<code>object</code>	<code>SecretReference</code> represents a Secret Reference. It has enough information to retrieve secret in any namespace
<code>volumeID</code>	<code>string</code>	<code>volumeID</code> used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a> ↗

## `.spec.cinder.secretRef`

### Description

`SecretReference` represents a Secret Reference. It has enough information to retrieve secret in any namespace

### Type

`object`

Property	Type	Description
<code>name</code>	<code>string</code>	name is unique within a namespace to reference a secret resource.
<code>namespace</code>	<code>string</code>	namespace defines the space within which the secret name must be unique.

## .spec.claimRef

### Description

ObjectReference contains enough information to let you inspect or modify the referred object.

### Type

`object`

Property	Type	Description
<code>apiVersion</code>	<code>string</code>	API version of the referent.
<code>fieldPath</code>	<code>string</code>	If referring to a piece of an object instead of an entire object, this string should contain a valid JSON/Go field access statement, such as <code>desiredState.manifest.containers[2]</code> . For example, if the object reference is to a container within a pod, this would take on a value like: <code>"spec.containers{name}"</code> (where "name" refers to the name of the container that triggered the event) or if no container name is specified <code>"spec.containers[2]"</code> (container with index 2 in this pod).

Property	Type	Description
		This syntax is chosen only to have some well-defined way of referencing a part of an object.
kind	string	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	string	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
namespace	string	Namespace of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/">https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/</a>
resourceVersion	string	Specific resourceVersion to which this reference is made, if any. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
uid	string	UID of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids</a>

## Description

Represents storage that is managed by an external CSI volume driver

## Type

object

## Required

driver

volumeHandle

Property	Type	Description
<code>controllerExpandSecretRef</code>	object	SecretReference represents a Secret Reference. It has enough information to retrieve secret in any namespace
<code>controllerPublishSecretRef</code>	object	SecretReference represents a Secret Reference. It has enough information to retrieve secret in any namespace
<code>driver</code>	string	driver is the name of the driver to use for this volume. Required.
<code>fsType</code>	string	fsType to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs".
<code>nodeExpandSecretRef</code>	object	SecretReference represents a Secret Reference. It has enough information to retrieve secret in any namespace

Property	Type	Description
<code>nodePublishSecretRef</code>	<code>object</code>	SecretReference represents a Secret Reference. It has enough information to retrieve secret in any namespace
<code>nodeStageSecretRef</code>	<code>object</code>	SecretReference represents a Secret Reference. It has enough information to retrieve secret in any namespace
<code>readOnly</code>	<code>boolean</code>	readOnly value to pass to ControllerPublishVolumeRequest. Defaults to false (read/write).
<code>volumeAttributes</code>	<code>object</code>	volumeAttributes of the volume to publish.
<code>volumeHandle</code>	<code>string</code>	volumeHandle is the unique volume name returned by the CSI volume plugin's CreateVolume to refer to the volume on all subsequent calls. Required.

## `.spec.csi.controllerExpandSecretRef`

### Description

SecretReference represents a Secret Reference. It has enough information to retrieve secret in any namespace

### Type

`object`

Property	Type	Description
name	string	name is unique within a namespace to reference a secret resource.
namespace	string	namespace defines the space within which the secret name must be unique.

## .spec.csi.controllerPublishSecretRef

### Description

SecretReference represents a Secret Reference. It has enough information to retrieve secret in any namespace

### Type

object

Property	Type	Description
name	string	name is unique within a namespace to reference a secret resource.
namespace	string	namespace defines the space within which the secret name must be unique.

## .spec.csi.nodeExpandSecretRef

### Description

SecretReference represents a Secret Reference. It has enough information to retrieve secret in any namespace

## Type

object

Property	Type	Description
name	string	name is unique within a namespace to reference a secret resource.
namespace	string	namespace defines the space within which the secret name must be unique.

## .spec.csi.nodePublishSecretRef

### Description

SecretReference represents a Secret Reference. It has enough information to retrieve secret in any namespace

### Type

object

Property	Type	Description
name	string	name is unique within a namespace to reference a secret resource.
namespace	string	namespace defines the space within which the secret name must be unique.

## .spec.csi.nodeStageSecretRef

## Description

SecretReference represents a Secret Reference. It has enough information to retrieve secret in any namespace

## Type

object

Property	Type	Description
name	string	name is unique within a namespace to reference a secret resource.
namespace	string	namespace defines the space within which the secret name must be unique.

## .spec.csi.volumeAttributes

### Description

volumeAttributes of the volume to publish.

### Type

object

## .spec.fc

### Description

Represents a Fibre Channel volume. Fibre Channel volumes can only be mounted as read/write once. Fibre Channel volumes support ownership management and SELinux relabeling.

### Type

object

Property	Type	Description
<code>fsType</code>	<code>string</code>	<code>fsType</code> is the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
<code>lun</code>	<code>integer</code>	<code>lun</code> is Optional: FC target lun number
<code>readOnly</code>	<code>boolean</code>	<code>readOnly</code> is Optional: Defaults to false (read/write). <code>ReadOnly</code> here will force the <code>ReadOnly</code> setting in <code>VolumeMounts</code> .
<code>targetWWNs</code>	<code>array</code>	<code>targetWWNs</code> is Optional: FC target worldwide names (WWNs)
<code>wwids</code>	<code>array</code>	<code>wwids</code> Optional: FC volume world wide identifiers (wwids) Either <code>wwids</code> or combination of <code>targetWWNs</code> and <code>lun</code> must be set, but not both simultaneously.

## `.spec.fc.targetWWNs`

### Description

`targetWWNs` is Optional: FC target worldwide names (WWNs)

### Type

`array`

## `.spec.fc.targetWWNs[]`

### Type

`string`

## `.spec.fc.wwids`

### Description

wwids Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

### Type

`array`

## `.spec.fc.wwids[]`

### Type

`string`

## `.spec.flexVolume`

### Description

FlexPersistentVolumeSource represents a generic persistent volume resource that is provisioned/attached using an exec based plugin.

### Type

`object`

### Required

`driver`

Property	Type	Description
<code>driver</code>	<code>string</code>	driver is the name of the driver to use for this volume.
<code>fsType</code>	<code>string</code>	fsType is the Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs",

Property	Type	Description
		"ntfs". The default filesystem depends on FlexVolume script.
options	object	options is Optional: this field holds extra command options if any.
readOnly	boolean	readOnly is Optional: defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	object	SecretReference represents a Secret Reference. It has enough information to retrieve secret in any namespace

## .spec.flexVolume.options

### Description

options is Optional: this field holds extra command options if any.

### Type

object

## .spec.flexVolume.secretRef

### Description

SecretReference represents a Secret Reference. It has enough information to retrieve secret in any namespace

### Type

object

Property	Type	Description
<code>name</code>	<code>string</code>	name is unique within a namespace to reference a secret resource.
<code>namespace</code>	<code>string</code>	namespace defines the space within which the secret name must be unique.

## .spec.flocker

### Description

Represents a Flocker volume mounted by the Flocker agent. One and only one of `datasetName` and `datasetUUID` should be set. Flocker volumes do not support ownership management or SELinux relabeling.

### Type

`object`

Property	Type	Description
<code>datasetName</code>	<code>string</code>	<code>datasetName</code> is Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
<code>datasetUUID</code>	<code>string</code>	<code>datasetUUID</code> is the UUID of the dataset. This is unique identifier of a Flocker dataset

## .spec.gcePersistentDisk

### Description

Represents a Persistent Disk resource in Google Compute Engine. A GCE PD must exist before mounting to a container. The disk must also be in the same GCE project and zone as the kubelet. A GCE PD can only be mounted as read/write once or read-only many times. GCE PDs support ownership management and SELinux relabeling.

## Type

object

## Required

pdName

Property	Type	Description
fsType	string	fsType is filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentc">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentc</a>
partition	integer	partition is the partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentc">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentc</a>
pdName	string	pdName is unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentc">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentc</a>

Property	Type	Description
<code>readOnly</code>	boolean	readOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentvolumeclaim">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentvolumeclaim</a>

## .spec.glusterfs

### Description

Represents a Glusterfs mount that lasts the lifetime of a pod. Glusterfs volumes do not support ownership management or SELinux relabeling.

### Type

object

### Required

endpoints

path

Property	Type	Description
<code>endpoints</code>	string	endpoints is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#creating-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#creating-a-pod</a>
<code>endpointsNamespace</code>	string	endpointsNamespace is the namespace that contains the Glusterfs endpoint. If this field is empty, the EndpointNamespace defaults to the same namespace as the bound PVC. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#creating-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#creating-a-pod</a>

Property	Type	Description
path	string	path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#a-pod</a>
readOnly	boolean	readOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#a-pod</a>

## .spec.hostPath

### Description

Represents a host path mapped into a pod. Host path volumes do not support ownership management or SELinux relabeling.

### Type

object

### Required

path

Property	Type	Description
path	string	path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
type	string	type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Property	Type	Description
		<p>Possible enum values:</p> <ul style="list-style-type: none"><li><code>""</code> For backwards compatible, leave it empty if unset</li><li><code>"BlockDevice"</code> A block device must exist at the given path</li><li><code>"CharDevice"</code> A character device must exist at the given path</li><li><code>"Directory"</code> A directory must exist at the given path</li><li><code>"DirectoryOrCreate"</code> If nothing exists at the given path, an empty directory will be created there as needed with file mode 0755, having the same group and ownership with Kubelet.</li><li><code>"File"</code> A file must exist at the given path</li><li><code>"FileOrCreate"</code> If nothing exists at the given path, an empty file will be created there as needed with file mode 0644, having the same group and ownership with Kubelet.</li><li><code>"Socket"</code> A UNIX socket must exist at the given path</li></ul>

## .spec.iscsi

### Description

ISCSIPersistentVolumeSource represents an iSCSI disk. iSCSI volumes can only be mounted as read/write once. iSCSI volumes support ownership management and SELinux relabeling.

### Type

object

### Required

targetPortal

iqn

lun

Property	Type	Description
<code>chapAuthDiscovery</code>	<code>boolean</code>	<code>chapAuthDiscovery</code> defines whether support iSCSI Discovery CHAP authentication
<code>chapAuthSession</code>	<code>boolean</code>	<code>chapAuthSession</code> defines whether support iSCSI Session CHAP authentication
<code>fsType</code>	<code>string</code>	<code>fsType</code> is the filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
<code>initiatorName</code>	<code>string</code>	<code>initiatorName</code> is the custom iSCSI Initiator Name. If <code>initiatorName</code> is specified with <code>iscsiInterface</code> simultaneously, new iSCSI interface : will be created for the connection.
<code>iqn</code>	<code>string</code>	<code>iqn</code> is Target iSCSI Qualified Name.
<code>iscsiInterface</code>	<code>string</code>	<code>iscsiInterface</code> is the interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
<code>lun</code>	<code>integer</code>	<code>lun</code> is iSCSI Target Lun number.

Property	Type	Description
<code>portals</code>	<code>array</code>	<code>portals</code> is the iSCSI Target Portal List. The Portal is either an IP or <code>ip_addr:port</code> if the port is other than default (typically TCP ports 860 and 3260).
<code>readOnly</code>	<code>boolean</code>	<code>readOnly</code> here will force the <code>ReadOnly</code> setting in <code>VolumeMounts</code> . Defaults to <code>false</code> .
<code>secretRef</code>	<code>object</code>	<code>SecretReference</code> represents a Secret Reference. It has enough information to retrieve secret in any namespace
<code>targetPortal</code>	<code>string</code>	<code>targetPortal</code> is iSCSI Target Portal. The Portal is either an IP or <code>ip_addr:port</code> if the port is other than default (typically TCP ports 860 and 3260).

## `.spec.iscsi.portals`

### Description

`portals` is the iSCSI Target Portal List. The Portal is either an IP or `ip_addr:port` if the port is other than default (typically TCP ports 860 and 3260).

### Type

`array`

## `.spec.iscsi.portals[]`

### Type

`string`

## .spec.iscsi.secretRef

### Description

SecretReference represents a Secret Reference. It has enough information to retrieve secret in any namespace

### Type

object

Property	Type	Description
name	string	name is unique within a namespace to reference a secret resource.
namespace	string	namespace defines the space within which the secret name must be unique.

## .spec.local

### Description

Local represents directly-attached storage with node affinity

### Type

object

### Required

path

Property	Type	Description
fsType	string	fsType is the filesystem type to mount. It applies only when the Path is a block device. Must be a filesystem type supported by the

Property	Type	Description
		host operating system. Ex. "ext4", "xfs", "ntfs". The default value is to auto-select a filesystem if unspecified.
<code>path</code>	<code>string</code>	path of the full path to the volume on the node. It can be either a directory or block device (disk, partition, ...).

## .spec.mountOptions

### Description

mountOptions is the list of mount options, e.g. ["ro", "soft"]. Not validated - mount will simply fail if one is invalid. More info: <https://kubernetes.io/docs/concepts/storage/persistent-volumes/#mount-options>

### Type

`array`

## .spec.mountOptions[]

### Type

`string`

## .spec.nfs

### Description

Represents an NFS mount that lasts the lifetime of a pod. NFS volumes do not support ownership management or SELinux relabeling.

### Type

`object`

### Required

`server`

`path`

Property	Type	Description
<code>path</code>	<code>string</code>	path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
<code>readOnly</code>	<code>boolean</code>	<code>readOnly</code> here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
<code>server</code>	<code>string</code>	<code>server</code> is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

## `.spec.nodeAffinity`

### Description

VolumeNodeAffinity defines constraints that limit what nodes this volume can be accessed from.

### Type

`object`

Property	Type	Description
<code>required</code>	<code>object</code>	A node selector represents the union of the results of one or more label queries over a set of nodes; that is, it represents the OR of the selectors represented by the node selector terms.

## `.spec.nodeAffinity.required`

### Description

A node selector represents the union of the results of one or more label queries over a set of nodes; that is, it represents the OR of the selectors represented by the node selector terms.

### Type

object

### Required

nodeSelectorTerms

Property	Type	Description
nodeSelectorTerms	array	Required. A list of node selector terms. The terms are ORed.

## **.spec.nodeAffinity.required.nodeSelectorTerms**

### Description

Required. A list of node selector terms. The terms are ORed.

### Type

array

## **.spec.nodeAffinity.required.nodeSelectorTerms[]**

### Description

A null or empty node selector term matches no objects. The requirements of them are ANDed. The TopologySelectorTerm type implements a subset of the NodeSelectorTerm.

### Type

object

Property	Type	Description
<code>matchExpressions</code>	array	A list of node selector requirements by node's labels.
<code>matchFields</code>	array	A list of node selector requirements by node's fields.

## `.spec.nodeAffinity.required.nodeSelectorTerms[].matchExpressions`

### Description

A list of node selector requirements by node's labels.

### Type

array

## `.spec.nodeAffinity.required.nodeSelectorTerms[].matchExpressions[]`

### Description

A node selector requirement is a selector that contains values, a key, and an operator that relates the key and values.

### Type

object

### Required

key

operator

Property	Type	Description
<code>key</code>	string	The label key that the selector applies to.

Property	Type	Description
operator	string	<p>Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist, Gt, and Lt.</p> <p>Possible enum values:</p> <ul style="list-style-type: none"> <li>"DoesNotExist"</li> <li>"Exists"</li> <li>"Gt"</li> <li>"In"</li> <li>"Lt"</li> <li>"NotIn"</li> </ul>
values	array	<p>An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.</p>

## `.spec.nodeAffinity.required.nodeSelectorTerms[].matchExpressions[].values`

### Description

An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

### Type

array

## `.spec.nodeAffinity.required.nodeSelectorTerms[].matchExpressions[].values[]`

### Type

string

## `.spec.nodeAffinity.required.nodeSelectorTerms[].matchFields`

### Description

A list of node selector requirements by node's fields.

### Type

array

## `.spec.nodeAffinity.required.nodeSelectorTerms[].matchFields[]`

### Description

A node selector requirement is a selector that contains values, a key, and an operator that relates the key and values.

### Type

object

### Required

key

operator

Property	Type	Description
key	string	The label key that the selector applies to.

Property	Type	Description
operator	string	<p>Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist, Gt, and Lt.</p> <p>Possible enum values:</p> <ul style="list-style-type: none"> <li>"DoesNotExist"</li> <li>"Exists"</li> <li>"Gt"</li> <li>"In"</li> <li>"Lt"</li> <li>"NotIn"</li> </ul>
values	array	<p>An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.</p>

## `.spec.nodeAffinity.required.nodeSelectorTerms[].matchFields[].values`

### Description

An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

### Type

array

## `.spec.nodeAffinity.required.nodeSelectorTerms[].matchFieldIds[].values[]`

### Type

`string`

## `.spec.photonPersistentDisk`

### Description

Represents a Photon Controller persistent disk resource.

### Type

`object`

### Required

`pdID`

Property	Type	Description
<code>fsType</code>	<code>string</code>	fsType is the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
<code>pdID</code>	<code>string</code>	pdID is the ID that identifies Photon Controller persistent disk

## `.spec.portworxVolume`

### Description

PortworxVolumeSource represents a Portworx volume resource.

### Type

`object`

## Required

`volumeID`

Property	Type	Description
<code>fsType</code>	<code>string</code>	<code>fsType</code> represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
<code>readOnly</code>	<code>boolean</code>	<code>readOnly</code> defaults to false (read/write). <code>readOnly</code> here will force the <code>readOnly</code> setting in <code>VolumeMounts</code> .
<code>volumeID</code>	<code>string</code>	<code>volumeID</code> uniquely identifies a Portworx volume

## .spec.quobyte

### Description

Represents a Quobyte mount that lasts the lifetime of a pod. Quobyte volumes do not support ownership management or SELinux relabeling.

### Type

`object`

### Required

`registry``volume`

Property	Type	Description
<code>group</code>	<code>string</code>	<code>group</code> to map volume access to. Default is no group

Property	Type	Description
<code>readOnly</code>	<code>boolean</code>	<code>readOnly</code> here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
<code>registry</code>	<code>string</code>	<code>registry</code> represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
<code>tenant</code>	<code>string</code>	<code>tenant</code> owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
<code>user</code>	<code>string</code>	<code>user</code> to map volume access to Defaults to serviceaccount user
<code>volume</code>	<code>string</code>	<code>volume</code> is a string that references an already created Quobyte volume by name.

## .spec.rbd

### Description

Represents a Rados Block Device mount that lasts the lifetime of a pod. RBD volumes support ownership management and SELinux relabeling.

### Type

`object`

### Required

`monitors`

`image`

Property	Type	Description
<code>fsType</code>	<code>string</code>	<p><code>fsType</code> is the filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a></p>
<code>image</code>	<code>string</code>	<p><code>image</code> is the rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a></p>
<code>keyring</code>	<code>string</code>	<p><code>keyring</code> is the path to key ring for RBDUser. Default is <code>/etc/ceph/keyring</code>. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a></p>
<code>monitors</code>	<code>array</code>	<p><code>monitors</code> is a collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a></p>
<code>pool</code>	<code>string</code>	<p><code>pool</code> is the rados pool name. Default is <code>rbd</code>. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a></p>

Property	Type	Description
<code>readOnly</code>	<code>boolean</code>	<code>readOnly</code> here will force the <code>ReadOnly</code> setting in <code>VolumeMounts</code> . Defaults to <code>false</code> . More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
<code>secretRef</code>	<code>object</code>	<code>SecretReference</code> represents a Secret Reference. It has enough information to retrieve secret in any namespace
<code>user</code>	<code>string</code>	<code>user</code> is the rados user name. Default is <code>admin</code> . More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

## `.spec.rbd.monitors`

### Description

`monitors` is a collection of Ceph monitors. More info: <https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it>

### Type

`array`

## `.spec.rbd.monitors[]`

### Type

`string`

## `.spec.rbd.secretRef`

### Description

SecretReference represents a Secret Reference. It has enough information to retrieve secret in any namespace

## Type

object

Property	Type	Description
name	string	name is unique within a namespace to reference a secret resource.
namespace	string	namespace defines the space within which the secret name must be unique.

## .spec.scaleIO

### Description

ScaleIOPersistentVolumeSource represents a persistent ScaleIO volume

### Type

object

### Required

gateway

system

secretRef

Property	Type	Description
fsType	string	fsType is the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs"

Property	Type	Description
<code>gateway</code>	<code>string</code>	gateway is the host address of the ScaleIO API Gateway.
<code>protectionDomain</code>	<code>string</code>	protectionDomain is the name of the ScaleIO Protection Domain for the configured storage.
<code>readOnly</code>	<code>boolean</code>	readOnly defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
<code>secretRef</code>	<code>object</code>	SecretReference represents a Secret Reference. It has enough information to retrieve secret in any namespace
<code>sslEnabled</code>	<code>boolean</code>	sslEnabled is the flag to enable/disable SSL communication with Gateway, default false
<code>storageMode</code>	<code>string</code>	storageMode indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
<code>storagePool</code>	<code>string</code>	storagePool is the ScaleIO Storage Pool associated with the protection domain.

Property	Type	Description
<code>system</code>	<code>string</code>	system is the name of the storage system as configured in ScaleIO.
<code>volumeName</code>	<code>string</code>	volumeName is the name of a volume already created in the ScaleIO system that is associated with this volume source.

## `.spec.scaleIO.secretRef`

### Description

SecretReference represents a Secret Reference. It has enough information to retrieve secret in any namespace

### Type

`object`

Property	Type	Description
<code>name</code>	<code>string</code>	name is unique within a namespace to reference a secret resource.
<code>namespace</code>	<code>string</code>	namespace defines the space within which the secret name must be unique.

## `.spec.storageos`

### Description

Represents a StorageOS persistent volume resource.

## Type

object

Property	Type	Description
<code>fsType</code>	<code>string</code>	<code>fsType</code> is the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
<code>readOnly</code>	<code>boolean</code>	<code>readOnly</code> defaults to false (read/write). <code>ReadOnly</code> here will force the <code>ReadOnly</code> setting in <code>VolumeMounts</code> .
<code>secretRef</code>	<code>object</code>	<code>ObjectReference</code> contains enough information to let you inspect or modify the referred object.
<code>volumeName</code>	<code>string</code>	<code>volumeName</code> is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
<code>volumeNamespace</code>	<code>string</code>	<code>volumeNamespace</code> specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set <code>VolumeName</code> to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

# .spec.storageos.secretRef

## Description

ObjectReference contains enough information to let you inspect or modify the referred object.

## Type

object

Property	Type	Description
<code>apiVersion</code>	<code>string</code>	API version of the referent.
<code>fieldPath</code>	<code>string</code>	<p>If referring to a piece of an object instead of an entire object, this string should contain a valid JSON/Go field access statement, such as <code>desiredState.manifest.containers[2]</code>. For example, if the object reference is to a container within a pod, this would take on a value like: <code>"spec.containers{name}"</code> (where "name" refers to the name of the container that triggered the event) or if no container name is specified <code>"spec.containers[2]"</code> (container with index 2 in this pod). This syntax is chosen only to have some well-defined way of referencing a part of an object.</p>
<code>kind</code>	<code>string</code>	<p>Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a></p>

Property	Type	Description
<code>name</code>	<code>string</code>	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a> ↗
<code>namespace</code>	<code>string</code>	Namespace of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/">https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/</a> ↗
<code>resourceVersion</code>	<code>string</code>	Specific resourceVersion to which this reference is made, if any. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a> ↗
<code>uid</code>	<code>string</code>	UID of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids</a> ↗

## `.spec.vsphereVolume`

### Description

Represents a vSphere volume resource.

### Type

`object`

### Required

`volumePath`

Property	Type	Description
<code>fsType</code>	<code>string</code>	<code>fsType</code> is filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
<code>storagePolicyID</code>	<code>string</code>	<code>storagePolicyID</code> is the storage Policy Based Management (SPBM) profile ID associated with the <code>StoragePolicyName</code> .
<code>storagePolicyName</code>	<code>string</code>	<code>storagePolicyName</code> is the storage Policy Based Management (SPBM) profile name.
<code>volumePath</code>	<code>string</code>	<code>volumePath</code> is the path that identifies vSphere volume vmdk

## .status

### Description

`PersistentVolumeStatus` is the current status of a persistent volume.

### Type

`object`

Property	Type	Description
<code>lastPhaseTransitionTime</code>	<code>string</code>	<code>Time</code> is a wrapper around <code>time.Time</code> which supports correct marshaling to YAML and JSON. Wrappers ar

Property	Type	Description
		provided for many of the factory methods that the <code>tim</code> package offers.
<code>message</code>	<code>string</code>	<code>message</code> is a human-readable message indicating details about why the volume is in this state.
<code>phase</code>	<code>string</code>	<p><code>phase</code> indicates if a volume is available, bound to a claim, or released by a claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#phase">https://kubernetes.io/docs/concepts/storage/persistent-volumes#phase</a></p> <p>Possible enum values:</p> <ul style="list-style-type: none"> <li><code>"Available"</code> used for PersistentVolumes that are not yet bound Available volumes are held by the binder and matched to PersistentVolumeClaim</li> <li><code>"Bound"</code> used for PersistentVolumes that are bound</li> <li><code>"Failed"</code> used for PersistentVolumes that failed to be correctly recycled or deleted after being released from a claim</li> <li><code>"Pending"</code> used for PersistentVolumes that are not available</li> <li><code>"Released"</code> used for PersistentVolumes where the bound PersistentVolumeClaim was deleted released volumes must be recycled before becoming available again this phase is used by the persistent volume claim binder to signal to another process to reclaim the resource</li> </ul>

Property	Type	Description
<code>reason</code>	<code>string</code>	reason is a brief CamelCase string that describes an failure and is meant for machine parsing and tidy display in the CLI.

## API Endpoints

The following API endpoints are available:

- `/kubernetes/{cluster}/api/v1/persistentvolumes`
  - `DELETE` : delete collection of PersistentVolume
  - `GET` : list objects of kind PersistentVolume
  - `POST` : create a new PersistentVolume
- `/kubernetes/{cluster}/api/v1/persistentvolumes/{name}`
  - `DELETE` : delete the specified PersistentVolume
  - `GET` : read the specified PersistentVolume
  - `PATCH` : partially update the specified PersistentVolume
  - `PUT` : replace the specified PersistentVolume
- `/kubernetes/{cluster}/api/v1/persistentvolumes/{name}/status`
  - `GET` : read status of the specified PersistentVolume
  - `PATCH` : partially update status of the specified PersistentVolume
  - `PUT` : replace status of the specified PersistentVolume

## `/kubernetes/{cluster}/api/v1/persistentvolumes`

HTTP method

`DELETE`

## Description

delete collection of PersistentVolume

## HTTP responses

HTTP code	Response body
200 - OK	<code>Status</code> schema
401 - Unauthorized	Empty

## HTTP method

GET

## Description

list objects of kind PersistentVolume

## HTTP responses

HTTP code	Response body
200 - OK	<code>PersistentVolumeList</code> schema
401 - Unauthorized	Empty

## HTTP method

POST

## Description

create a new PersistentVolume

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

Parameter	Type	Description
<code>fieldValidation</code>	<code>string</code>	<p><code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are:</p> <ul style="list-style-type: none"> <li>- Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23.</li> <li>- Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+.</li> <li>- Strict: This will fail the request with a <code>BadRequest</code> error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.</li> </ul>

## Body parameters

Parameter	Type	Description
<code>body</code>	<code>PersistentVolume</code> schema	<code>application/json</code> formatted

## HTTP responses

HTTP code	Response body
200 - OK	<code>PersistentVolume</code> schema
201 - Created	<code>PersistentVolume</code> schema
202 - Accepted	<code>PersistentVolume</code> schema
401 - Unauthorized	Empty

**`/kubernetes/{cluster}/api/v1/persistentvolumes/{name}`**

## HTTP method

DELETE

## Description

delete the specified PersistentVolume

## Query parameters

Parameter	Type	Description
dryRun	string	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

## HTTP responses

HTTP code	Response body
200 - OK	Status schema
202 - Accepted	Status schema
401 - Unauthorized	Empty

## HTTP method

GET

## Description

read the specified PersistentVolume

## HTTP responses

HTTP code	Response body
200 - OK	PersistentVolume schema
401 - Unauthorized	Empty

## HTTP method

PATCH

## Description

partially update the specified PersistentVolume

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	<code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a <code>BadRequest</code> error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## HTTP responses

HTTP code	Response body
200 - OK	<code>PersistentVolume</code> schema
401 - Unauthorized	Empty

## HTTP method

PUT

## Description

replace the specified PersistentVolume

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	<code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a <code>BadRequest</code> error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## Body parameters

Parameter	Type	Description
<code>body</code>	<code>PersistentVolume</code> schema	<code>application/json</code> formatted

## HTTP responses

HTTP code	Response body
200 - OK	<code>PersistentVolume</code> schema
201 - Created	<code>PersistentVolume</code> schema
401 - Unauthorized	Empty

## /kubernetes/{cluster}/api/v1/persistentvolumes/{name}/status

### HTTP method

GET

### Description

read status of the specified PersistentVolume

### HTTP responses

HTTP code	Response body
200 - OK	<code>PersistentVolume</code> schema
401 - Unauthorized	Empty

### HTTP method

PATCH

### Description

partially update status of the specified PersistentVolume

### Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing

Parameter	Type	Description
		of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	fieldValidation instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a BadRequest error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## HTTP responses

HTTP code	Response body
200 - OK	<code>PersistentVolume</code> schema
401 - Unauthorized	Empty

## HTTP method

`PUT`

## Description

replace status of the specified PersistentVolume

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	<code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a <code>BadRequest</code> error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## Body parameters

Parameter	Type	Description
<code>body</code>	<code>PersistentVolume</code> schema	<code>application/json</code> formatted

## HTTP responses

HTTP code	Response body
200 - OK	<code>PersistentVolume</code> schema
201 - Created	<code>PersistentVolume</code> schema
401 - Unauthorized	Empty



# StorageClass [storage.k8s.io/v1]

## Description

StorageClass describes the parameters for a class of storage for which PersistentVolumes can be dynamically provisioned. StorageClasses are non-namespaced; the name of the storage class according to etcd is in ObjectMeta.Name.

## Type

`object`

## Required

`provisioner`

## Specification

Property	Type	Description
<code>allowVolumeExpansion</code>	<code>boolean</code>	<code>allowVolumeExpansion</code> shows whether the storage class allow volume expand.
<code>allowedTopologies</code>	<code>array</code>	<code>allowedTopologies</code> restrict the node topologies where volumes can be dynamically provisioned. Each volume plugin defines its own supported topology specifications. An empty <code>TopologySelectorTerm</code> list means there is no

Property	Type	Description
		topology restriction. This field is only honored by servers that enable the VolumeScheduling feature.
<code>apiVersion</code>	<code>string</code>	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
<code>kind</code>	<code>string</code>	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
<code>metadata</code>	<code>ObjectMeta</code>	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
<code>mountOptions</code>	<code>array</code>	mountOptions controls the mountOptions for dynamically provisioned PersistentVolumes of this storage class. e.g. ["ro", "soft"]. Not validated - mount of the PVs will simply fail if one is invalid.

Property	Type	Description
<code>parameters</code>	<code>object</code>	parameters holds the parameters for the provisioner that should create volumes of this storage class.
<code>provisioner</code>	<code>string</code>	provisioner indicates the type of the provisioner.
<code>reclaimPolicy</code>	<code>string</code>	<p>reclaimPolicy controls the reclaimPolicy for dynamically provisioned PersistentVolumes of this storage class. Defaults to Delete.</p> <p>Possible enum values:</p> <ul style="list-style-type: none"><li><code>"Delete"</code> means the volume will be deleted from Kubernetes on release from its claim. The volume plugin must support Deletion.</li><li><code>"Recycle"</code> means the volume will be recycled back into the pool of unbound persistent volumes on release from its claim. The volume plugin must support Recycling.</li><li><code>"Retain"</code> means the volume will be left in its current phase (Released) for manual reclamation by the administrator. The default policy is Retain.</li></ul>
<code>volumeBindingMode</code>	<code>string</code>	volumeBindingMode indicates how PersistentVolumeClaims should be provisioned and bound. When unset, VolumeBindingImmediate is used. This field is only honored by servers that enable the VolumeScheduling feature.

Property	Type	Description
		<p>Possible enum values:</p> <ul style="list-style-type: none"> <li>"Immediate" indicates that PersistentVolumeClaims should be immediately provisioned and bound. This is the default mode.</li> <li>"WaitForFirstConsumer" indicates that PersistentVolumeClaims should not be provisioned and bound until the first Pod is created that references the PersistentVolumeClaim. The volume provisioning and binding will occur during Pod scheduling.</li> </ul>

## .allowedTopologies

### Description

allowedTopologies restrict the node topologies where volumes can be dynamically provisioned. Each volume plugin defines its own supported topology specifications. An empty TopologySelectorTerm list means there is no topology restriction. This field is only honored by servers that enable the VolumeScheduling feature.

### Type

array

## .allowedTopologies[]

### Description

A topology selector term represents the result of label queries. A null or empty topology selector term matches no objects. The requirements of them are ANDed. It provides a subset of functionality as NodeSelectorTerm. This is an alpha feature and may change in the future.

### Type

object

Property	Type	Description
matchLabelExpressions	array	A list of topology selector requirements by labels.

## .allowedTopologies[].matchLabelExpressions

### Description

A list of topology selector requirements by labels.

### Type

array

## .allowedTopologies[].matchLabelExpressions[]

### Description

A topology selector requirement is a selector that matches given label. This is an alpha feature and may change in the future.

### Type

object

### Required

key

values

Property	Type	Description
key	string	The label key that the selector applies to.
values	array	An array of string values. One value must match the label to be selected. Each entry in Values is ORed.

## `.allowedTopologies[].matchLabelExpressions[].values`

### Description

An array of string values. One value must match the label to be selected. Each entry in Values is ORed.

### Type

array

## `.allowedTopologies[].matchLabelExpressions[].values[]`

### Type

string

## `.mountOptions`

### Description

mountOptions controls the mountOptions for dynamically provisioned PersistentVolumes of this storage class. e.g. ["ro", "soft"]. Not validated - mount of the PVs will simply fail if one is invalid.

### Type

array

## `.mountOptions[]`

### Type

string

## `.parameters`

### Description

parameters holds the parameters for the provisioner that should create volumes of this storage class.

## Type

object

# API Endpoints

The following API endpoints are available:

- `/kubernetes/{cluster}/apis/storage.k8s.io/v1/storageclasses`
  - **DELETE** : delete collection of StorageClass
  - **GET** : list objects of kind StorageClass
  - **POST** : create a new StorageClass
- `/kubernetes/{cluster}/apis/storage.k8s.io/v1/storageclasses/{name}`
  - **DELETE** : delete the specified StorageClass
  - **GET** : read the specified StorageClass
  - **PATCH** : partially update the specified StorageClass
  - **PUT** : replace the specified StorageClass

## `/kubernetes/{cluster}/apis/storage.k8s.io/v1/storageclasses`

### HTTP method

DELETE

### Description

delete collection of StorageClass

### HTTP responses

HTTP code	Response body
200 - OK	<b>Status</b> schema

HTTP code	Response body
401 - Unauthorized	Empty

## HTTP method

GET

## Description

list objects of kind StorageClass

## HTTP responses

HTTP code	Response body
200 - OK	<code>StorageClassList</code> schema
401 - Unauthorized	Empty

## HTTP method

POST

## Description

create a new StorageClass

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	<code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a

Parameter	Type	Description
		warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a BadRequest error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

### Body parameters

Parameter	Type	Description
body	StorageClass schema	application/json formatted

### HTTP responses

HTTP code	Response body
200 - OK	StorageClass schema
201 - Created	StorageClass schema
202 - Accepted	StorageClass schema
401 - Unauthorized	Empty

## /kubernetes/{cluster}/apis/storage.k8s.io/v1/storageclasses/{name}

### HTTP method

DELETE

### Description

delete the specified StorageClass

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

## HTTP responses

HTTP code	Response body
200 - OK	<code>Status</code> schema
202 - Accepted	<code>Status</code> schema
401 - Unauthorized	Empty

## HTTP method

`GET`

## Description

read the specified StorageClass

## HTTP responses

HTTP code	Response body
200 - OK	<code>StorageClass</code> schema
401 - Unauthorized	Empty

## HTTP method

`PATCH`

## Description

partially update the specified StorageClass

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	<code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a <code>BadRequest</code> error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## HTTP responses

HTTP code	Response body
200 - OK	<code>StorageClass</code> schema
401 - Unauthorized	Empty

## HTTP method

`PUT`

## Description

replace the specified `StorageClass`

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	<code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a <code>BadRequest</code> error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## Body parameters

Parameter	Type	Description
<code>body</code>	<code>StorageClass</code> schema	<code>application/json</code> formatted

## HTTP responses

HTTP code	Response body
200 - OK	<code>StorageClass</code> schema
201 - Created	<code>StorageClass</code> schema
401 - Unauthorized	Empty



# Ceph Storage APIs

[CephCluster \[cephclusters.ceph\]](#) [CephFilesystem \[cephfilesystem\]](#) [CephBlockl](#)

[CephObjectStore \[cephobjects\]](#) [CephObjectStoreUser \[cephobjectstoreusers.](#)

# CephCluster [cephclusters.ceph.rook.io/v1]

## Description

CephCluster is a Ceph storage cluster

## Type

object

## Required

metadata

spec

## Specification

Property	Type	Description
<code>apiVersion</code>	<code>string</code>	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
<code>kind</code>	<code>string</code>	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be

Property	Type	Description
		updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	ObjectMeta	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
spec	object	ClusterSpec represents the specification of Ceph Cluster
status	object	ClusterStatus represents the status of a Ceph cluster

## .spec

### Description

ClusterSpec represents the specification of Ceph Cluster

### Type

object

Property	Type	Description
annotations	object	The annotations-related conf each Pod related object.
cephConfig	object	Ceph Config options

Property	Type	Description
<code>cephConfigFromSecret</code>	<code>object</code>	CephConfigFromSecret works like CephConfig but takes config reference.
<code>cephVersion</code>	<code>object</code>	The version information that the operator orchestrates a particular version of.
<code>cleanupPolicy</code>	<code>object</code>	Indicates user intent when deleting a CephCluster during orchestration and should not be deleted if deletion is not imminent.
<code>continueUpgradeAfterChecksEvenIfNotHealthy</code>	<code>boolean</code>	ContinueUpgradeAfterChecksEvenIfNotHealthy defines if an upgrade should be allowed even if the cluster is not clean.
<code>crashCollector</code>	<code>object</code>	A spec for the crash controller.
<code>csi</code>	<code>object</code>	CSI Driver Options applied to the CephCluster.
<code>dashboard</code>	<code>object</code>	Dashboard settings.
<code>dataDirHostPath</code>	<code>string</code>	The path on the host where the CephCluster data is persisted.

Property	Type	Description
<code>disruptionManagement</code>	<code>object</code>	A spec for configuring disrupt
<code>external</code>	<code>object</code>	Whether the Ceph Cluster is Kubernetes cluster mon, mgr discover daemons will not be clusters.
<code>healthCheck</code>	<code>object</code>	Internal daemon healthcheck
<code>labels</code>	<code>object</code>	The labels-related configurat Pod related object.
<code>logCollector</code>	<code>object</code>	Logging represents loggings
<code>mgr</code>	<code>object</code>	A spec for mgr related option
<code>mon</code>	<code>object</code>	A spec for mon related optior
<code>monitoring</code>	<code>object</code>	Prometheus based Monitorin
<code>network</code>	<code>object</code>	Network related configurator

Property	Type	Description
placement	object	
priorityClassNames	object	PriorityClassNames sets prio components
removeOSDsIfOutAndSafeToRemove	boolean	Remove the OSD that is out only if this option is true
resources	object	Resources set resource requ
security	object	Security represents security :
skipUpgradeChecks	boolean	SkipUpgradeChecks defines be forced even if one of the c
storage	object	A spec for available storage i it should be used
upgradeOSDRequiresHealthyPGs	boolean	UpgradeOSDRequiresHealthr upgrade requires PGs are cl OSD upgrade process won't healthy. This configuration wi skipUpgradeChecks is tr

Property	Type	Description
<code>waitTimeoutForHealthyOSDInMinutes</code>	<code>integer</code>	<p>WaitTimeoutForHealthyOSDInMinutes is the time the operator would wait for OSDs to become healthy after the cluster is stopped for upgrade or restart. If the timeout exceeds and OSD is not ok to upgrade, the operator would skip upgrade and proceed with the next operation.</p> <p>The default value of <code>waitTimeoutForHealthyOSDInMinutes</code> is <code>false</code>. If <code>continueUpgradeAfterChecksOnlyIfAllOSDsHaveFailed</code> is <code>true</code>, then operator would skip upgrade of an OSD even if it is not healthy during the timeout. This timeout works only if <code>skipUpgradeChecks</code> is <code>true</code>. The default timeout is 10 minutes.</p>

## `.spec.annotations`

### Description

The annotations-related configuration to add/set on each Pod related object.

### Type

`object`

## `.spec.cephConfig`

### Description

Ceph Config options

### Type

`object`

## .spec.cephConfigFromSecret

### Description

CephConfigFromSecret works exactly like CephConfig but takes config value from Secret Key reference.

### Type

object

## .spec.cephVersion

### Description

The version information that instructs Rook to orchestrate a particular version of Ceph.

### Type

object

Property	Type	Description
<code>allowUnsupported</code>	<code>boolean</code>	Whether to allow unsupported versions (do not set to true in production)
<code>image</code>	<code>string</code>	Image is the container image used to launch the ceph daemons, such as quay.io/ceph/ceph: The full list of images can be found at <a href="https://quay.io/repository/ceph/ceph?tab=tags">https://quay.io/repository/ceph/ceph?tab=tags</a>
<code>imagePullPolicy</code>	<code>string</code>	ImagePullPolicy describes a policy for if/when to pull a container image One of Always, Never, IfNotPresent.

## .spec.cleanupPolicy

## Description

Indicates user intent when deleting a cluster; blocks orchestration and should not be set if cluster deletion is not imminent.

## Type

object

Property	Type	Description
<code>allowUninstallWithVolumes</code>	boolean	AllowUninstallWithVolumes defines whether we can proceed with the uninstall if they are RBD images still present
<code>confirmation</code>	string	Confirmation represents the cleanup confirmation
<code>sanitizeDisks</code>	object	SanitizeDisks represents way we sanitize disks
<code>wipeDevicesFromOtherClusters</code>	boolean	WipeDevicesFromOtherClusters wipes the OSD disks belonging to other clusters. This is useful in scenarios where ceph cluster was reinstalled but OSD disk still contains the metadata from previous ceph cluster.

## `.spec.cleanupPolicy.sanitizeDisks`

### Description

SanitizeDisks represents way we sanitize disks

## Type

object

Property	Type	Description
<code>dataSource</code>	<code>string</code>	DataSource is the data source to use to sanitize the disk with
<code>iteration</code>	<code>integer</code>	Iteration is the number of pass to apply the sanitizing
<code>method</code>	<code>string</code>	Method is the method we use to sanitize disks

## .spec.crashCollector

### Description

A spec for the crash controller

### Type

object

Property	Type	Description
<code>daysToRetain</code>	<code>integer</code>	DaysToRetain represents the number of days to retain crash until they get pruned
<code>disable</code>	<code>boolean</code>	Disable determines whether we should enable the crash collector

## .spec.csi

## Description

CSI Driver Options applied per cluster.

## Type

object

Property	Type	Description
<code>cephfs</code>	object	CephFS defines CSI Driver settings for CephFS driver.
<code>readAffinity</code>	object	ReadAffinity defines the read affinity settings for CSI driver.
<code>skipUserCreation</code>	boolean	SkipUserCreation determines whether CSI users and their associated secrets should be skipped. If set to true, the user must manually manage these secrets.

## .spec.csi.cephfs

## Description

CephFS defines CSI Driver settings for CephFS driver.

## Type

object

Property	Type	Description
<code>fuseMountOptions</code>	string	FuseMountOptions defines the mount options for ceph fuse mounter.

Property	Type	Description
<code>kernelMountOptions</code>	<code>string</code>	KernelMountOptions defines the mount options for kernel mounter.

## `.spec.csi.readAffinity`

### Description

ReadAffinity defines the read affinity settings for CSI driver.

### Type

`object`

Property	Type	Description
<code>crushLocationLabels</code>	<code>array</code>	CrushLocationLabels defines which node labels to use as CRUSH location. This should correspond to the values set in the CRUSH map.
<code>enabled</code>	<code>boolean</code>	Enables read affinity for CSI driver.

## `.spec.csi.readAffinity.crushLocationLabels`

### Description

CrushLocationLabels defines which node labels to use as CRUSH location. This should correspond to the values set in the CRUSH map.

### Type

`array`

## `.spec.csi.readAffinity.crushLocationLabels[]`

## Type

string

## .spec.dashboard

### Description

Dashboard settings

### Type

object

Property	Type	Description
<code>enabled</code>	<code>boolean</code>	Enabled determines whether to enable the dashboard
<code>port</code>	<code>integer</code>	Port is the dashboard webserver port
<code>prometheusEndpoint</code>	<code>string</code>	Endpoint for the Prometheus host
<code>prometheusEndpointSSLVerify</code>	<code>boolean</code>	Whether to verify the ssl endpoint for prometheus. Set to false for a self-signed cert.
<code>ssl</code>	<code>boolean</code>	SSL determines whether SSL should be used

Property	Type	Description
<code>urlPrefix</code>	<code>string</code>	URLPrefix is a prefix for all URLs to use the dashboard with a reverse proxy

## .spec.disruptionManagement

### Description

A spec for configuring disruption management.

### Type

`object`

Property	Type	Description
<code>machineDisruptionBudgetNamespace</code>	<code>string</code>	Deprecated. Namespace to look for MDE
<code>manageMachineDisruptionBudgets</code>	<code>boolean</code>	Deprecated. This enables management of
<code>managePodBudgets</code>	<code>boolean</code>	This enables management of poddisrupti
<code>osdMaintenanceTimeout</code>	<code>integer</code>	OSDMaintenanceTimeout sets how man for drained failure domains it only works minutes
<code>pgHealthCheckTimeout</code>	<code>integer</code>	DEPRECATED: PGHealthCheckTimeout

Property	Type	Description
<code>pgHealthyRegex</code>	<code>string</code>	PgHealthyRegex is the regular expression that should be considered healthy. The default value is <code>^(active\+clean active\+clean\+scrub)</code>

## .spec.external

### Description

Whether the Ceph Cluster is running external to this Kubernetes cluster mon, mgr, osd, mds, and discover daemons will not be created for external clusters.

### Type

`object`

Property	Type	Description
<code>enable</code>	<code>boolean</code>	Enable determines whether external mode is enabled or not

## .spec.healthCheck

### Description

Internal daemon healthchecks and liveness probe

### Type

`object`

Property	Type	Description
<code>daemonHealth</code>	<code>object</code>	DaemonHealth is the health check for a given daemon

Property	Type	Description
<code>livenessProbe</code>	<code>object</code>	LivenessProbe allows changing the livenessProbe configuration for a given daemon
<code>startupProbe</code>	<code>object</code>	StartupProbe allows changing the startupProbe configuration for a given daemon

## `.spec.healthCheck.daemonHealth`

### Description

DaemonHealth is the health check for a given daemon

### Type

`object`

Property	Type	Description
<code>mon</code>	<code>object</code>	Monitor represents the health check settings for the Ceph monitor
<code>osd</code>	<code>object</code>	ObjectStorageDaemon represents the health check settings for the Ceph OSDs
<code>status</code>	<code>object</code>	Status represents the health check settings for the Ceph health

## `.spec.healthCheck.daemonHealth.mon`

### Description

Monitor represents the health check settings for the Ceph monitor

### Type

object

Property	Type	Description
disabled	boolean	
interval	string	Interval is the internal in second or minute for the health check to run like 60s for 60 seconds
timeout	string	

## .spec.healthCheck.daemonHealth.osd

### Description

ObjectStorageDaemon represents the health check settings for the Ceph OSDs

### Type

object

Property	Type	Description
disabled	boolean	
interval	string	Interval is the internal in second or minute for the health check to run like 60s for 60 seconds
timeout	string	

## .spec.healthCheck.daemonHealth.status

### Description

Status represents the health check settings for the Ceph health

### Type

object

Property	Type	Description
disabled	boolean	
interval	string	Interval is the internal in second or minute for the health check to run like 60s for 60 seconds
timeout	string	

## .spec.healthCheck.livenessProbe

### Description

LivenessProbe allows changing the livenessProbe configuration for a given daemon

### Type

object

## .spec.healthCheck.startupProbe

### Description

StartupProbe allows changing the startupProbe configuration for a given daemon

### Type

object

## .spec.labels

### Description

The labels-related configuration to add/set on each Pod related object.

### Type

`object`

## .spec.logCollector

### Description

Logging represents loggings settings

### Type

`object`

Property	Type	Description
<code>enabled</code>	<code>boolean</code>	Enabled represents whether the log collector is enabled
<code>maxLogSize</code>	<code>integer</code>	MaxLogSize is the maximum size of the log per ceph daemons. Must be at least 1M.
<code>periodicity</code>	<code>string</code>	Periodicity is the periodicity of the log rotation.

## .spec.mgr

### Description

A spec for mgr related options

### Type

`object`

Property	Type	Description
<code>allowMultiplePerNode</code>	<code>boolean</code>	AllowMultiplePerNode allows to run multiple managers on the same node (not recommended)
<code>count</code>	<code>integer</code>	Count is the number of manager daemons to run
<code>hostNetwork</code>	<code>boolean</code>	Whether host networking is enabled for the Ceph Mgr. If not set, the network settings from CephCluster.spec.networking will be applied.
<code>modules</code>	<code>array</code>	Modules is the list of ceph manager modules to enable/disable

## `.spec.mgr.modules`

### Description

Modules is the list of ceph manager modules to enable/disable

### Type

`array`

## `.spec.mgr.modules[]`

### Description

Module represents mgr modules that the user wants to enable or disable

### Type

`object`

Property	Type	Description
<code>enabled</code>	<code>boolean</code>	Enabled determines whether a module should be enabled or not
<code>name</code>	<code>string</code>	Name is the name of the ceph manager module
<code>settings</code>	<code>object</code>	Settings to further configure the module

## `.spec.mgr.modules[].settings`

### Description

Settings to further configure the module

### Type

`object`

Property	Type	Description
<code>balancerMode</code>	<code>string</code>	BalancerMode sets the <code>balancer</code> module with different modes like <code>upmap</code> , <code>crush-compact</code> etc

## `.spec.mon`

### Description

A spec for mon related options

### Type

`object`

Property	Type	Description
<code>allowMultiplePerNode</code>	<code>boolean</code>	AllowMultiplePerNode determines if we can run multiple monitors on the same node (not recommended)
<code>count</code>	<code>integer</code>	Count is the number of Ceph monitors
<code>externalMonIDs</code>	<code>array</code>	ExternalMonIDs - optional list of monitor IDs which are deployed externally and not managed by Rook. If set, Rook will not remove mons with given IDs from quorum. This parameter is used only for local Rook cluster running in normal mode and will be ignored if external or stretched mode is used. leading
<code>failureDomainLabel</code>	<code>string</code>	
<code>stretchCluster</code>	<code>object</code>	StretchCluster is the stretch cluster specification
<code>volumeClaimTemplate</code>	<code>object</code>	VolumeClaimTemplate is the PVC definition
<code>zones</code>	<code>array</code>	Zones are specified when we want to provide zonal awareness to mons

## `.spec.mon.externalMonIDs`

### Description

ExternalMonIDs - optional list of monitor IDs which are deployed externally and not managed by Rook. If set, Rook will not remove mons with given IDs from quorum. This parameter is used only for local Rook cluster running in normal mode and will be ignored if external or stretched mode is used. leading

### Type

array

## .spec.mon.externalMonIDs[]

### Type

string

## .spec.mon.stretchCluster

### Description

StretchCluster is the stretch cluster specification

### Type

object

Property	Type	Description
<code>failureDomainLabel</code>	<code>string</code>	FailureDomainLabel the failure domain name (e.g: zone)
<code>subFailureDomain</code>	<code>string</code>	SubFailureDomain is the failure domain within a zone
<code>zones</code>	<code>array</code>	Zones is the list of zones

## `.spec.mon.stretchCluster.zones`

### Description

Zones is the list of zones

### Type

array

## `.spec.mon.stretchCluster.zones[]`

### Description

MonZoneSpec represents the specification of a zone in a Ceph Cluster

### Type

object

Property	Type	Description
<code>arbiter</code>	<code>boolean</code>	Arbiter determines if the zone contains the arbiter used for stretch cluster mode
<code>name</code>	<code>string</code>	Name is the name of the zone
<code>volumeClaimTemplate</code>	<code>object</code>	VolumeClaimTemplate is the PVC template

## `.spec.mon.stretchCluster.zones[].volumeClaimTemplate`

### Description

VolumeClaimTemplate is the PVC template

### Type

object

Property	Type	Description
metadata	ObjectMeta	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	object	spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

## .spec.mon.stretchCluster.zones[].volumeClaimTemplate.spec

### Description

spec defines the desired characteristics of a volume requested by a pod author. More info:  
<https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims>

### Type

object

Property	Type	Description
accessModes	array	accessModes contains the desired access modes volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
dataSource	object	dataSource field can be used to specify either:

Property	Type	Description
		<ul style="list-style-type: none"> <li>• An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot)</li> <li>• An existing PVC (PersistentVolumeClaim) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. When the AnyVolumeDataSource feature gate is enabled, dataSource contents will be copied to dataSourceRef, and dataSourceRef contents will be copied to dataSource when dataSourceRef.namespace is not specified. If the namespace is specified, then dataSourceRef will not be copied to dataSource.</li> </ul>
dataSourceRef	object	<p>dataSourceRef specifies the object from which to populate the volume with data, if a non-empty volume is desired. This may be any object from a non-empty API group (non core object) or a PersistentVolumeClaim object. When this field is specified, volume binding will only succeed if the type of the specified object matches some installed volume populator or dynamic provisioner. This field will require the functionality of the dataSource field and as such both fields are non-empty, they must have the same value. For backwards compatibility, when namespace isn't specified in dataSourceRef, both fields (dataSource and dataSourceRef) will be set to the same value automatically if one of them is empty and the other is non-empty. When namespace is specified in dataSourceRef, dataSource isn't set to the same value and must be empty. There are three important differences between dataSource and dataSourceRef</p>

Property	Type	Description
		<ul style="list-style-type: none"> <li>• While dataSource only allows two specific type objects, dataSourceRef allows any non-core objects as well as PersistentVolumeClaim objects.</li> <li>• While dataSource ignores disallowed values (dropping them), dataSourceRef preserves all values, and generates an error if a disallowed value is specified.</li> <li>• While dataSource only allows local objects, dataSourceRef allows objects in any namespace (Beta) Using this field requires the AnyVolumeDataSource feature gate to be enabled (Alpha) Using the namespace field of dataSourceRef requires the CrossNamespaceVolumeDataSource feature gate to be enabled.</li> </ul>
resources	object	<p>resources represents the minimum resources the volume should have. Users are allowed to specify resource requirements that are lower than previous value but must still be higher than capacity recorded in the status field of the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a></p>
selector	object	<p>selector is a label query over volumes to consider for binding.</p>

Property	Type	Description
<code>storageClassName</code>	<code>string</code>	<p><code>storageClassName</code> is the name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a></p>
<code>volumeAttributesClassName</code>	<code>string</code>	<p><code>volumeAttributesClassName</code> may be used to set the VolumeAttributesClass used by this claim. If specified, the CSI driver will create or update the volume with attributes defined in the corresponding VolumeAttributesClass. This has a different purpose than <code>storageClassName</code>, it can be changed after the claim is created. An empty string or nil value indicates that no VolumeAttributesClass will be applied to the claim. If the claim enters an Infeasible error state, this field can be reset to its previous value (including nil) to cancel the modification. If the resource referred to by <code>volumeAttributesClassName</code> does not exist, this PersistentVolumeClaim will be set to a Pending state as reflected by the <code>modifyVolumeStatus</code> field, until such a resource exists. More info: <a href="https://kubernetes.io/docs/concepts/storage/volume-attributes-classes/">https://kubernetes.io/docs/concepts/storage/volume-attributes-classes/</a></p>
<code>volumeMode</code>	<code>string</code>	<p><code>volumeMode</code> defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.</p>
<code>volumeName</code>	<code>string</code>	<p><code>volumeName</code> is the binding reference to the PersistentVolume backing this claim.</p>

## `.spec.mon.stretchCluster.zones[].volumeClaimTemplate.spec.accessModes`

### Description

`accessModes` contains the desired access modes the volume should have. More info: <https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1>

### Type

array

## `.spec.mon.stretchCluster.zones[].volumeClaimTemplate.spec.accessModes[]`

### Type

string

## `.spec.mon.stretchCluster.zones[].volumeClaimTemplate.spec.dataSource`

### Description

`dataSource` field can be used to specify either: \* An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot) \* An existing PVC (PersistentVolumeClaim) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. When the `AnyVolumeDataSource` feature gate is enabled, `dataSource` contents will be copied to `dataSourceRef`, and `dataSourceRef` contents will be copied to `dataSource` when `dataSourceRef.namespace` is not specified. If the namespace is specified, then `dataSourceRef` will not be copied to `dataSource`.

### Type

object

### Required

kind

name

Property	Type	Description
apiGroup	string	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	string	Kind is the type of resource being referenced
name	string	Name is the name of resource being referenced

## `.spec.mon.stretchCluster.zones[].volumeClaimTemplate.spec.dataSourceRef`

### Description

`dataSourceRef` specifies the object from which to populate the volume with data, if a non-empty volume is desired. This may be any object from a non-empty API group (non core object) or a `PersistentVolumeClaim` object. When this field is specified, volume binding will only succeed if the type of the specified object matches some installed volume populator or dynamic provisioner. This field will replace the functionality of the `dataSource` field and as such if both fields are non-empty, they must have the same value. For backwards compatibility, when namespace isn't specified in `dataSourceRef`, both fields (`dataSource` and `dataSourceRef`) will be set to the same value automatically if one of them is empty and the other is non-empty. When namespace is specified in `dataSourceRef`, `dataSource` isn't set to the same value and must be empty. There are three important differences between `dataSource` and `dataSourceRef`:

- \* While `dataSource` only allows two specific types of objects, `dataSourceRef` allows any non-core object, as well as `PersistentVolumeClaim` objects.
- \* While `dataSource` ignores disallowed values (dropping them), `dataSourceRef` preserves all values, and generates an error if a disallowed value is specified.
- \* While `dataSource` only allows local objects, `dataSourceRef` allows objects in any namespaces.

(Beta) Using this field requires the `AnyVolumeDataSource` feature gate to be enabled.  
 (Alpha) Using the namespace field of `dataSourceRef` requires the `CrossNamespaceVolumeDataSource` feature gate to be enabled.

## Type

object

## Required

kind

name

Property	Type	Description
apiGroup	string	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	string	Kind is the type of resource being referenced
name	string	Name is the name of resource being referenced
namespace	string	Namespace is the namespace of resource being referenced Note that when a namespace is specified, a gateway.networking.k8s.io/ReferenceGrant object is required in the referent namespace to allow that namespace's owner to accept the reference. See the ReferenceGrant documentation for details. (Alpha) This field requires the CrossNamespaceVolumeDataSource feature gate to be enabled.

**.spec.mon.stretchCluster.zones[].volumeClaimTemplate.s**  
**pec.resources**

## Description

resources represents the minimum resources the volume should have. Users are allowed to specify resource requirements that are lower than previous value but must still be higher than capacity recorded in the status field of the claim. More info:

<https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources>

## Type

object

Property	Type	Description
limits	object	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/">https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/</a>
requests	object	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. Requests cannot exceed Limits. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/">https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/</a>

## `.spec.mon.stretchCluster.zones[].volumeClaimTemplate.spec.resources.limits`

### Description

Limits describes the maximum amount of compute resources allowed. More info: <https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/>

### Type

object

## .spec.mon.stretchCluster.zones[].volumeClaimTemplate.spec.resources.requests

### Description

Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. Requests cannot exceed Limits. More info:

<https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/>

### Type

object

## .spec.mon.stretchCluster.zones[].volumeClaimTemplate.spec.selector

### Description

selector is a label query over volumes to consider for binding.

### Type

object

Property	Type	Description
matchExpressions	array	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	object	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

## `.spec.mon.stretchCluster.zones[].volumeClaimTemplate.spec.selector.matchExpressions`

### Description

`matchExpressions` is a list of label selector requirements. The requirements are ANDed.

### Type

array

## `.spec.mon.stretchCluster.zones[].volumeClaimTemplate.spec.selector.matchExpressions[]`

### Description

A label selector requirement is a selector that contains values, a key, and an operator that relates the key and values.

### Type

object

### Required

key

operator

Property	Type	Description
<code>key</code>	<code>string</code>	key is the label key that the selector applies to.
<code>operator</code>	<code>string</code>	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.

Property	Type	Description
values	array	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

## `.spec.mon.stretchCluster.zones[].volumeClaimTemplate.spec.selector.matchExpressions[].values`

### Description

values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

### Type

array

## `.spec.mon.stretchCluster.zones[].volumeClaimTemplate.spec.selector.matchExpressions[].values[]`

### Type

string

## `.spec.mon.stretchCluster.zones[].volumeClaimTemplate.spec.selector.matchLabels`

### Description

matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

### Type

object

## .spec.mon.volumeClaimTemplate

### Description

VolumeClaimTemplate is the PVC definition

### Type

object

Property	Type	Description
metadata	ObjectMeta	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	object	spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

## .spec.mon.volumeClaimTemplate.spec

### Description

spec defines the desired characteristics of a volume requested by a pod author. More info:  
<https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims>

### Type

object

Property	Type	Description
accessModes	array	<p>accessModes contains the desired access modes volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a></p>
dataSource	object	<p>dataSource field can be used to specify either:</p> <ul style="list-style-type: none"> <li>An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot)</li> <li>An existing PVC (PersistentVolumeClaim) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. When the AnyVolumeDataSource feature gate is enabled, dataSource contents will be copied to dataSourceRef, and dataSourceRef contents will be copied to dataSource when dataSourceRef.namespace is not specified. If the namespace is specified, then dataSourceRef contents will not be copied to dataSource.</li> </ul>
dataSourceRef	object	<p>dataSourceRef specifies the object from which to populate the volume with data, if a non-empty volume is desired. This may be any object from a non-empty API group (non core object) or a PersistentVolumeClaim object. When this field is specified, volume binding will only succeed if the type of the specified object matches some installed volume populator or dynamic provisioner. This field will require the functionality of the dataSource field and as such both fields are non-empty, they must have the same</p>

Property	Type	Description
		<p>value. For backwards compatibility, when namespace isn't specified in dataSourceRef, both fields (dataSource and dataSourceRef) will be set to the same value automatically if one of them is empty and the other is non-empty. When namespace is specified in dataSourceRef, dataSource isn't set to the same value and must be empty. There are three important differences between dataSource and dataSourceRef:</p> <ul style="list-style-type: none"> <li>• While dataSource only allows two specific type objects, dataSourceRef allows any non-core object as well as PersistentVolumeClaim objects.</li> <li>• While dataSource ignores disallowed values (dropping them), dataSourceRef preserves all values, and generates an error if a disallowed value is specified.</li> <li>• While dataSource only allows local objects, dataSourceRef allows objects in any namespace (Beta) Using this field requires the AnyVolumeDataSource feature gate to be enabled (Alpha) Using the namespace field of dataSourceRef requires the CrossNamespaceVolumeDataSource feature gate to be enabled.</li> </ul>
resources	object	<p>resources represents the minimum resources the volume should have. Users are allowed to specify resource requirements that are lower than previous value but must still be higher than capacity recorded in the status field of the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a></p>

Property	Type	Description
<code>selector</code>	<code>object</code>	selector is a label query over volumes to consider binding.
<code>storageClassName</code>	<code>string</code>	storageClassName is the name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
<code>volumeAttributesClassName</code>	<code>string</code>	volumeAttributesClassName may be used to set the VolumeAttributesClass used by this claim. If specified, the CSI driver will create or update the volume with attributes defined in the corresponding VolumeAttributesClass. This has a different purpose than storageClassName, it can be changed after the claim is created. An empty string or nil value indicates that no VolumeAttributesClass will be applied to the claim. If the claim enters an Infeasible error state, this field can be reset to its previous value (including nil) to cancel the modification. If the resource referred to by volumeAttributesClassName does not exist, this PersistentVolumeClaim will be set to a Pending state as reflected by the modifyVolumeStatus field, until such a resource exists. More info: <a href="https://kubernetes.io/docs/concepts/storage/volume-attributes-classes/">https://kubernetes.io/docs/concepts/storage/volume-attributes-classes/</a>
<code>volumeMode</code>	<code>string</code>	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.

Property	Type	Description
<code>volumeName</code>	<code>string</code>	volumeName is the binding reference to the PersistentVolume backing this claim.

## `.spec.mon.volumeClaimTemplate.spec.accessModes`

### Description

accessModes contains the desired access modes the volume should have. More info: <https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1>

### Type

`array`

## `.spec.mon.volumeClaimTemplate.spec.accessModes[]`

### Type

`string`

## `.spec.mon.volumeClaimTemplate.spec.dataSource`

### Description

dataSource field can be used to specify either: \* An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot) \* An existing PVC (PersistentVolumeClaim) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. When the AnyVolumeDataSource feature gate is enabled, dataSource contents will be copied to dataSourceRef, and dataSourceRef contents will be copied to dataSource when dataSourceRef.namespace is not specified. If the namespace is specified, then dataSourceRef will not be copied to dataSource.

### Type

`object`

### Required

kind

name

Property	Type	Description
apiGroup	string	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	string	Kind is the type of resource being referenced
name	string	Name is the name of resource being referenced

## .spec.mon.volumeClaimTemplate.spec.dataSourceRef

### Description

dataSourceRef specifies the object from which to populate the volume with data, if a non-empty volume is desired. This may be any object from a non-empty API group (non core object) or a PersistentVolumeClaim object. When this field is specified, volume binding will only succeed if the type of the specified object matches some installed volume populator or dynamic provisioner. This field will replace the functionality of the dataSource field and as such if both fields are non-empty, they must have the same value. For backwards compatibility, when namespace isn't specified in dataSourceRef, both fields (dataSource and dataSourceRef) will be set to the same value automatically if one of them is empty and the other is non-empty. When namespace is specified in dataSourceRef, dataSource isn't set to the same value and must be empty. There are three important differences between dataSource and dataSourceRef: \* While dataSource only allows two specific types of objects, dataSourceRef allows any non-core object, as well as PersistentVolumeClaim objects. \* While dataSource ignores disallowed values (dropping them), dataSourceRef preserves all values, and generates an error if a disallowed value is specified. \* While dataSource only allows local objects, dataSourceRef allows objects in any namespaces. (Beta) Using this field requires the AnyVolumeDataSource feature gate to be enabled.

(Alpha) Using the namespace field of dataSourceRef requires the CrossNamespaceVolumeDataSource feature gate to be enabled.

## Type

object

## Required

kind

name

Property	Type	Description
apiGroup	string	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	string	Kind is the type of resource being referenced
name	string	Name is the name of resource being referenced
namespace	string	Namespace is the namespace of resource being referenced Note that when a namespace is specified, a gateway.networking.k8s.io/ReferenceGrant object is required in the referent namespace to allow that namespace's owner to accept the reference. See the ReferenceGrant documentation for details. (Alpha) This field requires the CrossNamespaceVolumeDataSource feature gate to be enabled.

## .spec.mon.volumeClaimTemplate.spec.resources

### Description

resources represents the minimum resources the volume should have. Users are allowed to specify resource requirements that are lower than previous value but must still be higher than capacity recorded in the status field of the claim. More info:

<https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources>

## Type

object

Property	Type	Description
<code>limits</code>	object	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/">https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/</a>
<code>requests</code>	object	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. Requests cannot exceed Limits. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/">https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/</a>

## `.spec.mon.volumeClaimTemplate.spec.resources.limits`

### Description

Limits describes the maximum amount of compute resources allowed. More info: <https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/>

### Type

object

## .spec.mon.volumeClaimTemplate.spec.resources.request

### S

#### Description

Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. Requests cannot exceed Limits. More info:

<https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/>

#### Type

object

## .spec.mon.volumeClaimTemplate.spec.selector

#### Description

selector is a label query over volumes to consider for binding.

#### Type

object

Property	Type	Description
<code>matchExpressions</code>	array	matchExpressions is a list of label selector requirements. The requirements are ANDed.
<code>matchLabels</code>	object	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

# .spec.mon.volumeClaimTemplate.spec.selector.matchExpressions

## Description

matchExpressions is a list of label selector requirements. The requirements are ANDed.

## Type

array

# .spec.mon.volumeClaimTemplate.spec.selector.matchExpressions[]

## Description

A label selector requirement is a selector that contains values, a key, and an operator that relates the key and values.

## Type

object

## Required

key

operator

Property	Type	Description
key	string	key is the label key that the selector applies to.
operator	string	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.

Property	Type	Description
values	array	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

## **.spec.mon.volumeClaimTemplate.spec.selector.matchExpressions[].values**

### **Description**

values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

### **Type**

array

## **.spec.mon.volumeClaimTemplate.spec.selector.matchExpressions[].values[]**

### **Type**

string

## **.spec.mon.volumeClaimTemplate.spec.selector.matchLabels**

### **Description**

matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

### **Type**

`object`

## `.spec.mon.zones`

### Description

Zones are specified when we want to provide zonal awareness to mons

### Type

`array`

## `.spec.mon.zones[]`

### Description

MonZoneSpec represents the specification of a zone in a Ceph Cluster

### Type

`object`

Property	Type	Description
<code>arbiter</code>	<code>boolean</code>	Arbiter determines if the zone contains the arbiter used for stretch cluster mode
<code>name</code>	<code>string</code>	Name is the name of the zone
<code>volumeClaimTemplate</code>	<code>object</code>	VolumeClaimTemplate is the PVC template

## `.spec.mon.zones[].volumeClaimTemplate`

### Description

VolumeClaimTemplate is the PVC template

## Type

object

Property	Type	Description
metadata	ObjectMeta	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	object	spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

## .spec.mon.zones[].volumeClaimTemplate.spec

### Description

spec defines the desired characteristics of a volume requested by a pod author. More info:  
<https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims>

### Type

object

Property	Type	Description
accessModes	array	accessModes contains the desired access modes volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
dataSource	object	dataSource field can be used to specify either:

Property	Type	Description
		<ul style="list-style-type: none"> <li>• An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot)</li> <li>• An existing PVC (PersistentVolumeClaim) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. When the AnyVolumeDataSource feature gate is enabled, dataSource contents will be copied to dataSourceRef, and dataSourceRef contents will be copied to dataSource when dataSourceRef.namespace is not specified. If the namespace is specified, then dataSourceRef will not be copied to dataSource.</li> </ul>
dataSourceRef	object	<p>dataSourceRef specifies the object from which to populate the volume with data, if a non-empty volume is desired. This may be any object from a non-empty API group (non core object) or a PersistentVolumeClaim object. When this field is specified, volume binding will only succeed if the type of the specified object matches some installed volume populator or dynamic provisioner. This field will require the functionality of the dataSource field and as such both fields are non-empty, they must have the same value. For backwards compatibility, when namespace isn't specified in dataSourceRef, both fields (dataSource and dataSourceRef) will be set to the same value automatically if one of them is empty and the other is non-empty. When namespace is specified in dataSourceRef, dataSource isn't set to the same value and must be empty. There are three important differences between dataSource and dataSourceRef</p>

Property	Type	Description
		<ul style="list-style-type: none"> <li>• While dataSource only allows two specific type objects, dataSourceRef allows any non-core objects as well as PersistentVolumeClaim objects.</li> <li>• While dataSource ignores disallowed values (dropping them), dataSourceRef preserves all values, and generates an error if a disallowed value is specified.</li> <li>• While dataSource only allows local objects, dataSourceRef allows objects in any namespace (Beta) Using this field requires the AnyVolumeDataSource feature gate to be enabled (Alpha) Using the namespace field of dataSourceRef requires the CrossNamespaceVolumeDataSource feature gate to be enabled.</li> </ul>
resources	object	<p>resources represents the minimum resources the volume should have. Users are allowed to specify resource requirements that are lower than previous value but must still be higher than capacity recorded in the status field of the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a></p>
selector	object	<p>selector is a label query over volumes to consider for binding.</p>

Property	Type	Description
<code>storageClassName</code>	<code>string</code>	<p><code>storageClassName</code> is the name of the <code>StorageClass</code> required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a></p>
<code>volumeAttributesClassName</code>	<code>string</code>	<p><code>volumeAttributesClassName</code> may be used to set the <code>VolumeAttributesClass</code> used by this claim. If specified, the CSI driver will create or update the volume with attributes defined in the corresponding <code>VolumeAttributesClass</code>. This has a different purpose than <code>storageClassName</code>, it can be changed after the claim is created. An empty string or nil value indicates that no <code>VolumeAttributesClass</code> will be applied to the claim. If the claim enters an Infeasible error state, this field can be reset to its previous value (including nil) to cancel the modification. If the resource referred to by <code>volumeAttributesClassName</code> does not exist, this <code>PersistentVolumeClaim</code> will be set to a Pending state as reflected by the <code>modifyVolumeStatus</code> field, until such as a resource exists. More info: <a href="https://kubernetes.io/docs/concepts/storage/volume-attributes-classes/">https://kubernetes.io/docs/concepts/storage/volume-attributes-classes/</a></p>
<code>volumeMode</code>	<code>string</code>	<p><code>volumeMode</code> defines what type of volume is required by the claim. Value of <code>Filesystem</code> is implied when not included in claim spec.</p>
<code>volumeName</code>	<code>string</code>	<p><code>volumeName</code> is the binding reference to the <code>PersistentVolume</code> backing this claim.</p>

## `.spec.mon.zones[].volumeClaimTemplate.spec.accessModes`

### Description

accessModes contains the desired access modes the volume should have. More info: <https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1>

### Type

array

## `.spec.mon.zones[].volumeClaimTemplate.spec.accessModes[]`

### Type

string

## `.spec.mon.zones[].volumeClaimTemplate.spec.dataSource`

### Description

dataSource field can be used to specify either: \* An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot) \* An existing PVC (PersistentVolumeClaim) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. When the AnyVolumeDataSource feature gate is enabled, dataSource contents will be copied to dataSourceRef, and dataSourceRef contents will be copied to dataSource when dataSourceRef.namespace is not specified. If the namespace is specified, then dataSourceRef will not be copied to dataSource.

### Type

object

### Required

kind

name

Property	Type	Description
apiGroup	string	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	string	Kind is the type of resource being referenced
name	string	Name is the name of resource being referenced

## `.spec.mon.zones[].volumeClaimTemplate.spec.dataSourceRef`

### Description

`dataSourceRef` specifies the object from which to populate the volume with data, if a non-empty volume is desired. This may be any object from a non-empty API group (non core object) or a `PersistentVolumeClaim` object. When this field is specified, volume binding will only succeed if the type of the specified object matches some installed volume populator or dynamic provisioner. This field will replace the functionality of the `dataSource` field and as such if both fields are non-empty, they must have the same value. For backwards compatibility, when namespace isn't specified in `dataSourceRef`, both fields (`dataSource` and `dataSourceRef`) will be set to the same value automatically if one of them is empty and the other is non-empty. When namespace is specified in `dataSourceRef`, `dataSource` isn't set to the same value and must be empty. There are three important differences between `dataSource` and `dataSourceRef`:

- \* While `dataSource` only allows two specific types of objects, `dataSourceRef` allows any non-core object, as well as `PersistentVolumeClaim` objects.
- \* While `dataSource` ignores disallowed values (dropping them), `dataSourceRef` preserves all values, and generates an error if a disallowed value is specified.
- \* While `dataSource` only allows local objects, `dataSourceRef` allows objects in any namespaces.

(Beta) Using this field requires the `AnyVolumeDataSource` feature gate to be enabled.  
 (Alpha) Using the namespace field of `dataSourceRef` requires the `CrossNamespaceVolumeDataSource` feature gate to be enabled.

## Type

`object`

## Required

`kind``name`

Property	Type	Description
<code>apiGroup</code>	<code>string</code>	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
<code>kind</code>	<code>string</code>	Kind is the type of resource being referenced
<code>name</code>	<code>string</code>	Name is the name of resource being referenced
<code>namespace</code>	<code>string</code>	Namespace is the namespace of resource being referenced Note that when a namespace is specified, a gateway.networking.k8s.io/ReferenceGrant object is required in the referent namespace to allow that namespace's owner to accept the reference. See the ReferenceGrant documentation for details. (Alpha) This field requires the CrossNamespaceVolumeDataSource feature gate to be enabled.

## `.spec.mon.zones[].volumeClaimTemplate.spec.resources`

### Description

resources represents the minimum resources the volume should have. Users are allowed to specify resource requirements that are lower than previous value but must still be higher

than capacity recorded in the status field of the claim. More info:

<https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources>

## Type

object

Property	Type	Description
limits	object	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/">https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/</a>
requests	object	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. Requests cannot exceed Limits. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/">https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/</a>

## `.spec.mon.zones[].volumeClaimTemplate.spec.resources.limits`

### Description

Limits describes the maximum amount of compute resources allowed. More info: <https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/>

### Type

object

## `.spec.mon.zones[].volumeClaimTemplate.spec.resources.requests`

### Description

Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. Requests cannot exceed Limits. More info:

<https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/>

### Type

object

## `.spec.mon.zones[].volumeClaimTemplate.spec.selector`

### Description

selector is a label query over volumes to consider for binding.

### Type

object

Property	Type	Description
<code>matchExpressions</code>	array	matchExpressions is a list of label selector requirements. The requirements are ANDed.
<code>matchLabels</code>	object	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

## `.spec.mon.zones[].volumeClaimTemplate.spec.selector.matchExpressions`

### Description

matchExpressions is a list of label selector requirements. The requirements are ANDed.

### Type

array

## `.spec.mon.zones[].volumeClaimTemplate.spec.selector.matchExpressions[]`

### Description

A label selector requirement is a selector that contains values, a key, and an operator that relates the key and values.

### Type

object

### Required

key

operator

Property	Type	Description
key	string	key is the label key that the selector applies to.
operator	string	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.

Property	Type	Description
values	array	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

## `.spec.mon.zones[].volumeClaimTemplate.spec.selector.matchExpressions[].values`

### Description

values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

### Type

array

## `.spec.mon.zones[].volumeClaimTemplate.spec.selector.matchExpressions[].values[]`

### Type

string

## `.spec.mon.zones[].volumeClaimTemplate.spec.selector.matchLabels`

### Description

matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

### Type

object

## .spec.monitoring

### Description

Prometheus based Monitoring settings

### Type

object

Property	Type	Description
<code>enabled</code>	<code>boolean</code>	Enabled determines whether to create the prometheus rules for the ceph cluster. If true, the prometheus types must exist or the creation will fail. Default is false.
<code>exporter</code>	<code>object</code>	Ceph exporter configuration
<code>externalMgrEndpoints</code>	<code>array</code>	ExternalMgrEndpoints points to an existing Ceph prometheus exporter endpoint
<code>externalMgrPrometheusPort</code>	<code>integer</code>	ExternalMgrPrometheusPort Prometheus exporter port
<code>interval</code>	<code>string</code>	Interval determines prometheus scrape interval

Property	Type	Description
<code>metricsDisabled</code>	<code>boolean</code>	Whether to disable the metrics reported by Ceph. If false, the prometheus mgr module and Ceph exporter are enabled. If true, the prometheus mgr module and Ceph exporter are both disabled. Default is false.
<code>port</code>	<code>integer</code>	Port is the prometheus server port

## .spec.monitoring.exporter

### Description

Ceph exporter configuration

### Type

`object`

Property	Type	Description
<code>hostNetwork</code>	<code>boolean</code>	Whether host networking is enabled for CephExporter. If not set, the network settings from CephCluster.spec.networking will be applied.
<code>perfCountersPrioLimit</code>	<code>integer</code>	Only performance counters greater than or equal to this option are fetched

Property	Type	Description
<code>statsPeriodSeconds</code>	<code>integer</code>	Time to wait before sending requests again to exporter server (seconds)

## `.spec.monitoring.externalMgrEndpoints`

### Description

ExternalMgrEndpoints points to an existing Ceph prometheus exporter endpoint

### Type

`array`

## `.spec.monitoring.externalMgrEndpoints[]`

### Description

EndpointAddress is a tuple that describes single IP address. Deprecated: This API is deprecated in v1.33+.

### Type

`object`

### Required

`ip`

Property	Type	Description
<code>hostname</code>	<code>string</code>	The Hostname of this endpoint
<code>ip</code>	<code>string</code>	The IP of this endpoint. May not be loopback (127.0.0.0/8 or ::1), link-local (169.254.0.0/16 or fe80::/10), or link-local multicast (224.0.0.0/24 or ff02::/16).

Property	Type	Description
<code>nodeName</code>	<code>string</code>	Optional: Node hosting this endpoint. This can be used to determine endpoints local to a node.
<code>targetRef</code>	<code>object</code>	Reference to object providing the endpoint.

## `.spec.monitoring.externalMgrEndpoints[].targetRef`

### Description

Reference to object providing the endpoint.

### Type

`object`

Property	Type	Description
<code>apiVersion</code>	<code>string</code>	API version of the referent.
<code>fieldPath</code>	<code>string</code>	<p>If referring to a piece of an object instead of an entire object, this string should contain a valid JSON/Go field access statement, such as <code>desiredState.manifest.containers[2]</code>. For example, if the object reference is to a container within a pod, this would take on a value like: <code>"spec.containers{name}"</code> (where "name" refers to the name of the container that triggered the event) or if no container name is specified <code>"spec.containers[2]"</code> (container with index 2 in this pod). This syntax is chosen only to have some well-defined way of referencing a part of an object.</p>

Property	Type	Description
<code>kind</code>	<code>string</code>	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
<code>name</code>	<code>string</code>	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
<code>namespace</code>	<code>string</code>	Namespace of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/">https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/</a>
<code>resourceVersion</code>	<code>string</code>	Specific resourceVersion to which this reference is made, if any. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
<code>uid</code>	<code>string</code>	UID of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids</a>

## .spec.network

### Description

Network related configuration

## Type

object

Property	Type	Description
addressRanges	object	AddressRanges specify a list of CIDRs that Rook will apply to Ceph's 'public_network' and/or 'cluster_network' configurations. This config section may be used for the "host" or "multus" network providers.
connections	object	Settings for network connections such as compression and encryption across the wire.
dualStack	boolean	DualStack determines whether Ceph daemons should listen on both IPv4 and IPv6
hostNetwork	boolean	HostNetwork to enable host network. If host networking is enabled or disabled on a running cluster, then the operation will automatically fail over all the mons to apply the new network settings.
ipFamily	string	IPFamily is the single stack IPv6 or IPv4 protocol
multiClusterService	object	Enable multiClusterService to export the Services between peer clusters
provider	string	Provider is what provides network connectivity to the cluster e.g. "host" or "multus". If the Provider is updated from being

Property	Type	Description
		<p>empty to "host" on a running cluster, then the operator will automatically fail over all the mons to apply the "host" network settings.</p>
<p><code>selectors</code></p>	<p><code>object</code></p>	<p>Selectors define NetworkAttachmentDefinitions to be used for Ceph public and/or cluster networks when the "multus" network provider is used. This config section is not used with other network providers.</p> <p>Valid keys are "public" and "cluster". Refer to Ceph networking documentation for more:  <a href="https://docs.ceph.com/en/latest/rados/configuration/network-config-ref/">https://docs.ceph.com/en/latest/rados/configuration/network-config-ref/</a></p> <p>Refer to Multus network annotation documentation for help selecting values:  <a href="https://github.com/k8snetworkplumbingwg/multus-cni/blob/master/docs/how-to-use.md#run-pod-with-network-annotation">https://github.com/k8snetworkplumbingwg/multus-cni/blob/master/docs/how-to-use.md#run-pod-with-network-annotation</a></p> <p>Rook will make a best-effort attempt to automatically detect CIDR address ranges for given network attachment definitions. Rook's methods are robust but may be imprecise for sufficiently complicated networks. Rook's auto-detection process obtains a new IP address lease for each CephCluster reconcile. If Rook fails to detect, incorrectly detects, only partially detects, or if underlying networks do not support reusing old IP addresses, it is best to use the 'addressRanges' config section to specify CIDR ranges for the Ceph cluster.</p> <p>As a contrived example, one can use a theoretical Kubernetes-wide network for Ceph client traffic and a theoretical Rook-only network for Ceph replication traffic</p>

Property	Type	Description
		shown: selectors: public: "default/cluster-fast-net" cluster "rook-ceph/ceph-backend-net"

## .spec.network.addressRanges

### Description

AddressRanges specify a list of CIDRs that Rook will apply to Ceph's 'public\_network' and/or 'cluster\_network' configurations. This config section may be used for the "host" or "multus" network providers.

### Type

object

Property	Type	Description
cluster	array	Cluster defines a list of CIDRs to use for Ceph cluster network communication.
public	array	Public defines a list of CIDRs to use for Ceph public network communication.

## .spec.network.addressRanges.cluster

### Description

Cluster defines a list of CIDRs to use for Ceph cluster network communication.

### Type

array

## .spec.network.addressRanges.cluster[]

## Description

An IPv4 or IPv6 network CIDR. This naive kubebuilder regex provides immediate feedback for some typos and for a common problem case where the range spec is forgotten (e.g., /24). Rook does in-depth validation in code.

## Type

string

## `.spec.network.addressRanges.public`

## Description

Public defines a list of CIDRs to use for Ceph public network communication.

## Type

array

## `.spec.network.addressRanges.public[]`

## Description

An IPv4 or IPv6 network CIDR. This naive kubebuilder regex provides immediate feedback for some typos and for a common problem case where the range spec is forgotten (e.g., /24). Rook does in-depth validation in code.

## Type

string

## `.spec.network.connections`

## Description

Settings for network connections such as compression and encryption across the wire.

## Type

object

Property	Type	Description
<code>compression</code>	<code>object</code>	Compression settings for the network connections.
<code>encryption</code>	<code>object</code>	Encryption settings for the network connections.
<code>requireMsgr2</code>	<code>boolean</code>	Whether to require msgr2 (port 3300) even if compression or encryption are not enabled. If true, the msgr1 port (6789) will be disabled. Requires a kernel that supports msgr2 (kernel 5.11 or CentOS 8.4 or newer).

## `.spec.network.connections.compression`

### Description

Compression settings for the network connections.

### Type

`object`

Property	Type	Description
<code>enabled</code>	<code>boolean</code>	Whether to compress the data in transit across the wire. The default is not set.

## `.spec.network.connections.encryption`

### Description

Encryption settings for the network connections.

### Type

object

Property	Type	Description
enabled	boolean	Whether to encrypt the data in transit across the wire to prevent eavesdropping the data on the network. The default is not set. Even if encryption is not enabled, clients still establish a strong initial authentication for the connection and data integrity is still validated with a crc check. When encryption is enabled, all communication between clients and Ceph daemons, or between Ceph daemons will be encrypted.

## .spec.network.multiClusterService

### Description

Enable multiClusterService to export the Services between peer clusters

### Type

object

Property	Type	Description
clusterID	string	ClusterID uniquely identifies a cluster. It is used as a prefix to nslookup exported services. For example: ...svc.clusterset.local
enabled	boolean	Enable multiClusterService to export the mon and OSD services to peer cluster. Ensure that peer clusters are connected using an MCS API compatible application, like Globalnet Submariner.

## .spec.network.selectors

### Description

Selectors define NetworkAttachmentDefinitions to be used for Ceph public and/or cluster networks when the "multus" network provider is used. This config section is not used for other network providers. Valid keys are "public" and "cluster". Refer to Ceph networking documentation for more: <https://docs.ceph.com/en/latest/rados/configuration/network-config-ref/> Refer to Multus network annotation documentation for help selecting values: <https://github.com/k8snetworkplumbingwg/multus-cni/blob/master/docs/how-to-use.md#run-pod-with-network-annotation> Rook will make a best-effort attempt to automatically detect CIDR address ranges for given network attachment definitions. Rook's methods are robust but may be imprecise for sufficiently complicated networks. Rook's auto-detection process obtains a new IP address lease for each CephCluster reconcile. If Rook fails to detect, incorrectly detects, only partially detects, or if underlying networks do not support reusing old IP addresses, it is best to use the 'addressRanges' config section to specify CIDR ranges for the Ceph cluster. As a contrived example, one can use a theoretical Kubernetes-wide network for Ceph client traffic and a theoretical Rook-only network for Ceph replication traffic as shown: selectors: public: "default/cluster-fast-net" cluster: "rook-ceph/ceph-backend-net"

### Type

object

## .spec.placement

### Type

object

## .spec.priorityClassNames

### Description

PriorityClassNames sets priority classes on components

### Type

object

## .spec.resources

### Description

Resources set resource requests and limits

### Type

object

## .spec.security

### Description

Security represents security settings

### Type

object

Property	Type	Description
<code>cephx</code>	object	CephX configures CephX key settings. More: <a href="https://docs.ceph.com/en/latest/dev/cephx/">https://docs.ceph.com/en/latest/dev/cephx/</a>
<code>keyRotation</code>	object	KeyRotation defines options for rotation of OSD disk encryption keys.
<code>kms</code>	object	KeyManagementService is the main Key Management option

## .spec.security.cephx

### Description

CephX configures CephX key settings. More: <https://docs.ceph.com/en/latest/dev/cephx/>

### Type

object

Property	Type	Description
csi	object	CSI configures CephX key rotation settings for the Ceph-CSI daemons in the current Kubernetes cluster. CSI key rotation can affect existing PV connections, so take care when exercising this option.
daemon	object	Daemon configures CephX key settings for local Ceph daemons managed by Rook and part of the Ceph cluster. Daemon CephX keys can be rotated without affecting client connections.
rbdMirrorPeer	object	RBDMirrorPeer configures CephX key settings of the <code>rbd-mirror-peer</code> user that is used for creating bootstrap peer token used connect peer clusters. Rotating the <code>rbd-mirror-peer</code> user key will update the mirror peer token. Rotation will affect any existing peers connected to this cluster, so take care when exercising this option.

## .spec.security.cephx.csi

### Description

CSI configures CephX key rotation settings for the Ceph-CSI daemons in the current Kubernetes cluster. CSI key rotation can affect existing PV connections, so take care when exercising this option.

### Type

object

Property	Type	Description
<code>keepPriorKeyCountMax</code>	<code>integer</code>	KeepPriorKeyCountMax tells Rook how many prior keys to keep active. Generally, this would be set to 1 to allow for a migration period for applications. If desired, set this to 0 to delete prior keys after migration. This config only applies to prior keys that already exist. If PriorKeyCount is set to 2 while only a single key currently exists, only a single prior key will be kept, and the reported status will only indicate the actual number of prior keys, not necessarily a reflection of PriorKeyCount config here.
<code>keyGeneration</code>	<code>integer</code>	KeyGeneration specifies the desired CephX key generation. This is used when KeyRotationPolicy is KeyGeneration and ignored for other policies. If this is set to greater than the current key generation, relevant keys will be rotated, and the generation value will be updated to this new value (generation values are not necessarily incremental, though that is the intended use case). If this is set to less than or equal to the current key generation, keys are not rotated.
<code>keyRotationPolicy</code>	<code>string</code>	KeyRotationPolicy controls if and when CephX keys are rotated after initial creation. One of Disabled, or KeyGeneration. Default Disabled.

## `.spec.security.cephx.daemon`

### Description

Daemon configures CephX key settings for local Ceph daemons managed by Rook and part of the Ceph cluster. Daemon CephX keys can be rotated without affecting client connections.

## Type

object

Property	Type	Description
<code>keyGeneration</code>	<code>integer</code>	KeyGeneration specifies the desired CephX key generation. This is used when KeyRotationPolicy is KeyGeneration and ignored for other policies. If this is set to greater than the current key generation, relevant keys will be rotated, and the generation value will be updated to this new value (generation values are not necessarily incremental, though that is the intended use case). If this is set to less than or equal to the current key generation, keys are not rotated.
<code>keyRotationPolicy</code>	<code>string</code>	KeyRotationPolicy controls if and when CephX keys are rotated after initial creation. One of Disabled, or KeyGeneration. Default Disabled.

## `.spec.security.cephx.rbdMirrorPeer`

### Description

RBDMirrorPeer configures CephX key settings of the ``rbd-mirror-peer`` user that is used for creating bootstrap peer token used connect peer clusters. Rotating the ``rbd-mirror-peer`` user key will update the mirror peer token. Rotation will affect any existing peers connected to this cluster, so take care when exercising this option.

## Type

object

Property	Type	Description
keyGeneration	integer	KeyGeneration specifies the desired CephX key generation. This is used when KeyRotationPolicy is KeyGeneration and ignored for other policies. If this is set to greater than the current key generation, relevant keys will be rotated, and the generation value will be updated to this new value (generation values are not necessarily incremental, though that is the intended use case). If this is set to less than or equal to the current key generation, keys are not rotated.
keyRotationPolicy	string	KeyRotationPolicy controls if and when CephX keys are rotated after initial creation. One of Disabled, or KeyGeneration. Default Disabled.

## .spec.security.keyRotation

### Description

KeyRotation defines options for rotation of OSD disk encryption keys.

### Type

object

Property	Type	Description
enabled	boolean	Enabled represents whether the key rotation is enabled.
schedule	string	Schedule represents the cron schedule for key rotation.

## .spec.security.kms

### Description

KeyManagementService is the main Key Management option

### Type

object

Property	Type	Description
<code>connectionDetails</code>	object	ConnectionDetails contains the KMS connection details (address, port etc)
<code>tokenSecretName</code>	string	TokenSecretName is the kubernetes secret containing the KMS token

## .spec.security.kms.connectionDetails

### Description

ConnectionDetails contains the KMS connection details (address, port etc)

### Type

object

## .spec.storage

### Description

A spec for available storage in the cluster and how it should be used

### Type

object

Property	Type	Description
<code>allowDeviceClassUpdate</code>	<code>boolean</code>	Whether to allow updating the device class after the OSD is initially provisioned
<code>allowOsdCrushWeightUpdate</code>	<code>boolean</code>	Whether Rook will resize the OSD CRUSH weight when the OSD PVC size is increased. This allows cluster data to be rebalanced to make most effective use of new OSD space. The default is false since data rebalancing can cause temporary cluster slowdown.
<code>backfillFullRatio</code>	<code>number</code>	BackfillFullRatio is the ratio at which the cluster is too full for backfill. Backfill will be disabled if above this threshold. Default is 0.90.
<code>config</code>	<code>object</code>	
<code>deviceFilter</code>	<code>string</code>	A regular expression to allow more fine-grained selection of devices on nodes across the cluster
<code>devicePathFilter</code>	<code>string</code>	A regular expression to allow more fine-grained selection of devices with path names

Property	Type	Description
<code>devices</code>	<code>array</code>	List of devices to use as storage devices
<code>flappingRestartIntervalHours</code>	<code>integer</code>	FlappingRestartIntervalHours defines the time for which the OSD pods, that failed with zero exit code, will sleep before restarting. This is needed for OSD flapping where OSD daemons are marked down more than 5 times in 600 seconds by Ceph. Preventing the OSD pods to restart immediately in such scenarios will prevent Rook from marking OSD as <code>up</code> and thus peering of the PGs mapped to the OSD. User needs to manually restart the OSD pod if they manage to fix the underlying OSD flapping issue before the restart interval. The sleep will be disabled if this interval is set to 0.
<code>fullRatio</code>	<code>number</code>	FullRatio is the ratio at which the cluster is considered full and ceph will stop accepting writes. Default is 0.95.
<code>migration</code>	<code>object</code>	Migration handles the OSD migration
<code>nearFullRatio</code>	<code>number</code>	NearFullRatio is the ratio at which the cluster is considered nearly full and will

Property	Type	Description
		raise a ceph health warning. Default is 0.85.
nodes	array	
onlyApplyOSDPlacement	boolean	
osdMaxUpdatesInParallel	integer	The maximum number of OSDs to update in parallel.
scheduleAlways	boolean	Whether to always schedule OSDs on a node even if the node is not currently scheduleable or ready
storageClassDeviceSets	array	
store	object	OSDStore is the backend storage type used for creating the OSDs
useAllDevices	boolean	Whether to consume all the storage devices found on a machine
useAllNodes	boolean	
volumeClaimTemplates	array	PersistentVolumeClaims to use as storage

## .spec.storage.config

## Type

object

## .spec.storage.devices

### Description

List of devices to use as storage devices

### Type

array

## .spec.storage.devices[]

### Description

Device represents a disk to use in the cluster

### Type

object

Property	Type	Description
config	object	
fullpath	string	
name	string	

## .spec.storage.devices[].config

### Type

object

## .spec.storage.migration

### Description

Migration handles the OSD migration

## Type

object

Property	Type	Description
confirmation	string	A user confirmation to migrate the OSDs. It destroys each OSD one at a time, cleans up the backing disk and prepares OSD with same ID on that disk

## .spec.storage.nodes

## Type

array

## .spec.storage.nodes[]

## Description

Node is a storage nodes

## Type

object

Property	Type	Description
config	object	
deviceFilter	string	A regular expression to allow more fine-grained selection of devices on nodes across the cluster

Property	Type	Description
<code>devicePathFilter</code>	<code>string</code>	A regular expression to allow more fine-grained selection of devices with path names
<code>devices</code>	<code>array</code>	List of devices to use as storage devices
<code>name</code>	<code>string</code>	
<code>resources</code>	<code>object</code>	ResourceRequirements describes the compute resource requirements.
<code>useAllDevices</code>	<code>boolean</code>	Whether to consume all the storage devices found on a machine
<code>volumeClaimTemplates</code>	<code>array</code>	PersistentVolumeClaims to use as storage

## `.spec.storage.nodes[].config`

### Type

`object`

## `.spec.storage.nodes[].devices`

### Description

List of devices to use as storage devices

### Type

`array`

## .spec.storage.nodes[].devices[]

### Description

Device represents a disk to use in the cluster

### Type

object

Property	Type	Description
config	object	
fullpath	string	
name	string	

## .spec.storage.nodes[].devices[].config

### Type

object

## .spec.storage.nodes[].resources

### Description

ResourceRequirements describes the compute resource requirements.

### Type

object

Property	Type	Description
claims	array	<p>Claims lists the names of resources, defined in spec.resourceClaims, that are used by this container.</p> <p>This field depends on the DynamicResourceAllocation feature gate.</p>

Property	Type	Description
		This field is immutable. It can only be set for containers.
limits	object	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/">https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/</a>
requests	object	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. Requests cannot exceed Limits. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/">https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/</a>

## `.spec.storage.nodes[].resources.claims`

### Description

Claims lists the names of resources, defined in `spec.resourceClaims`, that are used by this container. This field depends on the `DynamicResourceAllocation` feature gate. This field is immutable. It can only be set for containers.

### Type

array

## `.spec.storage.nodes[].resources.claims[]`

### Description

ResourceClaim references one entry in `PodSpec.ResourceClaims`.

### Type

object

**Required**

name

Property	Type	Description
name	string	Name must match the name of one entry in pod.spec.resourceClaims of the Pod where this field is used. It makes that resource available inside a container.
request	string	Request is the name chosen for a request in the referenced claim. If empty, everything from the claim is made available, otherwise only the result of this request.

**.spec.storage.nodes[].resources.limits****Description**

Limits describes the maximum amount of compute resources allowed. More info: <https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/>

**Type**

object

**.spec.storage.nodes[].resources.requests****Description**

Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. Requests cannot exceed Limits. More info: <https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/>

**Type**

object

## .spec.storage.nodes[].volumeClaimTemplates

### Description

PersistentVolumeClaims to use as storage

### Type

array

## .spec.storage.nodes[].volumeClaimTemplates[]

### Description

VolumeClaimTemplate is a simplified version of K8s corev1's PVC. It has no type meta or status.

### Type

object

Property	Type	Description
metadata	ObjectMeta	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	object	spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

## .spec.storage.nodes[].volumeClaimTemplates[].spec

### Description

spec defines the desired characteristics of a volume requested by a pod author. More info:  
<https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims>

## Type

object

Property	Type	Description
accessModes	array	<p>accessModes contains the desired access modes volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a></p>
dataSource	object	<p>dataSource field can be used to specify either:</p> <ul style="list-style-type: none"> <li>An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot)</li> <li>An existing PVC (PersistentVolumeClaim) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. When the AnyVolumeDataSource feature gate is enabled, dataSource contents will be copied to dataSourceRef, and dataSourceRef contents will be copied to dataSource when dataSourceRef.namespace is not specified. If the namespace is specified, then dataSourceRef contents will not be copied to dataSource.</li> </ul>
dataSourceRef	object	<p>dataSourceRef specifies the object from which to populate the volume with data, if a non-empty volume is desired. This may be any object from a non-empty API group (non core object) or a PersistentVolumeClaim object. When this field is specified, volume binding will only succeed if the type of the specified object matches some installed volume</p>

Property	Type	Description
		<p>populator or dynamic provisioner. This field will replace the functionality of the <code>dataSource</code> field and as such both fields are non-empty, they must have the same value. For backwards compatibility, when <code>namespace</code> isn't specified in <code>dataSourceRef</code>, both fields (<code>dataSource</code> and <code>dataSourceRef</code>) will be set to the same value automatically if one of them is empty and the other is non-empty. When <code>namespace</code> is specified in <code>dataSourceRef</code>, <code>dataSource</code> isn't set to the same value and must be empty. There are three important differences between <code>dataSource</code> and <code>dataSourceRef</code>:</p> <ul style="list-style-type: none"> <li>• While <code>dataSource</code> only allows two specific type objects, <code>dataSourceRef</code> allows any non-core objects as well as <code>PersistentVolumeClaim</code> objects.</li> <li>• While <code>dataSource</code> ignores disallowed values (dropping them), <code>dataSourceRef</code> preserves all values, and generates an error if a disallowed value is specified.</li> <li>• While <code>dataSource</code> only allows local objects, <code>dataSourceRef</code> allows objects in any namespace (Beta) Using this field requires the <code>AnyVolumeDataSource</code> feature gate to be enabled (Alpha) Using the <code>namespace</code> field of <code>dataSourceRef</code> requires the <code>CrossNamespaceVolumeDataSource</code> feature gate to be enabled.</li> </ul>
resources	object	<p><code>resources</code> represents the minimum resources the volume should have. Users are allowed to specify resource requirements that are lower than previous value but must still be higher than capacity recorded in the <code>status</code> field of the claim. More info:</p>

Property	Type	Description
		<a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a> ↗
selector	object	selector is a label query over volumes to consider binding.
storageClassName	string	storageClassName is the name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a> ↗
volumeAttributesClassName	string	volumeAttributesClassName may be used to set the VolumeAttributesClass used by this claim. If specified, the CSI driver will create or update the volume with attributes defined in the corresponding VolumeAttributesClass. This has a different purpose than storageClassName, it can be changed after the claim is created. An empty string or nil value indicates that no VolumeAttributesClass will be applied to the claim. If the claim enters an Infeasible error state, this field can be reset to its previous value (including nil) to cancel the modification. If the resource referred to by volumeAttributesClassName does not exist, this PersistentVolumeClaim will be set to a Pending state as reflected by the modifyVolumeStatus field, until such a resource exists. More info: <a href="https://kubernetes.io/docs/concepts/storage/volume-attributes-classes/">https://kubernetes.io/docs/concepts/storage/volume-attributes-classes/</a> ↗

Property	Type	Description
volumeMode	string	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	string	volumeName is the binding reference to the PersistentVolume backing this claim.

## `.spec.storage.nodes[].volumeClaimTemplates[].spec.accessModes`

### Description

accessModes contains the desired access modes the volume should have. More info: <https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1>

### Type

array

## `.spec.storage.nodes[].volumeClaimTemplates[].spec.accessModes[]`

### Type

string

## `.spec.storage.nodes[].volumeClaimTemplates[].spec.dataSource`

### Description

dataSource field can be used to specify either: \* An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot) \* An existing PVC (PersistentVolumeClaim) If

the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. When the AnyVolumeDataSource feature gate is enabled, dataSource contents will be copied to dataSourceRef, and dataSourceRef contents will be copied to dataSource when dataSourceRef.namespace is not specified. If the namespace is specified, then dataSourceRef will not be copied to dataSource.

## Type

object

## Required

kind

name

Property	Type	Description
apiGroup	string	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	string	Kind is the type of resource being referenced
name	string	Name is the name of resource being referenced

## `.spec.storage.nodes[].volumeClaimTemplates[].spec.dataSourceRef`

### Description

dataSourceRef specifies the object from which to populate the volume with data, if a non-empty volume is desired. This may be any object from a non-empty API group (non core object) or a PersistentVolumeClaim object. When this field is specified, volume binding will only succeed if the type of the specified object matches some installed volume populator or dynamic provisioner. This field will replace the functionality of the dataSource field and as

such if both fields are non-empty, they must have the same value. For backwards compatibility, when namespace isn't specified in `dataSourceRef`, both fields (`dataSource` and `dataSourceRef`) will be set to the same value automatically if one of them is empty and the other is non-empty. When namespace is specified in `dataSourceRef`, `dataSource` isn't set to the same value and must be empty. There are three important differences between `dataSource` and `dataSourceRef`:

- \* While `dataSource` only allows two specific types of objects, `dataSourceRef` allows any non-core object, as well as `PersistentVolumeClaim` objects.
- \* While `dataSource` ignores disallowed values (dropping them), `dataSourceRef` preserves all values, and generates an error if a disallowed value is specified.
- \* While `dataSource` only allows local objects, `dataSourceRef` allows objects in any namespaces.

(Beta) Using this field requires the `AnyVolumeDataSource` feature gate to be enabled.  
 (Alpha) Using the namespace field of `dataSourceRef` requires the `CrossNamespaceVolumeDataSource` feature gate to be enabled.

## Type

object

## Required

kind

name

Property	Type	Description
<code>apiGroup</code>	<code>string</code>	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
<code>kind</code>	<code>string</code>	Kind is the type of resource being referenced
<code>name</code>	<code>string</code>	Name is the name of resource being referenced
<code>namespace</code>	<code>string</code>	Namespace is the namespace of resource being referenced Note that when a namespace is specified, a

Property	Type	Description
		gateway.networking.k8s.io/ReferenceGrant object is required in the referent namespace to allow that namespace's owner to accept the reference. See the ReferenceGrant documentation for details. (Alpha) This field requires the CrossNamespaceVolumeDataSource feature gate to be enabled.

## `.spec.storage.nodes[].volumeClaimTemplates[].spec.resources`

### Description

resources represents the minimum resources the volume should have. Users are allowed to specify resource requirements that are lower than previous value but must still be higher than capacity recorded in the status field of the claim. More info:

<https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources>

### Type

object

Property	Type	Description
limits	object	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/">https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/</a>
requests	object	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. Requests cannot exceed Limits. More info:

Property	Type	Description
		<a href="https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/">https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/</a> ↗

## `.spec.storage.nodes[].volumeClaimTemplates[].spec.resources.limits`

### Description

Limits describes the maximum amount of compute resources allowed. More info: <https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/>

### Type

object

## `.spec.storage.nodes[].volumeClaimTemplates[].spec.resources.requests`

### Description

Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. Requests cannot exceed Limits. More info: <https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/>

### Type

object

## `.spec.storage.nodes[].volumeClaimTemplates[].spec.selector`

### Description

selector is a label query over volumes to consider for binding.

### Type

object

Property	Type	Description
matchExpressions	array	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	object	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

## `.spec.storage.nodes[].volumeClaimTemplates[].spec.selector.matchExpressions`

### Description

matchExpressions is a list of label selector requirements. The requirements are ANDed.

### Type

array

## `.spec.storage.nodes[].volumeClaimTemplates[].spec.selector.matchExpressions[]`

### Description

A label selector requirement is a selector that contains values, a key, and an operator that relates the key and values.

### Type

object

### Required

key operator

Property	Type	Description
key	string	key is the label key that the selector applies to.
operator	string	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	array	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

## **.spec.storage.nodes[].volumeClaimTemplates[].spec.selector.matchExpressions[].values**

### Description

values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

### Type

array

## **.spec.storage.nodes[].volumeClaimTemplates[].spec.selector.matchExpressions[].values[]**

### Type

string

## .spec.storage.nodes[].volumeClaimTemplates[].spec.selector.matchLabels

### Description

matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

### Type

object

## .spec.storage.storageClassDeviceSets

### Type

array

## .spec.storage.storageClassDeviceSets[]

### Description

StorageClassDeviceSet is a storage class device set

### Type

object

### Required

count

name

volumeClaimTemplates

Property	Type	Description
config	object	Provider-specific device configuration
count	integer	Count is the number of devices in this set

Property	Type	Description
encrypted	boolean	Whether to encrypt the deviceSet
name	string	Name is a unique identifier for the set
placement	object	
portable	boolean	Portable represents OSD portability across the hosts
preparePlacement	object	
resources	object	ResourceRequirements describes the compute resource requirements.
schedulerName	string	Scheduler name for OSD pod placement
tuneDeviceClass	boolean	TuneSlowDeviceClass Tune the OSD when running on a slow Device Class
tuneFastDeviceClass	boolean	TuneFastDeviceClass Tune the OSD when running on a fast Device Class
volumeClaimTemplates	array	VolumeClaimTemplates is a list of PVC templates for the underlying storage devices

## `.spec.storage.storageClassDeviceSets[].config`

### Description

Provider-specific device configuration

### Type

object

## `.spec.storage.storageClassDeviceSets[].placement`

### Type

object

Property	Type	Description
<code>nodeAffinity</code>	object	
<code>podAffinity</code>	object	
<code>podAntiAffinity</code>	object	
<code>tolerations</code>	array	
<code>topologySpreadConstraints</code>	array	

## `.spec.storage.storageClassDeviceSets[].placement.nodeAffinity`

### Type

object

Property	Type	Description
<code>preferredDuringSchedulingIgnoredDuringExecution</code>	array	
<code>requiredDuringSchedulingIgnoredDuringExecution</code>	object	

## `.spec.storage.storageClassDeviceSets[].placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution`

Type

array

## `.spec.storage.storageClassDeviceSets[].placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution` `[]`

Type

object

Required

preference

weight

Property	Type	Description
preference	object	
weight	integer	

## `.spec.storage.storageClassDeviceSets[].placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution` `[]`.preference

Type

object

Property	Type	Description
matchExpressions	array	

Property	Type	Description
matchFields	array	

**.spec.storage.storageClassDeviceSets[].placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchExpressions**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchExpressions[]**

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.storage.storageClassDeviceSets[].placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchExpressions[].values**

**Type**

array

```
.spec.storage.storageClassDeviceSets[].placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchExpressions[].values[]
```

**Type**

string

```
.spec.storage.storageClassDeviceSets[].placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchFields
```

**Type**

array

```
.spec.storage.storageClassDeviceSets[].placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchFields[]
```

**Type**

object

**Required**

key

operator

Property	Type	Description
key	string	
operator	string	

Property	Type	Description
values	array	

**.spec.storage.storageClassDeviceSets[].placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchFields[].values**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchFields[].values[]**

Type

string

**.spec.storage.storageClassDeviceSets[].placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution**

Type

object

Required

nodeSelectorTerms

Property	Type	Description
nodeSelectorTerms	array	

**.spec.storage.storageClassDeviceSets[].placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[]**

Type

object

Property	Type	Description
matchExpressions	array	
matchFields	array	

**.spec.storage.storageClassDeviceSets[].placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchExpressions**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchExpressions[]**

**Type**

object

**Required**

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.storage.storageClassDeviceSets[].placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchExpressions[].values**

**Type**

array

**.spec.storage.storageClassDeviceSets[].placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchExpressions[].values[]**

**Type**

string

**.spec.storage.storageClassDeviceSets[].placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchFields**

**Type**

array

**.spec.storage.storageClassDeviceSets[].placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchFields[]**

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.storage.storageClassDeviceSets[].placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchFields[].values**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchFields[].values[]**

Type

string

## `.spec.storage.storageClassDeviceSets[].placement.podAffinity`

### Type

object

Property	Type	Description
<code>preferredDuringSchedulingIgnoredDuringExecution</code>	array	
<code>requiredDuringSchedulingIgnoredDuringExecution</code>	array	

## `.spec.storage.storageClassDeviceSets[].placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution`

### Type

array

## `.spec.storage.storageClassDeviceSets[].placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[]`

### Type

object

### Required

`podAffinityTerm`

`weight`

Property	Type	Description
<code>podAffinityTerm</code>	object	
<code>weight</code>	integer	

## `.spec.storage.storageClassDeviceSets[].placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm`

### Type

object

### Required

topologyKey

Property	Type	Description
labelSelector	object	
matchLabelKeys	array	
mismatchLabelKeys	array	
namespaceSelector	object	
namespaces	array	
topologyKey	string	

## `.spec.storage.storageClassDeviceSets[].placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector`

### Type

object

Property	Type	Description
matchExpressions	array	

Property	Type	Description
matchLabels	object	

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions[]**

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions[].values**

## Type

array

```
.spec.storage.storageClassDeviceSets[].placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions[].values[]
```

## Type

string

```
.spec.storage.storageClassDeviceSets[].placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchLabels
```

## Type

object

```
.spec.storage.storageClassDeviceSets[].placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.matchLabelKeys
```

## Type

array

```
.spec.storage.storageClassDeviceSets[].placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.matchLabelKeys[]
```

## Type

string

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.mismatchLabelKeys**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.mismatchLabelKeys[]**

Type

string

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector**

Type

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[]**

## `.podAffinityTerm.namespaceSelector.matchExpressions`

Type

array

`.spec.storage.storageClassDeviceSets[].placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchExpressions[]`

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

`.spec.storage.storageClassDeviceSets[].placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchExpressions[].values`

Type

array

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchExpressions[].values[]**

Type

string

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchLabels**

Type

object

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaces**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaces[]**

Type

string

## `.spec.storage.storageClassDeviceSets[].placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution`

Type

array

## `.spec.storage.storageClassDeviceSets[].placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[]`

Type

object

Required

topologyKey

Property	Type	Description
labelSelector	object	
matchLabelKeys	array	
mismatchLabelKeys	array	
namespaceSelector	object	
namespaces	array	
topologyKey	string	

## `.spec.storage.storageClassDeviceSets[].placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector`

Type

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions[]**

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions[].values**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions[].values[]**

Type

string

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchLabels**

Type

object

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].matchLabelKeys**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].matchLabelKeys[]**

Type

string

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].mismatchLabelKeys**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].mismatchLabelKeys[]**

Type

string

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector**

Type

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions[]**

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[]**

## namespaceSelector.matchExpressions[].values

Type

array

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions[].values[]**

Type

string

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchLabels**

Type

object

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaces**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaces[]**

**Type**

string

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity****Type**

object

Property	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	array	
requiredDuringSchedulingIgnoredDuringExecution	array	

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution****Type**

array

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[]****Type**

object

**Required**

podAffinityTerm

weight

Property	Type	Description
podAffinityTerm	object	
weight	integer	

## `.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm`

### Type

object

### Required

topologyKey

Property	Type	Description
labelSelector	object	
matchLabelKeys	array	
mismatchLabelKeys	array	
namespaceSelector	object	
namespaces	array	
topologyKey	string	

## `.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector`

### Type

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions[]**

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions[].values**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions[].values[]**

Type

string

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchLabels**

Type

object

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.matchLabelKeys**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.matchLabelKeys[]**

Type

string

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.mismatchLabelKeys**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.mismatchLabelKeys[]**

Type

string

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector**

Type

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchExpressions**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchExpressions[]**

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchExpressions[].values**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchExpressions[].values[]**

Type

string

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchLabels**

Type

object

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaces**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaces[]**

Type

string

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[]**

Type

object

Required

topologyKey

Property	Type	Description
labelSelector	object	
matchLabelKeys	array	
mismatchLabelKeys	array	
namespaceSelector	object	

Property	Type	Description
namespaces	array	
topologyKey	string	

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector**

Type

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions[]**

Type

object

**Required**

key operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions[].values**

**Type**

array

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions[].values[]**

**Type**

string

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchLabels**

**Type**

object

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].matchLabelKeys**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].matchLabelKeys[]**

Type

string

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].mismatchLabelKeys**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].mismatchLabelKeys[]**

Type

string

## `.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector`

Type

object

Property	Type	Description
<code>matchExpressions</code>	array	
<code>matchLabels</code>	object	

## `.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions`

Type

array

## `.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions[]`

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions[].values**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions[].values[]**

Type

string

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchLabels**

Type

object

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecuti**

## on[].namespaces

Type

array

**.spec.storage.storageClassDeviceSets[].placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution.namespaces[]**

Type

string

**.spec.storage.storageClassDeviceSets[].placement.tolerations**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.tolerations[]**

Type

object

Property	Type	Description
effect	string	
key	string	
operator	string	
tolerationSeconds	integer	

Property	Type	Description
value	string	

## `.spec.storage.storageClassDeviceSets[].placement.topologySpreadConstraints`

### Type

array

## `.spec.storage.storageClassDeviceSets[].placement.topologySpreadConstraints[]`

### Type

object

### Required

maxSkew

topologyKey

whenUnsatisfiable

Property	Type	Description
labelSelector	object	
matchLabelKeys	array	
maxSkew	integer	
minDomains	integer	
nodeAffinityPolicy	string	
nodeTaintsPolicy	string	
topologyKey	string	
whenUnsatisfiable	string	

## `.spec.storage.storageClassDeviceSets[].placement.topologySpreadConstraints[].labelSelector`

### Type

object

Property	Type	Description
<code>matchExpressions</code>	array	
<code>matchLabels</code>	object	

## `.spec.storage.storageClassDeviceSets[].placement.topologySpreadConstraints[].labelSelector.matchExpressions`

### Type

array

## `.spec.storage.storageClassDeviceSets[].placement.topologySpreadConstraints[].labelSelector.matchExpressions[]`

### Type

object

### Required

key operator

Property	Type	Description
<code>key</code>	string	
<code>operator</code>	string	
<code>values</code>	array	

**.spec.storage.storageClassDeviceSets[].placement.topologySpreadConstraints[].labelSelector.matchExpressions[].values**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.topologySpreadConstraints[].labelSelector.matchExpressions[].values[]**

Type

string

**.spec.storage.storageClassDeviceSets[].placement.topologySpreadConstraints[].labelSelector.matchLabels**

Type

object

**.spec.storage.storageClassDeviceSets[].placement.topologySpreadConstraints[].matchLabelKeys**

Type

array

**.spec.storage.storageClassDeviceSets[].placement.topologySpreadConstraints[].matchLabelKeys[]**

Type

string

## .spec.storage.storageClassDeviceSets[].preparePlacement

### Type

object

Property	Type	Description
nodeAffinity	object	
podAffinity	object	
podAntiAffinity	object	
tolerations	array	
topologySpreadConstraints	array	

## .spec.storage.storageClassDeviceSets[].preparePlacement.nodeAffinity

### Type

object

Property	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	array	
requiredDuringSchedulingIgnoredDuringExecution	object	

## .spec.storage.storageClassDeviceSets[].preparePlacement.nodeAffinity.preferredDuringSchedulingIgnoredDuringEx

## ecution

### Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[]**

### Type

object

### Required

preference

weight

Property	Type	Description
preference	object	
weight	integer	

**.spec.storage.storageClassDeviceSets[].preparePlacement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference**

### Type

object

Property	Type	Description
matchExpressions	array	
matchFields	array	

**.spec.storage.storageClassDeviceSets[].preparePlacement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchExpressions**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchExpressions[]**

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.storage.storageClassDeviceSets[].preparePlacement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchExpressions[].values**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchExpressions[].values[]**

Type

string

**.spec.storage.storageClassDeviceSets[].preparePlacement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchFields**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchFields[]**

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.storage.storageClassDeviceSets[].preparePlacement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchFields[].values**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchFields[].values[]**

Type

string

**.spec.storage.storageClassDeviceSets[].preparePlacement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution**

Type

object

Required

nodeSelectorTerms

Property	Type	Description
nodeSelectorTerms	array	

**.spec.storage.storageClassDeviceSets[].preparePlacement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms**

**Type**

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[]**

**Type**

object

Property	Type	Description
matchExpressions	array	
matchFields	array	

**.spec.storage.storageClassDeviceSets[].preparePlacement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchExpressions**

**Type**

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchExpressions[]**

**Type**

object

**Required**

key operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.storage.storageClassDeviceSets[].preparePlacement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchExpressions[].values**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchExpressions[].values[]**

Type

string

**.spec.storage.storageClassDeviceSets[].preparePlacement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchFields**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.nodeAffinity.requiredDuringSchedulingIgnoredDuringEx**

## execution.nodeSelectorTerms[].matchFields[]

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.storage.storageClassDeviceSets[].preparePlacement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchFields[].values**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchFields[].values[]**

Type

string

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity**

**Type**

object

Property	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	array	
requiredDuringSchedulingIgnoredDuringExecution	array	

**.spec.storage.storageClassDeviceSets[].preparePlacementPodAffinity.preferredDuringSchedulingIgnoredDuringExecution**

**Type**

array

**.spec.storage.storageClassDeviceSets[].preparePlacementPodAffinity.preferredDuringSchedulingIgnoredDuringExecution[]**

**Type**

object

**Required**

podAffinityTerm

weight

Property	Type	Description
podAffinityTerm	object	
weight	integer	

## `.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm`

### Type

object

### Required

topologyKey

Property	Type	Description
labelSelector	object	
matchLabelKeys	array	
mismatchLabelKeys	array	
namespaceSelector	object	
namespaces	array	
topologyKey	string	

## `.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector`

### Type

object

Property	Type	Description
matchExpressions	array	

Property	Type	Description
matchLabels	object	

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions[ ]**

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution**

**cution[].podAffinityTerm.labelSelector.matchExpressions[  
].values**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacemen  
t.podAffinity.preferredDuringSchedulingIgnoredDuringExe  
cution[].podAffinityTerm.labelSelector.matchExpressions[  
].values[]**

Type

string

**.spec.storage.storageClassDeviceSets[].preparePlacemen  
t.podAffinity.preferredDuringSchedulingIgnoredDuringExe  
cution[].podAffinityTerm.labelSelector.matchLabels**

Type

object

**.spec.storage.storageClassDeviceSets[].preparePlacemen  
t.podAffinity.preferredDuringSchedulingIgnoredDuringExe  
cution[].podAffinityTerm.matchLabelKeys**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacemen  
t.podAffinity.preferredDuringSchedulingIgnoredDuringExe**

## cution[].podAffinityTerm.matchLabelKeys[]

Type

string

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.mismatchLabelKeys**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.mismatchLabelKeys[]**

Type

string

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector**

Type

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchExpressions**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchExpressions[]**

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchExpressions[].values**

## Type

array

```
.spec.storage.storageClassDeviceSets[].preparePlacement.  
podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchExpressions[].values[]
```

## Type

string

```
.spec.storage.storageClassDeviceSets[].preparePlacement.  
podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchLabels
```

## Type

object

```
.spec.storage.storageClassDeviceSets[].preparePlacement.  
podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaces
```

## Type

array

```
.spec.storage.storageClassDeviceSets[].preparePlacement.  
podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaces[]
```

## Type

string

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[]**

Type

object

Required

topologyKey

Property	Type	Description
labelSelector	object	
matchLabelKeys	array	
mismatchLabelKeys	array	
namespaceSelector	object	
namespaces	array	
topologyKey	string	

## `.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector`

Type

object

Property	Type	Description
<code>matchExpressions</code>	array	
<code>matchLabels</code>	object	

## `.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions`

Type

array

## `.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions[]`

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions[].values**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions[].values[]**

Type

string

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchLabels**

Type

object

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.requiredDuringSchedulingIgnoredDuringExe**

## `cution[].matchLabelKeys`

Type

array

`.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].matchLabelKeys[]`

Type

string

`.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].mismatchLabelKeys`

Type

array

`.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].mismatchLabelKeys[]`

Type

string

`.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector`

**Type**

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions**

**Type**

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions[]**

**Type**

object

**Required**

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions[].values**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions[].values[]**

Type

string

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchLabels**

Type

object

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaces**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaces[]**

Type

string

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity**

Type

object

Property	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	array	
requiredDuringSchedulingIgnoredDuringExecution	array	

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[]**

Type

object

**Required**

podAffinityTerm

weight

Property	Type	Description
podAffinityTerm	object	
weight	integer	

## **.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm**

**Type**

object

**Required**

topologyKey

Property	Type	Description
labelSelector	object	
matchLabelKeys	array	
mismatchLabelKeys	array	
namespaceSelector	object	
namespaces	array	
topologyKey	string	

## `.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector`

Type

object

Property	Type	Description
<code>matchExpressions</code>	array	
<code>matchLabels</code>	object	

## `.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions`

Type

array

## `.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions[]`

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions[].values**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions[].values[]**

Type

string

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchLabels**

Type

object

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.matchLabelKeys**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.matchLabelKeys[]**

Type

string

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.mismatchLabelKeys**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.mismatchLabelKeys[]**

Type

string

## `.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector`

Type

object

Property	Type	Description
<code>matchExpressions</code>	array	
<code>matchLabels</code>	object	

## `.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchExpressions`

Type

array

## `.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchExpressions[]`

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchExpressions[].values**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchExpressions[].values[]**

Type

string

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchLabels**

Type

object

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaces**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaces[]**

Type

string

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[]**

Type

object

Required

topologyKey

Property	Type	Description
labelSelector	object	
matchLabelKeys	array	
mismatchLabelKeys	array	
namespaceSelector	object	
namespaces	array	
topologyKey	string	

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector**

Type

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions**

Type

array

## `.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions[]`

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

## `.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions[].values`

Type

array

## `.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions[].values[]`

Type

string

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchLabels**

Type

object

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].matchLabelKeys**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].matchLabelKeys[]**

Type

string

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].mismatchLabelKeys**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].mismatchLabelKeys[]**

Type

string

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector**

Type

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions[]**

**Type**

object

**Required**

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions[].values**

**Type**

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions[].values[]**

**Type**

string

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.requiredDuringSchedulingIgnoredDuring**

## Execution[].namespaceSelector.matchLabels

Type

object

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaces**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaces[]**

Type

string

**.spec.storage.storageClassDeviceSets[].preparePlacement.tolerations**

Type

array

**.spec.storage.storageClassDeviceSets[].preparePlacement.tolerations[]**

Type

object

Property	Type	Description
effect	string	
key	string	
operator	string	
tolerationSeconds	integer	
value	string	

## **.spec.storage.storageClassDeviceSets[].preparePlacement.topologySpreadConstraints**

Type

array

## **.spec.storage.storageClassDeviceSets[].preparePlacement.topologySpreadConstraints[]**

Type

object

Required

maxSkew

topologyKey

whenUnsatisfiable

Property	Type	Description
labelSelector	object	
matchLabelKeys	array	
maxSkew	integer	
minDomains	integer	

Property	Type	Description
nodeAffinityPolicy	string	
nodeTaintsPolicy	string	
topologyKey	string	
whenUnsatisfiable	string	

## **.spec.storage.storageClassDeviceSets[].preparePlacement.topologySpreadConstraints[].labelSelector**

Type

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

## **.spec.storage.storageClassDeviceSets[].preparePlacement.topologySpreadConstraints[].labelSelector.matchExpressions**

Type

array

## **.spec.storage.storageClassDeviceSets[].preparePlacement.topologySpreadConstraints[].labelSelector.matchExpressions[]**

**Type**

object

**Required**

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.storage.storageClassDeviceSets[].preparePlacem  
t.topologySpreadConstraints[].labelSelector.matchExpres  
sions[].values**

**Type**

array

**.spec.storage.storageClassDeviceSets[].preparePlacem  
t.topologySpreadConstraints[].labelSelector.matchExpres  
sions[].values[]**

**Type**

string

**.spec.storage.storageClassDeviceSets[].preparePlacem  
t.topologySpreadConstraints[].labelSelector.matchLabels**

**Type**

object

## `.spec.storage.storageClassDeviceSets[].preparePlacement.topologySpreadConstraints[].matchLabelKeys`

Type

array

## `.spec.storage.storageClassDeviceSets[].preparePlacement.topologySpreadConstraints[].matchLabelKeys[]`

Type

string

## `.spec.storage.storageClassDeviceSets[].resources`

Description

ResourceRequirements describes the compute resource requirements.

Type

object

Property	Type	Description
<code>claims</code>	array	<p>Claims lists the names of resources, defined in <code>spec.resourceClaims</code>, that are used by this container.</p> <p>This field depends on the <code>DynamicResourceAllocation</code> feature gate.</p> <p>This field is immutable. It can only be set for containers.</p>
<code>limits</code>	object	<p>Limits describes the maximum amount of compute resources allowed. More info:</p>

Property	Type	Description
		<a href="https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/">https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/</a> ↗
requests	object	<p>Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. Requests cannot exceed Limits.</p> <p>More info:</p> <a href="https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/">https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/</a> ↗

## `.spec.storage.storageClassDeviceSets[].resources.claims`

### Description

Claims lists the names of resources, defined in `spec.resourceClaims`, that are used by this container. This field depends on the `DynamicResourceAllocation` feature gate. This field is immutable. It can only be set for containers.

### Type

array

## `.spec.storage.storageClassDeviceSets[].resources.claims[ ]`

### Description

ResourceClaim references one entry in `PodSpec.ResourceClaims`.

### Type

object

### Required

name

Property	Type	Description
<code>name</code>	<code>string</code>	Name must match the name of one entry in <code>pod.spec.resourceClaims</code> of the Pod where this field is used. It makes that resource available inside a container.
<code>request</code>	<code>string</code>	Request is the name chosen for a request in the referenced claim. If empty, everything from the claim is made available, otherwise only the result of this request.

## `.spec.storage.storageClassDeviceSets[].resources.limits`

### Description

Limits describes the maximum amount of compute resources allowed. More info: <https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/>

### Type

`object`

## `.spec.storage.storageClassDeviceSets[].resources.requests`

### Description

Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. Requests cannot exceed Limits. More info: <https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/>

### Type

`object`

## .spec.storage.storageClassDeviceSets[].volumeClaimTemplates

### Description

VolumeClaimTemplates is a list of PVC templates for the underlying storage devices

### Type

array

## .spec.storage.storageClassDeviceSets[].volumeClaimTemplates[]

### Description

VolumeClaimTemplate is a simplified version of K8s corev1's PVC. It has no type meta or status.

### Type

object

Property	Type	Description
metadata	ObjectMeta	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	object	spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

# .spec.storage.storageClassDeviceSets[].volumeClaimTemplates[].spec

## Description

spec defines the desired characteristics of a volume requested by a pod author. More info: <https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims>

## Type

object

Property	Type	Description
accessModes	array	accessModes contains the desired access modes volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
dataSource	object	dataSource field can be used to specify either: <ul style="list-style-type: none"> <li>An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot)</li> <li>An existing PVC (PersistentVolumeClaim) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. When the AnyVolumeDataSource feature gate is enabled, dataSource contents will be copied to dataSourceRef, and dataSourceRef contents will be copied to dataSource when dataSourceRef.namespace is not specified. If the namespace is specified, then dataSourceRef will not be copied to dataSource.</li> </ul>

Property	Type	Description
dataSourceRef	object	<p>dataSourceRef specifies the object from which to populate the volume with data, if a non-empty volume is desired. This may be any object from a non-empty API group (non core object) or a PersistentVolumeClaim object. When this field is specified, volume binding will only succeed if the type of the specified object matches some installed volume populator or dynamic provisioner. This field will require the functionality of the dataSource field and as such both fields are non-empty, they must have the same value. For backwards compatibility, when namespace isn't specified in dataSourceRef, both fields (dataSource and dataSourceRef) will be set to the same value automatically if one of them is empty and the other is non-empty. When namespace is specified in dataSourceRef, dataSource isn't set to the same value and must be empty. There are three important differences between dataSource and dataSourceRef</p> <ul style="list-style-type: none"> <li>• While dataSource only allows two specific type objects, dataSourceRef allows any non-core object as well as PersistentVolumeClaim objects.</li> <li>• While dataSource ignores disallowed values (dropping them), dataSourceRef preserves all values, and generates an error if a disallowed value is specified.</li> <li>• While dataSource only allows local objects, dataSourceRef allows objects in any namespace (Beta) Using this field requires the AnyVolumeDataSource feature gate to be enabled (Alpha) Using the namespace field of dataSourceRef requires the CrossNamespaceVolumeDataSource feature gate to be enabled.</li> </ul>

Property	Type	Description
<code>resources</code>	<code>object</code>	<p>resources represents the minimum resources the volume should have. Users are allowed to specify resource requirements that are lower than previous value but must still be higher than capacity recorded in the status field of the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistentvolumes#resources">https://kubernetes.io/docs/concepts/storage/persistentvolumes#resources</a></p>
<code>selector</code>	<code>object</code>	<p>selector is a label query over volumes to consider for binding.</p>
<code>storageClassName</code>	<code>string</code>	<p>storageClassName is the name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistentvolumes#class-1">https://kubernetes.io/docs/concepts/storage/persistentvolumes#class-1</a></p>
<code>volumeAttributesClassName</code>	<code>string</code>	<p>volumeAttributesClassName may be used to set the VolumeAttributesClass used by this claim. If specified, the CSI driver will create or update the volume with the attributes defined in the corresponding VolumeAttributesClass. This has a different purpose than storageClassName, it can be changed after the claim is created. An empty string or nil value indicates that no VolumeAttributesClass will be applied to the claim. If the claim enters an Infeasible error state, the field can be reset to its previous value (including nil) to cancel the modification. If the resource referred to by volumeAttributesClassName does not exist, this PersistentVolumeClaim will be set to a Pending state.</p>

Property	Type	Description
		as reflected by the modifyVolumeStatus field, until such as a resource exists. More info: <a href="https://kubernetes.io/docs/concepts/storage/volume-attributes-classes/">https://kubernetes.io/docs/concepts/storage/volume-attributes-classes/</a>
volumeMode	string	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	string	volumeName is the binding reference to the PersistentVolume backing this claim.

## `.spec.storage.storageClassDeviceSets[].volumeClaimTemplates[].spec.accessModes`

### Description

accessModes contains the desired access modes the volume should have. More info: <https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1>

### Type

array

## `.spec.storage.storageClassDeviceSets[].volumeClaimTemplates[].spec.accessModes[]`

### Type

string

## .spec.storage.storageClassDeviceSets[].volumeClaimTemplates[].spec.dataSource

### Description

dataSource field can be used to specify either: \* An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot) \* An existing PVC (PersistentVolumeClaim) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. When the AnyVolumeDataSource feature gate is enabled, dataSource contents will be copied to dataSourceRef, and dataSourceRef contents will be copied to dataSource when dataSourceRef.namespace is not specified. If the namespace is specified, then dataSourceRef will not be copied to dataSource.

### Type

object

### Required

kind

name

Property	Type	Description
apiGroup	string	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	string	Kind is the type of resource being referenced
name	string	Name is the name of resource being referenced

## .spec.storage.storageClassDeviceSets[].volumeClaimTemplates[].spec.dataSourceRef

## Description

`dataSourceRef` specifies the object from which to populate the volume with data, if a non-empty volume is desired. This may be any object from a non-empty API group (non core object) or a `PersistentVolumeClaim` object. When this field is specified, volume binding will only succeed if the type of the specified object matches some installed volume populator or dynamic provisioner. This field will replace the functionality of the `dataSource` field and as such if both fields are non-empty, they must have the same value. For backwards compatibility, when namespace isn't specified in `dataSourceRef`, both fields (`dataSource` and `dataSourceRef`) will be set to the same value automatically if one of them is empty and the other is non-empty. When namespace is specified in `dataSourceRef`, `dataSource` isn't set to the same value and must be empty. There are three important differences between `dataSource` and `dataSourceRef`:

- \* While `dataSource` only allows two specific types of objects, `dataSourceRef` allows any non-core object, as well as `PersistentVolumeClaim` objects.
- \* While `dataSource` ignores disallowed values (dropping them), `dataSourceRef` preserves all values, and generates an error if a disallowed value is specified.
- \* While `dataSource` only allows local objects, `dataSourceRef` allows objects in any namespaces.

(Beta) Using this field requires the `AnyVolumeDataSource` feature gate to be enabled.  
 (Alpha) Using the namespace field of `dataSourceRef` requires the `CrossNamespaceVolumeDataSource` feature gate to be enabled.

## Type

object

## Required

kind

name

Property	Type	Description
<code>apiGroup</code>	<code>string</code>	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
<code>kind</code>	<code>string</code>	Kind is the type of resource being referenced

Property	Type	Description
name	string	Name is the name of resource being referenced
namespace	string	<p>Namespace is the namespace of resource being referenced</p> <p>Note that when a namespace is specified, a gateway.networking.k8s.io/ReferenceGrant object is required in the referent namespace to allow that namespace's owner to accept the reference. See the ReferenceGrant documentation for details. (Alpha) This field requires the CrossNamespaceVolumeDataSource feature gate to be enabled.</p>

## .spec.storage.storageClassDeviceSets[].volumeClaimTemplates[].spec.resources

### Description

resources represents the minimum resources the volume should have. Users are allowed to specify resource requirements that are lower than previous value but must still be higher than capacity recorded in the status field of the claim. More info:

<https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources>

### Type

object

Property	Type	Description
limits	object	<p>Limits describes the maximum amount of compute resources allowed. More info:</p> <p><a href="https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/">https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/</a></p>

Property	Type	Description
requests	object	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. Requests cannot exceed Limits. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/">https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/</a>

## `.spec.storage.storageClassDeviceSets[].volumeClaimTemplates[].spec.resources.limits`

### Description

Limits describes the maximum amount of compute resources allowed. More info: <https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/>

### Type

object

## `.spec.storage.storageClassDeviceSets[].volumeClaimTemplates[].spec.resources.requests`

### Description

Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. Requests cannot exceed Limits. More info: <https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/>

### Type

object

## `.spec.storage.storageClassDeviceSets[].volumeClaimTemplates[].spec.selector`

### Description

selector is a label query over volumes to consider for binding.

### Type

object

Property	Type	Description
<code>matchExpressions</code>	array	matchExpressions is a list of label selector requirements. The requirements are ANDed.
<code>matchLabels</code>	object	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

## `.spec.storage.storageClassDeviceSets[].volumeClaimTemplates[].spec.selector.matchExpressions`

### Description

matchExpressions is a list of label selector requirements. The requirements are ANDed.

### Type

array

## `.spec.storage.storageClassDeviceSets[].volumeClaimTemplates[].spec.selector.matchExpressions[]`

## Description

A label selector requirement is a selector that contains values, a key, and an operator that relates the key and values.

## Type

object

## Required

key

operator

Property	Type	Description
key	string	key is the label key that the selector applies to.
operator	string	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	array	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

## `.spec.storage.storageClassDeviceSets[].volumeClaimTemplates[].spec.selector.matchExpressions[].values`

## Description

values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

## Type

array

## `.spec.storage.storageClassDeviceSets[].volumeClaimTemplates[].spec.selector.matchExpressions[].values[]`

### Type

string

## `.spec.storage.storageClassDeviceSets[].volumeClaimTemplates[].spec.selector.matchLabels`

### Description

matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

### Type

object

## `.spec.storage.store`

### Description

OSDStore is the backend storage type used for creating the OSDs

### Type

object

Property	Type	Description
<code>type</code>	string	Type of backend storage to be used while creating OSDs. If empty, then bluestore will be used

Property	Type	Description
updateStore	string	UpdateStore updates the backend store for existing OSDs. It destroys each OSD one at a time, cleans up the backing disk and prepares same OSD on that disk

## .spec.storage.volumeClaimTemplates

### Description

PersistentVolumeClaims to use as storage

### Type

array

## .spec.storage.volumeClaimTemplates[]

### Description

VolumeClaimTemplate is a simplified version of K8s corev1's PVC. It has no type meta or status.

### Type

object

Property	Type	Description
metadata	ObjectMeta	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	object	spec defines the desired characteristics of a volume requested by a pod author. More info:

Property	Type	Description
		<a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a> ↗

## .spec.storage.volumeClaimTemplates[].spec

### Description

spec defines the desired characteristics of a volume requested by a pod author. More info: <https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims>

### Type

object

Property	Type	Description
<code>accessModes</code>	array	accessModes contains the desired access modes volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a> ↗
<code>dataSource</code>	object	dataSource field can be used to specify either: <ul style="list-style-type: none"> <li>An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot)</li> <li>An existing PVC (PersistentVolumeClaim) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. When the AnyVolumeDataSource feature gate is enabled, dataSource contents will be copied to dataSourceRef, and dataSourceRef contents will be copied to dataSource when dataSourceRef.namespace is not specified. If t</li> </ul>

Property	Type	Description
		<p>namespace is specified, then dataSourceRef will not be copied to dataSource.</p>
<p>dataSourceRef</p>	<p>object</p>	<p>dataSourceRef specifies the object from which to populate the volume with data, if a non-empty volume is desired. This may be any object from a non-empty API group (non core object) or a PersistentVolumeClaim object. When this field is specified, volume binding will only succeed if the type of the specified object matches some installed volume populator or dynamic provisioner. This field will require the functionality of the dataSource field and as such both fields are non-empty, they must have the same value. For backwards compatibility, when namespace isn't specified in dataSourceRef, both fields (dataSource and dataSourceRef) will be set to the same value automatically if one of them is empty and the other is non-empty. When namespace is specified in dataSourceRef, dataSource isn't set to the same value and must be empty. There are three important differences between dataSource and dataSourceRef:</p> <ul style="list-style-type: none"> <li>• While dataSource only allows two specific types of objects, dataSourceRef allows any non-core object as well as PersistentVolumeClaim objects.</li> <li>• While dataSource ignores disallowed values (dropping them), dataSourceRef preserves all values, and generates an error if a disallowed value is specified.</li> <li>• While dataSource only allows local objects, dataSourceRef allows objects in any namespace (Beta) Using this field requires the AnyVolumeDataSource feature gate to be enabled (Alpha) Using the namespace field of</li> </ul>

Property	Type	Description
		dataSourceRef requires the CrossNamespaceVolumeDataSource feature to be enabled.
resources	object	resources represents the minimum resources the volume should have. Users are allowed to specify resource requirements that are lower than previous value but must still be higher than capacity recorded in the status field of the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	object	selector is a label query over volumes to consider for binding.
storageClassName	string	storageClassName is the name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeAttributesClassName	string	volumeAttributesClassName may be used to set the VolumeAttributesClass used by this claim. If specified, the CSI driver will create or update the volume with attributes defined in the corresponding VolumeAttributesClass. This has a different purpose than storageClassName, it can be changed after the claim is created. An empty string or nil value indicates that no VolumeAttributesClass will be applied to the claim. If the claim enters an Infeasible error state, the field can be reset to its previous value (including nil).

Property	Type	Description
		cancel the modification. If the resource referred to volumeAttributesClass does not exist, this PersistentVolumeClaim will be set to a Pending state as reflected by the modifyVolumeStatus field, until such as a resource exists. More info: <a href="https://kubernetes.io/docs/concepts/storage/volume-attributes-classes/">https://kubernetes.io/docs/concepts/storage/volume-attributes-classes/</a>
volumeMode	string	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	string	volumeName is the binding reference to the PersistentVolume backing this claim.

## `.spec.storage.volumeClaimTemplates[].spec.accessModes`

### Description

accessModes contains the desired access modes the volume should have. More info: <https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1>

### Type

array

## `.spec.storage.volumeClaimTemplates[].spec.accessModes[]`

### Type

string

## .spec.storage.volumeClaimTemplates[].spec.dataSource

### Description

dataSource field can be used to specify either: \* An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot) \* An existing PVC (PersistentVolumeClaim) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. When the AnyVolumeDataSource feature gate is enabled, dataSource contents will be copied to dataSourceRef, and dataSourceRef contents will be copied to dataSource when dataSourceRef.namespace is not specified. If the namespace is specified, then dataSourceRef will not be copied to dataSource.

### Type

object

### Required

kind

name

Property	Type	Description
apiGroup	string	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	string	Kind is the type of resource being referenced
name	string	Name is the name of resource being referenced

## .spec.storage.volumeClaimTemplates[].spec.dataSourceRef

## Description

`dataSourceRef` specifies the object from which to populate the volume with data, if a non-empty volume is desired. This may be any object from a non-empty API group (non core object) or a `PersistentVolumeClaim` object. When this field is specified, volume binding will only succeed if the type of the specified object matches some installed volume populator or dynamic provisioner. This field will replace the functionality of the `dataSource` field and as such if both fields are non-empty, they must have the same value. For backwards compatibility, when namespace isn't specified in `dataSourceRef`, both fields (`dataSource` and `dataSourceRef`) will be set to the same value automatically if one of them is empty and the other is non-empty. When namespace is specified in `dataSourceRef`, `dataSource` isn't set to the same value and must be empty. There are three important differences between `dataSource` and `dataSourceRef`:

- \* While `dataSource` only allows two specific types of objects, `dataSourceRef` allows any non-core object, as well as `PersistentVolumeClaim` objects.
- \* While `dataSource` ignores disallowed values (dropping them), `dataSourceRef` preserves all values, and generates an error if a disallowed value is specified.
- \* While `dataSource` only allows local objects, `dataSourceRef` allows objects in any namespaces.

(Beta) Using this field requires the `AnyVolumeDataSource` feature gate to be enabled.  
 (Alpha) Using the namespace field of `dataSourceRef` requires the `CrossNamespaceVolumeDataSource` feature gate to be enabled.

## Type

object

## Required

kind

name

Property	Type	Description
<code>apiGroup</code>	<code>string</code>	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
<code>kind</code>	<code>string</code>	Kind is the type of resource being referenced

Property	Type	Description
name	string	Name is the name of resource being referenced
namespace	string	<p>Namespace is the namespace of resource being referenced</p> <p>Note that when a namespace is specified, a gateway.networking.k8s.io/ReferenceGrant object is required in the referent namespace to allow that namespace's owner to accept the reference. See the ReferenceGrant documentation for details. (Alpha) This field requires the CrossNamespaceVolumeDataSource feature gate to be enabled.</p>

## .spec.storage.volumeClaimTemplates[].spec.resources

### Description

resources represents the minimum resources the volume should have. Users are allowed to specify resource requirements that are lower than previous value but must still be higher than capacity recorded in the status field of the claim. More info:

<https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources>

### Type

object

Property	Type	Description
limits	object	<p>Limits describes the maximum amount of compute resources allowed. More info:</p> <p><a href="https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/">https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/</a></p>

Property	Type	Description
requests	object	<p>Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. Requests cannot exceed Limits.</p> <p>More info:  <a href="https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/">https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/</a></p>

## `.spec.storage.volumeClaimTemplates[].spec.resources.limits`

### Description

Limits describes the maximum amount of compute resources allowed. More info:  
<https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/>

### Type

object

## `.spec.storage.volumeClaimTemplates[].spec.resources.requests`

### Description

Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. Requests cannot exceed Limits. More info:  
<https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/>

### Type

object

## `.spec.storage.volumeClaimTemplates[].spec.selector`

## Description

selector is a label query over volumes to consider for binding.

## Type

object

Property	Type	Description
matchExpressions	array	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	object	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

## `.spec.storage.volumeClaimTemplates[].spec.selector.matchExpressions`

### Description

matchExpressions is a list of label selector requirements. The requirements are ANDed.

### Type

array

## `.spec.storage.volumeClaimTemplates[].spec.selector.matchExpressions[]`

### Description

A label selector requirement is a selector that contains values, a key, and an operator that relates the key and values.

**Type**

object

**Required**

key

operator

Property	Type	Description
key	string	key is the label key that the selector applies to.
operator	string	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	array	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**`.spec.storage.volumeClaimTemplates[].spec.selector.matchExpressions[].values`****Description**

values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Type**

array

**`.spec.storage.volumeClaimTemplates[].spec.selector.matchExpressions[].values[]`**

## Type

string

# .spec.storage.volumeClaimTemplates[].spec.selector.matchLabels

## Description

matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

## Type

object

# .status

## Description

ClusterStatus represents the status of a Ceph cluster

## Type

object

Property	Type	Description
ceph	object	CephStatus is the details health of a Ceph Cluster
cephx	object	ClusterCephxStatus defines the cephx key rotation status of various daemons on the cephCluster resource
conditions	array	
message	string	

Property	Type	Description
<code>observedGeneration</code>	<code>integer</code>	ObservedGeneration is the latest generation observed by the controller.
<code>phase</code>	<code>string</code>	ConditionType represent a resource's status
<code>state</code>	<code>string</code>	ClusterState represents the state of a Ceph Cluster
<code>storage</code>	<code>object</code>	CephStorage represents flavors of Ceph Cluster Storage
<code>version</code>	<code>object</code>	ClusterVersion represents the version of a Ceph Cluster

## .status.ceph

### Description

CephStatus is the details health of a Ceph Cluster

### Type

`object`

Property	Type	Description
<code>capacity</code>	<code>object</code>	Capacity is the capacity information of a Ceph Cluster
<code>details</code>	<code>object</code>	

Property	Type	Description
<code>fsid</code>	<code>string</code>	
<code>health</code>	<code>string</code>	
<code>lastChanged</code>	<code>string</code>	
<code>lastChecked</code>	<code>string</code>	
<code>previousHealth</code>	<code>string</code>	
<code>versions</code>	<code>object</code>	CephDaemonsVersions show the current ceph version for different ceph daemons

## **.status.ceph.capacity**

### **Description**

Capacity is the capacity information of a Ceph Cluster

### **Type**

`object`

Property	Type	Description
<code>bytesAvailable</code>	<code>integer</code>	
<code>bytesTotal</code>	<code>integer</code>	
<code>bytesUsed</code>	<code>integer</code>	
<code>lastUpdated</code>	<code>string</code>	

## **.status.ceph.details**

### **Type**

object

## .status.ceph.versions

### Description

CephDaemonsVersions show the current ceph version for different ceph daemons

### Type

object

Property	Type	Description
<code>cephfs-mirror</code>	object	CephFSMirror shows CephFSMirror Ceph version
<code>mds</code>	object	Mds shows Mds Ceph version
<code>mgr</code>	object	Mgr shows Mgr Ceph version
<code>mon</code>	object	Mon shows Mon Ceph version
<code>osd</code>	object	Osd shows Osd Ceph version
<code>overall</code>	object	Overall shows overall Ceph version
<code>rbd-mirror</code>	object	RbdMirror shows RbdMirror Ceph version

Property	Type	Description
rgw	object	Rgw shows Rgw Ceph version

## **.status.ceph.versions.cephfs-mirror**

### **Description**

CephFSMirror shows CephFSMirror Ceph version

### **Type**

object

## **.status.ceph.versions.mds**

### **Description**

Mds shows Mds Ceph version

### **Type**

object

## **.status.ceph.versions.mgr**

### **Description**

Mgr shows Mgr Ceph version

### **Type**

object

## **.status.ceph.versions.mon**

### **Description**

Mon shows Mon Ceph version

### **Type**

object

## **.status.ceph.versions.osd**

### **Description**

Osd shows Osd Ceph version

### **Type**

object

## **.status.ceph.versions.overall**

### **Description**

Overall shows overall Ceph version

### **Type**

object

## **.status.ceph.versions.rbd-mirror**

### **Description**

RbdMirror shows RbdMirror Ceph version

### **Type**

object

## **.status.ceph.versions.rgw**

### **Description**

Rgw shows Rgw Ceph version

### **Type**

object

## **.status.cephx**

## Description

ClusterCephxStatus defines the cephx key rotation status of various daemons on the cephCluster resource

## Type

object

Property	Type	Description
<code>admin</code>	object	Admin shows the CephX key status for the client.admin key
<code>cephExporter</code>	object	Ceph Exporter represents the cephx key rotation status of the ceph exporter daemon
<code>crashCollector</code>	object	Crash Collector represents the cephx key rotation status of the crash collector daemon
<code>csi</code>	object	CSI shows the CephX key status for Ceph-CSI components.
<code>mgr</code>	object	Mgr represents the cephx key rotation status of the ceph manager daemon
<code>mon</code>	object	Mon represents the CephX key status of the Monitor daemons

Property	Type	Description
<code>osd</code>	<code>object</code>	OSD shows the CephX key status of of OSDs
<code>rbdMirrorPeer</code>	<code>object</code>	RBDMirrorPeer represents the cephx key rotation status of the <code>rbd-mirror-peer</code> user

## .status.cephx.admin

### Description

Admin shows the CephX key status for the client.admin key

### Type

`object`

Property	Type	Description
<code>keyCephVersion</code>	<code>string</code>	KeyCephVersion reports the Ceph version that created the current generation's keys. This is same string format as reported by <code>CephCluster.status.version.version</code> to allow them to be compared. E.g., <code>20.2.0-0</code> . For all newly-created resources, this field set to the version of Ceph that created the key. The special value "Uninitialized" indicates that keys are being created for the first time. An empty string indicates that the version is unknown, as expected in brownfield deployments.
<code>keyGeneration</code>	<code>integer</code>	KeyGeneration represents the CephX key generation for the last successful reconcile. For all newly-created resources, this field is set to <code>1</code> . When keys are rotated

Property	Type	Description
		<p>due to any rotation policy, the generation is incremented or updated to the configured policy generation.</p> <p>Generation <code>0</code> indicates that keys existed prior to the implementation of key tracking.</p>

## .status.cephx.cephExporter

### Description

Ceph Exporter represents the cephx key rotation status of the ceph exporter daemon

### Type

object

Property	Type	Description
<code>keyCephVersion</code>	string	<p>KeyCephVersion reports the Ceph version that created the current generation's keys. This is same string format as reported by <code>CephCluster.status.version.version</code> to allow them to be compared. E.g., <code>20.2.0-0</code>. For all newly-created resources, this field set to the version of Ceph that created the key. The special value "Uninitialized" indicates that keys are being created for the first time. An empty string indicates that the version is unknown, as expected in brownfield deployments.</p>
<code>keyGeneration</code>	integer	<p>KeyGeneration represents the CephX key generation for the last successful reconcile. For all newly-created resources, this field is set to <code>1</code>. When keys are rotated due to any rotation policy, the generation is incremented or updated to the configured policy generation.</p>

Property	Type	Description
		Generation <code>0</code> indicates that keys existed prior to the implementation of key tracking.

## .status.cephx.crashCollector

### Description

Crash Collector represents the cephx key rotation status of the crash collector daemon

### Type

object

Property	Type	Description
<code>keyCephVersion</code>	<code>string</code>	<p>KeyCephVersion reports the Ceph version that created the current generation's keys. This is same string format as reported by <code>CephCluster.status.version.version</code> to allow them to be compared. E.g., <code>20.2.0-0</code>. For all newly-created resources, this field set to the version of Ceph that created the key. The special value "Uninitialized" indicates that keys are being created for the first time. An empty string indicates that the version is unknown, as expected in brownfield deployments.</p>

Property	Type	Description
<code>keyGeneration</code>	<code>integer</code>	<p>KeyGeneration represents the CephX key generation for the last successful reconcile. For all newly-created resources, this field is set to <code>1</code>. When keys are rotated due to any rotation policy, the generation is incremented or updated to the configured policy generation.</p> <p>Generation <code>0</code> indicates that keys existed prior to the implementation of key tracking.</p>

## `.status.cephx.csi`

### Description

CSI shows the CephX key status for Ceph-CSI components.

### Type

`object`

Property	Type	Description
<code>keyCephVersion</code>	<code>string</code>	<p>KeyCephVersion reports the Ceph version that created the current generation's keys. This is same string format as reported by <code>CephCluster.status.version.version</code> to allow them to be compared. E.g., <code>20.2.0-0</code>. For all newly-created resources, this field set to the version of Ceph that created the key. The special value "Uninitialized" indicates that keys are being created for the first time. An empty string indicates that the version is unknown, as expected in brownfield deployments.</p>

Property	Type	Description
<code>keyGeneration</code>	<code>integer</code>	KeyGeneration represents the CephX key generation for the last successful reconcile. For all newly-created resources, this field is set to <code>1</code> . When keys are rotated due to any rotation policy, the generation is incremented or updated to the configured policy generation. Generation <code>0</code> indicates that keys existed prior to the implementation of key tracking.
<code>priorKeyCount</code>	<code>integer</code>	PriorKeyCount reports the number of prior-generation CephX keys that remain active for the related component

## `.status.cephx.mgr`

### Description

Mgr represents the cephx key rotation status of the ceph manager daemon

### Type

`object`

Property	Type	Description
<code>keyCephVersion</code>	<code>string</code>	KeyCephVersion reports the Ceph version that created the current generation's keys. This is same string format as reported by <code>CephCluster.status.version.version</code> to allow them to be compared. E.g., <code>20.2.0-0</code> . For all newly-created resources, this field set to the version of Ceph that created the key. The special value "Uninitialized" indicates that keys are being created for the first time. An

Property	Type	Description
		empty string indicates that the version is unknown, as expected in brownfield deployments.
<code>keyGeneration</code>	<code>integer</code>	<p>KeyGeneration represents the CephX key generation for the last successful reconcile. For all newly-created resources, this field is set to <code>1</code>. When keys are rotated due to any rotation policy, the generation is incremented or updated to the configured policy generation.</p> <p>Generation <code>0</code> indicates that keys existed prior to the implementation of key tracking.</p>

## `.status.cephx.mon`

### Description

Mon represents the CephX key status of the Monitor daemons

### Type

`object`

Property	Type	Description
<code>keyCephVersion</code>	<code>string</code>	<p>KeyCephVersion reports the Ceph version that created the current generation's keys. This is same string format as reported by <code>CephCluster.status.version.version</code> to allow them to be compared. E.g., <code>20.2.0-0</code>. For all newly-created resources, this field set to the version of Ceph that created the key. The special value "Uninitialized" indicates that keys are being created for the first time. An empty string indicates that the version is unknown, as expected in brownfield deployments.</p>
<code>keyGeneration</code>	<code>integer</code>	<p>KeyGeneration represents the CephX key generation for the last successful reconcile. For all newly-created resources, this field is set to <code>1</code>. When keys are rotated due to any rotation policy, the generation is incremented or updated to the configured policy generation. Generation <code>0</code> indicates that keys existed prior to the implementation of key tracking.</p>

## `.status.cephx.osd`

### Description

OSD shows the CephX key status of of OSDs

### Type

`object`

Property	Type	Description
<code>keyCephVersion</code>	<code>string</code>	<p>KeyCephVersion reports the Ceph version that created the current generation's keys. This is same string format as reported by <code>CephCluster.status.version.version</code> to allow them to be compared. E.g., <code>20.2.0-0</code>. For all newly-created resources, this field set to the version of Ceph that created the key. The special value "Uninitialized" indicates that keys are being created for the first time. An empty string indicates that the version is unknown, as expected in brownfield deployments.</p>
<code>keyGeneration</code>	<code>integer</code>	<p>KeyGeneration represents the CephX key generation for the last successful reconcile. For all newly-created resources, this field is set to <code>1</code>. When keys are rotated due to any rotation policy, the generation is incremented or updated to the configured policy generation. Generation <code>0</code> indicates that keys existed prior to the implementation of key tracking.</p>

## `.status.cephx.rbdMirrorPeer`

### Description

RBDMirrorPeer represents the cephx key rotation status of the ``rbd-mirror-peer`` user

### Type

`object`

Property	Type	Description
<code>keyCephVersion</code>	<code>string</code>	<p>KeyCephVersion reports the Ceph version that created the current generation's keys. This is same string format as reported by <code>CephCluster.status.version.version</code> to allow them to be compared. E.g., <code>20.2.0-0</code>. For all newly-created resources, this field set to the version of Ceph that created the key. The special value "Uninitialized" indicates that keys are being created for the first time. An empty string indicates that the version is unknown, as expected in brownfield deployments.</p>
<code>keyGeneration</code>	<code>integer</code>	<p>KeyGeneration represents the CephX key generation for the last successful reconcile. For all newly-created resources, this field is set to <code>1</code>. When keys are rotated due to any rotation policy, the generation is incremented or updated to the configured policy generation. Generation <code>0</code> indicates that keys existed prior to the implementation of key tracking.</p>

## `.status.conditions`

### Type

`array`

## `.status.conditions[]`

### Description

Condition represents a status condition on any Rook-Ceph Custom Resource.

### Type

object

Property	Type	Description
lastHeartbeatTime	string	
lastTransitionTime	string	
message	string	
reason	string	ConditionReason is a reason for a condition
status	string	
type	string	ConditionType represent a resource's status

## .status.storage

### Description

CephStorage represents flavors of Ceph Cluster Storage

### Type

object

Property	Type	Description
deprecatedOSDs	object	
deviceClasses	array	
osd	object	OSDStatus represents OSD status of the ceph Cluster

## .status.storage.deprecatedOSDs

**Type**

object

**.status.storage.deviceClasses****Type**

array

**.status.storage.deviceClasses[]****Description**

DeviceClasses represents device classes of a Ceph Cluster

**Type**

object

Property	Type	Description
name	string	

**.status.storage.osd****Description**

OSDStatus represents OSD status of the ceph Cluster

**Type**

object

Property	Type	Description
migrationStatus	object	MigrationStatus status represents the current status of any OSD migration.

Property	Type	Description
storeType	object	StoreType is a mapping between the OSD backend stores and number of OSDs using these stores

## .status.storage.osd.migrationStatus

### Description

MigrationStatus status represents the current status of any OSD migration.

### Type

object

Property	Type	Description
pending	integer	

## .status.storage.osd.storeType

### Description

StoreType is a mapping between the OSD backend stores and number of OSDs using these stores

### Type

object

## .status.version

### Description

ClusterVersion represents the version of a Ceph Cluster

### Type

object

Property	Type	Description
image	string	
version	string	

## API Endpoints

The following API endpoints are available:

- `/apis/ceph.rook.io/v1/namespaces/{namespace}/cephclusters`
  - `DELETE` : delete collection of CephCluster
  - `GET` : list objects of kind CephCluster
  - `POST` : create a new CephCluster
- `/apis/ceph.rook.io/v1/namespaces/{namespace}/cephclusters/{name}`
  - `DELETE` : delete the specified CephCluster
  - `GET` : read the specified CephCluster
  - `PATCH` : partially update the specified CephCluster
  - `PUT` : replace the specified CephCluster
- `/apis/ceph.rook.io/v1/namespaces/{namespace}/cephclusters/{name}/status`
  - `GET` : read status of the specified CephCluster
  - `PATCH` : partially update status of the specified CephCluster
  - `PUT` : replace status of the specified CephCluster

## `/apis/ceph.rook.io/v1/namespaces/{namespace}/cephclusters`

HTTP method

`DELETE`

## Description

delete collection of CephCluster

## HTTP responses

HTTP code	Response body
200 - OK	<code>Status</code> schema
401 - Unauthorized	Empty

## HTTP method

GET

## Description

list objects of kind CephCluster

## HTTP responses

HTTP code	Response body
200 - OK	<code>CephClusterList</code> schema
401 - Unauthorized	Empty

## HTTP method

POST

## Description

create a new CephCluster

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

Parameter	Type	Description
<code>fieldValidation</code>	<code>string</code>	<p><code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are:</p> <ul style="list-style-type: none"> <li>- Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23.</li> <li>- Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+.</li> <li>- Strict: This will fail the request with a <code>BadRequest</code> error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.</li> </ul>

## Body parameters

Parameter	Type	Description
<code>body</code>	<code>CephCluster</code> schema	<code>application/json</code> formatted

## HTTP responses

HTTP code	Response body
200 - OK	<code>CephCluster</code> schema
201 - Created	<code>CephCluster</code> schema
202 - Accepted	<code>CephCluster</code> schema
401 - Unauthorized	Empty

# /apis/ceph.rook.io/v1/namespaces/{namespace}/cephclusters/{name}

## HTTP method

DELETE

## Description

delete the specified CephCluster

## Query parameters

Parameter	Type	Description
dryRun	string	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

## HTTP responses

HTTP code	Response body
200 - OK	Status schema
202 - Accepted	Status schema
401 - Unauthorized	Empty

## HTTP method

GET

## Description

read the specified CephCluster

## HTTP responses

HTTP code	Response body
200 - OK	CephCluster schema

HTTP code	Response body
401 - Unauthorized	Empty

## HTTP method

PATCH

## Description

partially update the specified CephCluster

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	<code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a <code>BadRequest</code> error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## HTTP responses

HTTP code	Response body
200 - OK	<code>CephCluster</code> schema
401 - Unauthorized	Empty

## HTTP method

PUT

## Description

replace the specified CephCluster

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	<code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a <code>BadRequest</code> error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## Body parameters

Parameter	Type	Description
body	CephCluster schema	application/json formatted

## HTTP responses

HTTP code	Response body
200 - OK	CephCluster schema
201 - Created	CephCluster schema
401 - Unauthorized	Empty

## /apis/ceph.rook.io/v1/namespaces/{namespace}/cephclusters/{name}/status

### HTTP method

GET

### Description

read status of the specified CephCluster

### HTTP responses

HTTP code	Response body
200 - OK	CephCluster schema
401 - Unauthorized	Empty

### HTTP method

PATCH

### Description

partially update status of the specified CephCluster

### Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	<code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a <code>BadRequest</code> error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## HTTP responses

HTTP code	Response body
200 - OK	<code>CephCluster</code> schema
401 - Unauthorized	Empty

## HTTP method

`PUT`

## Description

replace status of the specified `CephCluster`

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	<code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a <code>BadRequest</code> error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## Body parameters

Parameter	Type	Description
<code>body</code>	<code>CephCluster</code> schema	<code>application/json</code> formatted

## HTTP responses

HTTP code	Response body
200 - OK	<code>CephCluster</code> schema
201 - Created	<code>CephCluster</code> schema
401 - Unauthorized	Empty



# CephFilesystem

## [cephfilesystems.ceph.rook.io/v1]

### Description

CephFilesystem represents a Ceph Filesystem

### Type

object

### Required

metadata

spec

## Specification

Property	Type	Description
<code>apiVersion</code>	<code>string</code>	<p>APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a></p>

Property	Type	Description
kind	string	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	ObjectMeta	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
spec	object	FilesystemSpec represents the spec of a file system
status	object	CephFilesystemStatus represents the status of a Ceph Filesystem

## .spec

### Description

FilesystemSpec represents the spec of a file system

### Type

object

### Required

dataPools

metadataPool

metadataServer

Property	Type	Description
<code>dataPools</code>	<code>array</code>	The data pool settings, with optional predefined pool name.
<code>metadataPool</code>	<code>object</code>	The metadata pool settings
<code>metadataServer</code>	<code>object</code>	The mds pod info
<code>mirroring</code>	<code>object</code>	The mirroring settings
<code>preserveFilesystemOnDelete</code>	<code>boolean</code>	Preserve the fs in the cluster on CephFilesystem CR deletion. Setting this to true automatically implies <code>PreservePoolsOnDelete</code> is true.
<code>preservePoolNames</code>	<code>boolean</code>	Preserve pool names as specified
<code>preservePoolsOnDelete</code>	<code>boolean</code>	Preserve pools on filesystem deletion
<code>statusCheck</code>	<code>object</code>	The mirroring statusCheck

## **.spec.dataPools**

### **Description**

The data pool settings, with optional predefined pool name.

## Type

array

## .spec.dataPools[]

## Description

NamedPoolSpec represents the named ceph pool spec

## Type

object

Property	Type	Description
application	string	The application name to set on the pool. Only expected to be set for rgw pools.
compressionMode	string	DEPRECATED: use Parameters instead, e.g., Parameters["compression_mode"] = "force" The inline compression mode in Bluestore OSD to set to (options are: none, passive, aggressive, force) Do NOT set a default value for kubebuilder as this will override the Parameters
crushRoot	string	The root of the crush hierarchy utilized by the pool
deviceClass	string	The device class the OSD should set to for use in the pool

Property	Type	Description
<code>enableCrushUpdates</code>	<code>boolean</code>	Allow rook operator to change the pool CRUSH tunables once the pool is created
<code>enableRBDStats</code>	<code>boolean</code>	EnableRBDStats is used to enable gathering of statistics for all RBD images in the pool
<code>erasureCoded</code>	<code>object</code>	The erasure code settings
<code>failureDomain</code>	<code>string</code>	The failure domain: osd/host/(region or zone if available) - technically also any type in the crush map
<code>mirroring</code>	<code>object</code>	The mirroring settings
<code>name</code>	<code>string</code>	Name of the pool
<code>parameters</code>	<code>object</code>	Parameters is a list of properties to enable on a given pool
<code>quotas</code>	<code>object</code>	The quota settings
<code>replicated</code>	<code>object</code>	The replication settings

Property	Type	Description
<code>statusCheck</code>	<code>object</code>	The mirroring statusCheck

## `.spec.dataPools[].erasureCoded`

### Description

The erasure code settings

### Type

`object`

### Required

`codingChunks`

`dataChunks`

Property	Type	Description
<code>algorithm</code>	<code>string</code>	The algorithm for erasure coding. If absent, defaults to the plugin specified in <code>osd_pool_default_erasure_code_profile</code> .
<code>codingChunks</code>	<code>integer</code>	Number of coding chunks per object in an erasure coded storage pool (required for erasure-coded pool type). This is the number of OSDs that can be lost simultaneously before data cannot be recovered.
<code>dataChunks</code>	<code>integer</code>	Number of data chunks per object in an erasure coded storage pool (required for erasure-coded pool type). The number of chunks required to recover an object when any single OSD is lost is the same as <code>dataChunks</code> so be aware that the larger the number of data chunks, the higher the cost of recovery.

## .spec.dataPools[].mirroring

### Description

The mirroring settings

### Type

object

Property	Type	Description
<code>enabled</code>	<code>boolean</code>	Enabled whether this pool is mirrored or not
<code>mode</code>	<code>string</code>	Mode is the mirroring mode: pool, image or init-only.
<code>peers</code>	<code>object</code>	Peers represents the peers spec
<code>snapshotSchedules</code>	<code>array</code>	SnapshotSchedules is the scheduling of snapshot for mirrored images/pools

## .spec.dataPools[].mirroring.peers

### Description

Peers represents the peers spec

### Type

object

Property	Type	Description
<code>secretNames</code>	<code>array</code>	SecretNames represents the Kubernetes Secret names to add rbd-mirror or cephfs-mirror peers

## `.spec.dataPools[].mirroring.peers.secretNames`

### Description

SecretNames represents the Kubernetes Secret names to add rbd-mirror or cephfs-mirror peers

### Type

`array`

## `.spec.dataPools[].mirroring.peers.secretNames[]`

### Type

`string`

## `.spec.dataPools[].mirroring.snapshotSchedules`

### Description

SnapshotSchedules is the scheduling of snapshot for mirrored images/pools

### Type

`array`

## `.spec.dataPools[].mirroring.snapshotSchedules[]`

### Description

SnapshotScheduleSpec represents the snapshot scheduling settings of a mirrored pool

### Type

object

Property	Type	Description
<code>interval</code>	<code>string</code>	Interval represent the periodicity of the snapshot.
<code>path</code>	<code>string</code>	Path is the path to snapshot, only valid for CephFS
<code>startTime</code>	<code>string</code>	StartTime indicates when to start the snapshot

## `.spec.dataPools[].parameters`

### Description

Parameters is a list of properties to enable on a given pool

### Type

object

## `.spec.dataPools[].quotas`

### Description

The quota settings

### Type

object

Property	Type	Description
<code>maxBytes</code>	<code>integer</code>	MaxBytes represents the quota in bytes Deprecated in favor of MaxSize

Property	Type	Description
<code>maxObjects</code>	<code>integer</code>	MaxObjects represents the quota in objects
<code>maxSize</code>	<code>string</code>	MaxSize represents the quota in bytes as a string

## `.spec.dataPools[].replicated`

### Description

The replication settings

### Type

`object`

### Required

`size`

Property	Type	Description
<code>hybridStorage</code>	<code>object</code>	HybridStorage represents hybrid storage tier settings
<code>replicasPerFailureDomain</code>	<code>integer</code>	ReplicasPerFailureDomain the number of replica in the specified failure domain
<code>requireSafeReplicaSize</code>	<code>boolean</code>	RequireSafeReplicaSize if false allows you to set replica 1

Property	Type	Description
<code>size</code>	<code>integer</code>	Size - Number of copies per object in a replicated storage pool, including the object itself (required for replicated pool type)
<code>subFailureDomain</code>	<code>string</code>	SubFailureDomain the name of the sub-failure domain
<code>targetSizeRatio</code>	<code>number</code>	TargetSizeRatio gives a hint (%) to Ceph in terms of expected consumption of the total cluster capacity

## `.spec.dataPools[].replicated.hybridStorage`

### Description

HybridStorage represents hybrid storage tier settings

### Type

`object`

### Required

`primaryDeviceClass`

`secondaryDeviceClass`

Property	Type	Description
<code>primaryDeviceClass</code>	<code>string</code>	PrimaryDeviceClass represents high performance tier (for example SSD or NVME) for Primary OSD

Property	Type	Description
<code>secondaryDeviceClass</code>	<code>string</code>	SecondaryDeviceClass represents low performance tier (for example HDDs) for remaining OSDs

## `.spec.dataPools[].statusCheck`

### Description

The mirroring statusCheck

### Type

`object`

Property	Type	Description
<code>mirror</code>	<code>object</code>	HealthCheckSpec represents the health check of an object store bucket

## `.spec.dataPools[].statusCheck.mirror`

### Description

HealthCheckSpec represents the health check of an object store bucket

### Type

`object`

Property	Type	Description
<code>disabled</code>	<code>boolean</code>	

Property	Type	Description
<code>interval</code>	<code>string</code>	Interval is the internal in second or minute for the health check to run like 60s for 60 seconds
<code>timeout</code>	<code>string</code>	

## .spec.metadataPool

### Description

The metadata pool settings

### Type

`object`

Property	Type	Description
<code>application</code>	<code>string</code>	The application name to set on the pool. Only expected to be set for rgw pools.
<code>compressionMode</code>	<code>string</code>	DEPRECATED: use Parameters instead, e.g., <code>Parameters["compression_mode"] = "force"</code> The inline compression mode in Bluestore OSD to set to (options are: none, passive, aggressive, force) Do NOT set a default value for kubebuilder as this will override the Parameters
<code>crushRoot</code>	<code>string</code>	The root of the crush hierarchy utilized by the pool

Property	Type	Description
<code>deviceClass</code>	<code>string</code>	The device class the OSD should set to for use in the pool
<code>enableCrushUpdates</code>	<code>boolean</code>	Allow rook operator to change the pool CRUSH tunables once the pool is created
<code>enableRBDStats</code>	<code>boolean</code>	EnableRBDStats is used to enable gathering of statistics for all RBD images in the pool
<code>erasureCoded</code>	<code>object</code>	The erasure code settings
<code>failureDomain</code>	<code>string</code>	The failure domain: osd/host/(region or zone if available) - technically also any type in the crush map
<code>mirroring</code>	<code>object</code>	The mirroring settings
<code>name</code>	<code>string</code>	Name of the pool
<code>parameters</code>	<code>object</code>	Parameters is a list of properties to enable on a given pool

Property	Type	Description
<code>quotas</code>	<code>object</code>	The quota settings
<code>replicated</code>	<code>object</code>	The replication settings
<code>statusCheck</code>	<code>object</code>	The mirroring statusCheck

## `.spec.metadataPool.erasureCoded`

### Description

The erasure code settings

### Type

`object`

### Required

`codingChunks`

`dataChunks`

Property	Type	Description
<code>algorithm</code>	<code>string</code>	The algorithm for erasure coding. If absent, defaults to the plugin specified in <code>osd_pool_default_erasure_code_profile</code> .
<code>codingChunks</code>	<code>integer</code>	Number of coding chunks per object in an erasure coded storage pool (required for erasure-coded pool type). This is the number of OSDs that can be lost simultaneously before data cannot be recovered.

Property	Type	Description
<code>dataChunks</code>	<code>integer</code>	Number of data chunks per object in an erasure coded storage pool (required for erasure-coded pool type). The number of chunks required to recover an object when any single OSD is lost is the same as dataChunks so be aware that the larger the number of data chunks, the higher the cost of recovery.

## .spec.metadataPool.mirroring

### Description

The mirroring settings

### Type

`object`

Property	Type	Description
<code>enabled</code>	<code>boolean</code>	Enabled whether this pool is mirrored or not
<code>mode</code>	<code>string</code>	Mode is the mirroring mode: pool, image or init-only.
<code>peers</code>	<code>object</code>	Peers represents the peers spec
<code>snapshotSchedules</code>	<code>array</code>	SnapshotSchedules is the scheduling of snapshot for mirrored images/pools

## `.spec.metadataPool.mirroring.peers`

### Description

Peers represents the peers spec

### Type

object

Property	Type	Description
<code>secretNames</code>	array	SecretNames represents the Kubernetes Secret names to add rbd-mirror or cephfs-mirror peers

## `.spec.metadataPool.mirroring.peers.secretNames`

### Description

SecretNames represents the Kubernetes Secret names to add rbd-mirror or cephfs-mirror peers

### Type

array

## `.spec.metadataPool.mirroring.peers.secretNames[]`

### Type

string

## `.spec.metadataPool.mirroring.snapshotSchedules`

### Description

SnapshotSchedules is the scheduling of snapshot for mirrored images/pools

### Type

array

## .spec.metadataPool.mirroring.snapshotSchedules[]

### Description

SnapshotScheduleSpec represents the snapshot scheduling settings of a mirrored pool

### Type

object

Property	Type	Description
interval	string	Interval represent the periodicity of the snapshot.
path	string	Path is the path to snapshot, only valid for CephFS
startTime	string	StartTime indicates when to start the snapshot

## .spec.metadataPool.parameters

### Description

Parameters is a list of properties to enable on a given pool

### Type

object

## .spec.metadataPool.quotas

### Description

The quota settings

### Type

object

Property	Type	Description
<code>maxBytes</code>	<code>integer</code>	MaxBytes represents the quota in bytes Deprecated in favor of MaxSize
<code>maxObjects</code>	<code>integer</code>	MaxObjects represents the quota in objects
<code>maxSize</code>	<code>string</code>	MaxSize represents the quota in bytes as a string

## .spec.metadataPool.replicated

### Description

The replication settings

### Type

`object`

### Required

`size`

Property	Type	Description
<code>hybridStorage</code>	<code>object</code>	HybridStorage represents hybrid storage tier settings
<code>replicasPerFailureDomain</code>	<code>integer</code>	ReplicasPerFailureDomain the number of replica in the specified failure domain

Property	Type	Description
<code>requireSafeReplicaSize</code>	<code>boolean</code>	RequireSafeReplicaSize if false allows you to set replica 1
<code>size</code>	<code>integer</code>	Size - Number of copies per object in a replicated storage pool, including the object itself (required for replicated pool type)
<code>subFailureDomain</code>	<code>string</code>	SubFailureDomain the name of the sub-failure domain
<code>targetSizeRatio</code>	<code>number</code>	TargetSizeRatio gives a hint (%) to Ceph in terms of expected consumption of the total cluster capacity

## `.spec.metadataPool.replicated.hybridStorage`

### Description

HybridStorage represents hybrid storage tier settings

### Type

`object`

### Required

`primaryDeviceClass`

`secondaryDeviceClass`

Property	Type	Description
<code>primaryDeviceClass</code>	<code>string</code>	PrimaryDeviceClass represents high performance tier (for example SSD or NVME) for Primary OSD
<code>secondaryDeviceClass</code>	<code>string</code>	SecondaryDeviceClass represents low performance tier (for example HDDs) for remaining OSDs

## `.spec.metadataPool.statusCheck`

### Description

The mirroring statusCheck

### Type

`object`

Property	Type	Description
<code>mirror</code>	<code>object</code>	HealthCheckSpec represents the health check of an object store bucket

## `.spec.metadataPool.statusCheck.mirror`

### Description

HealthCheckSpec represents the health check of an object store bucket

### Type

`object`

Property	Type	Description
<code>disabled</code>	<code>boolean</code>	
<code>interval</code>	<code>string</code>	Interval is the internal in second or minute for the health check to run like 60s for 60 seconds
<code>timeout</code>	<code>string</code>	

## .spec.metadataServer

### Description

The mds pod info

### Type

`object`

### Required

`activeCount`

Property	Type	Description
<code>activeCount</code>	<code>integer</code>	The number of metadata servers that are active. The remaining servers in the cluster will be in standby mode.
<code>activeStandby</code>	<code>boolean</code>	Whether each active MDS instance will have an active standby with a warm metadata cache for faster failover. If false, standbys will still be available, but will not have a warm metadata cache.

Property	Type	Description
annotations	object	The annotations-related configuration to add/set on each Pod related object.
cacheMemoryLimitFactor	number	CacheMemoryLimitFactor is the factor applied to the memory limit to determine the MDS cache memory limit. MDS cache memory limit should be set to 50-60% of RAM reserved for the MDS container. MDS uses approximately 125% of the value of mds_cache_memory_limit in RAM. This factor is applied when resources.limits.memory is set.
cacheMemoryRequestFactor	number	CacheMemoryRequestFactor is the factor applied to the memory request to determine the MDS cache memory limit. This factor is applied when resources.requests.memory is set and resources.limits.memory is not set.
labels	object	The labels-related configuration to add/set on each Pod related object.
livenessProbe	object	ProbeSpec is a wrapper around Probe so it can be enabled or disabled for a Ceph daemon
placement	object	

Property	Type	Description
<code>priorityClassName</code>	<code>string</code>	PriorityClassName sets priority classes on components
<code>resources</code>	<code>object</code>	The resource requirements for the mds pods
<code>startupProbe</code>	<code>object</code>	ProbeSpec is a wrapper around Probe so it can be enabled or disabled for a Ceph daemon

## **.spec.metadataServer.annotations**

### **Description**

The annotations-related configuration to add/set on each Pod related object.

### **Type**

`object`

## **.spec.metadataServer.labels**

### **Description**

The labels-related configuration to add/set on each Pod related object.

### **Type**

`object`

## **.spec.metadataServer.livenessProbe**

### **Description**

ProbeSpec is a wrapper around Probe so it can be enabled or disabled for a Ceph daemon

## Type

object

Property	Type	Description
<code>disabled</code>	<code>boolean</code>	Disabled determines whether probe is disable or not
<code>probe</code>	<code>object</code>	Probe describes a health check to be performed against a container to determine whether it is alive or ready to receive traffic.

## .spec.metadataServer.livenessProbe.probe

### Description

Probe describes a health check to be performed against a container to determine whether it is alive or ready to receive traffic.

### Type

object

Property	Type	Description
<code>exec</code>	<code>object</code>	Exec specifies a command to execute in the
<code>failureThreshold</code>	<code>integer</code>	Minimum consecutive failures for the probe to be considered failed after having succeeded. Default value is 3. Minimum value is 1.
<code>grpc</code>	<code>object</code>	GRPC specifies a GRPC HealthCheckRequest

Property	Type	Description
<code>httpGet</code>	<code>object</code>	HTTPGet specifies an HTTP GET request to
<code>initialDelaySeconds</code>	<code>integer</code>	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/lifecycle#container-probes</a>
<code>periodSeconds</code>	<code>integer</code>	How often (in seconds) to perform the probe. Default is 10 seconds. Minimum value is 1.
<code>successThreshold</code>	<code>integer</code>	Minimum consecutive successes for the probe to be considered successful after having failed. Default is 1. Must be 1 for liveness and startup. Minimum value is 1.
<code>tcpSocket</code>	<code>object</code>	TCPsocket specifies a connection to a TCP port.
<code>terminationGracePeriodSeconds</code>	<code>integer</code>	Optional duration in seconds the pod may be gracefully terminated before the probe is initiated.
<code>timeoutSeconds</code>	<code>integer</code>	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/lifecycle#container-probes</a>

## `.spec.metadataServer.livenessProbe.probe.exec`

### Description

Exec specifies a command to execute in the container.

## Type

object

Property	Type	Description
command	array	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

## **.spec.metadataServer.livenessProbe.probe.exec.command**

### Description

Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions ('|', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

## Type

array

## **.spec.metadataServer.livenessProbe.probe.exec.command[]**

## Type

string

## .spec.metadataServer.livenessProbe.probe.grpc

### Description

GRPC specifies a GRPC HealthCheckRequest.

### Type

object

### Required

port

Property	Type	Description
port	integer	Port number of the gRPC service. Number must be in the range 1 to 65535.
service	string	<p>Service is the name of the service to place in the gRPC HealthCheckRequest (see <a href="https://github.com/grpc/grpc/blob/master/doc/health-checking.md">https://github.com/grpc/grpc/blob/master/doc/health-checking.md</a> ↗).</p> <p>If this is not specified, the default behavior is defined by gRPC.</p>

## .spec.metadataServer.livenessProbe.probe.httpGet

### Description

HTTPGet specifies an HTTP GET request to perform.

### Type

object

### Required

port

Property	Type	Description
<code>host</code>	<code>string</code>	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
<code>httpHeaders</code>	<code>array</code>	Custom headers to set in the request. HTTP allows repeated headers.
<code>path</code>	<code>string</code>	Path to access on the HTTP server.
<code>port</code>		Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
<code>scheme</code>	<code>string</code>	Scheme to use for connecting to the host. Defaults to HTTP.

## `.spec.metadataServer.livenessProbe.probe.httpGet.httpHeaders`

### Description

Custom headers to set in the request. HTTP allows repeated headers.

### Type

`array`

## `.spec.metadataServer.livenessProbe.probe.httpGet.httpHeaders[]`

## Description

HTTPHeader describes a custom header to be used in HTTP probes

## Type

object

## Required

name

value

Property	Type	Description
name	string	The header field name. This will be canonicalized upon output, so case-variant names will be understood as the same header.
value	string	The header field value

## .spec.metadataServer.livenessProbe.probe.tcpSocket

## Description

TCPSocket specifies a connection to a TCP port.

## Type

object

## Required

port

Property	Type	Description
host	string	Optional: Host name to connect to, defaults to the pod IP.

Property	Type	Description
<code>port</code>		Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

## `.spec.metadataServer.placement`

### Type

`object`

Property	Type	Description
<code>nodeAffinity</code>	<code>object</code>	
<code>podAffinity</code>	<code>object</code>	
<code>podAntiAffinity</code>	<code>object</code>	
<code>tolerations</code>	<code>array</code>	
<code>topologySpreadConstraints</code>	<code>array</code>	

## `.spec.metadataServer.placement.nodeAffinity`

### Type

`object`

Property	Type	Description
<code>preferredDuringSchedulingIgnoredDuringExecution</code>	<code>array</code>	
<code>requiredDuringSchedulingIgnoredDuringExecution</code>	<code>object</code>	

## `.spec.metadataServer.placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution`

Type

array

## `.spec.metadataServer.placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[]`

Type

object

Required

preference

weight

Property	Type	Description
preference	object	
weight	integer	

## `.spec.metadataServer.placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference`

Type

object

Property	Type	Description
matchExpressions	array	
matchFields	array	

## `.spec.metadataServer.placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchExpressions`

Type

array

## `.spec.metadataServer.placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchExpressions[]`

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

## `.spec.metadataServer.placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchExpressions[].values`

Type

array

**.spec.metadataServer.placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchExpressions[].values[]**

Type

string

**.spec.metadataServer.placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchFields**

Type

array

**.spec.metadataServer.placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchFields[]**

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.metadataServer.placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchFields[].values**

Type

array

**.spec.metadataServer.placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchFields[].values[]**

Type

string

**.spec.metadataServer.placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution**

Type

object

Required

nodeSelectorTerms

Property	Type	Description
nodeSelectorTerms	array	

**.spec.metadataServer.placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms**

Type

array

**.spec.metadataServer.placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[]**

Type

object

Property	Type	Description
matchExpressions	array	
matchFields	array	

**.spec.metadataServer.placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchExpressions**

Type

array

**.spec.metadataServer.placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchExpressions[]**

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.metadataServer.placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchExpressions[].values**

Type

array

**.spec.metadataServer.placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchExpressions[].values[]**

Type

string

**.spec.metadataServer.placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchFields**

Type

array

**.spec.metadataServer.placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerm**

## s[].matchFields[]

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.metadataServer.placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchFields[].values**

Type

array

**.spec.metadataServer.placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchFields[].values[]**

Type

string

**.spec.metadataServer.placement.podAffinity**

Type

object

Property	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	array	
requiredDuringSchedulingIgnoredDuringExecution	array	

## `.spec.metadataServer.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution`

Type

array

## `.spec.metadataServer.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[]`

Type

object

Required

podAffinityTerm

weight

Property	Type	Description
podAffinityTerm	object	
weight	integer	

## `.spec.metadataServer.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm`

Type

object

**Required**

topologyKey

Property	Type	Description
labelSelector	object	
matchLabelKeys	array	
mismatchLabelKeys	array	
namespaceSelector	object	
namespaces	array	
topologyKey	string	

**.spec.metadataServer.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector****Type**

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

**.spec.metadataServer.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions****Type**

array

**.spec.metadataServer.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions[]**

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.metadataServer.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions[].values**

Type

array

**.spec.metadataServer.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions[].values[]**

Type

string

**.spec.metadataServer.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchLabels**

Type

object

**.spec.metadataServer.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.matchLabelKeys**

Type

array

**.spec.metadataServer.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.matchLabelKeys[]**

Type

string

**.spec.metadataServer.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.mismatchLabelKeys**

Type

array

**.spec.metadataServer.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.mismatchLabelKeys[]**

Type

string

**.spec.metadataServer.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector**

Type

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

**.spec.metadataServer.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchExpressions**

Type

array

**.spec.metadataServer.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchExpressions[]**

**Type**

object

**Required**

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.metadataServer.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchExpressions[].values**

**Type**

array

**.spec.metadataServer.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchExpressions[].values[]**

**Type**

string

**.spec.metadataServer.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchLabels**

**Type**

object

**.spec.metadataServer.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaces**

Type

array

**.spec.metadataServer.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaces[]**

Type

string

**.spec.metadataServer.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution**

Type

array

**.spec.metadataServer.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[]**

Type

object

Required

topologyKey

Property	Type	Description
<code>labelSelector</code>	<code>object</code>	
<code>matchLabelKeys</code>	<code>array</code>	
<code>mismatchLabelKeys</code>	<code>array</code>	
<code>namespaceSelector</code>	<code>object</code>	
<code>namespaces</code>	<code>array</code>	
<code>topologyKey</code>	<code>string</code>	

## `.spec.metadataServer.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector`

Type

`object`

Property	Type	Description
<code>matchExpressions</code>	<code>array</code>	
<code>matchLabels</code>	<code>object</code>	

## `.spec.metadataServer.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions`

Type

`array`

## `.spec.metadataServer.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions[]`

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

## `.spec.metadataServer.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions[].values`

Type

array

## `.spec.metadataServer.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions[].values[]`

Type

string

**.spec.metadataServer.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchLabels**

Type

object

**.spec.metadataServer.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].matchLabelKeys**

Type

array

**.spec.metadataServer.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].matchLabelKeys[ ]**

Type

string

**.spec.metadataServer.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].mismatchLabelKeys**

Type

array

**.spec.metadataServer.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].mismatchLabelKe**

**ys[]**

Type

string

**.spec.metadataServer.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector**

Type

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

**.spec.metadataServer.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions**

Type

array

**.spec.metadataServer.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions[]**

Type

object

**Required**

key operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.metadataServer.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions[].values**

**Type**

array

**.spec.metadataServer.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions[].values[]**

**Type**

string

**.spec.metadataServer.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchLabels**

**Type**

object

## **.spec.metadataServer.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaces**

Type

array

## **.spec.metadataServer.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaces[]**

Type

string

## **.spec.metadataServer.placement.podAntiAffinity**

Type

object

Property	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	array	
requiredDuringSchedulingIgnoredDuringExecution	array	

## **.spec.metadataServer.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution**

Type

array

## **.spec.metadataServer.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[]**

**Type**

object

**Required**

podAffinityTerm

weight

Property	Type	Description
podAffinityTerm	object	
weight	integer	

## **.spec.metadataServer.placement.podAntiAffinity.preferred DuringSchedulingIgnoredDuringExecution[].podAffinityTe rm**

**Type**

object

**Required**

topologyKey

Property	Type	Description
labelSelector	object	
matchLabelKeys	array	
mismatchLabelKeys	array	
namespaceSelector	object	
namespaces	array	
topologyKey	string	

## `.spec.metadataServer.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector`

### Type

object

Property	Type	Description
<code>matchExpressions</code>	array	
<code>matchLabels</code>	object	

## `.spec.metadataServer.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions`

### Type

array

## `.spec.metadataServer.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions[]`

### Type

object

### Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.metadataServer.placement.podAntiAffinity.preferred  
DuringSchedulingIgnoredDuringExecution[].podAffinityTe  
rm.labelSelector.matchExpressions[].values**

Type

array

**.spec.metadataServer.placement.podAntiAffinity.preferred  
DuringSchedulingIgnoredDuringExecution[].podAffinityTe  
rm.labelSelector.matchExpressions[].values[]**

Type

string

**.spec.metadataServer.placement.podAntiAffinity.preferred  
DuringSchedulingIgnoredDuringExecution[].podAffinityTe  
rm.labelSelector.matchLabels**

Type

object

**.spec.metadataServer.placement.podAntiAffinity.preferred  
DuringSchedulingIgnoredDuringExecution[].podAffinityTe**

## rm.matchLabelKeys

Type

array

**.spec.metadataServer.placement.podAntiAffinity.preferred  
DuringSchedulingIgnoredDuringExecution[].podAffinityTe  
rm.matchLabelKeys[]**

Type

string

**.spec.metadataServer.placement.podAntiAffinity.preferred  
DuringSchedulingIgnoredDuringExecution[].podAffinityTe  
rm.mismatchLabelKeys**

Type

array

**.spec.metadataServer.placement.podAntiAffinity.preferred  
DuringSchedulingIgnoredDuringExecution[].podAffinityTe  
rm.mismatchLabelKeys[]**

Type

string

**.spec.metadataServer.placement.podAntiAffinity.preferred  
DuringSchedulingIgnoredDuringExecution[].podAffinityTe  
rm.namespaceSelector**

**Type**

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

**.spec.metadataServer.placement.podAntiAffinity.preferred  
DuringSchedulingIgnoredDuringExecution[].podAffinityTe  
rm.namespaceSelector.matchExpressions**

**Type**

array

**.spec.metadataServer.placement.podAntiAffinity.preferred  
DuringSchedulingIgnoredDuringExecution[].podAffinityTe  
rm.namespaceSelector.matchExpressions[]**

**Type**

object

**Required**

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.metadataServer.placement.podAntiAffinity.preferred  
DuringSchedulingIgnoredDuringExecution[].podAffinityTe  
rm.namespaceSelector.matchExpressions[].values**

Type

array

**.spec.metadataServer.placement.podAntiAffinity.preferred  
DuringSchedulingIgnoredDuringExecution[].podAffinityTe  
rm.namespaceSelector.matchExpressions[].values[]**

Type

string

**.spec.metadataServer.placement.podAntiAffinity.preferred  
DuringSchedulingIgnoredDuringExecution[].podAffinityTe  
rm.namespaceSelector.matchLabels**

Type

object

**.spec.metadataServer.placement.podAntiAffinity.preferred  
DuringSchedulingIgnoredDuringExecution[].podAffinityTe  
rm.namespaces**

Type

array

## `.spec.metadataServer.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaces[]`

Type

string

## `.spec.metadataServer.placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution`

Type

array

## `.spec.metadataServer.placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[]`

Type

object

Required

topologyKey

Property	Type	Description
<code>labelSelector</code>	object	
<code>matchLabelKeys</code>	array	
<code>mismatchLabelKeys</code>	array	
<code>namespaceSelector</code>	object	
<code>namespaces</code>	array	

Property	Type	Description
topologyKey	string	

## **.spec.metadataServer.placement.podAntiAffinity.required DuringSchedulingIgnoredDuringExecution[].labelSelector**

### Type

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

## **.spec.metadataServer.placement.podAntiAffinity.required DuringSchedulingIgnoredDuringExecution[].labelSelector. matchExpressions**

### Type

array

## **.spec.metadataServer.placement.podAntiAffinity.required DuringSchedulingIgnoredDuringExecution[].labelSelector. matchExpressions[]**

### Type

object

### Required

key operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.metadataServer.placement.podAntiAffinity.required  
DuringSchedulingIgnoredDuringExecution[].labelSelector.  
matchExpressions[].values**

Type

array

**.spec.metadataServer.placement.podAntiAffinity.required  
DuringSchedulingIgnoredDuringExecution[].labelSelector.  
matchExpressions[].values[]**

Type

string

**.spec.metadataServer.placement.podAntiAffinity.required  
DuringSchedulingIgnoredDuringExecution[].labelSelector.  
matchLabels**

Type

object

**.spec.metadataServer.placement.podAntiAffinity.required  
DuringSchedulingIgnoredDuringExecution[].matchLabelK**

## keys

Type

array

**.spec.metadataServer.placement.podAntiAffinity.required  
DuringSchedulingIgnoredDuringExecution[].matchLabelKeys[]**

Type

string

**.spec.metadataServer.placement.podAntiAffinity.required  
DuringSchedulingIgnoredDuringExecution[].mismatchLabelKeys**

Type

array

**.spec.metadataServer.placement.podAntiAffinity.required  
DuringSchedulingIgnoredDuringExecution[].mismatchLabelKeys[]**

Type

string

**.spec.metadataServer.placement.podAntiAffinity.required  
DuringSchedulingIgnoredDuringExecution[].namespaceSelector**

**Type**

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

**.spec.metadataServer.placement.podAntiAffinity.required  
DuringSchedulingIgnoredDuringExecution[].namespaceS  
elector.matchExpressions**

**Type**

array

**.spec.metadataServer.placement.podAntiAffinity.required  
DuringSchedulingIgnoredDuringExecution[].namespaceS  
elector.matchExpressions[]**

**Type**

object

**Required**

key operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.metadataServer.placement.podAntiAffinity.required  
DuringSchedulingIgnoredDuringExecution[].namespaceS  
elector.matchExpressions[].values**

Type

array

**.spec.metadataServer.placement.podAntiAffinity.required  
DuringSchedulingIgnoredDuringExecution[].namespaceS  
elector.matchExpressions[].values[]**

Type

string

**.spec.metadataServer.placement.podAntiAffinity.required  
DuringSchedulingIgnoredDuringExecution[].namespaceS  
elector.matchLabels**

Type

object

**.spec.metadataServer.placement.podAntiAffinity.required  
DuringSchedulingIgnoredDuringExecution[].namespaces**

Type

array

**.spec.metadataServer.placement.podAntiAffinity.required  
DuringSchedulingIgnoredDuringExecution[].namespaces[**

]

**Type**

string

**.spec.metadataServer.placement.tolerations****Type**

array

**.spec.metadataServer.placement.tolerations[]****Type**

object

Property	Type	Description
effect	string	
key	string	
operator	string	
tolerationSeconds	integer	
value	string	

**.spec.metadataServer.placement.topologySpreadConstraints****Type**

array

## .spec.metadataServer.placement.topologySpreadConstraints[]

### Type

object

### Required

maxSkew

topologyKey

whenUnsatisfiable

Property	Type	Description
labelSelector	object	
matchLabelKeys	array	
maxSkew	integer	
minDomains	integer	
nodeAffinityPolicy	string	
nodeTaintsPolicy	string	
topologyKey	string	
whenUnsatisfiable	string	

## .spec.metadataServer.placement.topologySpreadConstraints[].labelSelector

### Type

object

Property	Type	Description
matchExpressions	array	

Property	Type	Description
<code>matchLabels</code>	<code>object</code>	

## `.spec.metadataServer.placement.topologySpreadConstraints[].labelSelector.matchExpressions`

### Type

`array`

## `.spec.metadataServer.placement.topologySpreadConstraints[].labelSelector.matchExpressions[]`

### Type

`object`

### Required

`key``operator`

Property	Type	Description
<code>key</code>	<code>string</code>	
<code>operator</code>	<code>string</code>	
<code>values</code>	<code>array</code>	

## `.spec.metadataServer.placement.topologySpreadConstraints[].labelSelector.matchExpressions[].values`

### Type

`array`

**.spec.metadataServer.placement.topologySpreadConstraints[].labelSelector.matchExpressions[].values[]**

Type

string

**.spec.metadataServer.placement.topologySpreadConstraints[].labelSelector.matchLabels**

Type

object

**.spec.metadataServer.placement.topologySpreadConstraints[].matchLabelKeys**

Type

array

**.spec.metadataServer.placement.topologySpreadConstraints[].matchLabelKeys[]**

Type

string

**.spec.metadataServer.resources**

Description

The resource requirements for the mds pods

Type

object

Property	Type	Description
<code>claims</code>	<code>array</code>	<p>Claims lists the names of resources, defined in <code>spec.resourceClaims</code>, that are used by this container.</p> <p>This field depends on the <code>DynamicResourceAllocation</code> feature gate.</p> <p>This field is immutable. It can only be set for containers.</p>
<code>limits</code>	<code>object</code>	<p>Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/">https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/</a></p>
<code>requests</code>	<code>object</code>	<p>Requests describes the minimum amount of compute resources required. If <code>Requests</code> is omitted for a container, it defaults to <code>Limits</code> if that is explicitly specified, otherwise to an implementation-defined value. <code>Requests</code> cannot exceed <code>Limits</code>. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/">https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/</a></p>

## `.spec.metadataServer.resources.claims`

### Description

Claims lists the names of resources, defined in `spec.resourceClaims`, that are used by this container. This field depends on the `DynamicResourceAllocation` feature gate. This field is immutable. It can only be set for containers.

### Type

`array`

## .spec.metadataServer.resources.claims[]

### Description

ResourceClaim references one entry in PodSpec.ResourceClaims.

### Type

object

### Required

name

Property	Type	Description
<code>name</code>	<code>string</code>	Name must match the name of one entry in <code>pod.spec.resourceClaims</code> of the Pod where this field is used. It makes that resource available inside a container.
<code>request</code>	<code>string</code>	Request is the name chosen for a request in the referenced claim. If empty, everything from the claim is made available, otherwise only the result of this request.

## .spec.metadataServer.resources.limits

### Description

Limits describes the maximum amount of compute resources allowed. More info: <https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/>

### Type

object

## .spec.metadataServer.resources.requests

### Description

Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. Requests cannot exceed Limits. More info:

<https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/>

### Type

object

## .spec.metadataServer.startupProbe

### Description

ProbeSpec is a wrapper around Probe so it can be enabled or disabled for a Ceph daemon

### Type

object

Property	Type	Description
<code>disabled</code>	<code>boolean</code>	Disabled determines whether probe is disable or not
<code>probe</code>	<code>object</code>	Probe describes a health check to be performed against a container to determine whether it is alive or ready to receive traffic.

## .spec.metadataServer.startupProbe.probe

### Description

Probe describes a health check to be performed against a container to determine whether it is alive or ready to receive traffic.

### Type

object

Property	Type	Description
<code>exec</code>	<code>object</code>	Exec specifies a command to execute in the
<code>failureThreshold</code>	<code>integer</code>	Minimum consecutive failures for the probe to be considered failed after having succeeded. Default value is 3. Minimum value is 1.
<code>grpc</code>	<code>object</code>	GRPC specifies a GRPC HealthCheckRequest
<code>httpGet</code>	<code>object</code>	HTTPGet specifies an HTTP GET request to
<code>initialDelaySeconds</code>	<code>integer</code>	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/lifecycle#container-probes</a>
<code>periodSeconds</code>	<code>integer</code>	How often (in seconds) to perform the probe. Default is 10 seconds. Minimum value is 1.
<code>successThreshold</code>	<code>integer</code>	Minimum consecutive successes for the probe to be considered successful after having failed. Default is 3. Must be 1 for liveness and startup. Minimum value is 1.
<code>tcpSocket</code>	<code>object</code>	TCPsocket specifies a connection to a TCP

Property	Type	Description
<code>terminationGracePeriodSeconds</code>	<code>integer</code>	
<code>timeoutSeconds</code>	<code>integer</code>	Number of seconds after which the probe timeout occurs. Defaults to 1 second. Minimum value is 1. More information: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/controllers/lifecycle#container-probes</a>

## `.spec.metadataServer.startupProbe.probe.exec`

### Description

Exec specifies a command to execute in the container.

### Type

`object`

Property	Type	Description
<code>command</code>	<code>array</code>	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

## `.spec.metadataServer.startupProbe.probe.exec.command`

### Description

Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions ('|', etc) won't work. To use a shell, you

need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

### Type

array

## `.spec.metadataServer.startupProbe.probe.exec.command[ ]`

### Type

string

## `.spec.metadataServer.startupProbe.probe.grpc`

### Description

GRPC specifies a GRPC HealthCheckRequest.

### Type

object

### Required

port

Property	Type	Description
<code>port</code>	<code>integer</code>	Port number of the gRPC service. Number must be in the range 1 to 65535.

Property	Type	Description
<code>service</code>	<code>string</code>	<p>Service is the name of the service to place in the gRPC HealthCheckRequest (see <a href="https://github.com/grpc/grpc/blob/master/doc/health-checking.md">https://github.com/grpc/grpc/blob/master/doc/health-checking.md</a> ↗).</p> <p>If this is not specified, the default behavior is defined by gRPC.</p>

## `.spec.metadataServer.startupProbe.probe.httpGet`

### Description

HTTPGet specifies an HTTP GET request to perform.

### Type

`object`

### Required

`port`

Property	Type	Description
<code>host</code>	<code>string</code>	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
<code>httpHeaders</code>	<code>array</code>	Custom headers to set in the request. HTTP allows repeated headers.
<code>path</code>	<code>string</code>	Path to access on the HTTP server.

Property	Type	Description
<code>port</code>	<code>int</code>	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
<code>scheme</code>	<code>string</code>	Scheme to use for connecting to the host. Defaults to HTTP.

## `.spec.metadataServer.startupProbe.probe.httpGet.httpHeaders`

### Description

Custom headers to set in the request. HTTP allows repeated headers.

### Type

`array`

## `.spec.metadataServer.startupProbe.probe.httpGet.httpHeaders[]`

### Description

HTTPHeader describes a custom header to be used in HTTP probes

### Type

`object`

### Required

`name`

`value`

Property	Type	Description
name	string	The header field name. This will be canonicalized upon output, so case-variant names will be understood as the same header.
value	string	The header field value

## **.spec.metadataServer.startupProbe.probe.tcpSocket**

### **Description**

TCPSocket specifies a connection to a TCP port.

### **Type**

object

### **Required**

port

Property	Type	Description
host	string	Optional: Host name to connect to, defaults to the pod IP.
port		Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

## **.spec.mirroring**

### **Description**

The mirroring settings

## Type

object

Property	Type	Description
<code>enabled</code>	<code>boolean</code>	Enabled whether this filesystem is mirrored or not
<code>peers</code>	<code>object</code>	Peers represents the peers spec
<code>snapshotRetention</code>	<code>array</code>	Retention is the retention policy for a snapshot schedule One path has exactly one retention policy. A policy can however contain multiple count-time period pairs in order to specify complex retention policies
<code>snapshotSchedules</code>	<code>array</code>	SnapshotSchedules is the scheduling of snapshot for mirrored filesystems

## .spec.mirroring.peers

### Description

Peers represents the peers spec

### Type

object

Property	Type	Description
<code>secretNames</code>	<code>array</code>	SecretNames represents the Kubernetes Secret names to add rbd-mirror or cephfs-mirror peers

## `.spec.mirroring.peers.secretNames`

### Description

SecretNames represents the Kubernetes Secret names to add rbd-mirror or cephfs-mirror peers

### Type

`array`

## `.spec.mirroring.peers.secretNames[]`

### Type

`string`

## `.spec.mirroring.snapshotRetention`

### Description

Retention is the retention policy for a snapshot schedule One path has exactly one retention policy. A policy can however contain multiple count-time period pairs in order to specify complex retention policies

### Type

`array`

## `.spec.mirroring.snapshotRetention[]`

### Description

SnapshotScheduleRetentionSpec is a retention policy

## Type

object

Property	Type	Description
duration	string	Duration represents the retention duration for a snapshot
path	string	Path is the path to snapshot

## .spec.mirroring.snapshotSchedules

### Description

SnapshotSchedules is the scheduling of snapshot for mirrored filesystems

### Type

array

## .spec.mirroring.snapshotSchedules[]

### Description

SnapshotScheduleSpec represents the snapshot scheduling settings of a mirrored pool

### Type

object

Property	Type	Description
interval	string	Interval represent the periodicity of the snapshot.
path	string	Path is the path to snapshot, only valid for CephFS

Property	Type	Description
<code>startTime</code>	<code>string</code>	StartTime indicates when to start the snapshot

## `.spec.statusCheck`

### Description

The mirroring statusCheck

### Type

`object`

Property	Type	Description
<code>mirror</code>	<code>object</code>	HealthCheckSpec represents the health check of an object store bucket

## `.spec.statusCheck.mirror`

### Description

HealthCheckSpec represents the health check of an object store bucket

### Type

`object`

Property	Type	Description
<code>disabled</code>	<code>boolean</code>	
<code>interval</code>	<code>string</code>	Interval is the internal in second or minute for the health check to run like 60s for 60 seconds

Property	Type	Description
<code>timeout</code>	<code>string</code>	

## .status

### Description

CephFilesystemStatus represents the status of a Ceph Filesystem

### Type

`object`

Property	Type	Description
<code>cephx</code>	<code>object</code>	
<code>conditions</code>	<code>array</code>	
<code>info</code>	<code>object</code>	Use only info and put mirroringStatus in it?
<code>mirroringStatus</code>	<code>object</code>	MirroringStatus is the filesystem mirroring status
<code>observedGeneration</code>	<code>integer</code>	ObservedGeneration is the latest generation observed by the controller.
<code>phase</code>	<code>string</code>	ConditionType represent a resource's status
<code>snapshotScheduleStatus</code>	<code>object</code>	FilesystemSnapshotScheduleStatusSpec is the status of the snapshot schedule

## .status.cephx

### Type

object

Property	Type	Description
<code>daemon</code>	object	Daemon shows the CephX key status for local Ceph daemons associated with this resources.

## .status.cephx.daemon

### Description

Daemon shows the CephX key status for local Ceph daemons associated with this resources.

### Type

object

Property	Type	Description
<code>keyCephVersion</code>	string	KeyCephVersion reports the Ceph version that created the current generation's keys. This is same string format as reported by <code>CephCluster.status.version.version</code> to allow them to be compared. E.g., <code>20.2.0-0</code> . For all newly-created resources, this field set to the version of Ceph that created the key. The special value "Uninitialized" indicates that keys are being created for the first time. An empty string indicates that the version is unknown, as expected in brownfield deployments.

Property	Type	Description
keyGeneration	integer	KeyGeneration represents the CephX key generation for the last successful reconcile. For all newly-created resources, this field is set to <code>1</code> . When keys are rotated due to any rotation policy, the generation is incremented or updated to the configured policy generation. Generation <code>0</code> indicates that keys existed prior to the implementation of key tracking.

## .status.conditions

### Type

array

## .status.conditions[]

### Description

Condition represents a status condition on any Rook-Ceph Custom Resource.

### Type

object

Property	Type	Description
lastHeartbeatTime	string	
lastTransitionTime	string	
message	string	
reason	string	ConditionReason is a reason for a condition

Property	Type	Description
<code>status</code>	<code>string</code>	
<code>type</code>	<code>string</code>	ConditionType represent a resource's status

## .status.info

### Description

Use only info and put mirroringStatus in it?

### Type

`object`

## .status.mirroringStatus

### Description

MirroringStatus is the filesystem mirroring status

### Type

`object`

Property	Type	Description
<code>daemonsStatus</code>	<code>array</code>	PoolMirroringStatus is the mirroring status of a filesystem
<code>details</code>	<code>string</code>	Details contains potential status errors
<code>lastChanged</code>	<code>string</code>	LastChanged is the last time time the status last changed

Property	Type	Description
<code>lastChecked</code>	<code>string</code>	LastChecked is the last time time the status was checked

## `.status.mirroringStatus.daemonsStatus`

### Description

PoolMirroringStatus is the mirroring status of a filesystem

### Type

`array`

## `.status.mirroringStatus.daemonsStatus[]`

### Description

FilesystemMirrorInfoSpec is the filesystem mirror status of a given filesystem

### Type

`object`

Property	Type	Description
<code>daemon_id</code>	<code>integer</code>	DaemonID is the cephfs-mirror name
<code>filesystems</code>	<code>array</code>	Filesystems is the list of filesystems managed by a given cephfs-mirror daemon

## `.status.mirroringStatus.daemonsStatus[].filesystems`

### Description

Filesystems is the list of filesystems managed by a given cephfs-mirror daemon

## Type

array

## `.status.mirroringStatus.daemonsStatus[].filesystems[]`

## Description

FilesystemsSpec is spec for the mirrored filesystem

## Type

object

Property	Type	Description
<code>directory_count</code>	<code>integer</code>	DirectoryCount is the number of directories in the filesystem
<code>filesystem_id</code>	<code>integer</code>	FilesystemID is the filesystem identifier
<code>name</code>	<code>string</code>	Name is name of the filesystem
<code>peers</code>	<code>array</code>	Peers represents the mirroring peers

## `.status.mirroringStatus.daemonsStatus[].filesystems[].peers`

## Description

Peers represents the mirroring peers

## Type

array

# .status.mirroringStatus.daemonsStatus[].filesystems[].peers[]

## Description

FilesystemMirrorInfoPeerSpec is the specification of a filesystem peer mirror

## Type

object

Property	Type	Description
remote	object	Remote are the remote cluster information
stats	object	Stats are the stat a peer mirror
uuid	string	UUID is the peer unique identifier

# .status.mirroringStatus.daemonsStatus[].filesystems[].peers[].remote

## Description

Remote are the remote cluster information

## Type

object

Property	Type	Description
client_name	string	ClientName is cephx name

Property	Type	Description
<code>cluster_name</code>	<code>string</code>	ClusterName is the name of the cluster
<code>fs_name</code>	<code>string</code>	FsName is the filesystem name

## `.status.mirroringStatus.daemonsStatus[].filesystems[].peers[].stats`

### Description

Stats are the stat a peer mirror

### Type

`object`

Property	Type	Description
<code>failure_count</code>	<code>integer</code>	FailureCount is the number of mirroring failure
<code>recovery_count</code>	<code>integer</code>	RecoveryCount is the number of recovery attempted after failures

## `.status.snapshotScheduleStatus`

### Description

FilesystemSnapshotScheduleStatusSpec is the status of the snapshot schedule

### Type

`object`

Property	Type	Description
<code>details</code>	<code>string</code>	Details contains potential status errors
<code>lastChanged</code>	<code>string</code>	LastChanged is the last time time the status last changed
<code>lastChecked</code>	<code>string</code>	LastChecked is the last time time the status was checked
<code>snapshotSchedules</code>	<code>array</code>	SnapshotSchedules is the list of snapshots scheduled

## `.status.snapshotScheduleStatus.snapshotSchedules`

### Description

SnapshotSchedules is the list of snapshots scheduled

### Type

`array`

## `.status.snapshotScheduleStatus.snapshotSchedules[]`

### Description

FilesystemSnapshotSchedulesSpec is the list of snapshot scheduled for images in a pool

### Type

`object`

Property	Type	Description
<code>fs</code>	<code>string</code>	Fs is the name of the Ceph Filesystem
<code>path</code>	<code>string</code>	Path is the path on the filesystem
<code>rel_path</code>	<code>string</code>	
<code>retention</code>	<code>object</code>	FilesystemSnapshotScheduleStatusRetention is the retention specification for a filesystem snapshot schedule
<code>schedule</code>	<code>string</code>	
<code>subvol</code>	<code>string</code>	Subvol is the name of the sub volume

## `.status.snapshotScheduleStatus.snapshotSchedules[].retention`

### Description

FilesystemSnapshotScheduleStatusRetention is the retention specification for a filesystem snapshot schedule

### Type

`object`

Property	Type	Description
<code>active</code>	<code>boolean</code>	Active is whether the scheduled is active or not

Property	Type	Description
<code>created</code>	<code>string</code>	Created is when the snapshot schedule was created
<code>created_count</code>	<code>integer</code>	CreatedCount is total amount of snapshots
<code>first</code>	<code>string</code>	First is when the first snapshot schedule was taken
<code>last</code>	<code>string</code>	Last is when the last snapshot schedule was taken
<code>last_pruned</code>	<code>string</code>	LastPruned is when the last snapshot schedule was pruned
<code>pruned_count</code>	<code>integer</code>	PrunedCount is total amount of pruned snapshots
<code>start</code>	<code>string</code>	Start is when the snapshot schedule starts

## API Endpoints

The following API endpoints are available:

- `/apis/ceph.rook.io/v1/namespaces/{namespace}/cephfilesystems`
  - `DELETE` : delete collection of CephFilesystem
  - `GET` : list objects of kind CephFilesystem
  - `POST` : create a new CephFilesystem

- `/apis/ceph.rook.io/v1/namespaces/{namespace}/cephfilesystems/{name}`
  - `DELETE` : delete the specified CephFilesystem
  - `GET` : read the specified CephFilesystem
  - `PATCH` : partially update the specified CephFilesystem
  - `PUT` : replace the specified CephFilesystem
- `/apis/ceph.rook.io/v1/namespaces/{namespace}/cephfilesystems/{name}/status`
  - `GET` : read status of the specified CephFilesystem
  - `PATCH` : partially update status of the specified CephFilesystem
  - `PUT` : replace status of the specified CephFilesystem

## `/apis/ceph.rook.io/v1/namespaces/{namespace}/cephfilesystems`

### HTTP method

`DELETE`

### Description

delete collection of CephFilesystem

### HTTP responses

HTTP code	Response body
200 - OK	<code>Status</code> schema
401 - Unauthorized	Empty

### HTTP method

`GET`

### Description

list objects of kind CephFilesystem

### HTTP responses

HTTP code	Response body
200 - OK	<code>CephFilesystemList</code> schema
401 - Unauthorized	Empty

## HTTP method

POST

## Description

create a new CephFilesystem

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	<code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a <code>BadRequest</code> error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## Body parameters

Parameter	Type	Description
body	CephFilesystem schema	application/json formatted

## HTTP responses

HTTP code	Response body
200 - OK	CephFilesystem schema
201 - Created	CephFilesystem schema
202 - Accepted	CephFilesystem schema
401 - Unauthorized	Empty

# /apis/ceph.rook.io/v1/namespaces/{namespace}/cephfilesystems/{name}

## HTTP method

DELETE

## Description

delete the specified CephFilesystem

## Query parameters

Parameter	Type	Description
dryRun	string	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

## HTTP responses

HTTP code	Response body
200 - OK	<code>Status</code> schema
202 - Accepted	<code>Status</code> schema
401 - Unauthorized	Empty

## HTTP method

GET

## Description

read the specified CephFilesystem

## HTTP responses

HTTP code	Response body
200 - OK	<code>CephFilesystem</code> schema
401 - Unauthorized	Empty

## HTTP method

PATCH

## Description

partially update the specified CephFilesystem

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	fieldValidation instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore:

Parameter	Type	Description
		This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a BadRequest error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## HTTP responses

HTTP code	Response body
200 - OK	<code>CephFilesystem</code> schema
401 - Unauthorized	Empty

## HTTP method

PUT

## Description

replace the specified CephFilesystem

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

Parameter	Type	Description
<code>fieldValidation</code>	<code>string</code>	<p><code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are:</p> <ul style="list-style-type: none"> <li>- Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23.</li> <li>- Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+.</li> <li>- Strict: This will fail the request with a <code>BadRequest</code> error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.</li> </ul>

### Body parameters

Parameter	Type	Description
<code>body</code>	<code>CephFilesystem</code> schema	<code>application/json</code> formatted

### HTTP responses

HTTP code	Response body
200 - OK	<code>CephFilesystem</code> schema
201 - Created	<code>CephFilesystem</code> schema
401 - Unauthorized	Empty

**`/apis/ceph.rook.io/v1/namespaces/{namespace}/cephfilesystems/{name}/status`**

## HTTP method

GET

## Description

read status of the specified CephFilesystem

## HTTP responses

HTTP code	Response body
200 - OK	<code>CephFilesystem</code> schema
401 - Unauthorized	Empty

## HTTP method

PATCH

## Description

partially update status of the specified CephFilesystem

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	<code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default

Parameter	Type	Description
		in v1.23+ - Strict: This will fail the request with a BadRequest error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## HTTP responses

HTTP code	Response body
200 - OK	<code>CephFilesystem</code> schema
401 - Unauthorized	Empty

## HTTP method

PUT

## Description

replace status of the specified CephFilesystem

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	fieldValidation instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request

Parameter	Type	Description
		will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a BadRequest error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## Body parameters

Parameter	Type	Description
body	CephFilesystem schema	application/json formatted

## HTTP responses

HTTP code	Response body
200 - OK	CephFilesystem schema
201 - Created	CephFilesystem schema
401 - Unauthorized	Empty

# CephBlockPool

## [cephblockpools.ceph.rook.io/v1]

### Description

CephBlockPool represents a Ceph Storage Pool

### Type

object

### Required

metadata

spec

## Specification

Property	Type	Description
<code>apiVersion</code>	<code>string</code>	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Property	Type	Description
kind	string	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	ObjectMeta	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
spec	object	NamedBlockPoolSpec allows a block pool to be created with a non-default name. This is more specific than the NamedPoolSpec so we get schema validation on the allowed pool names that can be specified.
status	object	CephBlockPoolStatus represents the mirroring status of Ceph Storage Pool

## .spec

### Description

NamedBlockPoolSpec allows a block pool to be created with a non-default name. This is more specific than the NamedPoolSpec so we get schema validation on the allowed pool names that can be specified.

### Type

object

Property	Type	Description
<code>application</code>	<code>string</code>	The application name to set on the pool. Only expected to be set for rgw pools.
<code>compressionMode</code>	<code>string</code>	DEPRECATED: use Parameters instead, e.g., <code>Parameters["compression_mode"] = "force"</code> The inline compression mode in Bluestore OSD to set to (options are: none, passive, aggressive, force) Do NOT set a default value for kubebuilder as this will override the Parameters
<code>crushRoot</code>	<code>string</code>	The root of the crush hierarchy utilized by the pool
<code>deviceClass</code>	<code>string</code>	The device class the OSD should set to for use in the pool
<code>enableCrushUpdates</code>	<code>boolean</code>	Allow rook operator to change the pool CRUSH tunables once the pool is created
<code>enableRBDStats</code>	<code>boolean</code>	EnableRBDStats is used to enable gathering of statistics for all RBD images in the pool
<code>erasureCoded</code>	<code>object</code>	The erasure code settings
<code>failureDomain</code>	<code>string</code>	The failure domain: <code>osd/host/(region or zone if available)</code> - technically also any type in the crush

Property	Type	Description
		map
<code>mirroring</code>	<code>object</code>	The mirroring settings
<code>name</code>	<code>string</code>	The desired name of the pool if different from the CephBlockPool CR name.
<code>parameters</code>	<code>object</code>	Parameters is a list of properties to enable on a given pool
<code>quotas</code>	<code>object</code>	The quota settings
<code>replicated</code>	<code>object</code>	The replication settings
<code>statusCheck</code>	<code>object</code>	The mirroring statusCheck

## `.spec.erasureCoded`

### Description

The erasure code settings

### Type

`object`

### Required

`codingChunks`

`dataChunks`

Property	Type	Description
<code>algorithm</code>	<code>string</code>	The algorithm for erasure coding. If absent, defaults to the plugin specified in <code>osd_pool_default_erasure_code_profile</code> .
<code>codingChunks</code>	<code>integer</code>	Number of coding chunks per object in an erasure coded storage pool (required for erasure-coded pool type). This is the number of OSDs that can be lost simultaneously before data cannot be recovered.
<code>dataChunks</code>	<code>integer</code>	Number of data chunks per object in an erasure coded storage pool (required for erasure-coded pool type). The number of chunks required to recover an object when any single OSD is lost is the same as <code>dataChunks</code> so be aware that the larger the number of data chunks, the higher the cost of recovery.

## .spec.mirroring

### Description

The mirroring settings

### Type

`object`

Property	Type	Description
<code>enabled</code>	<code>boolean</code>	Enabled whether this pool is mirrored or not

Property	Type	Description
<code>mode</code>	<code>string</code>	Mode is the mirroring mode: pool, image or init-only.
<code>peers</code>	<code>object</code>	Peers represents the peers spec
<code>snapshotSchedules</code>	<code>array</code>	SnapshotSchedules is the scheduling of snapshot for mirrored images/pools

## `.spec.mirroring.peers`

### Description

Peers represents the peers spec

### Type

`object`

Property	Type	Description
<code>secretNames</code>	<code>array</code>	SecretNames represents the Kubernetes Secret names to add rbd-mirror or cephfs-mirror peers

## `.spec.mirroring.peers.secretNames`

### Description

SecretNames represents the Kubernetes Secret names to add rbd-mirror or cephfs-mirror peers

### Type

`array`

## `.spec.mirroring.peers.secretNames[]`

### Type

`string`

## `.spec.mirroring.snapshotSchedules`

### Description

SnapshotSchedules is the scheduling of snapshot for mirrored images/pools

### Type

`array`

## `.spec.mirroring.snapshotSchedules[]`

### Description

SnapshotScheduleSpec represents the snapshot scheduling settings of a mirrored pool

### Type

`object`

Property	Type	Description
<code>interval</code>	<code>string</code>	Interval represent the periodicity of the snapshot.
<code>path</code>	<code>string</code>	Path is the path to snapshot, only valid for CephFS
<code>startTime</code>	<code>string</code>	StartTime indicates when to start the snapshot

## `.spec.parameters`

## Description

Parameters is a list of properties to enable on a given pool

## Type

object

## .spec.quotas

## Description

The quota settings

## Type

object

Property	Type	Description
maxBytes	integer	MaxBytes represents the quota in bytes Deprecated in favor of MaxSize
maxObjects	integer	MaxObjects represents the quota in objects
maxSize	string	MaxSize represents the quota in bytes as a string

## .spec.replicated

## Description

The replication settings

## Type

object

## Required

size

Property	Type	Description
hybridStorage	object	HybridStorage represents hybrid storage tier settings
replicasPerFailureDomain	integer	ReplicasPerFailureDomain the number of replica in the specified failure domain
requireSafeReplicaSize	boolean	RequireSafeReplicaSize if false allows you to set replica 1
size	integer	Size - Number of copies per object in a replicated storage pool, including the object itself (required for replicated pool type)
subFailureDomain	string	SubFailureDomain the name of the sub-failure domain
targetSizeRatio	number	TargetSizeRatio gives a hint (%) to Ceph in terms of expected consumption of the total cluster capacity

## .spec.replicated.hybridStorage

### Description

HybridStorage represents hybrid storage tier settings

## Type

object

## Required

primaryDeviceClass

secondaryDeviceClass

Property	Type	Description
primaryDeviceClass	string	PrimaryDeviceClass represents high performance tier (for example SSD or NVME) for Primary OSD
secondaryDeviceClass	string	SecondaryDeviceClass represents low performance tier (for example HDDs) for remaining OSDs

## .spec.statusCheck

### Description

The mirroring statusCheck

### Type

object

Property	Type	Description
mirror	object	HealthCheckSpec represents the health check of an object store bucket

## .spec.statusCheck.mirror

### Description

HealthCheckSpec represents the health check of an object store bucket

## Type

object

Property	Type	Description
disabled	boolean	
interval	string	Interval is the internal in second or minute for the health check to run like 60s for 60 seconds
timeout	string	

## .status

### Description

CephBlockPoolStatus represents the mirroring status of Ceph Storage Pool

## Type

object

Property	Type	Description
cephx	object	PeerTokenCephxStatus represents the cephx key rotation status for peer tokens
conditions	array	
info	object	
mirroringInfo	object	MirroringInfoSpec is the status of the pool/radosnamespace mirroring

Property	Type	Description
<code>mirroringStatus</code>	<code>object</code>	MirroringStatusSpec is the status of the pool/radosNamespace mirroring
<code>observedGeneration</code>	<code>integer</code>	ObservedGeneration is the latest generation observed by the controller.
<code>phase</code>	<code>string</code>	ConditionType represent a resource's status
<code>poolID</code>	<code>integer</code>	optional
<code>snapshotScheduleStatus</code>	<code>object</code>	SnapshotScheduleStatusSpec is the status of the snapshot schedule

## .status.cephx

### Description

PeerTokenCephxStatus represents the cephx key rotation status for peer tokens

### Type

`object`

Property	Type	Description
<code>peerToken</code>	<code>object</code>	PeerToken shows the rotation status of the peer token associated with the <code>rbd-mirror-peer</code> user.

# .status.cephx.peerToken

## Description

PeerToken shows the rotation status of the peer token associated with the `rbd-mirror-peer` user.

## Type

object

Property	Type	Description
<code>keyCephVersion</code>	<code>string</code>	<p>KeyCephVersion reports the Ceph version that created the current generation's keys. This is same string format as reported by <code>CephCluster.status.version.version</code> to allow them to be compared. E.g., <code>20.2.0-0</code>. For all newly-created resources, this field set to the version of Ceph that created the key. The special value "Uninitialized" indicates that keys are being created for the first time. An empty string indicates that the version is unknown, as expected in brownfield deployments.</p>
<code>keyGeneration</code>	<code>integer</code>	<p>KeyGeneration represents the CephX key generation for the last successful reconcile. For all newly-created resources, this field is set to <code>1</code>. When keys are rotated due to any rotation policy, the generation is incremented or updated to the configured policy generation. Generation <code>0</code> indicates that keys existed prior to the implementation of key tracking.</p>

# .status.conditions

## Type

`array`

## **.status.conditions[]**

### **Description**

Condition represents a status condition on any Rook-Ceph Custom Resource.

### **Type**

`object`

<b>Property</b>	<b>Type</b>	<b>Description</b>
<code>lastHeartbeatTime</code>	<code>string</code>	
<code>lastTransitionTime</code>	<code>string</code>	
<code>message</code>	<code>string</code>	
<code>reason</code>	<code>string</code>	ConditionReason is a reason for a condition
<code>status</code>	<code>string</code>	
<code>type</code>	<code>string</code>	ConditionType represent a resource's status

## **.status.info**

### **Type**

`object`

## **.status.mirroringInfo**

### **Description**

MirroringInfoSpec is the status of the pool/radosnamespace mirroring

## Type

object

Property	Type	Description
details	string	
lastChanged	string	
lastChecked	string	
mode	string	Mode is the mirroring mode
peers	array	Peers are the list of peer sites connected to that cluster
site_name	string	SiteName is the current site name

## .status.mirroringInfo.peers

### Description

Peers are the list of peer sites connected to that cluster

### Type

array

## .status.mirroringInfo.peers[]

### Description

PeersSpec contains peer details

### Type

object

Property	Type	Description
<code>client_name</code>	<code>string</code>	ClientName is the CephX user used to connect to the peer
<code>direction</code>	<code>string</code>	Direction is the peer mirroring direction
<code>mirror_uuid</code>	<code>string</code>	MirrorUUID is the mirror UUID
<code>site_name</code>	<code>string</code>	SiteName is the current site name
<code>uuid</code>	<code>string</code>	UUID is the peer UUID

## **.status.mirroringStatus**

### **Description**

MirroringStatusSpec is the status of the pool/radosNamespace mirroring

### **Type**

`object`

Property	Type	Description
<code>details</code>	<code>string</code>	Details contains potential status errors
<code>lastChanged</code>	<code>string</code>	LastChanged is the last time time the status last changed

Property	Type	Description
<code>lastChecked</code>	<code>string</code>	LastChecked is the last time time the status was checked
<code>summary</code>	<code>object</code>	Summary is the mirroring status summary

## `.status.mirroringStatus.summary`

### Description

Summary is the mirroring status summary

### Type

`object`

Property	Type	Description
<code>daemon_health</code>	<code>string</code>	DaemonHealth is the health of the mirroring daemon
<code>group_health</code>	<code>string</code>	GroupHealth is the health of the mirrored image group
<code>group_states</code>	<code>object</code>	GroupStates is the various state for all mirrored image groups
<code>health</code>	<code>string</code>	Health is the mirroring health
<code>image_health</code>	<code>string</code>	ImageHealth is the health of the mirrored image

Property	Type	Description
<code>image_states</code>	<code>object</code>	ImageStates is the various state for all mirrored images
<code>states</code>	<code>object</code>	States is the various state for all mirrored images

## `.status.mirroringStatus.summary.group_states`

### Description

GroupStates is the various state for all mirrored image groups

### Type

`object`

Property	Type	Description
<code>error</code>	<code>integer</code>	Error is when the mirroring state is errored
<code>replaying</code>	<code>integer</code>	Replaying is when the replay of the mirroring journal is on-going
<code>starting_replay</code>	<code>integer</code>	StartingReplay is when the replay of the mirroring journal starts
<code>stopped</code>	<code>integer</code>	Stopped is when the mirroring state is stopped

Property	Type	Description
<code>stopping_replay</code>	<code>integer</code>	StopReplaying is when the replay of the mirroring journal stops
<code>syncing</code>	<code>integer</code>	Syncing is when the image is syncing
<code>unknown</code>	<code>integer</code>	Unknown is when the mirroring state is unknown

## `.status.mirroringStatus.summary.image_states`

### Description

ImageStates is the various state for all mirrored images

### Type

`object`

Property	Type	Description
<code>error</code>	<code>integer</code>	Error is when the mirroring state is errored
<code>replaying</code>	<code>integer</code>	Replaying is when the replay of the mirroring journal is on-going
<code>starting_replay</code>	<code>integer</code>	StartingReplay is when the replay of the mirroring journal starts

Property	Type	Description
<code>stopped</code>	<code>integer</code>	Stopped is when the mirroring state is stopped
<code>stopping_replay</code>	<code>integer</code>	StopReplaying is when the replay of the mirroring journal stops
<code>syncing</code>	<code>integer</code>	Syncing is when the image is syncing
<code>unknown</code>	<code>integer</code>	Unknown is when the mirroring state is unknown

## `.status.mirroringStatus.summary.states`

### Description

States is the various state for all mirrored images

### Type

`object`

Property	Type	Description
<code>error</code>	<code>integer</code>	Error is when the mirroring state is errored
<code>replaying</code>	<code>integer</code>	Replaying is when the replay of the mirroring journal is on-going

Property	Type	Description
<code>starting_replay</code>	<code>integer</code>	StartingReplay is when the replay of the mirroring journal starts
<code>stopped</code>	<code>integer</code>	Stopped is when the mirroring state is stopped
<code>stopping_replay</code>	<code>integer</code>	StopReplaying is when the replay of the mirroring journal stops
<code>syncing</code>	<code>integer</code>	Syncing is when the image is syncing
<code>unknown</code>	<code>integer</code>	Unknown is when the mirroring state is unknown

## **.status.snapshotScheduleStatus**

### **Description**

SnapshotScheduleStatusSpec is the status of the snapshot schedule

### **Type**

`object`

Property	Type	Description
<code>details</code>	<code>string</code>	Details contains potential status errors

Property	Type	Description
<code>lastChanged</code>	<code>string</code>	LastChanged is the last time time the status last changed
<code>lastChecked</code>	<code>string</code>	LastChecked is the last time time the status was checked
<code>snapshotSchedules</code>	<code>array</code>	SnapshotSchedules is the list of snapshots scheduled

## `.status.snapshotScheduleStatus.snapshotSchedules`

### Description

SnapshotSchedules is the list of snapshots scheduled

### Type

`array`

## `.status.snapshotScheduleStatus.snapshotSchedules[]`

### Description

SnapshotSchedulesSpec is the list of snapshot scheduled for images in a pool

### Type

`object`

Property	Type	Description
<code>image</code>	<code>string</code>	Image is the mirrored image

Property	Type	Description
<code>items</code>	<code>array</code>	Items is the list schedules times for a given snapshot
<code>namespace</code>	<code>string</code>	Namespace is the RADOS namespace the image is part of
<code>pool</code>	<code>string</code>	Pool is the pool name

## `.status.snapshotScheduleStatus.snapshotSchedules[].items`

### Description

Items is the list schedules times for a given snapshot

### Type

`array`

## `.status.snapshotScheduleStatus.snapshotSchedules[].items[]`

### Description

SnapshotSchedule is a schedule

### Type

`object`

Property	Type	Description
<code>interval</code>	<code>string</code>	Interval is the interval in which snapshots will be taken

Property	Type	Description
<code>start_time</code>	<code>string</code>	StartTime is the snapshot starting time

## API Endpoints

The following API endpoints are available:

- `/apis/ceph.rook.io/v1/namespaces/{namespace}/cephblockpools`
  - `DELETE` : delete collection of CephBlockPool
  - `GET` : list objects of kind CephBlockPool
  - `POST` : create a new CephBlockPool
- `/apis/ceph.rook.io/v1/namespaces/{namespace}/cephblockpools/{name}`
  - `DELETE` : delete the specified CephBlockPool
  - `GET` : read the specified CephBlockPool
  - `PATCH` : partially update the specified CephBlockPool
  - `PUT` : replace the specified CephBlockPool
- `/apis/ceph.rook.io/v1/namespaces/{namespace}/cephblockpools/{name}/status`
  - `GET` : read status of the specified CephBlockPool
  - `PATCH` : partially update status of the specified CephBlockPool
  - `PUT` : replace status of the specified CephBlockPool

## `/apis/ceph.rook.io/v1/namespaces/{namespace}/cephblockpools`

HTTP method

`DELETE`

## Description

delete collection of CephBlockPool

## HTTP responses

HTTP code	Response body
200 - OK	<code>Status</code> schema
401 - Unauthorized	Empty

## HTTP method

GET

## Description

list objects of kind CephBlockPool

## HTTP responses

HTTP code	Response body
200 - OK	<code>CephBlockPoolList</code> schema
401 - Unauthorized	Empty

## HTTP method

POST

## Description

create a new CephBlockPool

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

Parameter	Type	Description
<code>fieldValidation</code>	<code>string</code>	<p><code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are:</p> <ul style="list-style-type: none"> <li>- Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23.</li> <li>- Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+.</li> <li>- Strict: This will fail the request with a <code>BadRequest</code> error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.</li> </ul>

## Body parameters

Parameter	Type	Description
<code>body</code>	<code>CephBlockPool</code> schema	<code>application/json</code> formatted

## HTTP responses

HTTP code	Response body
200 - OK	<code>CephBlockPool</code> schema
201 - Created	<code>CephBlockPool</code> schema
202 - Accepted	<code>CephBlockPool</code> schema
401 - Unauthorized	Empty

# /apis/ceph.rook.io/v1/namespaces/{namespace}/cephblockpools/{name}

## HTTP method

DELETE

## Description

delete the specified CephBlockPool

## Query parameters

Parameter	Type	Description
dryRun	string	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

## HTTP responses

HTTP code	Response body
200 - OK	Status schema
202 - Accepted	Status schema
401 - Unauthorized	Empty

## HTTP method

GET

## Description

read the specified CephBlockPool

## HTTP responses

HTTP code	Response body
200 - OK	CephBlockPool schema

HTTP code	Response body
401 - Unauthorized	Empty

## HTTP method

PATCH

## Description

partially update the specified CephBlockPool

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	<code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a <code>BadRequest</code> error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## HTTP responses

HTTP code	Response body
200 - OK	<code>CephBlockPool</code> schema
401 - Unauthorized	Empty

## HTTP method

PUT

## Description

replace the specified CephBlockPool

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	<code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a <code>BadRequest</code> error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## Body parameters

Parameter	Type	Description
body	CephBlockPool schema	application/json formatted

## HTTP responses

HTTP code	Response body
200 - OK	CephBlockPool schema
201 - Created	CephBlockPool schema
401 - Unauthorized	Empty

## /apis/ceph.rook.io/v1/namespaces/{namespace}/cephblockpools/{name}/status

### HTTP method

GET

### Description

read status of the specified CephBlockPool

### HTTP responses

HTTP code	Response body
200 - OK	CephBlockPool schema
401 - Unauthorized	Empty

### HTTP method

PATCH

### Description

partially update status of the specified CephBlockPool

### Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	<code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a <code>BadRequest</code> error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## HTTP responses

HTTP code	Response body
200 - OK	<code>CephBlockPool</code> schema
401 - Unauthorized	Empty

## HTTP method

`PUT`

## Description

replace status of the specified `CephBlockPool`

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	<code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a <code>BadRequest</code> error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## Body parameters

Parameter	Type	Description
<code>body</code>	<code>CephBlockPool</code> schema	<code>application/json</code> formatted

## HTTP responses

HTTP code	Response body
200 - OK	<code>CephBlockPool</code> schema
201 - Created	<code>CephBlockPool</code> schema
401 - Unauthorized	Empty



# CephObjectStore

## [cephobjectstores.ceph.rook.io/v1]

### Description

CephObjectStore represents a Ceph Object Store Gateway

### Type

object

### Required

metadata

spec

## Specification

Property	Type	Description
<code>apiVersion</code>	<code>string</code>	<p>APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a></p>

Property	Type	Description
kind	string	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	ObjectMeta	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
spec	object	ObjectStoreSpec represent the spec of a pool
status	object	ObjectStoreStatus represents the status of a Ceph Object Store resource

## .spec

### Description

ObjectStoreSpec represent the spec of a pool

### Type

object

Property	Type	Description
allowUsersInNamespaces	array	The list of allowed namespaces in addition to the object store namespace where ceph object store users may be created. Specify "*" to

Property	Type	Description
		allow all namespaces, otherwise list individual namespaces that are to be allowed. This is useful for applications that need object store credentials to be created in their own namespace, where neither OBCs nor COSI is being used to create buckets. The default is empty.
<code>auth</code>	<code>object</code>	The authentication configuration
<code>dataPool</code>	<code>object</code>	The data pool settings
<code>defaultRealm</code>	<code>boolean</code>	Set this realm as the default in Ceph. Only one realm should be default. Do not set this true on more than one CephObjectStore. This may not be set when zone is also specified; in this case, the realm referenced by the zone's zonegroup should configure defaulting behavior.
<code>gateway</code>	<code>object</code>	The rgw pod info
<code>healthCheck</code>	<code>object</code>	The RGW health probes
<code>hosting</code>	<code>object</code>	Hosting settings for the object store. A common use case for hosting configuration is to inform Rook of endpoints that support DNS wildcards,

Property	Type	Description
		which in turn allows virtual host-style bucket addressing.
<code>metadataPool</code>	<code>object</code>	The metadata pool settings
<code>preservePoolsOnDelete</code>	<code>boolean</code>	Preserve pools on object store deletion
<code>protocols</code>	<code>object</code>	The protocol specification
<code>security</code>	<code>object</code>	Security represents security settings
<code>sharedPools</code>	<code>object</code>	The pool information when configuring RADOS namespaces in existing pools.
<code>zone</code>	<code>object</code>	The multisite info

## `.spec.allowUsersInNamespaces`

### Description

The list of allowed namespaces in addition to the object store namespace where ceph object store users may be created. Specify "\*" to allow all namespaces, otherwise list individual namespaces that are to be allowed. This is useful for applications that need object store credentials to be created in their own namespace, where neither OBCs nor COSI is being used to create buckets. The default is empty.

### Type

`array`

## `.spec.allowUsersInNamespaces[]`

### Type

`string`

## `.spec.auth`

### Description

The authentication configuration

### Type

`object`

Property	Type	Description
<code>keystone</code>	<code>object</code>	The spec for Keystone

## `.spec.auth.keystone`

### Description

The spec for Keystone

### Type

`object`

### Required

`acceptedRoles``serviceUserSecretName``url`

Property	Type	Description
<code>acceptedRoles</code>	<code>array</code>	The roles requires to serve requests.
<code>implicitTenants</code>	<code>string</code>	Create new users in their own tenants of the same name. Possible values are true, false, swift and s3. The latter have the effect of splitting the identity space such that only the indicated protocol will use implicit tenants.
<code>revocationInterval</code>	<code>integer</code>	The number of seconds between token revocation checks.
<code>serviceUserSecretName</code>	<code>string</code>	The name of the secret containing the credentials for the service user account used by RGW. It has to be in the same namespace as the object store resource.
<code>tokenCacheSize</code>	<code>integer</code>	The maximum number of entries in each Keystone token cache.
<code>url</code>	<code>string</code>	The URL for the Keystone server.

## `.spec.auth.keystone.acceptedRoles`

### Description

The roles requires to serve requests.

## Type

array

## .spec.auth.keystone.acceptedRoles[]

## Type

string

## .spec.dataPool

## Description

The data pool settings

## Type

object

Property	Type	Description
<code>application</code>	<code>string</code>	The application name to set on the pool. Only expected to be set for rgw pools.
<code>compressionMode</code>	<code>string</code>	DEPRECATED: use Parameters instead, e.g., Parameters["compression_mode"] = "force" The inline compression mode in Bluestore OSD to set to (options are: none, passive, aggressive, force) Do NOT set a default value for kubebuilder as this will override the Parameters
<code>crushRoot</code>	<code>string</code>	The root of the crush hierarchy utilized by the pool

Property	Type	Description
<code>deviceClass</code>	<code>string</code>	The device class the OSD should set to for use in the pool
<code>enableCrushUpdates</code>	<code>boolean</code>	Allow rook operator to change the pool CRUSH tunables once the pool is created
<code>enableRBDStats</code>	<code>boolean</code>	EnableRBDStats is used to enable gathering of statistics for all RBD images in the pool
<code>erasureCoded</code>	<code>object</code>	The erasure code settings
<code>failureDomain</code>	<code>string</code>	The failure domain: osd/host/(region or zone if available) - technically also any type in the crush map
<code>mirroring</code>	<code>object</code>	The mirroring settings
<code>parameters</code>	<code>object</code>	Parameters is a list of properties to enable on a given pool
<code>quotas</code>	<code>object</code>	The quota settings

Property	Type	Description
<code>replicated</code>	<code>object</code>	The replication settings
<code>statusCheck</code>	<code>object</code>	The mirroring statusCheck

## .spec.dataPool.eraserCoded

### Description

The erasure code settings

### Type

`object`

### Required

`codingChunks`

`dataChunks`

Property	Type	Description
<code>algorithm</code>	<code>string</code>	The algorithm for erasure coding. If absent, defaults to the plugin specified in <code>osd_pool_default_eraser_code_profile</code> .
<code>codingChunks</code>	<code>integer</code>	Number of coding chunks per object in an erasure coded storage pool (required for erasure-coded pool type). This is the number of OSDs that can be lost simultaneously before data cannot be recovered.
<code>dataChunks</code>	<code>integer</code>	Number of data chunks per object in an erasure coded storage pool (required for erasure-coded pool type). The number of chunks required to recover an object when any

Property	Type	Description
		single OSD is lost is the same as dataChunks so be aware that the larger the number of data chunks, the higher the cost of recovery.

## .spec.dataPool.mirroring

### Description

The mirroring settings

### Type

object

Property	Type	Description
enabled	boolean	Enabled whether this pool is mirrored or not
mode	string	Mode is the mirroring mode: pool, image or init-only.
peers	object	Peers represents the peers spec
snapshotSchedules	array	SnapshotSchedules is the scheduling of snapshot for mirrored images/pools

## .spec.dataPool.mirroring.peers

### Description

Peers represents the peers spec

## Type

object

Property	Type	Description
<code>secretNames</code>	array	SecretNames represents the Kubernetes Secret names to add rbd-mirror or cephfs-mirror peers

## `.spec.dataPool.mirroring.peers.secretNames`

### Description

SecretNames represents the Kubernetes Secret names to add rbd-mirror or cephfs-mirror peers

### Type

array

## `.spec.dataPool.mirroring.peers.secretNames[]`

### Type

string

## `.spec.dataPool.mirroring.snapshotSchedules`

### Description

SnapshotSchedules is the scheduling of snapshot for mirrored images/pools

### Type

array

## `.spec.dataPool.mirroring.snapshotSchedules[]`

### Description

SnapshotScheduleSpec represents the snapshot scheduling settings of a mirrored pool

### Type

object

Property	Type	Description
interval	string	Interval represent the periodicity of the snapshot.
path	string	Path is the path to snapshot, only valid for CephFS
startTime	string	StartTime indicates when to start the snapshot

## .spec.dataPool.parameters

### Description

Parameters is a list of properties to enable on a given pool

### Type

object

## .spec.dataPool.quotas

### Description

The quota settings

### Type

object

Property	Type	Description
<code>maxBytes</code>	<code>integer</code>	MaxBytes represents the quota in bytes Deprecated in favor of MaxSize
<code>maxObjects</code>	<code>integer</code>	MaxObjects represents the quota in objects
<code>maxSize</code>	<code>string</code>	MaxSize represents the quota in bytes as a string

## .spec.dataPool.replicated

### Description

The replication settings

### Type

`object`

### Required

`size`

Property	Type	Description
<code>hybridStorage</code>	<code>object</code>	HybridStorage represents hybrid storage tier settings
<code>replicasPerFailureDomain</code>	<code>integer</code>	ReplicasPerFailureDomain the number of replica in the specified failure domain

Property	Type	Description
<code>requireSafeReplicaSize</code>	<code>boolean</code>	RequireSafeReplicaSize if false allows you to set replica 1
<code>size</code>	<code>integer</code>	Size - Number of copies per object in a replicated storage pool, including the object itself (required for replicated pool type)
<code>subFailureDomain</code>	<code>string</code>	SubFailureDomain the name of the sub-failure domain
<code>targetSizeRatio</code>	<code>number</code>	TargetSizeRatio gives a hint (%) to Ceph in terms of expected consumption of the total cluster capacity

## `.spec.dataPool.replicated.hybridStorage`

### Description

HybridStorage represents hybrid storage tier settings

### Type

`object`

### Required

`primaryDeviceClass`

`secondaryDeviceClass`

Property	Type	Description
<code>primaryDeviceClass</code>	<code>string</code>	PrimaryDeviceClass represents high performance tier (for example SSD or NVME) for Primary OSD
<code>secondaryDeviceClass</code>	<code>string</code>	SecondaryDeviceClass represents low performance tier (for example HDDs) for remaining OSDs

## `.spec.dataPool.statusCheck`

### Description

The mirroring statusCheck

### Type

`object`

Property	Type	Description
<code>mirror</code>	<code>object</code>	HealthCheckSpec represents the health check of an object store bucket

## `.spec.dataPool.statusCheck.mirror`

### Description

HealthCheckSpec represents the health check of an object store bucket

### Type

`object`

Property	Type	Description
<code>disabled</code>	<code>boolean</code>	
<code>interval</code>	<code>string</code>	Interval is the internal in second or minute for the health check to run like 60s for 60 seconds
<code>timeout</code>	<code>string</code>	

## .spec.gateway

### Description

The rgw pod info

### Type

`object`

Property	Type	Description
<code>additionalVolumeMounts</code>	<code>array</code>	AdditionalVolumeMounts allows additional volumes to be mounted to the RGW pod. The root directory for each additional volume mount is <code>/var/rgw</code> . Example: for an additional mount at subPath <code>ldap</code> , mounted from a secret that has key <code>bindpass.secret</code> , the file would reside at <code>/var/rgw/ldap/bindpass.secret</code> .
<code>annotations</code>	<code>object</code>	The annotations-related configuration to add/set on each Pod related object.

Property	Type	Description
<code>caBundleRef</code>	<code>string</code>	The name of the secret that stores custom ca-bundle with root and intermediate certificates.
<code>dashboardEnabled</code>	<code>boolean</code>	Whether rgw dashboard is enabled for the rgw daemon. If not set, the rgw dashboard will be enabled.
<code>disableMultisiteSyncTraffic</code>	<code>boolean</code>	<code>DisableMultisiteSyncTraffic</code> , when true, prevents this object store's gateways from transmitting multisite replication data. Note that this value does not affect whether gateways receive multisite replication traffic: see <code>ObjectZone.spec.customEndpoints</code> for that. If false or unset, this object store's gateways will be able to transmit multisite replication data.
<code>externalRgwEndpoints</code>	<code>array</code>	<code>ExternalRgwEndpoints</code> points to external RGW endpoint(s). Multiple endpoints can be given, but for stability of <code>ObjectBucketClaims</code> , we highly recommend that users give only a single external RGW endpoint that is a load balancer that sends requests to the multiple RGWs.

Property	Type	Description
<code>hostNetwork</code>	<code>boolean</code>	Whether host networking is enabled for the rgw daemon. If not set, the network settings from the cluster CR will be applied.
<code>instances</code>	<code>integer</code>	The number of pods in the rgw replicaset.
<code>labels</code>	<code>object</code>	The labels-related configuration to add/set on each Pod related object.
<code>opsLogSidecar</code>	<code>object</code>	Enable enhanced operation Logs for S3 in a sidecar named ops-log
<code>placement</code>	<code>object</code>	
<code>port</code>	<code>integer</code>	The port the rgw service will be listening on (http)
<code>priorityClassName</code>	<code>string</code>	PriorityClassName sets priority classes on the rgw pods

Property	Type	Description
<code>readAffinity</code>	<code>object</code>	ReadAffinity defines the RGW read affinity policy to optimize the read requests for the RGW clients Note: Only supported from Ceph Tentacle (v20)
<code>resources</code>	<code>object</code>	The resource requirements for the rgw pods
<code>rgwCommandFlags</code>	<code>object</code>	RgwCommandFlags sets Ceph RGW config values for the gateway clients that serve this object store. Values are modified at RGW startup, resulting in RGW pod restarts. This feature is intended for advanced users. It allows breaking configurations to be easily applied. Use with caution.
<code>rgwConfig</code>	<code>object</code>	RgwConfig sets Ceph RGW config values for the gateway clients that serve this object store. Values are modified at runtime without RGW restart. This feature is intended for advanced users. It allows breaking configurations to be easily applied. Use with caution.
<code>rgwConfigFromSecret</code>	<code>object</code>	RgwConfigFromSecret works exactly like RgwConfig but takes config value from Secret Key reference. Values are modified at runtime without RGW restart.

Property	Type	Description
		This feature is intended for advanced users. It allows breaking configurations to be easily applied. Use with caution.
<code>securePort</code>	<code>integer</code>	The port the rgw service will be listening on (https)
<code>service</code>	<code>object</code>	The configuration related to add/set on each rgw service.
<code>sslCertificateRef</code>	<code>string</code>	The name of the secret that stores the ssl certificate for secure rgw connections

## `.spec.gateway.additionalVolumeMounts`

### Description

`AdditionalVolumeMounts` allows additional volumes to be mounted to the RGW pod. The root directory for each additional volume mount is `/var/rgw`. Example: for an additional mount at subPath `ldap`, mounted from a secret that has key `bindpass.secret`, the file would reside at `/var/rgw/ldap/bindpass.secret`.

### Type

`array`

## `.spec.gateway.additionalVolumeMounts[]`

### Description

`AdditionalVolumeMount` represents the source from where additional files in pod containers should come from and what subdirectory they are made available in.

**Type**

object

**Required**

subPath

volumeSource

Property	Type	Description
subPath	string	SubPath defines the sub-path (subdirectory) of the directory root where the volumeSource will be mounted. All files/keys in the volume source's volume will be mounted to the subdirectory. This is not the same as the Kubernetes <code>subPath</code> volume mount option. Each subPath definition must be unique and must not contain ':
volumeSource	object	

**.spec.gateway.additionalVolumeMounts[].volumeSource****Type**

object

Property	Type	Description
configMap	object	
emptyDir	object	
hostPath	object	
persistentVolumeClaim	object	
projected	object	
secret	object	

## `.spec.gateway.additionalVolumeMounts[].volumeSource.configMap`

### Type

object

Property	Type	Description
<code>defaultMode</code>	integer	
<code>items</code>	array	
<code>name</code>	string	
<code>optional</code>	boolean	

## `.spec.gateway.additionalVolumeMounts[].volumeSource.configMap.items`

### Type

array

## `.spec.gateway.additionalVolumeMounts[].volumeSource.configMap.items[]`

### Type

object

### Required

key

path

Property	Type	Description
<code>key</code>	string	

Property	Type	Description
mode	integer	
path	string	

## `.spec.gateway.additionalVolumeMounts[].volumeSource.emptyDir`

### Type

object

Property	Type	Description
medium	string	
sizeLimit		

## `.spec.gateway.additionalVolumeMounts[].volumeSource.hostPath`

### Type

object

### Required

path

Property	Type	Description
path	string	
type	string	

## `.spec.gateway.additionalVolumeMounts[].volumeSource.persistentVolumeClaim`

### Type

`object`

### Required

`claimName`

Property	Type	Description
<code>claimName</code>	<code>string</code>	
<code>readOnly</code>	<code>boolean</code>	

## `.spec.gateway.additionalVolumeMounts[].volumeSource.projected`

### Type

`object`

Property	Type	Description
<code>defaultMode</code>	<code>integer</code>	
<code>sources</code>	<code>array</code>	

## `.spec.gateway.additionalVolumeMounts[].volumeSource.projected.sources`

### Type

`array`

## `.spec.gateway.additionalVolumeMounts[].volumeSource.p rojected.sources[]`

### Type

object

Property	Type	Description
<code>clusterTrustBundle</code>	object	
<code>configMap</code>	object	
<code>downwardAPI</code>	object	
<code>podCertificate</code>	object	
<code>secret</code>	object	
<code>serviceAccountToken</code>	object	

## `.spec.gateway.additionalVolumeMounts[].volumeSource.p rojected.sources[].clusterTrustBundle`

### Type

object

### Required

path

Property	Type	Description
<code>labelSelector</code>	object	
<code>name</code>	string	
<code>optional</code>	boolean	

Property	Type	Description
path	string	
signerName	string	

**.spec.gateway.additionalVolumeMounts[].volumeSource.p  
rojected.sources[].clusterTrustBundle.labelSelector**

Type

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

**.spec.gateway.additionalVolumeMounts[].volumeSource.p  
rojected.sources[].clusterTrustBundle.labelSelector.match  
Expressions**

Type

array

**.spec.gateway.additionalVolumeMounts[].volumeSource.p  
rojected.sources[].clusterTrustBundle.labelSelector.match  
Expressions[]**

Type

object

Required

key operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.gateway.additionalVolumeMounts[].volumeSource.p  
rojected.sources[].clusterTrustBundle.labelSelector.match  
Expressions[].values**

Type

array

**.spec.gateway.additionalVolumeMounts[].volumeSource.p  
rojected.sources[].clusterTrustBundle.labelSelector.match  
Expressions[].values[]**

Type

string

**.spec.gateway.additionalVolumeMounts[].volumeSource.p  
rojected.sources[].clusterTrustBundle.labelSelector.match  
Labels**

Type

object

## `.spec.gateway.additionalVolumeMounts[].volumeSource.p rojected.sources[].configMap`

### Type

object

Property	Type	Description
items	array	
name	string	
optional	boolean	

## `.spec.gateway.additionalVolumeMounts[].volumeSource.p rojected.sources[].configMap.items`

### Type

array

## `.spec.gateway.additionalVolumeMounts[].volumeSource.p rojected.sources[].configMap.items[]`

### Type

object

### Required

key path

Property	Type	Description
key	string	
mode	integer	

Property	Type	Description
path	string	

**.spec.gateway.additionalVolumeMounts[].volumeSource.projected.sources[].downwardAPI**

Type

object

Property	Type	Description
items	array	

**.spec.gateway.additionalVolumeMounts[].volumeSource.projected.sources[].downwardAPI.items**

Type

array

**.spec.gateway.additionalVolumeMounts[].volumeSource.projected.sources[].downwardAPI.items[]**

Type

object

Required

path

Property	Type	Description
fieldRef	object	

Property	Type	Description
mode	integer	
path	string	
resourceFieldRef	object	

**.spec.gateway.additionalVolumeMounts[].volumeSource.p  
rojected.sources[].downwardAPI.items[].fieldRef**

Type

object

Required

fieldPath

Property	Type	Description
apiVersion	string	
fieldPath	string	

**.spec.gateway.additionalVolumeMounts[].volumeSource.p  
rojected.sources[].downwardAPI.items[].resourceFieldRef**

Type

object

Required

resource

Property	Type	Description
containerName	string	

Property	Type	Description
divisor		
resource	string	

## `.spec.gateway.additionalVolumeMounts[].volumeSource.p rojected.sources[].podCertificate`

### Type

object

### Required

keyType

signerName

Property	Type	Description
certificateChainPath	string	
credentialBundlePath	string	
keyPath	string	
keyType	string	
maxExpirationSeconds	integer	
signerName	string	
userAnnotations	object	

## `.spec.gateway.additionalVolumeMounts[].volumeSource.p rojected.sources[].podCertificate.userAnnotations`

### Type

object

## `.spec.gateway.additionalVolumeMounts[].volumeSource.p rojected.sources[].secret`

### Type

object

Property	Type	Description
items	array	
name	string	
optional	boolean	

## `.spec.gateway.additionalVolumeMounts[].volumeSource.p rojected.sources[].secret.items`

### Type

array

## `.spec.gateway.additionalVolumeMounts[].volumeSource.p rojected.sources[].secret.items[]`

### Type

object

### Required

key path

Property	Type	Description
key	string	
mode	integer	

Property	Type	Description
path	string	

## `.spec.gateway.additionalVolumeMounts[].volumeSource.projected.sources[].serviceAccountToken`

### Type

object

### Required

path

Property	Type	Description
audience	string	
expirationSeconds	integer	
path	string	

## `.spec.gateway.additionalVolumeMounts[].volumeSource.secret`

### Type

object

Property	Type	Description
defaultMode	integer	
items	array	
optional	boolean	

Property	Type	Description
<code>secretName</code>	<code>string</code>	

## `.spec.gateway.additionalVolumeMounts[].volumeSource.secret.items`

### Type

`array`

## `.spec.gateway.additionalVolumeMounts[].volumeSource.secret.items[]`

### Type

`object`

### Required

`key` `path`

Property	Type	Description
<code>key</code>	<code>string</code>	
<code>mode</code>	<code>integer</code>	
<code>path</code>	<code>string</code>	

## `.spec.gateway.annotations`

### Description

The annotations-related configuration to add/set on each Pod related object.

### Type

`object`

## .spec.gateway.externalRgwEndpoints

### Description

ExternalRgwEndpoints points to external RGW endpoint(s). Multiple endpoints can be given, but for stability of ObjectBucketClaims, we highly recommend that users give only a single external RGW endpoint that is a load balancer that sends requests to the multiple RGWs.

### Type

array

## .spec.gateway.externalRgwEndpoints[]

### Description

EndpointAddress is a tuple that describes a single IP address or host name. This is a subset of Kubernetes's v1.EndpointAddress.

### Type

object

Property	Type	Description
hostname	string	The DNS-addressable Hostname of this endpoint. This field will be preferred over IP if both are given.
ip	string	The IP of this endpoint. As a legacy behavior, this supports being given a DNS-addressable hostname as well.

## .spec.gateway.labels

### Description

The labels-related configuration to add/set on each Pod related object.

### Type

object

## .spec.gateway.opsLogSidecar

### Description

Enable enhanced operation Logs for S3 in a sidecar named ops-log

### Type

object

Property	Type	Description
<code>resources</code>	object	Resources represents the way to specify resource requirements for the ops-log sidecar

## .spec.gateway.opsLogSidecar.resources

### Description

Resources represents the way to specify resource requirements for the ops-log sidecar

### Type

object

Property	Type	Description
<code>claims</code>	array	<p>Claims lists the names of resources, defined in <code>spec.resourceClaims</code>, that are used by this container.</p> <p>This field depends on the <code>DynamicResourceAllocation</code> feature gate.</p> <p>This field is immutable. It can only be set for containers.</p>

Property	Type	Description
<code>limits</code>	<code>object</code>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/">https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/</a> ↗
<code>requests</code>	<code>object</code>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. Requests cannot exceed Limits. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/">https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/</a> ↗

## `.spec.gateway.opsLogSidecar.resources.claims`

### Description

Claims lists the names of resources, defined in `spec.resourceClaims`, that are used by this container. This field depends on the `DynamicResourceAllocation` feature gate. This field is immutable. It can only be set for containers.

### Type

`array`

## `.spec.gateway.opsLogSidecar.resources.claims[]`

### Description

ResourceClaim references one entry in `PodSpec.ResourceClaims`.

### Type

`object`

### Required

name

Property	Type	Description
name	string	Name must match the name of one entry in pod.spec.resourceClaims of the Pod where this field is used. It makes that resource available inside a container.
request	string	Request is the name chosen for a request in the referenced claim. If empty, everything from the claim is made available, otherwise only the result of this request.

## **.spec.gateway.opsLogSidecar.resources.limits**

### **Description**

Limits describes the maximum amount of compute resources allowed. More info: <https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/>

### **Type**

object

## **.spec.gateway.opsLogSidecar.resources.requests**

### **Description**

Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. Requests cannot exceed Limits. More info: <https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/>

### **Type**

object

## **.spec.gateway.placement**

## Type

object

Property	Type	Description
nodeAffinity	object	
podAffinity	object	
podAntiAffinity	object	
tolerations	array	
topologySpreadConstraints	array	

## **.spec.gateway.placement.nodeAffinity**

### Type

object

Property	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	array	
requiredDuringSchedulingIgnoredDuringExecution	object	

## **.spec.gateway.placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution**

### Type

array

## **.spec.gateway.placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[]**

**Type**

object

**Required**

preference

weight

Property	Type	Description
preference	object	
weight	integer	

**.spec.gateway.placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference****Type**

object

Property	Type	Description
matchExpressions	array	
matchFields	array	

**.spec.gateway.placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchExpressions****Type**

array

**.spec.gateway.placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchExpre**

## ssions[]

### Type

object

### Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.gateway.placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchExpressions[].values**

### Type

array

**.spec.gateway.placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchExpressions[].values[]**

### Type

string

**.spec.gateway.placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchFields**

**Type**

array

**.spec.gateway.placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchFields[ ]**

**Type**

object

**Required**

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.gateway.placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchFields[ ].values**

**Type**

array

**.spec.gateway.placement.nodeAffinity.preferredDuringSchedulingIgnoredDuringExecution[].preference.matchFields[ ].values[ ]**

**Type**

`string`

## `.spec.gateway.placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution`

Type

`object`

Required

`nodeSelectorTerms`

Property	Type	Description
<code>nodeSelectorTerms</code>	<code>array</code>	

## `.spec.gateway.placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms`

Type

`array`

## `.spec.gateway.placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[]`

Type

`object`

Property	Type	Description
<code>matchExpressions</code>	<code>array</code>	
<code>matchFields</code>	<code>array</code>	

## `.spec.gateway.placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchExpressions`

Type

array

## `.spec.gateway.placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchExpressions[]`

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

## `.spec.gateway.placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchExpressions[].values`

Type

array

**.spec.gateway.placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchExpressions[].values[]**

Type

string

**.spec.gateway.placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchFields**

Type

array

**.spec.gateway.placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchFields[]**

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

## `.spec.gateway.placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchFields[].values`

Type

array

## `.spec.gateway.placement.nodeAffinity.requiredDuringSchedulingIgnoredDuringExecution.nodeSelectorTerms[].matchFields[].values[]`

Type

string

## `.spec.gateway.placement.podAffinity`

Type

object

Property	Type	Description
<code>preferredDuringSchedulingIgnoredDuringExecution</code>	array	
<code>requiredDuringSchedulingIgnoredDuringExecution</code>	array	

## `.spec.gateway.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution`

Type

array

## .spec.gateway.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[]

### Type

object

### Required

podAffinityTerm

weight

Property	Type	Description
podAffinityTerm	object	
weight	integer	

## .spec.gateway.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm

### Type

object

### Required

topologyKey

Property	Type	Description
labelSelector	object	
matchLabelKeys	array	
mismatchLabelKeys	array	
namespaceSelector	object	
namespaces	array	
topologyKey	string	

## `.spec.gateway.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector`

### Type

object

Property	Type	Description
<code>matchExpressions</code>	array	
<code>matchLabels</code>	object	

## `.spec.gateway.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions`

### Type

array

## `.spec.gateway.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions[]`

### Type

object

### Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.gateway.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions[].values**

Type

array

**.spec.gateway.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions[].values[]**

Type

string

**.spec.gateway.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchLabels**

Type

object

**.spec.gateway.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.matchLa**

## belKeys

Type

array

**.spec.gateway.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.matchLabelKeys[]**

Type

string

**.spec.gateway.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.mismatchLabelKeys**

Type

array

**.spec.gateway.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.mismatchLabelKeys[]**

Type

string

**.spec.gateway.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector**

**Type**

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

**.spec.gateway.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchExpressions**

**Type**

array

**.spec.gateway.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchExpressions[]**

**Type**

object

**Required**

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.gateway.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchExpressions[].values**

Type

array

**.spec.gateway.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchExpressions[].values[]**

Type

string

**.spec.gateway.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaceSelector.matchLabels**

Type

object

**.spec.gateway.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaces**

Type

array

## `.spec.gateway.placement.podAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaces[]`

Type

string

## `.spec.gateway.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution`

Type

array

## `.spec.gateway.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[]`

Type

object

Required

topologyKey

Property	Type	Description
<code>labelSelector</code>	object	
<code>matchLabelKeys</code>	array	
<code>mismatchLabelKeys</code>	array	
<code>namespaceSelector</code>	object	
<code>namespaces</code>	array	

Property	Type	Description
topologyKey	string	

## **.spec.gateway.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector**

### Type

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

## **.spec.gateway.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions**

### Type

array

## **.spec.gateway.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions[]**

### Type

object

### Required

key operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.gateway.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions[].values**

Type

array

**.spec.gateway.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions[].values[]**

Type

string

**.spec.gateway.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchLabels**

Type

object

**.spec.gateway.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].matchLabelKeys**

**Type**

array

**.spec.gateway.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].matchLabelKeys[]**

**Type**

string

**.spec.gateway.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].mismatchLabelKeys**

**Type**

array

**.spec.gateway.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].mismatchLabelKeys[]**

**Type**

string

**.spec.gateway.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector**

**Type**

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

## `.spec.gateway.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions`

Type

array

## `.spec.gateway.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions[]`

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

## `.spec.gateway.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions[].values`

Type

array

**.spec.gateway.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions[].values[]**

Type

string

**.spec.gateway.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchLabels**

Type

object

**.spec.gateway.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaces**

Type

array

**.spec.gateway.placement.podAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaces[]**

Type

string

**.spec.gateway.placement.podAntiAffinity**

Type

object

Property	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	array	
requiredDuringSchedulingIgnoredDuringExecution	array	

## `.spec.gateway.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution`

Type

array

## `.spec.gateway.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[]`

Type

object

Required

podAffinityTerm

weight

Property	Type	Description
podAffinityTerm	object	
weight	integer	

## `.spec.gateway.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm`

Type

object

Required

topologyKey

Property	Type	Description
labelSelector	object	
matchLabelKeys	array	
mismatchLabelKeys	array	
namespaceSelector	object	
namespaces	array	
topologyKey	string	

## **.spec.gateway.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector**

Type

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

## **.spec.gateway.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions**

Type

array

## `.spec.gateway.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions[]`

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

## `.spec.gateway.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions[].values`

Type

array

## `.spec.gateway.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchExpressions[].values[]`

Type

string

**.spec.gateway.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.labelSelector.matchLabels**

Type

object

**.spec.gateway.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.matchLabelKeys**

Type

array

**.spec.gateway.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.matchLabelKeys[]**

Type

string

**.spec.gateway.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.mismatchLabelKeys**

Type

array

**.spec.gateway.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.mismatchLabelKeys[]**

Type

string

**.spec.gateway.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespacesSelector**

Type

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

**.spec.gateway.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespacesSelector.matchExpressions**

Type

array

**.spec.gateway.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespacesSelector.matchExpressions[]**

**Type**

object

**Required**

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

**.spec.gateway.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaces.selector.matchExpressions[].values**

**Type**

array

**.spec.gateway.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaces.selector.matchExpressions[].values[]**

**Type**

string

**.spec.gateway.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaces.selector.matchLabels**

**Type**

object

**.spec.gateway.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaces**

Type

array

**.spec.gateway.placement.podAntiAffinity.preferredDuringSchedulingIgnoredDuringExecution[].podAffinityTerm.namespaces[]**

Type

string

**.spec.gateway.placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution**

Type

array

**.spec.gateway.placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[]**

Type

object

Required

topologyKey

Property	Type	Description
labelSelector	object	
matchLabelKeys	array	
mismatchLabelKeys	array	
namespaceSelector	object	
namespaces	array	
topologyKey	string	

## `.spec.gateway.placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector`

Type

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

## `.spec.gateway.placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions`

Type

array

## `.spec.gateway.placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions[]`

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

## `.spec.gateway.placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions[].values`

Type

array

## `.spec.gateway.placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchExpressions[].values[]`

Type

string

**.spec.gateway.placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].labelSelector.matchLabels**

Type

object

**.spec.gateway.placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].matchLabelKeys**

Type

array

**.spec.gateway.placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].matchLabelKeys[]**

Type

string

**.spec.gateway.placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].mismatchLabelKeys**

Type

array

**.spec.gateway.placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].mismatchLabelKeys[]**

Type

string

## `.spec.gateway.placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector`

### Type

object

Property	Type	Description
<code>matchExpressions</code>	array	
<code>matchLabels</code>	object	

## `.spec.gateway.placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions`

### Type

array

## `.spec.gateway.placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions[]`

### Type

object

### Required

key

operator

Property	Type	Description
<code>key</code>	string	

Property	Type	Description
<code>operator</code>	<code>string</code>	
<code>values</code>	<code>array</code>	

**`.spec.gateway.placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions[].values`**

Type

`array`

**`.spec.gateway.placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchExpressions[].values[]`**

Type

`string`

**`.spec.gateway.placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaceSelector.matchLabels`**

Type

`object`

**`.spec.gateway.placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaces`**

Type

`array`

## `.spec.gateway.placement.podAntiAffinity.requiredDuringSchedulingIgnoredDuringExecution[].namespaces[]`

Type

`string`

## `.spec.gateway.placement.tolerations`

Type

`array`

## `.spec.gateway.placement.tolerations[]`

Type

`object`

Property	Type	Description
<code>effect</code>	<code>string</code>	
<code>key</code>	<code>string</code>	
<code>operator</code>	<code>string</code>	
<code>tolerationSeconds</code>	<code>integer</code>	
<code>value</code>	<code>string</code>	

## `.spec.gateway.placement.topologySpreadConstraints`

Type

`array`

## .spec.gateway.placement.topologySpreadConstraints[]

### Type

object

### Required

maxSkew

topologyKey

whenUnsatisfiable

Property	Type	Description
labelSelector	object	
matchLabelKeys	array	
maxSkew	integer	
minDomains	integer	
nodeAffinityPolicy	string	
nodeTaintsPolicy	string	
topologyKey	string	
whenUnsatisfiable	string	

## .spec.gateway.placement.topologySpreadConstraints[].labelSelector

### Type

object

Property	Type	Description
matchExpressions	array	
matchLabels	object	

## `.spec.gateway.placement.topologySpreadConstraints[].labelSelector.matchExpressions`

Type

array

## `.spec.gateway.placement.topologySpreadConstraints[].labelSelector.matchExpressions[]`

Type

object

Required

key

operator

Property	Type	Description
key	string	
operator	string	
values	array	

## `.spec.gateway.placement.topologySpreadConstraints[].labelSelector.matchExpressions[].values`

Type

array

## `.spec.gateway.placement.topologySpreadConstraints[].labelSelector.matchExpressions[].values[]`

Type

`string`

## `.spec.gateway.placement.topologySpreadConstraints[].labelSelector.matchLabels`

Type

`object`

## `.spec.gateway.placement.topologySpreadConstraints[].matchLabelKeys`

Type

`array`

## `.spec.gateway.placement.topologySpreadConstraints[].matchLabelKeys[]`

Type

`string`

## `.spec.gateway.readAffinity`

Description

ReadAffinity defines the RGW read affinity policy to optimize the read requests for the RGW clients Note: Only supported from Ceph Tentacle (v20)

Type

`object`

Required

`type`

Property	Type	Description
type	string	Type defines the RGW ReadAffinity type localize: read from the nearest OSD based on crush location of the RGW client balance: picks a random OSD from the PG's active set default: read from the primary OSD

## .spec.gateway.resources

### Description

The resource requirements for the rgw pods

### Type

object

Property	Type	Description
claims	array	<p>Claims lists the names of resources, defined in spec.resourceClaims, that are used by this container.</p> <p>This field depends on the DynamicResourceAllocation feature gate.</p> <p>This field is immutable. It can only be set for containers.</p>
limits	object	<p>Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/">https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/</a></p>
requests	object	<p>Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to</p>

Property	Type	Description
		Limits if that is explicitly specified, otherwise to an implementation-defined value. Requests cannot exceed Limits. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/">https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/</a> ↗

## .spec.gateway.resources.claims

### Description

Claims lists the names of resources, defined in `spec.resourceClaims`, that are used by this container. This field depends on the `DynamicResourceAllocation` feature gate. This field is immutable. It can only be set for containers.

### Type

array

## .spec.gateway.resources.claims[]

### Description

ResourceClaim references one entry in `PodSpec.ResourceClaims`.

### Type

object

### Required

name

Property	Type	Description
<code>name</code>	<code>string</code>	Name must match the name of one entry in <code>pod.spec.resourceClaims</code> of the Pod where this field is used. It makes that resource available inside a container.

Property	Type	Description
<code>request</code>	<code>string</code>	Request is the name chosen for a request in the referenced claim. If empty, everything from the claim is made available, otherwise only the result of this request.

## `.spec.gateway.resources.limits`

### Description

Limits describes the maximum amount of compute resources allowed. More info: <https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/>

### Type

`object`

## `.spec.gateway.resources.requests`

### Description

Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. Requests cannot exceed Limits. More info: <https://kubernetes.io/docs/concepts/configuration/manage-resources-containers/>

### Type

`object`

## `.spec.gateway.rgwCommandFlags`

### Description

RgwCommandFlags sets Ceph RGW config values for the gateway clients that serve this object store. Values are modified at RGW startup, resulting in RGW pod restarts. This feature is intended for advanced users. It allows breaking configurations to be easily applied. Use with caution.

### Type

`object`

## **.spec.gateway.rgwConfig**

### **Description**

RgwConfig sets Ceph RGW config values for the gateway clients that serve this object store. Values are modified at runtime without RGW restart. This feature is intended for advanced users. It allows breaking configurations to be easily applied. Use with caution.

### **Type**

`object`

## **.spec.gateway.rgwConfigFromSecret**

### **Description**

RgwConfigFromSecret works exactly like RgwConfig but takes config value from Secret Key reference. Values are modified at runtime without RGW restart. This feature is intended for advanced users. It allows breaking configurations to be easily applied. Use with caution.

### **Type**

`object`

## **.spec.gateway.service**

### **Description**

The configuration related to add/set on each rgw service.

### **Type**

`object`

Property	Type	Description
<code>annotations</code>	<code>object</code>	The annotations-related configuration to add/set on each rgw service. nullable optional

## .spec.gateway.service.annotations

### Description

The annotations-related configuration to add/set on each rgw service. nullable optional

### Type

object

## .spec.healthCheck

### Description

The RGW health probes

### Type

object

Property	Type	Description
<code>readinessProbe</code>	object	ProbeSpec is a wrapper around Probe so it can be enabled or disabled for a Ceph daemon
<code>startupProbe</code>	object	ProbeSpec is a wrapper around Probe so it can be enabled or disabled for a Ceph daemon

## .spec.healthCheck.readinessProbe

### Description

ProbeSpec is a wrapper around Probe so it can be enabled or disabled for a Ceph daemon

### Type

object

Property	Type	Description
<code>disabled</code>	<code>boolean</code>	Disabled determines whether probe is disable or not
<code>probe</code>	<code>object</code>	Probe describes a health check to be performed against a container to determine whether it is alive or ready to receive traffic.

## `.spec.healthCheck.readinessProbe.probe`

### Description

Probe describes a health check to be performed against a container to determine whether it is alive or ready to receive traffic.

### Type

`object`

Property	Type	Description
<code>exec</code>	<code>object</code>	Exec specifies a command to execute in the
<code>failureThreshold</code>	<code>integer</code>	Minimum consecutive failures for the probe to be considered failed after having succeeded. Default value is 3. Minimum value is 1.
<code>grpc</code>	<code>object</code>	GRPC specifies a GRPC HealthCheckRequest to send to the container.
<code>httpGet</code>	<code>object</code>	HTTPGet specifies an HTTP GET request to send to the container.

Property	Type	Description
<code>initialDelaySeconds</code>	<code>integer</code>	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/lifecycle#container-probes</a>
<code>periodSeconds</code>	<code>integer</code>	How often (in seconds) to perform the probe. Default is 10 seconds. Minimum value is 1.
<code>successThreshold</code>	<code>integer</code>	Minimum consecutive successes for the probe to be considered successful after having failed. Default is 1. Must be 1 for liveness and startup. Minimum value is 1.
<code>tcpSocket</code>	<code>object</code>	TCP socket specifies a connection to a TCP port.
<code>terminationGracePeriodSeconds</code>	<code>integer</code>	Optional duration in seconds the pod may be gracefully terminated before the probe is initiated.
<code>timeoutSeconds</code>	<code>integer</code>	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/lifecycle#container-probes</a>

## `.spec.healthCheck.readinessProbe.probe.exec`

### Description

Exec specifies a command to execute in the container.

### Type

object

Property	Type	Description
command	array	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions ('!', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

## **.spec.healthCheck.readinessProbe.probe.exec.command**

### **Description**

Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions ('!', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

### **Type**

array

## **.spec.healthCheck.readinessProbe.probe.exec.command[]**

### **Type**

string

## **.spec.healthCheck.readinessProbe.probe.grpc**

### **Description**

GRPC specifies a GRPC HealthCheckRequest.

### **Type**

object

**Required**

port

Property	Type	Description
port	integer	Port number of the gRPC service. Number must be in the range 1 to 65535.
service	string	Service is the name of the service to place in the gRPC HealthCheckRequest (see <a href="https://github.com/grpc/grpc/blob/master/doc/health-checking.md">https://github.com/grpc/grpc/blob/master/doc/health-checking.md</a> ↗).  If this is not specified, the default behavior is defined by gRPC.

**.spec.healthCheck.readinessProbe.probe.httpGet****Description**

HTTPGet specifies an HTTP GET request to perform.

**Type**

object

**Required**

port

Property	Type	Description
host	string	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.

Property	Type	Description
<code>httpHeaders</code>	<code>array</code>	Custom headers to set in the request. HTTP allows repeated headers.
<code>path</code>	<code>string</code>	Path to access on the HTTP server.
<code>port</code>		Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
<code>scheme</code>	<code>string</code>	Scheme to use for connecting to the host. Defaults to HTTP.

## `.spec.healthCheck.readinessProbe.probe.httpGet.httpHeaders`

### Description

Custom headers to set in the request. HTTP allows repeated headers.

### Type

`array`

## `.spec.healthCheck.readinessProbe.probe.httpGet.httpHeaders[]`

### Description

HTTPHeader describes a custom header to be used in HTTP probes

### Type

object

**Required**

name

value

Property	Type	Description
name	string	The header field name. This will be canonicalized upon output, so case-variant names will be understood as the same header.
value	string	The header field value

**.spec.healthCheck.readinessProbe.probe.tcpSocket****Description**

TCPSocket specifies a connection to a TCP port.

**Type**

object

**Required**

port

Property	Type	Description
host	string	Optional: Host name to connect to, defaults to the pod IP.
port		Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

## .spec.healthCheck.startupProbe

### Description

ProbeSpec is a wrapper around Probe so it can be enabled or disabled for a Ceph daemon

### Type

object

Property	Type	Description
<code>disabled</code>	<code>boolean</code>	Disabled determines whether probe is disable or not
<code>probe</code>	<code>object</code>	Probe describes a health check to be performed against a container to determine whether it is alive or ready to receive traffic.

## .spec.healthCheck.startupProbe.probe

### Description

Probe describes a health check to be performed against a container to determine whether it is alive or ready to receive traffic.

### Type

object

Property	Type	Description
<code>exec</code>	<code>object</code>	Exec specifies a command to execute in the

Property	Type	Description
<code>failureThreshold</code>	<code>integer</code>	Minimum consecutive failures for the probe to be considered failed after having succeeded. Default value is 3. Minimum value is 1.
<code>grpc</code>	<code>object</code>	GRPC specifies a GRPC HealthCheckRequest
<code>httpGet</code>	<code>object</code>	HTTPGet specifies an HTTP GET request to
<code>initialDelaySeconds</code>	<code>integer</code>	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/liveness-probe/#container-probes">https://kubernetes.io/docs/concepts/workloads/controllers/liveness-probe/#container-probes</a>
<code>periodSeconds</code>	<code>integer</code>	How often (in seconds) to perform the probe. Default is 10 seconds. Minimum value is 1.
<code>successThreshold</code>	<code>integer</code>	Minimum consecutive successes for the probe to be considered successful after having failed. Default is 1. Must be 1 for liveness and startup. Minimum value is 1.
<code>tcpSocket</code>	<code>object</code>	TCP Socket specifies a connection to a TCP
<code>terminationGracePeriodSeconds</code>	<code>integer</code>	

Property	Type	Description
<code>timeoutSeconds</code>	<code>integer</code>	Number of seconds after which the probe timeout occurs. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/replicaset/#lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/controllers/replicaset/#lifecycle#container-probes</a>

## `.spec.healthCheck.startupProbe.probe.exec`

### Description

Exec specifies a command to execute in the container.

### Type

`object`

Property	Type	Description
<code>command</code>	<code>array</code>	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

## `.spec.healthCheck.startupProbe.probe.exec.command`

### Description

Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions ('|', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Type**

array

**.spec.healthCheck.startupProbe.probe.exec.command[]****Type**

string

**.spec.healthCheck.startupProbe.probe.grpc****Description**

GRPC specifies a GRPC HealthCheckRequest.

**Type**

object

**Required**

port

Property	Type	Description
port	integer	Port number of the gRPC service. Number must be in the range 1 to 65535.
service	string	<p>Service is the name of the service to place in the gRPC HealthCheckRequest (see <a href="https://github.com/grpc/grpc/blob/master/doc/health-checking.md">https://github.com/grpc/grpc/blob/master/doc/health-checking.md</a> ↗).</p> <p>If this is not specified, the default behavior is defined by gRPC.</p>

**.spec.healthCheck.startupProbe.probe.httpGet**

## Description

HTTPGet specifies an HTTP GET request to perform.

## Type

object

## Required

port

Property	Type	Description
host	string	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	array	Custom headers to set in the request. HTTP allows repeated headers.
path	string	Path to access on the HTTP server.
port		Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	string	Scheme to use for connecting to the host. Defaults to HTTP.

## .spec.healthCheck.startupProbe.probe.httpGet.httpHeader

## S

## Description

Custom headers to set in the request. HTTP allows repeated headers.

### Type

array

## `.spec.healthCheck.startupProbe.probe.httpGet.httpHeaders[]`

### Description

HTTPHeader describes a custom header to be used in HTTP probes

### Type

object

### Required

name

value

Property	Type	Description
name	string	The header field name. This will be canonicalized upon output, so case-variant names will be understood as the same header.
value	string	The header field value

## `.spec.healthCheck.startupProbe.probe.tcpSocket`

### Description

TCPSocket specifies a connection to a TCP port.

### Type

object

### Required

port

Property	Type	Description
<code>host</code>	<code>string</code>	Optional: Host name to connect to, defaults to the pod IP.
<code>port</code>	<code>string</code>	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

## .spec.hosting

### Description

Hosting settings for the object store. A common use case for hosting configuration is to inform Rook of endpoints that support DNS wildcards, which in turn allows virtual host-style bucket addressing.

### Type

`object`

Property	Type	Description
<code>advertiseEndpoint</code>	<code>object</code>	AdvertiseEndpoint is the default endpoint Rook will return for resources dependent on this object store. This endpoint will be returned to CephObjectStoreUsers, Object Bucket Claims, and COSI Buckets/Accesses. By default, Rook returns the endpoint for the object store's Kubernetes service using HTTPS with <code>gateway.securePort</code> if it is defined (otherwise, HTTP with <code>gateway.port</code> ).
<code>dnsNames</code>	<code>array</code>	A list of DNS host names on which object store gateways will accept client S3 connections. When

Property	Type	Description
		specified, object store gateways will reject client S3 connections to hostnames that are not present in this list, so include all endpoints. The object store's advertiseEndpoint and Kubernetes service endpoint, plus CephObjectZone <code>customEndpoints</code> are automatically added to the list but may be set here again if desired. Each DNS name must be valid according RFC-1123. If the DNS name corresponds to an endpoint with DNS wildcard support, do not include the wildcard itself in the list of hostnames. E.g., use "mystore.example.com" instead of "*.mystore.example.com".

## .spec.hosting.advertiseEndpoint

### Description

AdvertiseEndpoint is the default endpoint Rook will return for resources dependent on this object store. This endpoint will be returned to CephObjectStoreUsers, Object Bucket Claims, and COSI Buckets/Accesses. By default, Rook returns the endpoint for the object store's Kubernetes service using HTTPS with `gateway.securePort`` if it is defined (otherwise, HTTP with `gateway.port``).

### Type

object

### Required

dnsName

port

useTls

Property	Type	Description
dnsName	string	DnsName is the DNS name (in RFC-1123 format) of the endpoint. If the DNS name corresponds to an endpoint with DNS wildcard support, do not include the wildcard itself in the list of

Property	Type	Description
		hostnames. E.g., use "mystore.example.com" instead of "*.mystore.example.com".
<code>port</code>	<code>integer</code>	Port is the port on which S3 connections can be made for this endpoint.
<code>useTls</code>	<code>boolean</code>	UseTls defines whether the endpoint uses TLS (HTTPS) or not (HTTP).

## `.spec.hosting.dnsNames`

### Description

A list of DNS host names on which object store gateways will accept client S3 connections. When specified, object store gateways will reject client S3 connections to hostnames that are not present in this list, so include all endpoints. The object store's `advertiseEndpoint` and Kubernetes service endpoint, plus `CephObjectZone`customEndpoints`` are automatically added to the list but may be set here again if desired. Each DNS name must be valid according RFC-1123. If the DNS name corresponds to an endpoint with DNS wildcard support, do not include the wildcard itself in the list of hostnames. E.g., use "mystore.example.com" instead of "\*.mystore.example.com".

### Type

`array`

## `.spec.hosting.dnsNames[]`

### Type

`string`

## `.spec.metadataPool`

## Description

The metadata pool settings

## Type

object

Property	Type	Description
<code>application</code>	<code>string</code>	The application name to set on the pool. Only expected to be set for rgw pools.
<code>compressionMode</code>	<code>string</code>	DEPRECATED: use Parameters instead, e.g., <code>Parameters["compression_mode"] = "force"</code> The inline compression mode in Bluestore OSD to set to (options are: none, passive, aggressive, force) Do NOT set a default value for kubebuilder as this will override the Parameters
<code>crushRoot</code>	<code>string</code>	The root of the crush hierarchy utilized by the pool
<code>deviceClass</code>	<code>string</code>	The device class the OSD should set to for use in the pool
<code>enableCrushUpdates</code>	<code>boolean</code>	Allow rook operator to change the pool CRUSH tunables once the pool is created
<code>enableRBDStats</code>	<code>boolean</code>	EnableRBDStats is used to enable gathering of statistics for all RBD images in the pool

Property	Type	Description
<code>erasureCoded</code>	<code>object</code>	The erasure code settings
<code>failureDomain</code>	<code>string</code>	The failure domain: osd/host/(region or zone if available) - technically also any type in the crush map
<code>mirroring</code>	<code>object</code>	The mirroring settings
<code>parameters</code>	<code>object</code>	Parameters is a list of properties to enable on a given pool
<code>quotas</code>	<code>object</code>	The quota settings
<code>replicated</code>	<code>object</code>	The replication settings
<code>statusCheck</code>	<code>object</code>	The mirroring statusCheck

## `.spec.metadataPool.erasureCoded`

### Description

The erasure code settings

### Type

`object`

## Required

`codingChunks``dataChunks`

Property	Type	Description
<code>algorithm</code>	<code>string</code>	The algorithm for erasure coding. If absent, defaults to the plugin specified in <code>osd_pool_default_erasure_code_profile</code> .
<code>codingChunks</code>	<code>integer</code>	Number of coding chunks per object in an erasure coded storage pool (required for erasure-coded pool type). This is the number of OSDs that can be lost simultaneously before data cannot be recovered.
<code>dataChunks</code>	<code>integer</code>	Number of data chunks per object in an erasure coded storage pool (required for erasure-coded pool type). The number of chunks required to recover an object when any single OSD is lost is the same as <code>dataChunks</code> so be aware that the larger the number of data chunks, the higher the cost of recovery.

## .spec.metadataPool.mirroring

### Description

The mirroring settings

### Type

`object`

Property	Type	Description
<code>enabled</code>	<code>boolean</code>	Enabled whether this pool is mirrored or not
<code>mode</code>	<code>string</code>	Mode is the mirroring mode: pool, image or init-only.
<code>peers</code>	<code>object</code>	Peers represents the peers spec
<code>snapshotSchedules</code>	<code>array</code>	SnapshotSchedules is the scheduling of snapshot for mirrored images/pools

## `.spec.metadataPool.mirroring.peers`

### Description

Peers represents the peers spec

### Type

`object`

Property	Type	Description
<code>secretNames</code>	<code>array</code>	SecretNames represents the Kubernetes Secret names to add rbd-mirror or cephfs-mirror peers

## `.spec.metadataPool.mirroring.peers.secretNames`

### Description

SecretNames represents the Kubernetes Secret names to add rbd-mirror or cephfs-mirror peers

### Type

array

## **.spec.metadataPool.mirroring.peers.secretNames[]**

### Type

string

## **.spec.metadataPool.mirroring.snapshotSchedules**

### Description

SnapshotSchedules is the scheduling of snapshot for mirrored images/pools

### Type

array

## **.spec.metadataPool.mirroring.snapshotSchedules[]**

### Description

SnapshotScheduleSpec represents the snapshot scheduling settings of a mirrored pool

### Type

object

Property	Type	Description
interval	string	Interval represent the periodicity of the snapshot.
path	string	Path is the path to snapshot, only valid for CephFS

Property	Type	Description
<code>startTime</code>	<code>string</code>	StartTime indicates when to start the snapshot

## `.spec.metadataPool.parameters`

### Description

Parameters is a list of properties to enable on a given pool

### Type

`object`

## `.spec.metadataPool.quotas`

### Description

The quota settings

### Type

`object`

Property	Type	Description
<code>maxBytes</code>	<code>integer</code>	MaxBytes represents the quota in bytes Deprecated in favor of MaxSize
<code>maxObjects</code>	<code>integer</code>	MaxObjects represents the quota in objects
<code>maxSize</code>	<code>string</code>	MaxSize represents the quota in bytes as a string

# .spec.metadataPool.replicated

## Description

The replication settings

## Type

object

## Required

size

Property	Type	Description
hybridStorage	object	HybridStorage represents hybrid storage tier settings
replicasPerFailureDomain	integer	ReplicasPerFailureDomain the number of replica in the specified failure domain
requireSafeReplicaSize	boolean	RequireSafeReplicaSize if false allows you to set replica 1
size	integer	Size - Number of copies per object in a replicated storage pool, including the object itself (required for replicated pool type)
subFailureDomain	string	SubFailureDomain the name of the sub-failure domain

Property	Type	Description
<code>targetSizeRatio</code>	<code>number</code>	TargetSizeRatio gives a hint (%) to Ceph in terms of expected consumption of the total cluster capacity

## .spec.metadataPool.replicated.hybridStorage

### Description

HybridStorage represents hybrid storage tier settings

### Type

`object`

### Required

`primaryDeviceClass`

`secondaryDeviceClass`

Property	Type	Description
<code>primaryDeviceClass</code>	<code>string</code>	PrimaryDeviceClass represents high performance tier (for example SSD or NVME) for Primary OSD
<code>secondaryDeviceClass</code>	<code>string</code>	SecondaryDeviceClass represents low performance tier (for example HDDs) for remaining OSDs

## .spec.metadataPool.statusCheck

### Description

The mirroring statusCheck

### Type

object

Property	Type	Description
mirror	object	HealthCheckSpec represents the health check of an object store bucket

## .spec.metadataPool.statusCheck.mirror

### Description

HealthCheckSpec represents the health check of an object store bucket

### Type

object

Property	Type	Description
disabled	boolean	
interval	string	Interval is the internal in second or minute for the health check to run like 60s for 60 seconds
timeout	string	

## .spec.protocols

### Description

The protocol specification

### Type

object

Property	Type	Description
<code>enableAPIs</code>	<code>array</code>	Represents RGW 'rgw_enable_apis' config option. See: <a href="https://docs.ceph.com/en/reef/radosgw/config-ref/#confval-rgw_enable_apis">https://docs.ceph.com/en/reef/radosgw/config-ref/#confval-rgw_enable_apis</a> ↗ If no value provided then all APIs will be enabled: s3, s3website, swift, swift_auth, admin, sts, iam, notifications If enabled APIs are set, all remaining APIs will be disabled. This option overrides S3.Enabled value.
<code>s3</code>	<code>object</code>	The spec for S3
<code>swift</code>	<code>object</code>	The spec for Swift

## `.spec.protocols.enableAPIs`

### Description

Represents RGW 'rgw\_enable\_apis' config option. See: [https://docs.ceph.com/en/reef/radosgw/config-ref/#confval-rgw\\_enable\\_apis](https://docs.ceph.com/en/reef/radosgw/config-ref/#confval-rgw_enable_apis) If no value provided then all APIs will be enabled: s3, s3website, swift, swift\_auth, admin, sts, iam, notifications If enabled APIs are set, all remaining APIs will be disabled. This option overrides S3.Enabled value.

### Type

`array`

## `.spec.protocols.enableAPIs[]`

### Type

`string`

## `.spec.protocols.s3`

## Description

The spec for S3

## Type

object

Property	Type	Description
<code>authUseKeystone</code>	boolean	Whether to use Keystone for authentication. This option maps directly to the <code>rgw_s3_auth_use_keystone</code> option. Enabling it allows generating S3 credentials via an OpenStack API call, see the docs. If not given, the defaults of the corresponding RGW option apply.
<code>enabled</code>	boolean	Deprecated: use <code>protocol.enableAPIs</code> instead. Whether to enable S3. This defaults to true (even if <code>protocols.s3</code> is not present in the CRD). This maintains backwards compatibility – by default S3 is enabled.

## .spec.protocols.swift

## Description

The spec for Swift

## Type

object

Property	Type	Description
<code>accountInUrl</code>	boolean	Whether or not the Swift account name should be included in the Swift API URL. If set to false (the default), then the Swift API will listen on a URL formed like <a href="http://host:port/">http://host:port/</a>

Property	Type	Description
		<p>&lt;rgw_swift_url_prefix&gt;/v1. If set to true, the Swift API URL will be <a href="http://host:port/">http://host:port/</a></p> <p>&lt;rgw_swift_url_prefix&gt;/v1/AUTH_&lt;account_name&gt;. You must set this option to true (and update the Keystone service catalog) if you want radosgw to support publicly-readable containers and temporary URLs.</p>
<code>urlPrefix</code>	<code>string</code>	<p>The URL prefix for the Swift API, to distinguish it from the S3 API endpoint. The default is <code>swift</code>, which makes the Swift API available at the URL <a href="http://host:port/swift/v1">http://host:port/swift/v1</a> (or <a href="http://host:port/swift/v1/AUTH_%(tenant_id)s">http://host:port/swift/v1/AUTH_%(tenant_id)s</a> if rgw swift account in url is enabled).</p>
<code>versioningEnabled</code>	<code>boolean</code>	<p>Enables the Object Versioning of OpenStack Object Storage API. This allows clients to put the X-Versions-Location attribute on containers that should be versioned.</p>

## .spec.security

### Description

Security represents security settings

### Type

`object`

Property	Type	Description
<code>keyRotation</code>	<code>object</code>	KeyRotation defines options for Key Rotation.
<code>kms</code>	<code>object</code>	KeyManagementService is the main Key Management option
<code>s3</code>	<code>object</code>	The settings for supporting AWS-SSE:S3 with RGW

## **.spec.security.keyRotation**

### **Description**

KeyRotation defines options for Key Rotation.

### **Type**

`object`

Property	Type	Description
<code>enabled</code>	<code>boolean</code>	Enabled represents whether the key rotation is enabled.
<code>schedule</code>	<code>string</code>	Schedule represents the cron schedule for key rotation.

## **.spec.security.kms**

### **Description**

KeyManagementService is the main Key Management option

### **Type**

`object`

Property	Type	Description
<code>connectionDetails</code>	<code>object</code>	ConnectionDetails contains the KMS connection details (address, port etc)
<code>tokenSecretName</code>	<code>string</code>	TokenSecretName is the kubernetes secret containing the KMS token

## `.spec.security.kms.connectionDetails`

### Description

ConnectionDetails contains the KMS connection details (address, port etc)

### Type

`object`

## `.spec.security.s3`

### Description

The settings for supporting AWS-SSE:S3 with RGW

### Type

`object`

Property	Type	Description
<code>connectionDetails</code>	<code>object</code>	ConnectionDetails contains the KMS connection details (address, port etc)

Property	Type	Description
<code>tokenSecretName</code>	<code>string</code>	TokenSecretName is the kubernetes secret containing the KMS token

## `.spec.security.s3.connectionDetails`

### Description

ConnectionDetails contains the KMS connection details (address, port etc)

### Type

`object`

## `.spec.sharedPools`

### Description

The pool information when configuring RADOS namespaces in existing pools.

### Type

`object`

Property	Type	Description
<code>dataPoolName</code>	<code>string</code>	The data pool used for creating RADO object store
<code>metadataPoolName</code>	<code>string</code>	The metadata pool used for creating R the object store
<code>poolPlacements</code>	<code>array</code>	PoolPlacements control which Pools a particular RGW bucket. Once PoolPlac

Property	Type	Description
		RGW client will be able to associate pool with ObjectStore bucket by providing "" during s3 bucket creation or "X-Storage-Policy" header during swift container creation. See: <a href="https://docs.ceph.com/en/latest/radosgw/placement/#placement-targets">https://docs.ceph.com/en/latest/radosgw/placement/#placement-targets</a> PoolPlacement with name: "default" will be used as a default pool if no option is provided during bucket creation. If default placement is not provided, spec.sharedPools.dataPoolName and spec.sharedPools.MetadataPoolName will be used as default pools. If spec.sharedPools are also empty, then RGW pools (spec.dataPool and spec.metadataPool) will be used as defaults.
<code>preserveRadosNamespaceDataOnDelete</code>	<code>boolean</code>	Whether the RADOS namespaces should be deleted on deletion of the object store

## `.spec.sharedPools.poolPlacements`

### Description

PoolPlacements control which Pools are associated with a particular RGW bucket. Once PoolPlacements are defined, RGW client will be able to associate pool with ObjectStore bucket by providing "<LocationConstraint>" during s3 bucket creation or "X-Storage-Policy" header during swift container creation. See:

<https://docs.ceph.com/en/latest/radosgw/placement/#placement-targets> PoolPlacement with name: "default" will be used as a default pool if no option is provided during bucket creation. If default placement is not provided, spec.sharedPools.dataPoolName and spec.sharedPools.MetadataPoolName will be used as default pools. If spec.sharedPools are also empty, then RGW pools (spec.dataPool and spec.metadataPool) will be used as defaults.

### Type

`array`

# .spec.sharedPools.poolPlacements[]

## Type

object

## Required

dataPoolName

metadataPoolName

name

Property	Type	Description
dataNonECPoolName	string	The data pool used to store ObjectStore data that cannot use erasure coding (ex: multi-part uploads). If dataPoolName is not erasure coded, then there is no need for dataNonECPoolName.
dataPoolName	string	The data pool used to store ObjectStore objects data.
default	boolean	Sets given placement as default. Only one placement in the list can be marked as default. Default is false.
metadataPoolName	string	The metadata pool used to store ObjectStore bucket index.
name	string	Pool placement name. Name can be arbitrary. Placement with name "default" will be used as default.

Property	Type	Description
storageClasses	array	StorageClasses can be selected by user to override dataPoolName during object creation. Each placement has default STANDARD StorageClass pointing to dataPoolName. This list allows defining additional StorageClasses on top of default STANDARD storage class.

## .spec.sharedPools.poolPlacements[].storageClasses

### Description

StorageClasses can be selected by user to override dataPoolName during object creation. Each placement has default STANDARD StorageClass pointing to dataPoolName. This list allows defining additional StorageClasses on top of default STANDARD storage class.

### Type

array

## .spec.sharedPools.poolPlacements[].storageClasses[]

### Type

object

### Required

dataPoolName

name

Property	Type	Description
dataPoolName	string	DataPoolName is the data pool used to store ObjectStore objects data.

Property	Type	Description
<code>name</code>	<code>string</code>	Name is the StorageClass name. Ceph allows arbitrary name for StorageClasses, however most clients/libs insist on AWS names so it is recommended to use one of the valid x-amz-storage-class values for better compatibility: REDUCED_REDUNDANCY   STANDARD_IA   ONEZONE_IA   INTELLIGENT_TIERING   GLACIER   DEEP_ARCHIVE   OUTPOSTS   GLACIER_IR   SNOW   EXPRESS_ONEZONE See AWS docs: <a href="https://aws.amazon.com/de/s3/storage-classes/">https://aws.amazon.com/de/s3/storage-classes/</a>

## .spec.zone

### Description

The multisite info

### Type

`object`

### Required

`name`

Property	Type	Description
<code>name</code>	<code>string</code>	CephObjectStoreZone name this CephObjectStore is part of

## .status

### Description

ObjectStoreStatus represents the status of a Ceph Object Store resource

### Type

`object`

Property	Type	Description
<code>cephx</code>	<code>object</code>	
<code>conditions</code>	<code>array</code>	
<code>endpoints</code>	<code>object</code>	
<code>info</code>	<code>object</code>	
<code>message</code>	<code>string</code>	
<code>observedGeneration</code>	<code>integer</code>	ObservedGeneration is the latest generation observed by the controller.
<code>phase</code>	<code>string</code>	ConditionType represent a resource's status
<code>replicas</code>	<code>integer</code>	
<code>selector</code>	<code>string</code>	

## `.status.cephx`

### Type

`object`

Property	Type	Description
<code>daemon</code>	<code>object</code>	Daemon shows the CephX key status for local Ceph daemons associated with this resources.

## .status.cephx.daemon

### Description

Daemon shows the CephX key status for local Ceph daemons associated with this resources.

### Type

object

Property	Type	Description
<code>keyCephVersion</code>	<code>string</code>	<p>KeyCephVersion reports the Ceph version that created the current generation's keys. This is same string format as reported by <code>CephCluster.status.version.version</code> to allow them to be compared. E.g., <code>20.2.0-0</code>. For all newly-created resources, this field set to the version of Ceph that created the key. The special value "Uninitialized" indicates that keys are being created for the first time. An empty string indicates that the version is unknown, as expected in brownfield deployments.</p>
<code>keyGeneration</code>	<code>integer</code>	<p>KeyGeneration represents the CephX key generation for the last successful reconcile. For all newly-created resources, this field is set to <code>1</code>. When keys are rotated due to any rotation policy, the generation is incremented or updated to the configured policy generation. Generation <code>0</code> indicates that keys existed prior to the implementation of key tracking.</p>

## .status.conditions

### Type

array

## .status.conditions[]

### Description

Condition represents a status condition on any Rook-Ceph Custom Resource.

### Type

object

Property	Type	Description
lastHeartbeatTime	string	
lastTransitionTime	string	
message	string	
reason	string	ConditionReason is a reason for a condition
status	string	
type	string	ConditionType represent a resource's status

## .status.endpoints

### Type

object

Property	Type	Description
insecure	array	
secure	array	

## **.status.endpoints.insecure**

Type

array

## **.status.endpoints.insecure[]**

Type

string

## **.status.endpoints.secure**

Type

array

## **.status.endpoints.secure[]**

Type

string

## **.status.info**

Type

object

## **API Endpoints**

The following API endpoints are available:

- `/apis/ceph.rook.io/v1/namespaces/{namespace}/cephobjectstores`
  - **DELETE** : delete collection of CephObjectStore
  - **GET** : list objects of kind CephObjectStore

- **POST** : create a new CephObjectStore
- `/apis/ceph.rook.io/v1/namespaces/{namespace}/cephobjectstores/{name}`
- **DELETE** : delete the specified CephObjectStore
- **GET** : read the specified CephObjectStore
- **PATCH** : partially update the specified CephObjectStore
- **PUT** : replace the specified CephObjectStore
- `/apis/ceph.rook.io/v1/namespaces/{namespace}/cephobjectstores/{name}/status`
- **GET** : read status of the specified CephObjectStore
- **PATCH** : partially update status of the specified CephObjectStore
- **PUT** : replace status of the specified CephObjectStore

## `/apis/ceph.rook.io/v1/namespaces/{namespace}/cephobjectstores`

### HTTP method

**DELETE**

### Description

delete collection of CephObjectStore

### HTTP responses

HTTP code	Response body
200 - OK	<b>Status</b> schema
401 - Unauthorized	Empty

### HTTP method

**GET**

### Description

list objects of kind CephObjectStore

## HTTP responses

HTTP code	Response body
200 - OK	<code>CephObjectStoreList</code> schema
401 - Unauthorized	Empty

## HTTP method

POST

## Description

create a new CephObjectStore

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	<code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a <code>BadRequest</code> error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## Body parameters

Parameter	Type	Description
body	CephObjectStore schema	application/json formatted

## HTTP responses

HTTP code	Response body
200 - OK	CephObjectStore schema
201 - Created	CephObjectStore schema
202 - Accepted	CephObjectStore schema
401 - Unauthorized	Empty

# /apis/ceph.rook.io/v1/namespaces/{namespace}/cephobjectstores/{name}

## HTTP method

DELETE

## Description

delete the specified CephObjectStore

## Query parameters

Parameter	Type	Description
dryRun	string	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

## HTTP responses

HTTP code	Response body
200 - OK	<code>Status</code> schema
202 - Accepted	<code>Status</code> schema
401 - Unauthorized	Empty

## HTTP method

GET

## Description

read the specified CephObjectStore

## HTTP responses

HTTP code	Response body
200 - OK	<code>CephObjectStore</code> schema
401 - Unauthorized	Empty

## HTTP method

PATCH

## Description

partially update the specified CephObjectStore

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	<code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore:

Parameter	Type	Description
		This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a BadRequest error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## HTTP responses

HTTP code	Response body
200 - OK	<code>CephObjectStore</code> schema
401 - Unauthorized	Empty

## HTTP method

PUT

## Description

replace the specified CephObjectStore

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

Parameter	Type	Description
<code>fieldValidation</code>	<code>string</code>	<p><code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are:</p> <ul style="list-style-type: none"> <li>- Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23.</li> <li>- Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+.</li> <li>- Strict: This will fail the request with a <code>BadRequest</code> error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.</li> </ul>

### Body parameters

Parameter	Type	Description
<code>body</code>	<code>CephObjectStore</code> schema	<code>application/json</code> formatted

### HTTP responses

HTTP code	Response body
200 - OK	<code>CephObjectStore</code> schema
201 - Created	<code>CephObjectStore</code> schema
401 - Unauthorized	Empty

**`/apis/ceph.rook.io/v1/namespaces/{namespace}/cephobjectstores/{name}/status`**

## HTTP method

GET

## Description

read status of the specified CephObjectStore

## HTTP responses

HTTP code	Response body
200 - OK	<code>CephObjectStore</code> schema
401 - Unauthorized	Empty

## HTTP method

PATCH

## Description

partially update status of the specified CephObjectStore

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	<code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default

Parameter	Type	Description
		in v1.23+ - Strict: This will fail the request with a BadRequest error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## HTTP responses

HTTP code	Response body
200 - OK	<code>CephObjectStore</code> schema
401 - Unauthorized	Empty

## HTTP method

PUT

## Description

replace status of the specified CephObjectStore

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	fieldValidation instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request

Parameter	Type	Description
		will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a BadRequest error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## Body parameters

Parameter	Type	Description
body	CephObjectStore schema	application/json formatted

## HTTP responses

HTTP code	Response body
200 - OK	CephObjectStore schema
201 - Created	CephObjectStore schema
401 - Unauthorized	Empty

# CephObjectStoreUser

## [cephobjectstoreusers.ceph.rook.io/v1]

### Description

CephObjectStoreUser represents a Ceph Object Store Gateway User

### Type

object

### Required

metadata

spec

## Specification

Property	Type	Description
apiVersion	string	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Property	Type	Description
<code>kind</code>	<code>string</code>	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
<code>metadata</code>	<code>ObjectMeta</code>	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
<code>spec</code>	<code>object</code>	ObjectStoreUserSpec represent the spec of an Objectstoreuser
<code>status</code>	<code>object</code>	ObjectStoreUserStatus represents the status Ceph Object Store Gateway User

## .spec

### Description

ObjectStoreUserSpec represent the spec of an Objectstoreuser

### Type

`object`

Property	Type	Description
<code>capabilities</code>	<code>object</code>	Additional admin-level capabilities for the Ceph object store user
<code>clusterNamespace</code>	<code>string</code>	The namespace where the parent CephCluster and CephObjectStore are found
<code>displayName</code>	<code>string</code>	The display name for the ceph user.
<code>keys</code>	<code>array</code>	Allows specifying credentials for the user. If not provided, the operator will generate them.
<code>quotas</code>	<code>object</code>	ObjectUserQuotaSpec can be used to set quotas for the object store user to limit their usage. See the <a href="#">Ceph docs</a> for more
<code>store</code>	<code>string</code>	The store the user will be created in

## `.spec.capabilities`

### Description

Additional admin-level capabilities for the Ceph object store user

### Type

`object`

Property	Type	Description
amz-cache	string	Add capabilities for user to send request to RGW Cache API header. Documented in <a href="https://docs.ceph.com/en/latest/radosgw/rgw-cache/#cache-api">https://docs.ceph.com/en/latest/radosgw/rgw-cache/#cache-api</a>
bilog	string	Add capabilities for user to change bucket index logging. Documented in <a href="https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities">https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities</a>
bucket	string	Admin capabilities to read/write Ceph object store buckets. Documented in <a href="https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities">https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities</a>
buckets	string	Admin capabilities to read/write Ceph object store buckets. Documented in <a href="https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities">https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities</a>
datalog	string	Add capabilities for user to change data logging. Documented in <a href="https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities">https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities</a>
info	string	Admin capabilities to read/write information about the user. Documented in

Property	Type	Description
		<a href="https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities">https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities</a> ↗
<code>mdlog</code>	<code>string</code>	Add capabilities for user to change metadata logging. Documented in <a href="https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities">https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities</a> ↗
<code>metadata</code>	<code>ObjectMeta</code>	Admin capabilities to read/write Ceph object store metadata. Documented in <a href="https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities">https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities</a> ↗
<code>oidc-provider</code>	<code>string</code>	Add capabilities for user to change oidc provider. Documented in <a href="https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities">https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities</a> ↗
<code>ratelimit</code>	<code>string</code>	Add capabilities for user to set rate limiter for user and bucket. Documented in <a href="https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities">https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities</a> ↗
<code>roles</code>	<code>string</code>	Admin capabilities to read/write roles for user. Documented in <a href="https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities">https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities</a> ↗

Property	Type	Description
<code>usage</code>	<code>string</code>	Admin capabilities to read/write Ceph object store usage. Documented in <a href="https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities">https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities</a>
<code>user</code>	<code>string</code>	Admin capabilities to read/write Ceph object store users. Documented in <a href="https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities">https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities</a>
<code>user-policy</code>	<code>string</code>	Add capabilities for user to change user policies. Documented in <a href="https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities">https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities</a>
<code>users</code>	<code>string</code>	Admin capabilities to read/write Ceph object store users. Documented in <a href="https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities">https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities</a>
<code>zone</code>	<code>string</code>	Admin capabilities to read/write Ceph object store zones. Documented in <a href="https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities">https://docs.ceph.com/en/latest/radosgw/admin/?#add-remove-admin-capabilities</a>

**.spec.keys**

## Description

Allows specifying credentials for the user. If not provided, the operator will generate them.

## Type

array

## .spec.keys[]

### Description

ObjectUserKey defines a set of rgw user access credentials to be retrieved from secret resources.

### Type

object

Property	Type	Description
<code>accessKeyRef</code>	object	Secret key selector for the access_key (commonly referred to as AWS_ACCESS_KEY_ID).
<code>secretKeyRef</code>	object	Secret key selector for the secret_key (commonly referred to as AWS_SECRET_ACCESS_KEY).

## .spec.keys[].accessKeyRef

### Description

Secret key selector for the access\_key (commonly referred to as AWS\_ACCESS\_KEY\_ID).

### Type

object

### Required

key

Property	Type	Description
key	string	The key of the secret to select from. Must be a valid secret key.
name	string	Name of the referent. This field is effectively required, but due to backwards compatibility is allowed to be empty. Instances of this type with an empty value here are almost certainly wrong. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a> ↗
optional	boolean	Specify whether the Secret or its key must be defined

## .spec.keys[].secretKeyRef

### Description

Secret key selector for the secret\_key (commonly referred to as AWS\_SECRET\_ACCESS\_KEY).

### Type

object

### Required

key

Property	Type	Description
key	string	The key of the secret to select from. Must be a valid secret key.

Property	Type	Description
name	string	Name of the referent. This field is effectively required, but due to backwards compatibility is allowed to be empty. Instances of this type with an empty value here are almost certainly wrong. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a> ↗
optional	boolean	Specify whether the Secret or its key must be defined

## .spec.quotas

### Description

ObjectUserQuotaSpec can be used to set quotas for the object store user to limit their usage. See the [Ceph docs](<https://docs.ceph.com/en/latest/radosgw/admin/?#quota-management>) for more

### Type

object

Property	Type	Description
maxBuckets	integer	Maximum bucket limit for the ceph user
maxObjects	integer	Maximum number of objects across all the user's buckets
maxSize		Maximum size limit of all objects across all the user's buckets See

Property	Type	Description
		<a href="https://pkg.go.dev/k8s.io/apimachinery/pkg/api/resource#Quantity">https://pkg.go.dev/k8s.io/apimachinery/pkg/api/resource#Quantity</a> ↗ for more info.

## .status

### Description

ObjectStoreUserStatus represents the status Ceph Object Store Gateway User

### Type

object

Property	Type	Description
info	object	
keys	array	
observedGeneration	integer	ObservedGeneration is the latest generation observed by the controller.
phase	string	

## .status.info

### Type

object

## .status.keys

### Type

array

## .status.keys[]

### Type

object

Property	Type	Description
name	string	name is unique within a namespace to reference a secret resource.
namespace	string	namespace defines the space within which the secret name must be unique.
resourceVersion	string	
uid	string	UID is a type that holds unique ID values, including UUIDs. Because we don't ONLY use UUIDs, this is an alias to string. Being a type captures intent and helps make sure that UIDs and names do not get conflated.

## API Endpoints

The following API endpoints are available:

- `/apis/ceph.rook.io/v1/namespaces/{namespace}/cephobjectstoreusers`
  - `DELETE` : delete collection of CephObjectStoreUser
  - `GET` : list objects of kind CephObjectStoreUser
  - `POST` : create a new CephObjectStoreUser
- `/apis/ceph.rook.io/v1/namespaces/{namespace}/cephobjectstoreusers/{name}`

- **DELETE** : delete the specified CephObjectStoreUser
- **GET** : read the specified CephObjectStoreUser
- **PATCH** : partially update the specified CephObjectStoreUser
- **PUT** : replace the specified CephObjectStoreUser
- `/apis/ceph.rook.io/v1/namespaces/{namespace}/cephobjectstoreusers/{name}/status`
  - **GET** : read status of the specified CephObjectStoreUser
  - **PATCH** : partially update status of the specified CephObjectStoreUser
  - **PUT** : replace status of the specified CephObjectStoreUser

## /apis/ceph.rook.io/v1/namespaces/{namespace}/cephobjectstoreusers

### HTTP method

**DELETE**

### Description

delete collection of CephObjectStoreUser

### HTTP responses

HTTP code	Response body
200 - OK	<b>Status</b> schema
401 - Unauthorized	Empty

### HTTP method

**GET**

### Description

list objects of kind CephObjectStoreUser

### HTTP responses

HTTP code	Response body
200 - OK	<code>CephObjectStoreUserList</code> schema
401 - Unauthorized	Empty

## HTTP method

POST

## Description

create a new CephObjectStoreUser

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	<code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a <code>BadRequest</code> error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## Body parameters

Parameter	Type	Description
<code>body</code>	<code>CephObjectStoreUser</code> schema	<code>application/json</code> formatted

## HTTP responses

HTTP code	Response body
200 - OK	<code>CephObjectStoreUser</code> schema
201 - Created	<code>CephObjectStoreUser</code> schema
202 - Accepted	<code>CephObjectStoreUser</code> schema
401 - Unauthorized	Empty

## `/apis/ceph.rook.io/v1/namespaces/{namespace}/cephobjectstoreusers/{name}`

### HTTP method

DELETE

### Description

delete the specified CephObjectStoreUser

### Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

## HTTP responses

HTTP code	Response body
200 - OK	<code>Status</code> schema
202 - Accepted	<code>Status</code> schema
401 - Unauthorized	Empty

## HTTP method

GET

## Description

read the specified CephObjectStoreUser

## HTTP responses

HTTP code	Response body
200 - OK	<code>CephObjectStoreUser</code> schema
401 - Unauthorized	Empty

## HTTP method

PATCH

## Description

partially update the specified CephObjectStoreUser

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	fieldValidation instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore:

Parameter	Type	Description
		This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a BadRequest error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## HTTP responses

HTTP code	Response body
200 - OK	<code>CephObjectStoreUser</code> schema
401 - Unauthorized	Empty

## HTTP method

PUT

## Description

replace the specified CephObjectStoreUser

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

Parameter	Type	Description
<code>fieldValidation</code>	<code>string</code>	<p><code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are:</p> <ul style="list-style-type: none"> <li>- Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23.</li> <li>- Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+.</li> <li>- Strict: This will fail the request with a <code>BadRequest</code> error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.</li> </ul>

### Body parameters

Parameter	Type	Description
<code>body</code>	<code>CephObjectStoreUser</code> schema	<code>application/json</code> formatted

### HTTP responses

HTTP code	Response body
200 - OK	<code>CephObjectStoreUser</code> schema
201 - Created	<code>CephObjectStoreUser</code> schema
401 - Unauthorized	Empty

**`/apis/ceph.rook.io/v1/namespaces/{namespace}/cephobjectstoreusers/{name}/status`**

## HTTP method

GET

## Description

read status of the specified CephObjectStoreUser

## HTTP responses

HTTP code	Response body
200 - OK	<code>CephObjectStoreUser</code> schema
401 - Unauthorized	Empty

## HTTP method

PATCH

## Description

partially update status of the specified CephObjectStoreUser

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized <code>dryRun</code> directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	<code>fieldValidation</code> instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default

Parameter	Type	Description
		in v1.23+ - Strict: This will fail the request with a BadRequest error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## HTTP responses

HTTP code	Response body
200 - OK	<code>CephObjectStoreUser</code> schema
401 - Unauthorized	Empty

## HTTP method

PUT

## Description

replace status of the specified CephObjectStoreUser

## Query parameters

Parameter	Type	Description
<code>dryRun</code>	<code>string</code>	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
<code>fieldValidation</code>	<code>string</code>	fieldValidation instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: - Ignore: This will ignore any unknown fields that are silently dropped from the object, and will ignore all but the last duplicate field that the decoder encounters. This is the default behavior prior to v1.23. - Warn: This will send a warning via the standard warning response header for each unknown field that is dropped from the object, and for each duplicate field that is encountered. The request

Parameter	Type	Description
		will still succeed if there are no other errors, and will only persist the last of any duplicate fields. This is the default in v1.23+ - Strict: This will fail the request with a BadRequest error if any unknown fields would be dropped from the object, or if any duplicate fields are present. The error returned from the server will contain all unknown and duplicate fields encountered.

## Body parameters

Parameter	Type	Description
body	CephObjectStoreUser schema	application/json formatted

## HTTP responses

HTTP code	Response body
200 - OK	CephObjectStoreUser schema
201 - Created	CephObjectStoreUser schema
401 - Unauthorized	Empty