



# OpenShift Container Platform 4.20

## Node APIs

Reference guide for node APIs



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## Abstract

This document describes the OpenShift Container Platform node API objects and their detailed specifications.

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## CHAPTER 1. NODE APIS

### 1.1. NODE [V1]

#### Description

Node is a worker node in Kubernetes. Each node will have a unique identifier in the cache (i.e. in etcd).

#### Type

**object**

### 1.2. PERFORMANCEPROFILE [PERFORMANCE.OPENSIFT.IO/V2]

#### Description

PerformanceProfile is the Schema for the performanceprofiles API

#### Type

**object**

### 1.3. PROFILE [TUNED.OPENSIFT.IO/V1]

#### Description

Profile is a specification for a Profile resource.

#### Type

**object**

### 1.4. RUNTIMECLASS [NODE.K8S.IO/V1]

#### Description

RuntimeClass defines a class of container runtime supported in the cluster. The RuntimeClass is used to determine which container runtime is used to run all containers in a pod. RuntimeClasses are manually defined by a user or cluster provisioner, and referenced in the PodSpec. The Kubelet is responsible for resolving the RuntimeClassName reference before running the pod. For more details, see <https://kubernetes.io/docs/concepts/containers/runtime-class/>

#### Type

**object**

### 1.5. TUNED [TUNED.OPENSIFT.IO/V1]

#### Description

Tuned is a collection of rules that allows cluster-wide deployment of node-level sysctls and more flexibility to add custom tuning specified by user needs. These rules are translated and passed to all containerized Tuned daemons running in the cluster in the format that the daemons understand. The responsibility for applying the node-level tuning then lies with the containerized Tuned daemons. More info: <https://github.com/openshift/cluster-node-tuning-operator>

#### Type

**object**

## CHAPTER 2. NODE [V1]

### Description

Node is a worker node in Kubernetes. Each node will have a unique identifier in the cache (i.e. in etcd).

### Type

**object**

## 2.1. SPECIFICATION

| Property          | Type              | Description                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>apiVersion</b> | <b>string</b>     | 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>    |
| <b>kind</b>       | <b>string</b>     | 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> |
| <b>metadata</b>   | <b>ObjectMeta</b> | 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>                                                                                                                                                                   |
| <b>spec</b>       | <b>object</b>     | NodeSpec describes the attributes that a node is created with.                                                                                                                                                                                                                                                                                                                                                   |
| <b>status</b>     | <b>object</b>     | NodeStatus is information about the current status of a node.                                                                                                                                                                                                                                                                                                                                                    |

### 2.1.1. .spec

**Description**

NodeSpec describes the attributes that a node is created with.

**Type**

**object**

| Property             | Type                  | Description                                                                                                                                                                                                                                                             |
|----------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>configSource</b>  | <b>object</b>         | NodeConfigSource specifies a source of node configuration. Exactly one subfield (excluding metadata) must be non-nil. This API is deprecated since 1.22                                                                                                                 |
| <b>externalID</b>    | <b>string</b>         | Deprecated. Not all kubelets will set this field. Remove field after 1.13. see: <a href="https://issues.k8s.io/61966">https://issues.k8s.io/61966</a>                                                                                                                   |
| <b>podCIDR</b>       | <b>string</b>         | PodCIDR represents the pod IP range assigned to the node.                                                                                                                                                                                                               |
| <b>podCIDRs</b>      | <b>array (string)</b> | podCIDRs represents the IP ranges assigned to the node for usage by Pods on that node. If this field is specified, the 0th entry must match the podCIDR field. It may contain at most 1 value for each of IPv4 and IPv6.                                                |
| <b>providerID</b>    | <b>string</b>         | ID of the node assigned by the cloud provider in the format: <ProviderName>:/<ProviderSpec ificNodeID>                                                                                                                                                                  |
| <b>taints</b>        | <b>array</b>          | If specified, the node's taints.                                                                                                                                                                                                                                        |
| <b>taints[]</b>      | <b>object</b>         | The node this Taint is attached to has the "effect" on any pod that does not tolerate the Taint.                                                                                                                                                                        |
| <b>unschedulable</b> | <b>boolean</b>        | Unschedulable controls node schedulability of new pods. By default, node is schedulable. More info: <a href="https://kubernetes.io/docs/concepts/nodes/node/#manual-node-administration">https://kubernetes.io/docs/concepts/nodes/node/#manual-node-administration</a> |

**2.1.2. .spec.configSource**

## Description

NodeConfigSource specifies a source of node configuration. Exactly one subfield (excluding metadata) must be non-nil. This API is deprecated since 1.22

## Type

**object**

| Property         | Type          | Description                                                                                                                                                                                                                                                                                                                   |
|------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>configMap</b> | <b>object</b> | ConfigMapNodeConfigSource contains the information to reference a ConfigMap as a config source for the Node. This API is deprecated since 1.22: <a href="https://git.k8s.io/enhancements/keps/sig-node/281-dynamic-kubelet-configuration">https://git.k8s.io/enhancements/keps/sig-node/281-dynamic-kubelet-configuration</a> |

### 2.1.3. .spec.configSource.configMap

## Description

ConfigMapNodeConfigSource contains the information to reference a ConfigMap as a config source for the Node. This API is deprecated since 1.22: <https://git.k8s.io/enhancements/keps/sig-node/281-dynamic-kubelet-configuration>

## Type

**object**

## Required

- **namespace**
- **name**
- **kubeletConfigKey**

| Property                | Type          | Description                                                                                                                                             |
|-------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>kubeletConfigKey</b> | <b>string</b> | KubeletConfigKey declares which key of the referenced ConfigMap corresponds to the KubeletConfiguration structure. This field is required in all cases. |
| <b>name</b>             | <b>string</b> | Name is the metadata.name of the referenced ConfigMap. This field is required in all cases.                                                             |

| Property               | Type          | Description                                                                                                                                     |
|------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>namespace</b>       | <b>string</b> | Namespace is the metadata.namespace of the referenced ConfigMap. This field is required in all cases.                                           |
| <b>resourceVersion</b> | <b>string</b> | ResourceVersion is the metadata.ResourceVersion of the referenced ConfigMap. This field is forbidden in Node.Spec, and required in Node.Status. |
| <b>uid</b>             | <b>string</b> | UID is the metadata.UID of the referenced ConfigMap. This field is forbidden in Node.Spec, and required in Node.Status.                         |

### 2.1.4. .spec.taints

#### Description

If specified, the node's taints.

#### Type

**array**

### 2.1.5. .spec.taints[]

#### Description

The node this Taint is attached to has the "effect" on any pod that does not tolerate the Taint.

#### Type

**object**

#### Required

- **key**
- **effect**

| Property | Type | Description |
|----------|------|-------------|
|----------|------|-------------|

| Property         | Type          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>effect</b>    | <b>string</b> | <p>Required. The effect of the taint on pods that do not tolerate the taint. Valid effects are NoSchedule, PreferNoSchedule and NoExecute.</p> <p>Possible enum values: -<br/> <b>"NoExecute"</b> Evict any already-running pods that do not tolerate the taint. Currently enforced by NodeController. -<br/> <b>"NoSchedule"</b> Do not allow new pods to schedule onto the node unless they tolerate the taint, but allow all pods submitted to Kubelet without going through the scheduler to start, and allow all already-running pods to continue running. Enforced by the scheduler. -<br/> <b>"PreferNoSchedule"</b> Like TaintEffectNoSchedule, but the scheduler tries not to schedule new pods onto the node, rather than prohibiting new pods from scheduling onto the node entirely. Enforced by the scheduler.</p> |
| <b>key</b>       | <b>string</b> | Required. The taint key to be applied to a node.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>timeAdded</b> | <b>Time</b>   | TimeAdded represents the time at which the taint was added. It is only written for NoExecute taints.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>value</b>     | <b>string</b> | The taint value corresponding to the taint key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## 2.1.6. .status

### Description

NodeStatus is information about the current status of a node.

### Type

**object**

| Property | Type | Description |
|----------|------|-------------|
|----------|------|-------------|

| Property            | Type                     | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---------------------|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>addresses</b>    | <b>array</b>             | List of addresses reachable to the node. Queried from cloud provider, if available. More info: <a href="https://kubernetes.io/docs/reference/node/node-status/#addresses">https://kubernetes.io/docs/reference/node/node-status/#addresses</a> Note: This field is declared as mergeable, but the merge key is not sufficiently unique, which can cause data corruption when it is merged. Callers should instead use a full-replacement patch. See <a href="https://pr.k8s.io/79391">https://pr.k8s.io/79391</a> for an example. Consumers should assume that addresses can change during the lifetime of a Node. However, there are some exceptions where this may not be possible, such as Pods that inherit a Node's address in its own status or consumers of the downward API (status.hostIP). |
| <b>addresses[]</b>  | <b>object</b>            | NodeAddress contains information for the node's address.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>allocatable</b>  | <b>object (Quantity)</b> | Allocatable represents the resources of a node that are available for scheduling. Defaults to Capacity.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>capacity</b>     | <b>object (Quantity)</b> | Capacity represents the total resources of a node. More info: <a href="https://kubernetes.io/docs/reference/node/node-status/#capacity">https://kubernetes.io/docs/reference/node/node-status/#capacity</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>conditions</b>   | <b>array</b>             | Conditions is an array of current observed node conditions. More info: <a href="https://kubernetes.io/docs/reference/node/node-status/#condition">https://kubernetes.io/docs/reference/node/node-status/#condition</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>conditions[]</b> | <b>object</b>            | NodeCondition contains condition information for a node.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| Property                 | Type          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>config</b>            | <b>object</b> | NodeConfigStatus describes the status of the config assigned by Node.Spec.ConfigSource.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>daemonEndpoints</b>   | <b>object</b> | NodeDaemonEndpoints lists ports opened by daemons running on the Node.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>features</b>          | <b>object</b> | NodeFeatures describes the set of features implemented by the CRI implementation. The features contained in the NodeFeatures should depend only on the cri implementation independent of runtime handlers.                                                                                                                                                                                                                                                                                                                                                                    |
| <b>images</b>            | <b>array</b>  | List of container images on this node                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>images[]</b>          | <b>object</b> | Describe a container image                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>nodeInfo</b>          | <b>object</b> | NodeSystemInfo is a set of ids/uuids to uniquely identify the node.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>phase</b>             | <b>string</b> | <p>NodePhase is the recently observed lifecycle phase of the node. More info: <a href="https://kubernetes.io/docs/concepts/nodes/node/#phase">https://kubernetes.io/docs/concepts/nodes/node/#phase</a> The field is never populated, and now is deprecated.</p> <p>Possible enum values: -<br/> <b>"Pending"</b> means the node has been created/added by the system, but not configured. -<br/> <b>"Running"</b> means the node has been configured and has Kubernetes components running. -<br/> <b>"Terminated"</b> means the node has been removed from the cluster.</p> |
| <b>runtimeHandlers</b>   | <b>array</b>  | The available runtime handlers.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>runtimeHandlers[]</b> | <b>object</b> | NodeRuntimeHandler is a set of runtime handler information.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| Property                 | Type                  | Description                                              |
|--------------------------|-----------------------|----------------------------------------------------------|
| <b>volumesAttached</b>   | <b>array</b>          | List of volumes that are attached to the node.           |
| <b>volumesAttached[]</b> | <b>object</b>         | AttachedVolume describes a volume attached to a node     |
| <b>volumesInUse</b>      | <b>array (string)</b> | List of attachable volumes in use (mounted) by the node. |

### 2.1.7. .status.addresses

#### Description

List of addresses reachable to the node. Queried from cloud provider, if available. More info: <https://kubernetes.io/docs/reference/node/node-status/#addresses> Note: This field is declared as mergeable, but the merge key is not sufficiently unique, which can cause data corruption when it is merged. Callers should instead use a full-replacement patch. See <https://pr.k8s.io/79391> for an example. Consumers should assume that addresses can change during the lifetime of a Node. However, there are some exceptions where this may not be possible, such as Pods that inherit a Node's address in its own status or consumers of the downward API (status.hostIP).

#### Type

**array**

### 2.1.8. .status.addresses[]

#### Description

NodeAddress contains information for the node's address.

#### Type

**object**

#### Required

- **type**
- **address**

| Property       | Type          | Description                                                   |
|----------------|---------------|---------------------------------------------------------------|
| <b>address</b> | <b>string</b> | The node address.                                             |
| <b>type</b>    | <b>string</b> | Node address type, one of Hostname, ExternalIP or InternalIP. |

### 2.1.9. .status.conditions

#### Description

Conditions is an array of current observed node conditions. More info:  
<https://kubernetes.io/docs/reference/node/node-status/#condition>

**Type**

**array**

**2.1.10. .status.conditions[]****Description**

NodeCondition contains condition information for a node.

**Type**

**object**

**Required**

- **type**
- **status**

| Property                  | Type          | Description                                                      |
|---------------------------|---------------|------------------------------------------------------------------|
| <b>lastHeartbeatTime</b>  | <b>Time</b>   | Last time we got an update on a given condition.                 |
| <b>lastTransitionTime</b> | <b>Time</b>   | Last time the condition transit from one status to another.      |
| <b>message</b>            | <b>string</b> | Human readable message indicating details about last transition. |
| <b>reason</b>             | <b>string</b> | (brief) reason for the condition's last transition.              |
| <b>status</b>             | <b>string</b> | Status of the condition, one of True, False, Unknown.            |
| <b>type</b>               | <b>string</b> | Type of node condition.                                          |

**2.1.11. .status.config****Description**

NodeConfigStatus describes the status of the config assigned by Node.Spec.ConfigSource.

**Type**

**object**

| Property        | Type          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>active</b>   | <b>object</b> | NodeConfigSource specifies a source of node configuration. Exactly one subfield (excluding metadata) must be non-nil. This API is deprecated since 1.22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>assigned</b> | <b>object</b> | NodeConfigSource specifies a source of node configuration. Exactly one subfield (excluding metadata) must be non-nil. This API is deprecated since 1.22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>error</b>    | <b>string</b> | Error describes any problems reconciling the Spec.ConfigSource to the Active config. Errors may occur, for example, attempting to checkpoint Spec.ConfigSource to the local Assigned record, attempting to checkpoint the payload associated with Spec.ConfigSource, attempting to load or validate the Assigned config, etc. Errors may occur at different points while syncing config. Earlier errors (e.g. download or checkpointing errors) will not result in a rollback to LastKnownGood, and may resolve across Kubelet retries. Later errors (e.g. loading or validating a checkpointed config) will result in a rollback to LastKnownGood. In the latter case, it is usually possible to resolve the error by fixing the config assigned in Spec.ConfigSource. You can find additional information for debugging by searching the error message in the Kubelet log. Error is a human-readable description of the error state; machines can check whether or not Error is empty, but should not rely on the stability of the Error text across Kubelet versions. |

| Property             | Type          | Description                                                                                                                                             |
|----------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>lastKnownGood</b> | <b>object</b> | NodeConfigSource specifies a source of node configuration. Exactly one subfield (excluding metadata) must be non-nil. This API is deprecated since 1.22 |

### 2.1.12. .status.config.active

#### Description

NodeConfigSource specifies a source of node configuration. Exactly one subfield (excluding metadata) must be non-nil. This API is deprecated since 1.22

#### Type

**object**

| Property         | Type          | Description                                                                                                                                                                                                                                                                                                                   |
|------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>configMap</b> | <b>object</b> | ConfigMapNodeConfigSource contains the information to reference a ConfigMap as a config source for the Node. This API is deprecated since 1.22: <a href="https://git.k8s.io/enhancements/keps/sig-node/281-dynamic-kubelet-configuration">https://git.k8s.io/enhancements/keps/sig-node/281-dynamic-kubelet-configuration</a> |

### 2.1.13. .status.config.active.configMap

#### Description

ConfigMapNodeConfigSource contains the information to reference a ConfigMap as a config source for the Node. This API is deprecated since 1.22: <https://git.k8s.io/enhancements/keps/sig-node/281-dynamic-kubelet-configuration>

#### Type

**object**

#### Required

- **namespace**
- **name**
- **kubeletConfigKey**

| Property | Type | Description |
|----------|------|-------------|
|----------|------|-------------|

| Property                | Type          | Description                                                                                                                                             |
|-------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>kubeletConfigKey</b> | <b>string</b> | KubeletConfigKey declares which key of the referenced ConfigMap corresponds to the KubeletConfiguration structure. This field is required in all cases. |
| <b>name</b>             | <b>string</b> | Name is the metadata.name of the referenced ConfigMap. This field is required in all cases.                                                             |
| <b>namespace</b>        | <b>string</b> | Namespace is the metadata.namespace of the referenced ConfigMap. This field is required in all cases.                                                   |
| <b>resourceVersion</b>  | <b>string</b> | ResourceVersion is the metadata.ResourceVersion of the referenced ConfigMap. This field is forbidden in Node.Spec, and required in Node.Status.         |
| <b>uid</b>              | <b>string</b> | UID is the metadata.UID of the referenced ConfigMap. This field is forbidden in Node.Spec, and required in Node.Status.                                 |

### 2.1.14. .status.config.assigned

#### Description

NodeConfigSource specifies a source of node configuration. Exactly one subfield (excluding metadata) must be non-nil. This API is deprecated since 1.22.

#### Type

**object**

| Property         | Type          | Description                                                                                                                                                                                                                                                                                                                   |
|------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>configMap</b> | <b>object</b> | ConfigMapNodeConfigSource contains the information to reference a ConfigMap as a config source for the Node. This API is deprecated since 1.22: <a href="https://git.k8s.io/enhancements/keps/sig-node/281-dynamic-kubelet-configuration">https://git.k8s.io/enhancements/keps/sig-node/281-dynamic-kubelet-configuration</a> |

### 2.1.15. .status.config.assigned.configMap

## Description

ConfigMapNodeConfigSource contains the information to reference a ConfigMap as a config source for the Node. This API is deprecated since 1.22: <https://git.k8s.io/enhancements/keps/sig-node/281-dynamic-kubelet-configuration>

## Type

**object**

## Required

- **namespace**
- **name**
- **kubeletConfigKey**

| Property                | Type          | Description                                                                                                                                             |
|-------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>kubeletConfigKey</b> | <b>string</b> | KubeletConfigKey declares which key of the referenced ConfigMap corresponds to the KubeletConfiguration structure. This field is required in all cases. |
| <b>name</b>             | <b>string</b> | Name is the metadata.name of the referenced ConfigMap. This field is required in all cases.                                                             |
| <b>namespace</b>        | <b>string</b> | Namespace is the metadata.namespace of the referenced ConfigMap. This field is required in all cases.                                                   |
| <b>resourceVersion</b>  | <b>string</b> | ResourceVersion is the metadata.ResourceVersion of the referenced ConfigMap. This field is forbidden in Node.Spec, and required in Node.Status.         |
| <b>uid</b>              | <b>string</b> | UID is the metadata.UID of the referenced ConfigMap. This field is forbidden in Node.Spec, and required in Node.Status.                                 |

## 2.1.16. .status.config.lastKnownGood

## Description

NodeConfigSource specifies a source of node configuration. Exactly one subfield (excluding metadata) must be non-nil. This API is deprecated since 1.22

## Type

**object**

| Property         | Type          | Description                                                                                                                                                                                                                                                                                                                   |
|------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>configMap</b> | <b>object</b> | ConfigMapNodeConfigSource contains the information to reference a ConfigMap as a config source for the Node. This API is deprecated since 1.22: <a href="https://git.k8s.io/enhancements/keps/sig-node/281-dynamic-kubelet-configuration">https://git.k8s.io/enhancements/keps/sig-node/281-dynamic-kubelet-configuration</a> |

### 2.1.17. .status.config.lastKnownGood.configMap

#### Description

ConfigMapNodeConfigSource contains the information to reference a ConfigMap as a config source for the Node. This API is deprecated since 1.22: <https://git.k8s.io/enhancements/keps/sig-node/281-dynamic-kubelet-configuration>

#### Type

**object**

#### Required

- **namespace**
- **name**
- **kubeletConfigKey**

| Property                | Type          | Description                                                                                                                                             |
|-------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>kubeletConfigKey</b> | <b>string</b> | KubeletConfigKey declares which key of the referenced ConfigMap corresponds to the KubeletConfiguration structure. This field is required in all cases. |
| <b>name</b>             | <b>string</b> | Name is the metadata.name of the referenced ConfigMap. This field is required in all cases.                                                             |
| <b>namespace</b>        | <b>string</b> | Namespace is the metadata.namespace of the referenced ConfigMap. This field is required in all cases.                                                   |
| <b>resourceVersion</b>  | <b>string</b> | ResourceVersion is the metadata.ResourceVersion of the referenced ConfigMap. This field is forbidden in Node.Spec, and required in Node.Status.         |

| Property   | Type          | Description                                                                                                             |
|------------|---------------|-------------------------------------------------------------------------------------------------------------------------|
| <b>uid</b> | <b>string</b> | UID is the metadata.UID of the referenced ConfigMap. This field is forbidden in Node.Spec, and required in Node.Status. |

### 2.1.18. .status.daemonEndpoints

#### Description

NodeDaemonEndpoints lists ports opened by daemons running on the Node.

#### Type

**object**

| Property               | Type          | Description                                                         |
|------------------------|---------------|---------------------------------------------------------------------|
| <b>kubeletEndpoint</b> | <b>object</b> | DaemonEndpoint contains information about a single Daemon endpoint. |

### 2.1.19. .status.daemonEndpoints.kubeletEndpoint

#### Description

DaemonEndpoint contains information about a single Daemon endpoint.

#### Type

**object**

#### Required

- **Port**

| Property    | Type           | Description                        |
|-------------|----------------|------------------------------------|
| <b>Port</b> | <b>integer</b> | Port number of the given endpoint. |

### 2.1.20. .status.features

#### Description

NodeFeatures describes the set of features implemented by the CRI implementation. The features contained in the NodeFeatures should depend only on the cri implementation independent of runtime handlers.

#### Type

**object**

| Property                        | Type           | Description                                                                                                 |
|---------------------------------|----------------|-------------------------------------------------------------------------------------------------------------|
| <b>supplementalGroupsPolicy</b> | <b>boolean</b> | SupplementalGroupsPolicy is set to true if the runtime supports SupplementalGroupsPolicy and ContainerUser. |

### 2.1.21. .status.images

#### Description

List of container images on this node

#### Type

**array**

### 2.1.22. .status.images[]

#### Description

Describe a container image

#### Type

**object**

| Property         | Type                  | Description                                                                                                                                        |
|------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>names</b>     | <b>array (string)</b> | Names by which this image is known. e.g.<br>["kubernetes.example/hyperkube:v1.0.7", "cloud-vendor.registry.example/cloud-vendor/hyperkube:v1.0.7"] |
| <b>sizeBytes</b> | <b>integer</b>        | The size of the image in bytes.                                                                                                                    |

### 2.1.23. .status.nodeInfo

#### Description

NodeSystemInfo is a set of ids/uuids to uniquely identify the node.

#### Type

**object**

#### Required

- **machineID**
- **systemUUID**
- **bootID**
- **kernelVersion**

- **osImage**
- **containerRuntimeVersion**
- **kubeletVersion**
- **kubeProxyVersion**
- **operatingSystem**
- **architecture**

| Property                       | Type          | Description                                                                                                                                                                                                                                                              |
|--------------------------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>architecture</b>            | <b>string</b> | The Architecture reported by the node                                                                                                                                                                                                                                    |
| <b>bootID</b>                  | <b>string</b> | Boot ID reported by the node.                                                                                                                                                                                                                                            |
| <b>containerRuntimeVersion</b> | <b>string</b> | ContainerRuntime Version reported by the node through runtime remote API (e.g. containerd://1.4.2).                                                                                                                                                                      |
| <b>kernelVersion</b>           | <b>string</b> | Kernel Version reported by the node from 'uname -r' (e.g. 3.16.0-0.bpo.4-amd64).                                                                                                                                                                                         |
| <b>kubeProxyVersion</b>        | <b>string</b> | Deprecated: KubeProxy Version reported by the node.                                                                                                                                                                                                                      |
| <b>kubeletVersion</b>          | <b>string</b> | Kubelet Version reported by the node.                                                                                                                                                                                                                                    |
| <b>machineID</b>               | <b>string</b> | MachineID reported by the node. For unique machine identification in the cluster this field is preferred. Learn more from man(5) machine-id: <a href="http://man7.org/linux/man-pages/man5/machine-id.5.html">http://man7.org/linux/man-pages/man5/machine-id.5.html</a> |
| <b>operatingSystem</b>         | <b>string</b> | The Operating System reported by the node                                                                                                                                                                                                                                |
| <b>osImage</b>                 | <b>string</b> | OS Image reported by the node from /etc/os-release (e.g. Debian GNU/Linux 7 (wheezy)).                                                                                                                                                                                   |

| Property          | Type          | Description                                                                                                                                                                                                                                                                                                                                       |
|-------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>swap</b>       | <b>object</b> | NodeSwapStatus represents swap memory information.                                                                                                                                                                                                                                                                                                |
| <b>systemUUID</b> | <b>string</b> | SystemUUID reported by the node. For unique machine identification MachineID is preferred. This field is specific to Red Hat hosts<br><a href="https://access.redhat.com/documentation/en-us/red_hat_subscription_management/1/html/rhsm/uuid">https://access.redhat.com/documentation/en-us/red_hat_subscription_management/1/html/rhsm/uuid</a> |

### 2.1.24. .status.nodeInfo.swap

#### Description

NodeSwapStatus represents swap memory information.

#### Type

**object**

| Property        | Type           | Description                           |
|-----------------|----------------|---------------------------------------|
| <b>capacity</b> | <b>integer</b> | Total amount of swap memory in bytes. |

### 2.1.25. .status.runtimeHandlers

#### Description

The available runtime handlers.

#### Type

**array**

### 2.1.26. .status.runtimeHandlers[]

#### Description

NodeRuntimeHandler is a set of runtime handler information.

#### Type

**object**

| Property        | Type          | Description                                                                         |
|-----------------|---------------|-------------------------------------------------------------------------------------|
| <b>features</b> | <b>object</b> | NodeRuntimeHandlerFeatures is a set of features implemented by the runtime handler. |

| Property    | Type          | Description                                                  |
|-------------|---------------|--------------------------------------------------------------|
| <b>name</b> | <b>string</b> | Runtime handler name. Empty for the default runtime handler. |

### 2.1.27. .status.runtimeHandlers[].features

#### Description

NodeRuntimeHandlerFeatures is a set of features implemented by the runtime handler.

#### Type

**object**

| Property                       | Type           | Description                                                                                          |
|--------------------------------|----------------|------------------------------------------------------------------------------------------------------|
| <b>recursiveReadOnlyMounts</b> | <b>boolean</b> | RecursiveReadOnlyMounts is set to true if the runtime handler supports RecursiveReadOnlyMounts.      |
| <b>userNamespaces</b>          | <b>boolean</b> | UserNamespaces is set to true if the runtime handler supports UserNamespaces, including for volumes. |

### 2.1.28. .status.volumesAttached

#### Description

List of volumes that are attached to the node.

#### Type

**array**

### 2.1.29. .status.volumesAttached[]

#### Description

AttachedVolume describes a volume attached to a node

#### Type

**object**

#### Required

- **name**
- **devicePath**

| Property          | Type          | Description                                                                |
|-------------------|---------------|----------------------------------------------------------------------------|
| <b>devicePath</b> | <b>string</b> | DevicePath represents the device path where the volume should be available |
| <b>name</b>       | <b>string</b> | Name of the attached volume                                                |

## 2.2. API ENDPOINTS

The following API endpoints are available:

- **/api/v1/nodes**
  - **DELETE**: delete collection of Node
  - **GET**: list or watch objects of kind Node
  - **POST**: create a Node
- **/api/v1/watch/nodes**
  - **GET**: watch individual changes to a list of Node. deprecated: use the 'watch' parameter with a list operation instead.
- **/api/v1/nodes/{name}**
  - **DELETE**: delete a Node
  - **GET**: read the specified Node
  - **PATCH**: partially update the specified Node
  - **PUT**: replace the specified Node
- **/api/v1/watch/nodes/{name}**
  - **GET**: watch changes to an object of kind Node. deprecated: use the 'watch' parameter with a list operation instead, filtered to a single item with the 'fieldSelector' parameter.
- **/api/v1/nodes/{name}/status**
  - **GET**: read status of the specified Node
  - **PATCH**: partially update status of the specified Node
  - **PUT**: replace status of the specified Node

### 2.2.1. /api/v1/nodes

HTTP method

**DELETE**

**Description**

delete collection of Node

**Table 2.1. Query parameters**

| Parameter     | Type          | Description                                                                                                                                                                                                                                              |
|---------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b> | <b>string</b> | 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 |

**Table 2.2. HTTP responses**

| HTTP code          | Response body                 |
|--------------------|-------------------------------|
| 200 - OK           | <a href="#">Status</a> schema |
| 401 - Unauthorized | Empty                         |

**HTTP method****GET****Description**

list or watch objects of kind Node

**Table 2.3. HTTP responses**

| HTTP code          | Response body                   |
|--------------------|---------------------------------|
| 200 - OK           | <a href="#">NodeList</a> schema |
| 401 - Unauthorized | Empty                           |

**HTTP method****POST****Description**

create a Node

**Table 2.4. Query parameters**

| Parameter | Type | Description |
|-----------|------|-------------|
|-----------|------|-------------|

| Parameter              | Type          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b>          | <b>string</b> | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>fieldValidation</b> | <b>string</b> | 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. |

Table 2.5. Body parameters

| Parameter   | Type               | Description |
|-------------|--------------------|-------------|
| <b>body</b> | <b>Node</b> schema |             |

Table 2.6. HTTP responses

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

### 2.2.2. /api/v1/watch/nodes

#### HTTP method

**GET****Description**

watch individual changes to a list of Node. deprecated: use the 'watch' parameter with a list operation instead.

**Table 2.7. HTTP responses**

| HTTP code          | Reponse body                      |
|--------------------|-----------------------------------|
| 200 - OK           | <a href="#">WatchEvent</a> schema |
| 401 - Unauthorized | Empty                             |

**2.2.3. /api/v1/nodes/{name}****Table 2.8. Global path parameters**

| Parameter   | Type          | Description      |
|-------------|---------------|------------------|
| <b>name</b> | <b>string</b> | name of the Node |

**HTTP method****DELETE****Description**

delete a Node

**Table 2.9. Query parameters**

| Parameter     | Type          | Description                                                                                                                                                                                                                                              |
|---------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b> | <b>string</b> | 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 |

**Table 2.10. HTTP responses**

| HTTP code          | Reponse body                  |
|--------------------|-------------------------------|
| 200 - OK           | <a href="#">Status</a> schema |
| 202 - Accepted     | <a href="#">Status</a> schema |
| 401 - Unauthorized | Empty                         |

**HTTP method**

**GET****Description**

read the specified Node

**Table 2.11. HTTP responses**

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

**HTTP method****PATCH****Description**

partially update the specified Node

**Table 2.12. Query parameters**

| Parameter              | Type          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b>          | <b>string</b> | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>fieldValidation</b> | <b>string</b> | 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. |

**Table 2.13. HTTP responses**

| HTTP code          | Response body               |
|--------------------|-----------------------------|
| 200 - OK           | <a href="#">Node</a> schema |
| 201 - Created      | <a href="#">Node</a> schema |
| 401 - Unauthorized | Empty                       |

**HTTP method****PUT****Description**

replace the specified Node

**Table 2.14. Query parameters**

| Parameter              | Type          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b>          | <b>string</b> | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>fieldValidation</b> | <b>string</b> | 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. |

**Table 2.15. Body parameters**

| Parameter   | Type                        | Description |
|-------------|-----------------------------|-------------|
| <b>body</b> | <a href="#">Node</a> schema |             |

Table 2.16. HTTP responses

| HTTP code          | Reponse body                |
|--------------------|-----------------------------|
| 200 - OK           | <a href="#">Node</a> schema |
| 201 - Created      | <a href="#">Node</a> schema |
| 401 - Unauthorized | Empty                       |

### 2.2.4. /api/v1/watch/nodes/{name}

Table 2.17. Global path parameters

| Parameter   | Type          | Description      |
|-------------|---------------|------------------|
| <b>name</b> | <b>string</b> | name of the Node |

#### HTTP method

#### GET

#### Description

watch changes to an object of kind Node. deprecated: use the 'watch' parameter with a list operation instead, filtered to a single item with the 'fieldSelector' parameter.

Table 2.18. HTTP responses

| HTTP code          | Reponse body                      |
|--------------------|-----------------------------------|
| 200 - OK           | <a href="#">WatchEvent</a> schema |
| 401 - Unauthorized | Empty                             |

### 2.2.5. /api/v1/nodes/{name}/status

Table 2.19. Global path parameters

| Parameter   | Type          | Description      |
|-------------|---------------|------------------|
| <b>name</b> | <b>string</b> | name of the Node |

#### HTTP method

#### GET

#### Description

read status of the specified Node

Table 2.20. HTTP responses

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

**HTTP method****PATCH****Description**

partially update status of the specified Node

**Table 2.21. Query parameters**

| Parameter              | Type          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b>          | <b>string</b> | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>fieldValidation</b> | <b>string</b> | 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. |

**Table 2.22. HTTP responses**

| HTTP code     | Response body      |
|---------------|--------------------|
| 200 - OK      | <b>Node</b> schema |
| 201 - Created | <b>Node</b> schema |

| HTTP code          | Response body |
|--------------------|---------------|
| 401 - Unauthorized | Empty         |

**HTTP method****PUT****Description**

replace status of the specified Node

**Table 2.23. Query parameters**

| Parameter              | Type          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b>          | <b>string</b> | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>fieldValidation</b> | <b>string</b> | 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. |

**Table 2.24. Body parameters**

| Parameter   | Type               | Description |
|-------------|--------------------|-------------|
| <b>body</b> | <b>Node</b> schema |             |

**Table 2.25. HTTP responses**

| HTTP code          | Reponse body       |
|--------------------|--------------------|
| 200 - OK           | <b>Node</b> schema |
| 201 - Created      | <b>Node</b> schema |
| 401 - Unauthorized | Empty              |

## CHAPTER 3. PERFORMANCEPROFILE [PERFORMANCE.OPENSIFT.IO/V2]

### Description

PerformanceProfile is the Schema for the performanceprofiles API

### Type

**object**

### 3.1. SPECIFICATION

| Property          | Type              | Description                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>apiVersion</b> | <b>string</b>     | 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>    |
| <b>kind</b>       | <b>string</b>     | 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> |
| <b>metadata</b>   | <b>ObjectMeta</b> | 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>                                                                                                                                                                   |
| <b>spec</b>       | <b>object</b>     | PerformanceProfileSpec defines the desired state of PerformanceProfile.                                                                                                                                                                                                                                                                                                                                          |
| <b>status</b>     | <b>object</b>     | PerformanceProfileStatus defines the observed state of PerformanceProfile.                                                                                                                                                                                                                                                                                                                                       |

### 3.1.1. .spec

#### Description

PerformanceProfileSpec defines the desired state of PerformanceProfile.

#### Type

**object**

#### Required

- **cpu**
- **nodeSelector**

| Property                               | Type                  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>additionalKernelArgs</b>            | <b>array (string)</b> | Additional kernel arguments.                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>cpu</b>                             | <b>object</b>         | CPU defines a set of CPU related parameters.                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>globallyDisableIrqLoadBalancing</b> | <b>boolean</b>        | GloballyDisableIrqLoadBalancing toggles whether IRQ load balancing will be disabled for the Isolated CPU set. When the option is set to "true" it disables IRQs load balancing for the Isolated CPU set. Setting the option to "false" allows the IRQs to be balanced across all CPUs, however the IRQs load balancing can be disabled per pod CPUs when using irq-load-balancing.crio.io/cpu-quota.crio.io annotations. Defaults to "false" |
| <b>hardwareTuning</b>                  | <b>object</b>         | HardwareTuning defines a set of CPU frequencies for isolated and reserved cpus.                                                                                                                                                                                                                                                                                                                                                              |

| Property                         | Type                   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>hugepages</b>                 | <b>object</b>          | HugePages defines a set of huge pages related parameters. It is possible to set huge pages with multiple size values at the same time. For example, hugepages can be set with 1G and 2M, both values will be set on the node by the Performance Profile Controller. It is important to notice that setting hugepages default size to 1G will remove all 2M related folders from the node and it will be impossible to configure 2M hugepages under the node. |
| <b>kernelPageSize</b>            | <b>string</b>          | KernelPageSize defines the kernel page size. 4k is the default, 64k is only supported on aarch64                                                                                                                                                                                                                                                                                                                                                             |
| <b>machineConfigLabel</b>        | <b>object (string)</b> | MachineConfigLabel defines the label to add to the MachineConfigs the operator creates. It has to be used in the MachineConfigSelector of the MachineConfigPool which targets this performance profile. Defaults to "machineconfiguration.openshift.io/role=<same role as in NodeSelector label key>"                                                                                                                                                        |
| <b>machineConfigPoolSelector</b> | <b>object (string)</b> | MachineConfigPoolSelector defines the MachineConfigPool label to use in the MachineConfigPoolSelector of resources like KubeletConfigs created by the operator. Defaults to "machineconfiguration.openshift.io/role=<same role as in NodeSelector label key>"                                                                                                                                                                                                |
| <b>net</b>                       | <b>object</b>          | Net defines a set of network related features                                                                                                                                                                                                                                                                                                                                                                                                                |

| Property              | Type                   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>nodeSelector</b>   | <b>object (string)</b> | NodeSelector defines the Node label to use in the NodeSelectors of resources like Tuned created by the operator. It most likely should, but does not have to match the node label in the NodeSelector of the MachineConfigPool which targets this performance profile. In the case when machineConfigLabels or machineConfigPoolSelector are not set, we are expecting a certain NodeSelector format <domain>/<role>: "" in order to be able to calculate the default values for the former mentioned fields. |
| <b>numa</b>           | <b>object</b>          | NUMA defines options related to topology aware affinities                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>realTimeKernel</b> | <b>object</b>          | RealTimeKernel defines a set of real time kernel related parameters. RT kernel won't be installed when not set.                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>workloadHints</b>  | <b>object</b>          | WorkloadHints defines hints for different types of workloads. It will allow defining exact set of tuned and kernel arguments that should be applied on top of the node.                                                                                                                                                                                                                                                                                                                                       |

### 3.1.2. .spec.cpu

#### Description

CPU defines a set of CPU related parameters.

#### Type

**object**

#### Required

- **isolated**
- **reserved**

| Property                | Type           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>balancelisolated</b> | <b>boolean</b> | Balancelisolated toggles whether or not the Isolated CPU set is eligible for load balancing work loads. When this option is set to "false", the Isolated CPU set will be static, meaning workloads have to explicitly assign each thread to a specific cpu in order to work across multiple CPUs. Setting this to "true" allows workloads to be balanced across CPUs. Setting this to "false" offers the most predictable performance for guaranteed workloads, but it offloads the complexity of cpu load balancing to the application. Defaults to "true" |
| <b>isolated</b>         | <b>string</b>  | Isolated defines a set of CPUs that will be used to give to application threads the most execution time possible, which means removing as many extraneous tasks off a CPU as possible. It is important to notice the CPU manager can choose any CPU to run the workload except the reserved CPUs. In order to guarantee that your workload will run on the isolated CPU: 1. The union of reserved CPUs and isolated CPUs should include all online CPUs 2. The isolated CPUs field should be the complementary to reserved CPUs field                       |
| <b>offlined</b>         | <b>string</b>  | Offline defines a set of CPUs that will be unused and set offline                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>reserved</b>         | <b>string</b>  | Reserved defines a set of CPUs that will not be used for any container workloads initiated by kubelet.                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

| Property      | Type          | Description                                                                                                                                                                                                                 |
|---------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>shared</b> | <b>string</b> | Shared defines a set of CPUs that will be shared among guaranteed workloads that needs additional cpus which are not exclusive, alongside the isolated, exclusive resources that are being used already by those workloads. |

### 3.1.3. .spec.hardwareTuning

#### Description

HardwareTuning defines a set of CPU frequencies for isolated and reserved cpus.

#### Type

**object**

| Property               | Type           | Description                                                                |
|------------------------|----------------|----------------------------------------------------------------------------|
| <b>isolatedCpuFreq</b> | <b>integer</b> | IsolatedCpuFreq defines a minimum frequency to be set across isolated cpus |
| <b>reservedCpuFreq</b> | <b>integer</b> | ReservedCpuFreq defines a maximum frequency to be set across reserved cpus |

### 3.1.4. .spec.hugepages

#### Description

HugePages defines a set of huge pages related parameters. It is possible to set huge pages with multiple size values at the same time. For example, hugepages can be set with 1G and 2M, both values will be set on the node by the Performance Profile Controller. It is important to notice that setting hugepages default size to 1G will remove all 2M related folders from the node and it will be impossible to configure 2M hugepages under the node.

#### Type

**object**

| Property                    | Type          | Description                                                                        |
|-----------------------------|---------------|------------------------------------------------------------------------------------|
| <b>defaultHugepagesSize</b> | <b>string</b> | DefaultHugePagesSize defines huge pages default size under kernel boot parameters. |
| <b>pages</b>                | <b>array</b>  | Pages defines huge pages that we want to allocate at boot time.                    |

| Property       | Type          | Description                                                               |
|----------------|---------------|---------------------------------------------------------------------------|
| <b>pages[]</b> | <b>object</b> | HugePage defines the number of allocated huge pages of the specific size. |

### 3.1.5. .spec.hugepages.pages

#### Description

Pages defines huge pages that we want to allocate at boot time.

#### Type

**array**

### 3.1.6. .spec.hugepages.pages[]

#### Description

HugePage defines the number of allocated huge pages of the specific size.

#### Type

**object**

| Property     | Type           | Description                                                                                                                        |
|--------------|----------------|------------------------------------------------------------------------------------------------------------------------------------|
| <b>count</b> | <b>integer</b> | Count defines amount of huge pages, maps to the 'hugepages' kernel boot parameter.                                                 |
| <b>node</b>  | <b>integer</b> | Node defines the NUMA node where hugepages will be allocated, if not specified, pages will be allocated equally between NUMA nodes |
| <b>size</b>  | <b>string</b>  | Size defines huge page size, maps to the 'hugepagesz' kernel boot parameter.                                                       |

### 3.1.7. .spec.net

#### Description

Net defines a set of network related features

#### Type

**object**

| Property                   | Type           | Description                                                                                                                                                                           |
|----------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>devices</b>             | <b>array</b>   | Devices contains a list of network device representations that will be set with a netqueue count equal to CPU.Reserved . If no devices are specified then the default is all devices. |
| <b>devices[]</b>           | <b>object</b>  | Device defines a way to represent a network device in several options: device name, vendor ID, model ID, PCI path and MAC address                                                     |
| <b>userLevelNetworking</b> | <b>boolean</b> | UserLevelNetworking when enabled - sets either all or specified network devices queue size to the amount of reserved CPUs. Defaults to "false".                                       |

### 3.1.8. .spec.net.devices

#### Description

Devices contains a list of network device representations that will be set with a netqueue count equal to CPU.Reserved . If no devices are specified then the default is all devices.

#### Type

**array**

### 3.1.9. .spec.net.devices[]

#### Description

Device defines a way to represent a network device in several options: device name, vendor ID, model ID, PCI path and MAC address

#### Type

**object**

| Property             | Type          | Description                                                                                                         |
|----------------------|---------------|---------------------------------------------------------------------------------------------------------------------|
| <b>deviceId</b>      | <b>string</b> | Network device ID (model) represented as a 16 bit hexadecimal number.                                               |
| <b>interfaceName</b> | <b>string</b> | Network device name to be matched. It uses a syntax of shell-style wildcards which are either positive or negative. |

| Property        | Type          | Description                                                          |
|-----------------|---------------|----------------------------------------------------------------------|
| <b>vendorID</b> | <b>string</b> | Network device vendor ID represented as a 16 bit Hexadecimal number. |

### 3.1.10. .spec.numa

#### Description

NUMA defines options related to topology aware affinities

#### Type

**object**

| Property              | Type          | Description                                                                                      |
|-----------------------|---------------|--------------------------------------------------------------------------------------------------|
| <b>topologyPolicy</b> | <b>string</b> | Name of the policy applied when TopologyManager is enabled<br>Operator defaults to "best-effort" |

### 3.1.11. .spec.realTimeKernel

#### Description

RealTimeKernel defines a set of real time kernel related parameters. RT kernel won't be installed when not set.

#### Type

**object**

| Property       | Type           | Description                                                                               |
|----------------|----------------|-------------------------------------------------------------------------------------------|
| <b>enabled</b> | <b>boolean</b> | Enabled defines if the real time kernel packages should be installed. Defaults to "false" |

### 3.1.12. .spec.workloadHints

#### Description

WorkloadHints defines hints for different types of workloads. It will allow defining exact set of tuned and kernel arguments that should be applied on top of the node.

#### Type

**object**

| Property | Type | Description |
|----------|------|-------------|
|----------|------|-------------|

| Property                     | Type           | Description                                                                                                                                                                                      |
|------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>highPowerConsumption</b>  | <b>boolean</b> | HighPowerConsumption defines if the node should be configured in high power consumption mode. The flag will affect the power consumption but will improve the CPUs latency. Defaults to false.   |
| <b>mixedCpus</b>             | <b>boolean</b> | MixedCpus enables the mixed-cpu-node-plugin on the node. Defaults to false.                                                                                                                      |
| <b>perPodPowerManagement</b> | <b>boolean</b> | PerPodPowerManagement defines if the node should be configured in per pod power management. PerPodPowerManagement and HighPowerConsumption hints can not be enabled together. Defaults to false. |
| <b>realTime</b>              | <b>boolean</b> | RealTime defines if the node should be configured for the real time workload. Defaults to true.                                                                                                  |

### 3.1.13. .status

#### Description

PerformanceProfileStatus defines the observed state of PerformanceProfile.

#### Type

**object**

| Property            | Type          | Description                                                                          |
|---------------------|---------------|--------------------------------------------------------------------------------------|
| <b>conditions</b>   | <b>array</b>  | Conditions represents the latest available observations of current state.            |
| <b>conditions[]</b> | <b>object</b> | Condition represents the state of the operator's reconciliation functionality.       |
| <b>runtimeClass</b> | <b>string</b> | RuntimeClass contains the name of the RuntimeClass resource created by the operator. |

| Property     | Type          | Description                                                                                                  |
|--------------|---------------|--------------------------------------------------------------------------------------------------------------|
| <b>tuned</b> | <b>string</b> | Tuned points to the Tuned custom resource object that contains the tuning values generated by this operator. |

### 3.1.14. .status.conditions

#### Description

Conditions represents the latest available observations of current state.

#### Type

**array**

### 3.1.15. .status.conditions[]

#### Description

Condition represents the state of the operator's reconciliation functionality.

#### Type

**object**

#### Required

- **status**
- **type**

| Property                  | Type          | Description                                                                |
|---------------------------|---------------|----------------------------------------------------------------------------|
| <b>lastHeartbeatTime</b>  | <b>string</b> |                                                                            |
| <b>lastTransitionTime</b> | <b>string</b> |                                                                            |
| <b>message</b>            | <b>string</b> |                                                                            |
| <b>reason</b>             | <b>string</b> |                                                                            |
| <b>status</b>             | <b>string</b> |                                                                            |
| <b>type</b>               | <b>string</b> | ConditionType is the state of the operator's reconciliation functionality. |

## 3.2. API ENDPOINTS

The following API endpoints are available:

- **/apis/performance.openshift.io/v2/performanceprofiles**
  - **DELETE**: delete collection of PerformanceProfile
  - **GET**: list objects of kind PerformanceProfile
  - **POST**: create a PerformanceProfile
- **/apis/performance.openshift.io/v2/performanceprofiles/{name}**
  - **DELETE**: delete a PerformanceProfile
  - **GET**: read the specified PerformanceProfile
  - **PATCH**: partially update the specified PerformanceProfile
  - **PUT**: replace the specified PerformanceProfile
- **/apis/performance.openshift.io/v2/performanceprofiles/{name}/status**
  - **GET**: read status of the specified PerformanceProfile
  - **PATCH**: partially update status of the specified PerformanceProfile
  - **PUT**: replace status of the specified PerformanceProfile

### 3.2.1. /apis/performance.openshift.io/v2/performanceprofiles

HTTP method

**DELETE**

Description

delete collection of PerformanceProfile

Table 3.1. HTTP responses

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

HTTP method

**GET**

Description

list objects of kind PerformanceProfile

Table 3.2. HTTP responses

| HTTP code          | Reponse body                                  |
|--------------------|-----------------------------------------------|
| 200 - OK           | <a href="#">PerformanceProfileList</a> schema |
| 401 - Unauthorized | Empty                                         |

**HTTP method****POST****Description**

create a PerformanceProfile

**Table 3.3. Query parameters**

| Parameter              | Type          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b>          | <b>string</b> | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>fieldValidation</b> | <b>string</b> | 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. |

**Table 3.4. Body parameters**

| Parameter   | Type                                      | Description |
|-------------|-------------------------------------------|-------------|
| <b>body</b> | <a href="#">PerformanceProfile</a> schema |             |

**Table 3.5. HTTP responses**

| HTTP code          | Reponse body                              |
|--------------------|-------------------------------------------|
| 200 - OK           | <a href="#">PerformanceProfile</a> schema |
| 201 - Created      | <a href="#">PerformanceProfile</a> schema |
| 202 - Accepted     | <a href="#">PerformanceProfile</a> schema |
| 401 - Unauthorized | Empty                                     |

### 3.2.2. /apis/performance.openshift.io/v2/performanceprofiles/{name}

Table 3.6. Global path parameters

| Parameter   | Type          | Description                    |
|-------------|---------------|--------------------------------|
| <b>name</b> | <b>string</b> | name of the PerformanceProfile |

#### HTTP method

#### DELETE

#### Description

delete a PerformanceProfile

Table 3.7. Query parameters

| Parameter     | Type          | Description                                                                                                                                                                                                                                              |
|---------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b> | <b>string</b> | 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 |

Table 3.8. HTTP responses

| HTTP code          | Reponse body                  |
|--------------------|-------------------------------|
| 200 - OK           | <a href="#">Status</a> schema |
| 202 - Accepted     | <a href="#">Status</a> schema |
| 401 - Unauthorized | Empty                         |

#### HTTP method

#### GET

**Description**

read the specified PerformanceProfile

**Table 3.9. HTTP responses**

| HTTP code          | Response body                             |
|--------------------|-------------------------------------------|
| 200 - OK           | <a href="#">PerformanceProfile</a> schema |
| 401 - Unauthorized | Empty                                     |

**HTTP method****PATCH****Description**

partially update the specified PerformanceProfile

**Table 3.10. Query parameters**

| Parameter              | Type          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b>          | <b>string</b> | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>fieldValidation</b> | <b>string</b> | 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. |

**Table 3.11. HTTP responses**

| HTTP code          | Response body                             |
|--------------------|-------------------------------------------|
| 200 - OK           | <a href="#">PerformanceProfile</a> schema |
| 401 - Unauthorized | Empty                                     |

**HTTP method****PUT****Description**

replace the specified PerformanceProfile

**Table 3.12. Query parameters**

| Parameter              | Type          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b>          | <b>string</b> | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>fieldValidation</b> | <b>string</b> | 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. |

**Table 3.13. Body parameters**

| Parameter   | Type                                      | Description |
|-------------|-------------------------------------------|-------------|
| <b>body</b> | <a href="#">PerformanceProfile</a> schema |             |

**Table 3.14. HTTP responses**

| HTTP code          | Reponse body                              |
|--------------------|-------------------------------------------|
| 200 - OK           | <a href="#">PerformanceProfile</a> schema |
| 201 - Created      | <a href="#">PerformanceProfile</a> schema |
| 401 - Unauthorized | Empty                                     |

### 3.2.3. /apis/performance.openshift.io/v2/performanceprofiles/{name}/status

Table 3.15. Global path parameters

| Parameter   | Type          | Description                    |
|-------------|---------------|--------------------------------|
| <b>name</b> | <b>string</b> | name of the PerformanceProfile |

#### HTTP method

#### GET

#### Description

read status of the specified PerformanceProfile

Table 3.16. HTTP responses

| HTTP code          | Reponse body                              |
|--------------------|-------------------------------------------|
| 200 - OK           | <a href="#">PerformanceProfile</a> schema |
| 401 - Unauthorized | Empty                                     |

#### HTTP method

#### PATCH

#### Description

partially update status of the specified PerformanceProfile

Table 3.17. Query parameters

| Parameter     | Type          | Description                                                                                                                                                                                                                                              |
|---------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b> | <b>string</b> | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>fieldValidation</b> | <b>string</b> | fieldValidation instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: <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 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.</li> </ul> |

Table 3.18. HTTP responses

| HTTP code          | Response body                             |
|--------------------|-------------------------------------------|
| 200 - OK           | <a href="#">PerformanceProfile</a> schema |
| 401 - Unauthorized | Empty                                     |

**HTTP method****PUT****Description**

replace status of the specified PerformanceProfile

Table 3.19. Query parameters

| Parameter     | Type          | Description                                                                                                                                                                                                                                                                                                |
|---------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b> | <b>string</b> | 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: <ul style="list-style-type: none"> <li>- All: all dry run stages will be processed</li> </ul> |

| Parameter              | Type          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>fieldValidation</b> | <b>string</b> | fieldValidation instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: <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 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.</li> </ul> |

Table 3.20. Body parameters

| Parameter   | Type                                | Description |
|-------------|-------------------------------------|-------------|
| <b>body</b> | <b>PerformanceProfile</b><br>schema |             |

Table 3.21. HTTP responses

| HTTP code          | Reponse body                     |
|--------------------|----------------------------------|
| 200 - OK           | <b>PerformanceProfile</b> schema |
| 201 - Created      | <b>PerformanceProfile</b> schema |
| 401 - Unauthorized | Empty                            |

## CHAPTER 4. PROFILE [TUNED.OPENSIFT.IO/V1]

### Description

Profile is a specification for a Profile resource.

### Type

**object**

## 4.1. SPECIFICATION

| Property          | Type              | Description                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>apiVersion</b> | <b>string</b>     | 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>    |
| <b>kind</b>       | <b>string</b>     | 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> |
| <b>metadata</b>   | <b>ObjectMeta</b> | 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>                                                                                                                                                                   |
| <b>spec</b>       | <b>object</b>     |                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>status</b>     | <b>object</b>     | ProfileStatus is the status for a Profile resource; the status is for internal use only and its fields may be changed/removed in the future.                                                                                                                                                                                                                                                                     |

### 4.1.1. .spec

Description

Type

**object**

Required

- **config**

| Property         | Type          | Description      |
|------------------|---------------|------------------|
| <b>config</b>    | <b>object</b> |                  |
| <b>profile</b>   | <b>array</b>  | Tuned profiles.  |
| <b>profile[]</b> | <b>object</b> | A Tuned profile. |

#### 4.1.2. .spec.config

Description

Type

**object**

Required

- **tunedProfile**

| Property            | Type           | Description                                                                                             |
|---------------------|----------------|---------------------------------------------------------------------------------------------------------|
| <b>debug</b>        | <b>boolean</b> | option to debug TuneD daemon execution                                                                  |
| <b>providerName</b> | <b>string</b>  | Name of the cloud provider as taken from the Node providerID: <ProviderName>://<ProviderSpecificNodeID> |
| <b>tunedConfig</b>  | <b>object</b>  | Global configuration for the TuneD daemon as defined in tuned-main.conf                                 |
| <b>tunedProfile</b> | <b>string</b>  | TuneD profile to apply                                                                                  |
| <b>verbosity</b>    | <b>integer</b> | klog logging verbosity                                                                                  |

#### 4.1.3. .spec.config.tunedConfig

Description

Global configuration for the Tuned daemon as defined in tuned-main.conf

#### Type

**object**

| Property              | Type           | Description                                                               |
|-----------------------|----------------|---------------------------------------------------------------------------|
| <b>reapply_sysctl</b> | <b>boolean</b> | turn reapply_sysctl functionality on/off for the Tuned daemon: true/false |

#### 4.1.4. .spec.profile

##### Description

Tuned profiles.

##### Type

**array**

#### 4.1.5. .spec.profile[]

##### Description

A Tuned profile.

##### Type

**object**

##### Required

- **data**
- **name**

| Property    | Type          | Description                                                            |
|-------------|---------------|------------------------------------------------------------------------|
| <b>data</b> | <b>string</b> | Specification of the Tuned profile to be consumed by the Tuned daemon. |
| <b>name</b> | <b>string</b> | Name of the Tuned profile to be used in the recommend section.         |

#### 4.1.6. .status

##### Description

ProfileStatus is the status for a Profile resource; the status is for internal use only and its fields may be changed/removed in the future.

##### Type

**object**

##### Required

- **tunedProfile**

| Property                  | Type           | Description                                                                               |
|---------------------------|----------------|-------------------------------------------------------------------------------------------|
| <b>conditions</b>         | <b>array</b>   | conditions represents the state of the per-node Profile application                       |
| <b>conditions[]</b>       | <b>object</b>  | StatusCondition represents a partial state of the per-node Profile application.           |
| <b>observedGeneration</b> | <b>integer</b> | If set, this represents the .metadata.generation that the conditions were set based upon. |
| <b>tunedProfile</b>       | <b>string</b>  | the current profile in use by the Tuned daemon                                            |

#### 4.1.7. .status.conditions

##### Description

conditions represents the state of the per-node Profile application

##### Type

**array**

#### 4.1.8. .status.conditions[]

##### Description

StatusCondition represents a partial state of the per-node Profile application.

##### Type

**object**

##### Required

- **lastTransitionTime**
- **status**
- **type**

| Property                  | Type          | Description                                                                       |
|---------------------------|---------------|-----------------------------------------------------------------------------------|
| <b>lastTransitionTime</b> | <b>string</b> | lastTransitionTime is the time of the last update to the current status property. |

| Property       | Type          | Description                                                                                                 |
|----------------|---------------|-------------------------------------------------------------------------------------------------------------|
| <b>message</b> | <b>string</b> | message provides additional information about the current condition. This is only to be consumed by humans. |
| <b>reason</b>  | <b>string</b> | reason is the CamelCase reason for the condition's current status.                                          |
| <b>status</b>  | <b>string</b> | status of the condition, one of True, False, Unknown.                                                       |
| <b>type</b>    | <b>string</b> | type specifies the aspect reported by this condition.                                                       |

## 4.2. API ENDPOINTS

The following API endpoints are available:

- **/apis/tuned.openshift.io/v1/profiles**
  - **GET**: list objects of kind Profile
- **/apis/tuned.openshift.io/v1/namespaces/{namespace}/profiles**
  - **DELETE**: delete collection of Profile
  - **GET**: list objects of kind Profile
  - **POST**: create a Profile
- **/apis/tuned.openshift.io/v1/namespaces/{namespace}/profiles/{name}**
  - **DELETE**: delete a Profile
  - **GET**: read the specified Profile
  - **PATCH**: partially update the specified Profile
  - **PUT**: replace the specified Profile
- **/apis/tuned.openshift.io/v1/namespaces/{namespace}/profiles/{name}/status**
  - **GET**: read status of the specified Profile
  - **PATCH**: partially update status of the specified Profile
  - **PUT**: replace status of the specified Profile

### 4.2.1. /apis/tuned.openshift.io/v1/profiles

HTTP method

**GET**

Description

list objects of kind Profile

Table 4.1. HTTP responses

| HTTP code          | Reponse body                       |
|--------------------|------------------------------------|
| 200 - OK           | <a href="#">ProfileList</a> schema |
| 401 - Unauthorized | Empty                              |

### 4.2.2. /apis/tuned.openshift.io/v1/namespaces/{namespace}/profiles

HTTP method

**DELETE**

Description

delete collection of Profile

Table 4.2. HTTP responses

| HTTP code          | Reponse body                  |
|--------------------|-------------------------------|
| 200 - OK           | <a href="#">Status</a> schema |
| 401 - Unauthorized | Empty                         |

HTTP method

**GET**

Description

list objects of kind Profile

Table 4.3. HTTP responses

| HTTP code          | Reponse body                       |
|--------------------|------------------------------------|
| 200 - OK           | <a href="#">ProfileList</a> schema |
| 401 - Unauthorized | Empty                              |

HTTP method

**POST**

Description

create a Profile

**Table 4.4. Query parameters**

| Parameter              | Type          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b>          | <b>string</b> | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>fieldValidation</b> | <b>string</b> | 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. |

**Table 4.5. Body parameters**

| Parameter   | Type                  | Description |
|-------------|-----------------------|-------------|
| <b>body</b> | <b>Profile</b> schema |             |

**Table 4.6. HTTP responses**

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

### 4.2.3. /apis/tuned.openshift.io/v1/namespaces/{namespace}/profiles/{name}

Table 4.7. Global path parameters

| Parameter   | Type          | Description         |
|-------------|---------------|---------------------|
| <b>name</b> | <b>string</b> | name of the Profile |

HTTP method

**DELETE**

Description

delete a Profile

Table 4.8. Query parameters

| Parameter     | Type          | Description                                                                                                                                                                                                                                              |
|---------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b> | <b>string</b> | 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 |

Table 4.9. HTTP responses

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

HTTP method

**GET**

Description

read the specified Profile

Table 4.10. HTTP responses

| HTTP code          | Reponse body          |
|--------------------|-----------------------|
| 200 - OK           | <b>Profile</b> schema |
| 401 - Unauthorized | Empty                 |

HTTP method

**PATCH****Description**

partially update the specified Profile

**Table 4.11. Query parameters**

| Parameter              | Type          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b>          | <b>string</b> | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>fieldValidation</b> | <b>string</b> | 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. |

**Table 4.12. HTTP responses**

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

**HTTP method****PUT****Description**

replace the specified Profile

**Table 4.13. Query parameters**

| Parameter              | Type          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b>          | <b>string</b> | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>fieldValidation</b> | <b>string</b> | 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. |

Table 4.14. Body parameters

| Parameter   | Type                  | Description |
|-------------|-----------------------|-------------|
| <b>body</b> | <b>Profile</b> schema |             |

Table 4.15. HTTP responses

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

#### 4.2.4. /apis/tuned.openshift.io/v1/namespaces/{namespace}/profiles/{name}/status

Table 4.16. Global path parameters

| Parameter   | Type          | Description         |
|-------------|---------------|---------------------|
| <b>name</b> | <b>string</b> | name of the Profile |

**HTTP method****GET****Description**

read status of the specified Profile

**Table 4.17. HTTP responses**

| HTTP code          | Reponse body                   |
|--------------------|--------------------------------|
| 200 - OK           | <a href="#">Profile</a> schema |
| 401 - Unauthorized | Empty                          |

**HTTP method****PATCH****Description**

partially update status of the specified Profile

**Table 4.18. Query parameters**

| Parameter     | Type          | Description                                                                                                                                                                                                                                              |
|---------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b> | <b>string</b> | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>fieldValidation</b> | <b>string</b> | 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. |

Table 4.19. HTTP responses

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

**HTTP method****PUT****Description**

replace status of the specified Profile

Table 4.20. Query parameters

| Parameter     | Type          | Description                                                                                                                                                                                                                                              |
|---------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b> | <b>string</b> | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>fieldValidation</b> | <b>string</b> | fieldValidation instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: <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 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.</li> </ul> |

Table 4.21. Body parameters

| Parameter   | Type                  | Description |
|-------------|-----------------------|-------------|
| <b>body</b> | <b>Profile</b> schema |             |

Table 4.22. HTTP responses

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

## CHAPTER 5. RUNTIMECLASS [NODE.K8S.IO/V1]

### Description

RuntimeClass defines a class of container runtime supported in the cluster. The RuntimeClass is used to determine which container runtime is used to run all containers in a pod. RuntimeClasses are manually defined by a user or cluster provisioner, and referenced in the PodSpec. The Kubelet is responsible for resolving the RuntimeClassName reference before running the pod. For more details, see <https://kubernetes.io/docs/concepts/containers/runtime-class/>

### Type

**object**

### Required

- **handler**

## 5.1. SPECIFICATION

| Property          | Type          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>apiVersion</b> | <b>string</b> | 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>                                                                                                                                                                         |
| <b>handler</b>    | <b>string</b> | handler specifies the underlying runtime and configuration that the CRI implementation will use to handle pods of this class. The possible values are specific to the node & CRI configuration. It is assumed that all handlers are available on every node, and handlers of the same name are equivalent on every node. For example, a handler called "runc" might specify that the runc OCI runtime (using native Linux containers) will be used to run the containers in a pod. The Handler must be lowercase, conform to the DNS Label (RFC 1123) requirements, and is immutable. |

| Property          | Type              | Description                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>kind</b>       | <b>string</b>     | 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> |
| <b>metadata</b>   | <b>ObjectMeta</b> | 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>                                                                                                                                                                                               |
| <b>overhead</b>   | <b>object</b>     | Overhead structure represents the resource overhead associated with running a pod.                                                                                                                                                                                                                                                                                                                               |
| <b>scheduling</b> | <b>object</b>     | Scheduling specifies the scheduling constraints for nodes supporting a RuntimeClass.                                                                                                                                                                                                                                                                                                                             |

### 5.1.1. .overhead

#### Description

Overhead structure represents the resource overhead associated with running a pod.

#### Type

**object**

| Property        | Type                     | Description                                                                    |
|-----------------|--------------------------|--------------------------------------------------------------------------------|
| <b>podFixed</b> | <b>object (Quantity)</b> | podFixed represents the fixed resource overhead associated with running a pod. |

### 5.1.2. .scheduling

#### Description

Scheduling specifies the scheduling constraints for nodes supporting a RuntimeClass.

#### Type

**object**

| Property            | Type                      | Description                                                                                                                                                                                                                                                                                                              |
|---------------------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>nodeSelector</b> | <b>object (string)</b>    | nodeSelector lists labels that must be present on nodes that support this RuntimeClass. Pods using this RuntimeClass can only be scheduled to a node matched by this selector. The RuntimeClass nodeSelector is merged with a pod's existing nodeSelector. Any conflicts will cause the pod to be rejected in admission. |
| <b>tolerations</b>  | <b>array (Toleration)</b> | tolerations are appended (excluding duplicates) to pods running with this RuntimeClass during admission, effectively unioning the set of nodes tolerated by the pod and the RuntimeClass.                                                                                                                                |

## 5.2. API ENDPOINTS

The following API endpoints are available:

- **/apis/node.k8s.io/v1/runtimeclasses**
  - **DELETE**: delete collection of RuntimeClass
  - **GET**: list or watch objects of kind RuntimeClass
  - **POST**: create a RuntimeClass
- **/apis/node.k8s.io/v1/watch/runtimeclasses**
  - **GET**: watch individual changes to a list of RuntimeClass. deprecated: use the 'watch' parameter with a list operation instead.
- **/apis/node.k8s.io/v1/runtimeclasses/{name}**
  - **DELETE**: delete a RuntimeClass
  - **GET**: read the specified RuntimeClass
  - **PATCH**: partially update the specified RuntimeClass
  - **PUT**: replace the specified RuntimeClass
- **/apis/node.k8s.io/v1/watch/runtimeclasses/{name}**
  - **GET**: watch changes to an object of kind RuntimeClass. deprecated: use the 'watch' parameter with a list operation instead, filtered to a single item with the 'fieldSelector' parameter.

### 5.2.1. /apis/node.k8s.io/v1/runtimeclasses

#### HTTP method

#### DELETE

#### Description

delete collection of RuntimeClass

Table 5.1. Query parameters

| Parameter     | Type          | Description                                                                                                                                                                                                                                              |
|---------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b> | <b>string</b> | 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 |

Table 5.2. HTTP responses

| HTTP code          | Reponse body                  |
|--------------------|-------------------------------|
| 200 - OK           | <a href="#">Status</a> schema |
| 401 - Unauthorized | Empty                         |

#### HTTP method

#### GET

#### Description

list or watch objects of kind RuntimeClass

Table 5.3. HTTP responses

| HTTP code          | Reponse body                            |
|--------------------|-----------------------------------------|
| 200 - OK           | <a href="#">RuntimeClassList</a> schema |
| 401 - Unauthorized | Empty                                   |

#### HTTP method

#### POST

#### Description

create a RuntimeClass

Table 5.4. Query parameters

| Parameter              | Type          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b>          | <b>string</b> | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>fieldValidation</b> | <b>string</b> | 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. |

Table 5.5. Body parameters

| Parameter   | Type                       | Description |
|-------------|----------------------------|-------------|
| <b>body</b> | <b>RuntimeClass</b> schema |             |

Table 5.6. HTTP responses

| HTTP code          | Reponse body               |
|--------------------|----------------------------|
| 200 - OK           | <b>RuntimeClass</b> schema |
| 201 - Created      | <b>RuntimeClass</b> schema |
| 202 - Accepted     | <b>RuntimeClass</b> schema |
| 401 - Unauthorized | Empty                      |

### 5.2.2. /apis/node.k8s.io/v1/watch/runtimeclasses

#### HTTP method

**GET****Description**

watch individual changes to a list of RuntimeClass. deprecated: use the 'watch' parameter with a list operation instead.

**Table 5.7. HTTP responses**

| HTTP code          | Reponse body                      |
|--------------------|-----------------------------------|
| 200 - OK           | <a href="#">WatchEvent</a> schema |
| 401 - Unauthorized | Empty                             |

**5.2.3. /apis/node.k8s.io/v1/runtimeclasses/{name}****Table 5.8. Global path parameters**

| Parameter   | Type          | Description              |
|-------------|---------------|--------------------------|
| <b>name</b> | <b>string</b> | name of the RuntimeClass |

**HTTP method****DELETE****Description**

delete a RuntimeClass

**Table 5.9. Query parameters**

| Parameter     | Type          | Description                                                                                                                                                                                                                                              |
|---------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b> | <b>string</b> | 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 |

**Table 5.10. HTTP responses**

| HTTP code          | Reponse body                  |
|--------------------|-------------------------------|
| 200 - OK           | <a href="#">Status</a> schema |
| 202 - Accepted     | <a href="#">Status</a> schema |
| 401 - Unauthorized | Empty                         |

**HTTP method**

**GET****Description**

read the specified RuntimeClass

**Table 5.11. HTTP responses**

| HTTP code          | Response body                       |
|--------------------|-------------------------------------|
| 200 - OK           | <a href="#">RuntimeClass</a> schema |
| 401 - Unauthorized | Empty                               |

**HTTP method****PATCH****Description**

partially update the specified RuntimeClass

**Table 5.12. Query parameters**

| Parameter              | Type          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b>          | <b>string</b> | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>fieldValidation</b> | <b>string</b> | 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. |

**Table 5.13. HTTP responses**

| HTTP code          | Response body                       |
|--------------------|-------------------------------------|
| 200 - OK           | <a href="#">RuntimeClass</a> schema |
| 201 - Created      | <a href="#">RuntimeClass</a> schema |
| 401 - Unauthorized | Empty                               |

**HTTP method****PUT****Description**

replace the specified RuntimeClass

**Table 5.14. Query parameters**

| Parameter              | Type          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b>          | <b>string</b> | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>fieldValidation</b> | <b>string</b> | 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. |

**Table 5.15. Body parameters**

| Parameter   | Type                                | Description |
|-------------|-------------------------------------|-------------|
| <b>body</b> | <a href="#">RuntimeClass</a> schema |             |

Table 5.16. HTTP responses

| HTTP code          | Reponse body                        |
|--------------------|-------------------------------------|
| 200 - OK           | <a href="#">RuntimeClass</a> schema |
| 201 - Created      | <a href="#">RuntimeClass</a> schema |
| 401 - Unauthorized | Empty                               |

#### 5.2.4. /apis/node.k8s.io/v1/watch/runtimeclasses/{name}

Table 5.17. Global path parameters

| Parameter   | Type          | Description              |
|-------------|---------------|--------------------------|
| <b>name</b> | <b>string</b> | name of the RuntimeClass |

#### HTTP method

##### GET

#### Description

watch changes to an object of kind RuntimeClass. deprecated: use the 'watch' parameter with a list operation instead, filtered to a single item with the 'fieldSelector' parameter.

Table 5.18. HTTP responses

| HTTP code          | Reponse body                      |
|--------------------|-----------------------------------|
| 200 - OK           | <a href="#">WatchEvent</a> schema |
| 401 - Unauthorized | Empty                             |

## CHAPTER 6. TUNED [TUNED.OPENSIFT.IO/V1]

### Description

Tuned is a collection of rules that allows cluster-wide deployment of node-level sysctls and more flexibility to add custom tuning specified by user needs. These rules are translated and passed to all containerized Tuned daemons running in the cluster in the format that the daemons understand. The responsibility for applying the node-level tuning then lies with the containerized Tuned daemons.

More info: <https://github.com/openshift/cluster-node-tuning-operator>

### Type

**object**

## 6.1. SPECIFICATION

| Property          | Type              | Description                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>apiVersion</b> | <b>string</b>     | 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>    |
| <b>kind</b>       | <b>string</b>     | 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> |
| <b>metadata</b>   | <b>ObjectMeta</b> | 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>                                                                                                                                                                   |
| <b>spec</b>       | <b>object</b>     | spec is the specification of the desired behavior of Tuned. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/api-conventions.md#spec-and-status</a>                                                                                                                                                       |

| Property      | Type          | Description                                     |
|---------------|---------------|-------------------------------------------------|
| <b>status</b> | <b>object</b> | TunedStatus is the status for a Tuned resource. |

### 6.1.1. .spec

#### Description

spec is the specification of the desired behavior of Tuned. More info:

<https://git.k8s.io/community/contributors/devel/api-conventions.md#spec-and-status>

#### Type

**object**

| Property               | Type          | Description                                                                                                                                                                               |
|------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>managementState</b> | <b>string</b> | managementState indicates whether the registry instance represented by this config instance is under operator management or not. Valid values are Force, Managed, Unmanaged, and Removed. |
| <b>profile</b>         | <b>array</b>  | Tuned profiles.                                                                                                                                                                           |
| <b>profile[]</b>       | <b>object</b> | A Tuned profile.                                                                                                                                                                          |
| <b>recommend</b>       | <b>array</b>  | Selection logic for all Tuned profiles.                                                                                                                                                   |
| <b>recommend[]</b>     | <b>object</b> | Selection logic for a single Tuned profile.                                                                                                                                               |

### 6.1.2. .spec.profile

#### Description

Tuned profiles.

#### Type

**array**

### 6.1.3. .spec.profile[]

#### Description

A Tuned profile.

#### Type

**object**

**Required**

- **data**
- **name**

| Property    | Type          | Description                                                            |
|-------------|---------------|------------------------------------------------------------------------|
| <b>data</b> | <b>string</b> | Specification of the Tuned profile to be consumed by the Tuned daemon. |
| <b>name</b> | <b>string</b> | Name of the Tuned profile to be used in the recommend section.         |

### 6.1.4. .spec.recommend

**Description**

Selection logic for all Tuned profiles.

**Type**

**array**

### 6.1.5. .spec.recommend[]

**Description**

Selection logic for a single Tuned profile.

**Type**

**object**

**Required**

- **priority**
- **profile**

| Property | Type | Description |
|----------|------|-------------|
|----------|------|-------------|

| Property                   | Type                   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>machineConfigLabels</b> | <b>object (string)</b> | MachineConfigLabels specifies the labels for a MachineConfig. The MachineConfig is created automatically to apply additional host settings (e.g. kernel boot parameters) profile 'Profile' needs and can only be applied by creating a MachineConfig. This involves finding all MachineConfigPools with machineConfigSelector matching the MachineConfigLabels and setting the profile 'Profile' on all nodes that match the MachineConfigPools' nodeSelectors. |
| <b>match</b>               | <b>array</b>           | Rules governing application of a Tuned profile connected by logical OR operator.                                                                                                                                                                                                                                                                                                                                                                                |
| <b>match[]</b>             | <b>object</b>          | Rules governing application of a Tuned profile.                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>operand</b>             | <b>object</b>          | Optional operand configuration.                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>priority</b>            | <b>integer</b>         | Tuned profile priority. Highest priority is 0.                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>profile</b>             | <b>string</b>          | Name of the Tuned profile to recommend.                                                                                                                                                                                                                                                                                                                                                                                                                         |

### 6.1.6. .spec.recommend[].match

#### Description

Rules governing application of a Tuned profile connected by logical OR operator.

#### Type

**array**

### 6.1.7. .spec.recommend[].match[]

#### Description

Rules governing application of a Tuned profile.

#### Type

**object**

#### Required

- **label**

| Property     | Type                     | Description                                                                                    |
|--------------|--------------------------|------------------------------------------------------------------------------------------------|
| <b>label</b> | <b>string</b>            | Node or Pod label name.                                                                        |
| <b>match</b> | <b>array (undefined)</b> | Additional rules governing application of the tuned profile connected by logical AND operator. |
| <b>type</b>  | <b>string</b>            | Match type: [node/pod]. If omitted, "node" is assumed.                                         |
| <b>value</b> | <b>string</b>            | Node or Pod label value. If omitted, the presence of label name is enough to match.            |

### 6.1.8. .spec.recommend[].operand

#### Description

Optional operand configuration.

#### Type

**object**

| Property           | Type           | Description                                                               |
|--------------------|----------------|---------------------------------------------------------------------------|
| <b>debug</b>       | <b>boolean</b> | turn debugging on/off for the Tuned daemon: true/false (default is false) |
| <b>tunedConfig</b> | <b>object</b>  | Global configuration for the Tuned daemon as defined in tuned-main.conf   |
| <b>verbosity</b>   | <b>integer</b> | klog logging verbosity                                                    |

### 6.1.9. .spec.recommend[].operand.tunedConfig

#### Description

Global configuration for the Tuned daemon as defined in tuned-main.conf

#### Type

**object**

| Property              | Type           | Description                                                                  |
|-----------------------|----------------|------------------------------------------------------------------------------|
| <b>reapply_sysctl</b> | <b>boolean</b> | turn reapply_sysctl functionality on/off for the Tuned daemon:<br>true/false |

### 6.1.10. .status

#### Description

TunedStatus is the status for a Tuned resource.

#### Type

**object**

| Property            | Type          | Description                                                                     |
|---------------------|---------------|---------------------------------------------------------------------------------|
| <b>conditions</b>   | <b>array</b>  | conditions represents the state of the Tuned profile                            |
| <b>conditions[]</b> | <b>object</b> | StatusCondition represents a partial state of the per-node Profile application. |

### 6.1.11. .status.conditions

#### Description

conditions represents the state of the Tuned profile

#### Type

**array**

### 6.1.12. .status.conditions[]

#### Description

StatusCondition represents a partial state of the per-node Profile application.

#### Type

**object**

#### Required

- **lastTransitionTime**
- **status**
- **type**

| Property                  | Type          | Description                                                                                                 |
|---------------------------|---------------|-------------------------------------------------------------------------------------------------------------|
| <b>lastTransitionTime</b> | <b>string</b> | lastTransitionTime is the time of the last update to the current status property.                           |
| <b>message</b>            | <b>string</b> | message provides additional information about the current condition. This is only to be consumed by humans. |
| <b>reason</b>             | <b>string</b> | reason is the CamelCase reason for the condition's current status.                                          |
| <b>status</b>             | <b>string</b> | status of the condition, one of True, False, Unknown.                                                       |
| <b>type</b>               | <b>string</b> | type specifies the aspect reported by this condition.                                                       |

## 6.2. API ENDPOINTS

The following API endpoints are available:

- **/apis/tuned.openshift.io/v1/tuneds**
  - **GET**: list objects of kind Tuned
- **/apis/tuned.openshift.io/v1/namespaces/{namespace}/tuneds**
  - **DELETE**: delete collection of Tuned
  - **GET**: list objects of kind Tuned
  - **POST**: create a Tuned
- **/apis/tuned.openshift.io/v1/namespaces/{namespace}/tuneds/{name}**
  - **DELETE**: delete a Tuned
  - **GET**: read the specified Tuned
  - **PATCH**: partially update the specified Tuned
  - **PUT**: replace the specified Tuned
- **/apis/tuned.openshift.io/v1/namespaces/{namespace}/tuneds/{name}/status**
  - **GET**: read status of the specified Tuned
  - **PATCH**: partially update status of the specified Tuned

- **PUT**: replace status of the specified Tuned

### 6.2.1. /apis/tuned.openshift.io/v1/tuned

HTTP method

**GET**

Description

list objects of kind Tuned

Table 6.1. HTTP responses

| HTTP code          | Reponse body            |
|--------------------|-------------------------|
| 200 - OK           | <b>TunedList</b> schema |
| 401 - Unauthorized | Empty                   |

### 6.2.2. /apis/tuned.openshift.io/v1/namespaces/{namespace}/tuned

HTTP method

**DELETE**

Description

delete collection of Tuned

Table 6.2. HTTP responses

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

HTTP method

**GET**

Description

list objects of kind Tuned

Table 6.3. HTTP responses

| HTTP code          | Reponse body            |
|--------------------|-------------------------|
| 200 - OK           | <b>TunedList</b> schema |
| 401 - Unauthorized | Empty                   |

HTTP method

**POST****Description**

create a Tuned

**Table 6.4. Query parameters**

| Parameter              | Type          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b>          | <b>string</b> | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>fieldValidation</b> | <b>string</b> | 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. |

**Table 6.5. Body parameters**

| Parameter   | Type                | Description |
|-------------|---------------------|-------------|
| <b>body</b> | <b>Tuned</b> schema |             |

**Table 6.6. HTTP responses**

| HTTP code      | Response body       |
|----------------|---------------------|
| 200 - OK       | <b>Tuned</b> schema |
| 201 - Created  | <b>Tuned</b> schema |
| 202 - Accepted | <b>Tuned</b> schema |

| HTTP code          | Reponse body |
|--------------------|--------------|
| 401 - Unauthorized | Empty        |

### 6.2.3. /apis/tuned.openshift.io/v1/namespaces/{namespace}/tuned/{name}

Table 6.7. Global path parameters

| Parameter   | Type          | Description       |
|-------------|---------------|-------------------|
| <b>name</b> | <b>string</b> | name of the Tuned |

#### HTTP method

#### DELETE

#### Description

delete a Tuned

Table 6.8. Query parameters

| Parameter     | Type          | Description                                                                                                                                                                                                                                              |
|---------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b> | <b>string</b> | 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 |

Table 6.9. HTTP responses

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

#### HTTP method

#### GET

#### Description

read the specified Tuned

Table 6.10. HTTP responses

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

**HTTP method****PATCH****Description**

partially update the specified Tuned

**Table 6.11. Query parameters**

| Parameter              | Type          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b>          | <b>string</b> | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>fieldValidation</b> | <b>string</b> | 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. |

**Table 6.12. HTTP responses**

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

**HTTP method****PUT****Description**

replace the specified Tuned

**Table 6.13. Query parameters**

| Parameter              | Type          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b>          | <b>string</b> | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>fieldValidation</b> | <b>string</b> | 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. |

**Table 6.14. Body parameters**

| Parameter   | Type                | Description |
|-------------|---------------------|-------------|
| <b>body</b> | <b>Tuned</b> schema |             |

**Table 6.15. HTTP responses**

| HTTP code          | Reponse body        |
|--------------------|---------------------|
| 200 - OK           | <b>Tuned</b> schema |
| 201 - Created      | <b>Tuned</b> schema |
| 401 - Unauthorized | Empty               |

## 6.2.4. /apis/tuned.openshift.io/v1/namespaces/{namespace}/tuned/{name}/status

Table 6.16. Global path parameters

| Parameter   | Type          | Description       |
|-------------|---------------|-------------------|
| <b>name</b> | <b>string</b> | name of the Tuned |

HTTP method

**GET**

Description

read status of the specified Tuned

Table 6.17. HTTP responses

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

HTTP method

**PATCH**

Description

partially update status of the specified Tuned

Table 6.18. Query parameters

| Parameter     | Type          | Description                                                                                                                                                                                                                                              |
|---------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b> | <b>string</b> | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>fieldValidation</b> | <b>string</b> | fieldValidation instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: <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 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.</li> </ul> |

Table 6.19. HTTP responses

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

**HTTP method****PUT****Description**

replace status of the specified Tuned

Table 6.20. Query parameters

| Parameter     | Type          | Description                                                                                                                                                                                                                                                                                                |
|---------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dryRun</b> | <b>string</b> | 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: <ul style="list-style-type: none"> <li>- All: all dry run stages will be processed</li> </ul> |

| Parameter              | Type          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>fieldValidation</b> | <b>string</b> | fieldValidation instructs the server on how to handle objects in the request (POST/PUT/PATCH) containing unknown or duplicate fields. Valid values are: <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 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.</li> </ul> |

Table 6.21. Body parameters

| Parameter   | Type                | Description |
|-------------|---------------------|-------------|
| <b>body</b> | <b>Tuned</b> schema |             |

Table 6.22. HTTP responses

| HTTP code          | Reponse body        |
|--------------------|---------------------|
| 200 - OK           | <b>Tuned</b> schema |
| 201 - Created      | <b>Tuned</b> schema |
| 401 - Unauthorized | Empty               |