Django Kubernetes Manager

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CONTENTS

Django Kubernetes Manager is an open source project to wrap the complexity of Kubernetes management in the simplicity of Django Rest Framework.

Documentation is (mostly) autogenerated, so if you notice anything that should be changed or added, please create a PR

CHAPTER

ONE

INTRODUCTION

Our engineering team has developed several data processing apps, and found celery wasn't quite enough for dispatching heavier tasks. We decided to try Kubernetes Jobs, and while pleased with performance, wanted a less verbose, more object oriented way to interact with our clusters.

And thus Django Kubernetes Manager was spawned. Using Django Rest Framework and the kubernetes client library, our devs came up with the idea to treat each object we'd be deploying as a Model instance, and use the DRF viewsets and actions to create an RESTful API framework from which we could extend for each projects particular needs.

CHAPTER

TWO

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2.1 Getting Started

2.1.1 Quickstart

- Install from PyPi

```
pip install django-kubernetes-manager
```

- In settings.py (or module) add the app

```
INSTALLED_APPS = [
  ... ,
  rest_framework,
  kubernetes_manager,
]
```

- In urls.py include the package urls

```
urlpatterns = [
  ... ,
  path('dkm/', include('kubernetes_manager.urls')),
]
```

- Run migrations and start server

```
./manage.py migrate
./manage.py runserver
```

- Navigate to django admin and create a TargetCluster
- Sample request

```
curl http://127.0.0.1:8000/dkm/api/namespaces/?format=json
```

```
[
  {
    "title": "veridian-dynamics-aerodynamic-bagels",
    "description": null,
    "cluster": "http://127.0.0.1:8000/dkm/api/clusters/1/?format=json",
    "config": {},
    "labels": {
      "project": "aerodynamic-bagels",
```

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```
      "organization": "veridian-dynamics"
    },
    "annotations": {},
    "api_version": "v1",
    "kind": "Namespace",
    "exists": true
  }
]
```

2.1.2 Sample Use-cases

- Creating a labelled namespace for a client project:

```
from kubernetes_manager.models import KubernetesNamespace, TargetCluster
from django.db import models
from django_extensions.models import TitleDescriptionModel

class AppNamespace(TitleDescriptionModel):
  project = models.OneToOneField("client.Project", on_delete=models.CASCADE)
  organization = models.ForeignKey("client.Org", on_delete=models.CASCADE)
  cluster = models.ForeignKey("kubernetes_manager.TargetCluster", on_delete=models.
↪CASCADE)
  namespace = models.ForeignKey("kubernetes_manager.KubernetesNamespace", null=True,␣
↪blank=True, on_delete=models.CASCADE)
  status = models.CharField(max_length = 128, null=True, blank=True)

  def save(self, *args, **kwargs):
      if not self.status == "{'phase': 'Active'}":
          self.namespace = KubernetesNamespace.objects.create(
              title = "ns-" + self.organization.slug + "-" + self.project.slug,
              cluster = self.cluster,
              labels = {"organization":self.organization.slug, "project": self.
↪project.slug},
              kind = "Namespace"
          )
          self.status = self.namespace.deploy()
      super().save(*args, **kwargs)

  def remove(self, *args, **kwargs):
      self.status = self.namespace.k_delete()

  def delete(self, *args, **kwargs):
      self.remove()
      super().delete(*args, **kwargs)
```

- Creating a two-container deployment:

```
from kubernetes_manager.models import KubernetesNamespace, TargetCluster
from django.db import models
from django_extensions.models import TitleDescriptionModel

from .ns import AppNamespace

class FileServer(TitleDescriptionModel):
    name = models.CharField(max_length=128)
```

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```
    organization = models.ForeignKey("client.Org", on_delete=models.CASCADE)
    project = models.ForeignKey("client.Project", on_delete=models.CASCADE)
    cluster = models.ForeignKey("kubernetes_manager.TargetCluster", on_delete=models.
↪CASCADE)
    namespace = models.ForeignKey(AppNamespace, on_delete=models.CASCADE)
    file = models.ForeignKey("library.FileItem", on_delete=models.CASCADE)
    docker_image = models.CharField(max_length=256, help_text="Docker repo path for␣
↪image")
    docker_tag = models.CharField(max_length=16, help_text="Docker tag for image")
    definition = JSONField(null=True, blank=True)

    # define volume
    def vol(self, *args, **kwargs):
        volume = KubernetesVolume.objects.create(
            title = self.name + "-vol",
            cluster = self.cluster
        )
        return volume

    # create primary container
    def container_spec(self, *args, **kwargs):
        container = KubernetesContainer.objects.create(
            title = self.name,
            cluster = self.cluster,
            image_name = self.docker_image,
            image_tag = self.docker_tag,
            volume_mount = KubernetesVolumeMount.objects.create(
                title = self.name + "-vol",
                cluster = self.cluster
            ) if not kwargs.get("mount", None) else kwargs.get("mount"),
            command = "ls",
            args ="/media"
        )
        return container

    # create download sidecar
    def sidecar_spec(self, *args, **kwargs):
        sidecar = KubernetesContainer.objects.create(
            title = self.name,
            cluster = self.cluster,
            image_name = "curlimages/curl",
            image_tag = "7.69.1",
            volume_mount = KubernetesVolumeMount.objects.create(
                title = self.name + "-vol",
                cluster = self.cluster
            ) if not kwargs.get("mount", None) else kwargs.get("mount"),
            command = "/bin/sh",
            args = '-c,curl -oL {} {}'.format(self.file.name, self.file.url)
        )
        return sidecar

    # create pod template
    def pod_template_spec(self, *args, **kwargs):
        volume_mount = KubernetesVolumeMount.objects.create(
            title = self.name + "-vol",
            cluster = self.cluster
        )
```

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```
        pod = KubernetesPodTemplate.objects.create(
            title = self.name,
            cluster = self.cluster,
            volume = self.vol(),
            primary_container = self.container_spec(mount=volume_mount),
            secondary_container = self.sidecar_spec(mount=volume_mount),
            restart_policy = "Always",
            labels = {"project": self.project.slug}
        )
        return pod

    # tie it up and deplioy
    def deploy(self):
        pod = self.pod_template_spec()
        deployment = KubernetesDeployment.objects.create(
            title = self.name,
            cluster = self.cluster,
            api_version = "apps/v1",
            kind = "Deployment",
            namespace = self.namespace.namespace.slug,
            labels = {"project": self.project.slug},
            selector = {"project": self.project.slug},
            pod_template = pod
        )
        self.definition = deployment.get_obj().to_dict()
        self.save()
        return deployment.deploy()
```

2.2 Models

2.2.1 Base Models

class kubernetes_manager.models.base.**KubernetesBase**(**args*, ***kwargs*)

Bases: django_extensions.db.models.TitleSlugDescriptionModel

Type model (abstract)

Description Base parent model that all subsequent models inherit from.

Inherits django_extensions.db.models.TitleSlugDescriptionModel

Fields id, cluster, config, deployed, deleted

Parameters

- **title** (*CharField*) – Title
- **description** (*TextField*) – Description
- **slug** (*AutoSlugField*) – Slug
- **id** (*UUIDField*) – UUID Auto field.
- **cluster_id** (*ForeignKey*) – ForeignKey to TargetCluster object.
- **config** (*JSONField*) – Pass in extra parameters here.
- **deployed** (*DateTimeField*) – Time when object is applied to cluster.

- **removed** (*DateTimeField*) – Time when object is removed from cluster.

class Meta

Bases: object

abstract = False

cluster

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOneToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Child.parent` is a `ForwardManyToOneDescriptor` instance.

cluster_id

config

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

deployed

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

get_client (*API=<class 'kubernetes.client.apis.core_v1_api.CoreV1Api'>*, ***kwargs*)

Gets a k8s api client

Args: API (client.<type>) - Kubernetes Client Type

Returns: object of type <API>

id

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

removed

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

slugify_function (*content*)

Description Overrides default slugify with custom logic.

class kubernetes_manager.models.base.**KubernetesMetadataObjBase** (**args*, ***kwargs*)

Bases: *kubernetes_manager.models.base.KubernetesBase*

Type model (abstract)

Description Extends KubernetesBase to include metadata fields.

Inherits kubernetes_manager.models.base.KubernetesBase

Fields labels, annotations

Parameters

- **title** (*CharField*) – Title
- **description** (*TextField*) – Description
- **slug** (*AutoSlugField*) – Slug

- **id** (*UUIDField*) – UUID Auto field.
- **cluster_id** (*ForeignKey*) – ForeignKey to TargetCluster object.
- **config** (*JSONField*) – Pass in extra parameters here.
- **deployed** (*DateTimeField*) – Time when object is applied to cluster.
- **removed** (*DateTimeField*) – Time when object is removed from cluster.
- **labels** (*JSONField*) – Dictionary store equivalent to Labels in Kubernetes API
- **annotations** (*JSONField*) – Dictionary store equivalent to Annotations in Kubernetes API

class Meta

Bases: object

abstract = False

annotations

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

cluster

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOneToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Child.parent` is a `ForwardManyToOneDescriptor` instance.

labels

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

class kubernetes_manager.models.base.**KubernetesNetworkingBase**(**args*, ***kwargs*)

Bases: *kubernetes_manager.models.base.KubernetesMetadataObjBase*

Type model (abstract)

Description Extends KubernetesMetadataObjBase to include network fields.

Inherits kubernetes_manager.models.base.KubernetesMetadataObjBase

Fields labels, annotations

Parameters

- **title** (*CharField*) – Title
- **description** (*TextField*) – Description
- **slug** (*AutoSlugField*) – Slug
- **id** (*UUIDField*) – UUID Auto field.
- **cluster_id** (*ForeignKey*) – ForeignKey to TargetCluster object.
- **config** (*JSONField*) – Pass in extra parameters here.
- **deployed** (*DateTimeField*) – Time when object is applied to cluster.
- **removed** (*DateTimeField*) – Time when object is removed from cluster.

- **labels** (*JSONField*) – Dictionary store equivalent to Labels in Kubernetes API
- **annotations** (*JSONField*) – Dictionary store equivalent to Annotations in Kubernetes API
- **api_version** (*CharField*) – API version used to deploy child object.
- **kind** (*CharField*) – String representation of Kubernetes object kind
- **port** (*IntegerField*) – Port object will expose
- **namespace_id** (*ForeignKey*) – Live namespace the object is associated with.
- **kuid** (*CharField*) – Object's UID in the cluster

class Meta

Bases: object

abstract = False

api_version

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

cluster

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOneToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Child.parent` is a `ForwardManyToOneDescriptor` instance.

kind

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

kuid

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

namespace

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOneToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Child.parent` is a `ForwardManyToOneDescriptor` instance.

namespace_id

port

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

2.2.2 Kubernetes Models

class kubernetes_manager.models.kube.**KubernetesConfigMap**(**args*, ***kwargs*)
Bases: *kubernetes_manager.models.base.KubernetesMetadataObjBase*

Type model

Description Holds data related to a kubernetes volume mount.

Inherits kubernetes_manager.models.base.KubernetesMetadataObjBase

Fields kind, data, binary, override_name, namespace

Parameters

- **title** (*CharField*) – Title
- **description** (*TextField*) – Description
- **slug** (*AutoSlugField*) – Slug
- **id** (*UUIDField*) – UUID Auto field.
- **cluster_id** (*ForeignKey*) – ForeignKey to TargetCluster object.
- **config** (*JSONField*) – Pass in extra parameters here.
- **deployed** (*DateTimeField*) – Time when object is applied to cluster.
- **removed** (*DateTimeField*) – Time when object is removed from cluster.
- **labels** (*JSONField*) – Dictionary store equivalent to Labels in Kubernetes API
- **annotations** (*JSONField*) – Dictionary store equivalent to Annotations in Kubernetes API
- **kind** (*CharField*) – Kind
- **data** (*JSONField*) – Data
- **binary** (*BinaryField*) – Binary
- **override_name** (*CharField*) – Override name
- **namespace_id** (*ForeignKey*) – Namespace

exception DoesNotExist
Bases: django.core.exceptions.ObjectDoesNotExist

exception MultipleObjectsReturned
Bases: django.core.exceptions.MultipleObjectsReturned

binary
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

cluster
Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOneToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

Child.parent is a ForwardManyToOneDescriptor instance.

data
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

deploy()

Description Deploy configmap obj.

get_obj()

Description Generate configmap spec.

kind
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

namespace
Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOneToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Child.parent` is a `ForwardManyToOneDescriptor` instance.

namespace_id

objects = <django.db.models.manager.Manager object>

override_name
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

remove()

Description Delete configmap from namespace.

class kubernetes_manager.models.kube.**KubernetesContainer**(**args*, ***kwargs*)
Bases: *kubernetes_manager.models.base.KubernetesBase*

Type model

Description Holds data related to a kubernetes contaienr.

Inherits kubernetes_manager.models.base.KubernetesBase

Fields image_name, image_tag, image_pull_policy, command, args, port, volume_mount

Parameters

- **title** (*CharField*) – Title
- **description** (*TextField*) – Description
- **slug** (*AutoSlugField*) – Slug
- **id** (*UUIDField*) – UUID Auto field.
- **cluster_id** (*ForeignKey*) – ForeignKey to TargetCluster object.
- **config** (*JSONField*) – Pass in extra parameters here.
- **deployed** (*DateTimeField*) – Time when object is applied to cluster.
- **removed** (*DateTimeField*) – Time when object is removed from cluster.

- **image_name** (*CharField*) – Properly qualified image name.
- **image_tag** (*CharField*) – Tag name for the image to be used for this job
- **image_pull_policy** (*CharField*) – Image pull policy
- **command** (*TextField*) – Command to run when start container
- **args** (*TextField*) – Comma separated args to run with command when instantiating container.
- **port** (*IntegerField*) – Port to expose.
- **volume_mounts** (*ManyToManyField*) – Mounts for any number of volumes

exception DoesNotExist
Bases: `django.core.exceptions.ObjectDoesNotExist`

exception MultipleObjectsReturned
Bases: `django.core.exceptions.MultipleObjectsReturned`

args
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

cluster
Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOneToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Child.parent` is a `ForwardManyToOneDescriptor` instance.

command
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

get_image_pull_policy_display(*, *field=<django.db.models.fields.CharField: image_pull_policy>*)

get_obj()

Description Generate container spec.

image_name
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

image_pull_policy
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

image_tag
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

kubernetespodtemplate_set
Accessor to the related objects manager on the forward and reverse sides of a many-to-many relation.

In the example:

```
class Pizza(Model):
    toppings = ManyToManyField(Topping, related_name='pizzas')
```

`Pizza.toppings` and `Topping.pizzas` are `ManyToManyDescriptor` instances.

Most of the implementation is delegated to a dynamically defined manager class built by `create_forward_many_to_many_manager()` defined below.

objects = <django.db.models.manager.Manager object>

port
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

volume_mounts
Accessor to the related objects manager on the forward and reverse sides of a many-to-many relation.

In the example:

```
class Pizza(Model):
    toppings = ManyToManyField(Topping, related_name='pizzas')
```

`Pizza.toppings` and `Topping.pizzas` are `ManyToManyDescriptor` instances.

Most of the implementation is delegated to a dynamically defined manager class built by `create_forward_many_to_many_manager()` defined below.

class kubernetes_manager.models.kube.**KubernetesDeployment**(**args*, ***kwargs*)
Bases: *kubernetes_manager.models.base.KubernetesNetworkingBase*, *kubernetes_manager.models.mixins.KubernetesTelemetryMixin*

Type model

Description Holds data related to a kubernetes deployment.

Inherits kubernetes_manager.models.base.KubernetesNetworkingBase, kubernetes_manager.models.base.KubernetesTelemetryMixin

Fields selector, replicas, pod_template

Parameters

- **title** (*CharField*) – Title
- **description** (*TextField*) – Description
- **slug** (*AutoSlugField*) – Slug
- **id** (*UUIDField*) – UUID Auto field.
- **cluster_id** (*ForeignKey*) – ForeignKey to TargetCluster object.
- **config** (*JSONField*) – Pass in extra parameters here.
- **deployed** (*DateTimeField*) – Time when object is applied to cluster.
- **removed** (*DateTimeField*) – Time when object is removed from cluster.
- **labels** (*JSONField*) – Dictionary store equivalent to Labels in Kubernetes API
- **annotations** (*JSONField*) – Dictionary store equivalent to Annotations in Kubernetes API
- **api_version** (*CharField*) – API version used to deploy child object.
- **kind** (*CharField*) – String representation of Kubernetes object kind

- **port** (*IntegerField*) – Port object will expose
- **namespace_id** (*ForeignKey*) – Live namespace the object is associated with.
- **kuid** (*CharField*) – Object's UID in the cluster
- **object_status** (*CharField*) – status of the object in Kubernetes
- **average_cpu_usage** (*DecimalField*) – Average PIT CPU units consumed
- **average_mem_usage** (*IntegerField*) – Average PIT bytes consumed
- **cpu_usage_seconds** (*DecimalField*) – Average cpu usage * seconds live
- **mem_usage_seconds** (*IntegerField*) – Average mem usage * seconds live
- **selector** (*JSONField*) – Selector
- **replicas** (*IntegerField*) – Replicas
- **pod_template_id** (*ForeignKey*) – Pod template

exception DoesNotExist
Bases: `django.core.exceptions.ObjectDoesNotExist`

exception MultipleObjectsReturned
Bases: `django.core.exceptions.MultipleObjectsReturned`

cluster
Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOneToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Child.parent` is a `ForwardManyToOneDescriptor` instance.

deploy()

Description Deploy deployment obj.

get_obj()

Description Generate Deployment spec.

namespace
Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOneToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Child.parent` is a `ForwardManyToOneDescriptor` instance.

objects = <django.db.models.manager.Manager object>

pod_template
Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOneToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Child.parent` is a `ForwardManyToOneDescriptor` instance.

pod_template_id

remove()

Description Remove deployment from namespace.

replicas
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

selector
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

class kubernetes_manager.models.kube.**KubernetesIngress**(**args*, ***kwargs*)
Bases: *kubernetes_manager.models.base.KubernetesNetworkingBase*

Type model

Description Holds data related to a kubernetes ingress.

Inherits kubernetes_manager.models.base.KubernetesNetworkingBase

Fields hostname, path, target_service

Parameters

- **title** (*CharField*) – Title
- **description** (*TextField*) – Description
- **slug** (*AutoSlugField*) – Slug
- **id** (*UUIDField*) – UUID Auto field.
- **cluster_id** (*ForeignKey*) – ForeignKey to TargetCluster object.
- **config** (*JSONField*) – Pass in extra parameters here.
- **deployed** (*DateTimeField*) – Time when object is applied to cluster.
- **removed** (*DateTimeField*) – Time when object is removed from cluster.
- **labels** (*JSONField*) – Dictionary store equivalent to Labels in Kubernetes API
- **annotations** (*JSONField*) – Dictionary store equivalent to Annotations in Kubernetes API
- **api_version** (*CharField*) – API version used to deploy child object.
- **kind** (*CharField*) – String representation of Kubernetes object kind
- **port** (*IntegerField*) – Port object will expose
- **namespace_id** (*ForeignKey*) – Live namespace the object is associated with.
- **kuid** (*CharField*) – Object's UID in the cluster
- **hostname** (*CharField*) – Hostname
- **path** (*CharField*) – Path
- **target_service_id** (*ForeignKey*) – Target service

exception DoesNotExist
Bases: `django.core.exceptions.ObjectDoesNotExist`

exception MultipleObjectsReturned
Bases: `django.core.exceptions.MultipleObjectsReturned`

cluster
Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOneToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Child.parent` is a `ForwardManyToOneDescriptor` instance.

deploy()

Description Deploy ingress to ns.

get_obj()

Description Generate ingress obj.

hostname
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

namespace
Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOneToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Child.parent` is a `ForwardManyToOneDescriptor` instance.

objects = <django.db.models.manager.Manager object>

path
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

remove()

Description Remove ingress from ns.

target_service
Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOneToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Child.parent` is a `ForwardManyToOneDescriptor` instance.

target_service_id

class kubernetes_manager.models.kube.**KubernetesJob**(**args*, ***kwargs*)
Bases: *kubernetes_manager.models.base.KubernetesNetworkingBase*, *kubernetes_manager.models.mixins.KubernetesTelemetryMixin*

Type model

Description Holds data related to a kubernetes pod spec.

Inherits kubernetes_manager.models.base.KubernetesNetworkingBase, kubernetes_manager.models.base.KubernetesTelemetryMixin

Fields selector, replicas, pod_template

Parameters

- **title** (*CharField*) – Title
- **description** (*TextField*) – Description
- **slug** (*AutoSlugField*) – Slug
- **id** (*UUIDField*) – UUID Auto field.
- **cluster_id** (*ForeignKey*) – ForeignKey to TargetCluster object.
- **config** (*JSONField*) – Pass in extra parameters here.
- **deployed** (*DateTimeField*) – Time when object is applied to cluster.
- **removed** (*DateTimeField*) – Time when object is removed from cluster.
- **labels** (*JSONField*) – Dictionary store equivalent to Labels in Kubernetes API
- **annotations** (*JSONField*) – Dictionary store equivalent to Annotations in Kubernetes API
- **api_version** (*CharField*) – API version used to deploy child object.
- **kind** (*CharField*) – String representation of Kubernetes object kind
- **port** (*IntegerField*) – Port object will expose
- **namespace_id** (*ForeignKey*) – Live namespace the object is associated with.
- **kuid** (*CharField*) – Object's UID in the cluster
- **object_status** (*CharField*) – status of the object in Kubernetes
- **average_cpu_usage** (*DecimalField*) – Average PIT CPU units consumed
- **average_mem_usage** (*IntegerField*) – Average PIT bytes consumed
- **cpu_usage_seconds** (*DecimalField*) – Average cpu usage * seconds live
- **mem_usage_seconds** (*IntegerField*) – Average mem usage * seconds live
- **pod_template_id** (*ForeignKey*) – Pod template
- **backoff_limit** (*IntegerField*) – Backoff limit

exception DoesNotExist
Bases: django.core.exceptions.ObjectDoesNotExist

exception MultipleObjectsReturned
Bases: django.core.exceptions.MultipleObjectsReturned

backoff_limit
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

cluster
Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOneToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Child.parent` is a `ForwardManyToOneDescriptor` instance.

deploy()

Description Deploy job to ns.

get_obj()

Description Generate job spec.

namespace
Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOneToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Child.parent` is a `ForwardManyToOneDescriptor` instance.

objects = <django.db.models.manager.Manager object>

pod_template
Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOneToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Child.parent` is a `ForwardManyToOneDescriptor` instance.

pod_template_id

remove()

Description Remove job from ns.

class kubernetes_manager.models.kube.**KubernetesNamespace**(**args*, ***kwargs*)
Bases: *kubernetes_manager.models.base.KubernetesMetadataObjBase*

Type model

Description Holds data related to a Kubernetes namespace.

Inherits kubernetes_manager.models.base.KubernetesBase

Fields api_version, kind, exists

Parameters

- **title** (*CharField*) – Title
- **description** (*TextField*) – Description

- **slug** (*AutoSlugField*) – Slug
- **id** (*UUIDField*) – UUID Auto field.
- **cluster_id** (*ForeignKey*) – ForeignKey to TargetCluster object.
- **config** (*JSONField*) – Pass in extra parameters here.
- **deployed** (*DateTimeField*) – Time when object is applied to cluster.
- **removed** (*DateTimeField*) – Time when object is removed from cluster.
- **labels** (*JSONField*) – Dictionary store equivalent to Labels in Kubernetes API
- **annotations** (*JSONField*) – Dictionary store equivalent to Annotations in Kubernetes API
- **api_version** (*CharField*) – Api version
- **kind** (*CharField*) – Kind
- **exists** (*BooleanField*) – Exists

exception DoesNotExist
Bases: `django.core.exceptions.ObjectDoesNotExist`

exception MultipleObjectsReturned
Bases: `django.core.exceptions.MultipleObjectsReturned`

api_version
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

cluster
Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOneToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Child.parent` is a `ForwardManyToOneDescriptor` instance.

deploy()

Description Deploy namespace obj.

exists
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

get_obj()

Description Generate namespace spec.

kind
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

kubernetesconfigmap_set
Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Parent.children` is a `ReverseManyToOneDescriptor` instance.

Most of the implementation is delegated to a dynamically defined manager class built by `create_forward_many_to_many_manager()` defined below.

kubernetesdeployment_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Parent.children` is a `ReverseManyToOneDescriptor` instance.

Most of the implementation is delegated to a dynamically defined manager class built by `create_forward_many_to_many_manager()` defined below.

kubernetesingress_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Parent.children` is a `ReverseManyToOneDescriptor` instance.

Most of the implementation is delegated to a dynamically defined manager class built by `create_forward_many_to_many_manager()` defined below.

kubernetesjob_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Parent.children` is a `ReverseManyToOneDescriptor` instance.

Most of the implementation is delegated to a dynamically defined manager class built by `create_forward_many_to_many_manager()` defined below.

kubernetesservice_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Parent.children` is a `ReverseManyToOneDescriptor` instance.

Most of the implementation is delegated to a dynamically defined manager class built by `create_forward_many_to_many_manager()` defined below.

objects = <django.db.models.manager.Manager object>

remove()

Description Delete namespace from cluster.

class kubernetes_manager.models.kube.**KubernetesPodTemplate**(**args*, ***kwargs*)
Bases: *kubernetes_manager.models.base.KubernetesMetadataObjBase*

Type model

Description Holds data related to a kubernetes pod spec.

Inherits kubernetes_manager.models.base.KubernetesMetadataObjBase

Fields volume, primary_container, secondary_container, restart_policy

Parameters

- **title** (*CharField*) – Title
- **description** (*TextField*) – Description
- **slug** (*AutoSlugField*) – Slug
- **id** (*UUIDField*) – UUID Auto field.
- **cluster_id** (*ForeignKey*) – ForeignKey to TargetCluster object.
- **config** (*JSONField*) – Pass in extra parameters here.
- **deployed** (*DateTimeField*) – Time when object is applied to cluster.
- **removed** (*DateTimeField*) – Time when object is removed from cluster.
- **labels** (*JSONField*) – Dictionary store equivalent to Labels in Kubernetes API
- **annotations** (*JSONField*) – Dictionary store equivalent to Annotations in Kubernetes API
- **restart_policy** (*CharField*) – How the pod should handle restart om case of failures
- **volumes** (*ManyToManyField*) – All volumes to be created for a pod.
- **containers** (*ManyToManyField*) – All containers to be included in a pod.

exception DoesNotExist
Bases: django.core.exceptions.ObjectDoesNotExist

exception MultipleObjectsReturned
Bases: django.core.exceptions.MultipleObjectsReturned

cluster
Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOneToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Child.parent` is a `ForwardManyToOneDescriptor` instance.

containers
Accessor to the related objects manager on the forward and reverse sides of a many-to-many relation.

In the example:

```
class Pizza(Model):
    toppings = ManyToManyField(Topping, related_name='pizzas')
```

`Pizza.toppings` and `Topping.pizzas` are `ManyToManyDescriptor` instances.

Most of the implementation is delegated to a dynamically defined manager class built by `create_forward_many_to_many_manager()` defined below.

get_obj()

Description Generate pod spec.

get_restart_policy_display(*, *field=<django.db.models.fields.CharField: restart_policy>*)

kubernetesdeployment_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Parent.children` is a `ReverseManyToOneDescriptor` instance.

Most of the implementation is delegated to a dynamically defined manager class built by `create_forward_many_to_many_manager()` defined below.

kubernetesjob_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Parent.children` is a `ReverseManyToOneDescriptor` instance.

Most of the implementation is delegated to a dynamically defined manager class built by `create_forward_many_to_many_manager()` defined below.

objects = <django.db.models.manager.Manager object>

restart_policy

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

volumes

Accessor to the related objects manager on the forward and reverse sides of a many-to-many relation.

In the example:

```
class Pizza(Model):
    toppings = ManyToManyField(Topping, related_name='pizzas')
```

`Pizza.toppings` and `Topping.pizzas` are `ManyToManyDescriptor` instances.

Most of the implementation is delegated to a dynamically defined manager class built by `create_forward_many_to_many_manager()` defined below.

class kubernetes_manager.models.kube.**KubernetesService**(**args*, ***kwargs*)

Bases: *kubernetes_manager.models.base.KubernetesNetworkingBase*

Type model

Description Holds data related to a kubernetes service.

Inherits kubernetes_manager.models.base.KubernetesNetworkingBase

Fields selector, target_port

Parameters

- **title** (*CharField*) – Title
- **description** (*TextField*) – Description
- **slug** (*AutoSlugField*) – Slug
- **id** (*UUIDField*) – UUID Auto field.
- **cluster_id** (*ForeignKey*) – ForeignKey to TargetCluster object.
- **config** (*JSONField*) – Pass in extra parameters here.
- **deployed** (*DateTimeField*) – Time when object is applied to cluster.
- **removed** (*DateTimeField*) – Time when object is removed from cluster.
- **labels** (*JSONField*) – Dictionary store equivalent to Labels in Kubernetes API
- **annotations** (*JSONField*) – Dictionary store equivalent to Annotations in Kubernetes API
- **api_version** (*CharField*) – API version used to deploy child object.
- **kind** (*CharField*) – String representation of Kubernetes object kind
- **port** (*IntegerField*) – Port object will expose
- **namespace_id** (*ForeignKey*) – Live namespace the object is associated with.
- **kuid** (*CharField*) – Object's UID in the cluster
- **selector** (*JSONField*) – Selector
- **target_port** (*IntegerField*) – Target port

exception DoesNotExist

Bases: `django.core.exceptions.ObjectDoesNotExist`

exception MultipleObjectsReturned

Bases: `django.core.exceptions.MultipleObjectsReturned`

cluster

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOneToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Child.parent` is a `ForwardManyToOneDescriptor` instance.

deploy()

Description Deploy service to ns.

get_obj()

Description Generate service spec.

kubernetesingress_set
Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Parent.children` is a `ReverseManyToOneDescriptor` instance.

Most of the implementation is delegated to a dynamically defined manager class built by `create_forward_many_to_many_manager()` defined below.

namespace
Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOneToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Child.parent` is a `ForwardManyToOneDescriptor` instance.

objects = <django.db.models.manager.Manager object>

remove()

Description Remove service from ns.

selector
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

target_port
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

class kubernetes_manager.models.kube.**KubernetesVolume**(**args*, ***kwargs*)
Bases: *kubernetes_manager.models.base.KubernetesBase*

Type model

Description Holds data related to a kubernetes volume.

Inherits kubernetes_manager.models.base.KubernetesBase

Fields

-

Parameters

- **title** (*CharField*) – Title
- **description** (*TextField*) – Description
- **slug** (*AutoSlugField*) – Slug
- **id** (*UUIDField*) – UUID Auto field.
- **cluster_id** (*ForeignKey*) – ForeignKey to TargetCluster object.
- **config** (*JSONField*) – Pass in extra parameters here.
- **deployed** (*DateTimeField*) – Time when object is applied to cluster.

- **removed** (*DateTimeField*) – Time when object is removed from cluster.

exception DoesNotExist
Bases: django.core.exceptions.ObjectDoesNotExist

exception MultipleObjectsReturned
Bases: django.core.exceptions.MultipleObjectsReturned

cluster
Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOneToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Child.parent` is a `ForwardManyToOneDescriptor` instance.

get_obj()

Description Generate volume spec.

kubernetespodtemplate_set
Accessor to the related objects manager on the forward and reverse sides of a many-to-many relation.

In the example:

```
class Pizza(Model):
    toppings = ManyToManyField(Topping, related_name='pizzas')
```

`Pizza.toppings` and `Topping.pizzas` are `ManyToManyDescriptor` instances.

Most of the implementation is delegated to a dynamically defined manager class built by `create_forward_many_to_many_manager()` defined below.

objects = <django.db.models.manager.Manager object>

class kubernetes_manager.models.kube.**KubernetesVolumeMount**(**args*, ***kwargs*)
Bases: *kubernetes_manager.models.base.KubernetesBase*

Type model

Description Holds data related to a kubernetes volume mount.

Inherits kubernetes_manager.models.base.KubernetesBase

Fields mount_path, sub_path

Parameters

- **title** (*CharField*) – Title
- **description** (*TextField*) – Description
- **slug** (*AutoSlugField*) – Slug
- **id** (*UUIDField*) – UUID Auto field.
- **cluster_id** (*ForeignKey*) – ForeignKey to TargetCluster object.
- **config** (*JSONField*) – Pass in extra parameters here.
- **deployed** (*DateTimeField*) – Time when object is applied to cluster.
- **removed** (*DateTimeField*) – Time when object is removed from cluster.

- **mount_path** (*CharField*) – Mount path
- **sub_path** (*CharField*) – Sub path

exception DoesNotExist
Bases: django.core.exceptions.ObjectDoesNotExist

exception MultipleObjectsReturned
Bases: django.core.exceptions.MultipleObjectsReturned

cluster
Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOneToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

Child.parent is a ForwardManyToOneDescriptor instance.

get_obj()

Description Generate mount spec.

kubernetescontainer_set
Accessor to the related objects manager on the forward and reverse sides of a many-to-many relation.

In the example:

```
class Pizza(Model):
    toppings = ManyToManyField(Topping, related_name='pizzas')
```

Pizza.toppings and Topping.pizzas are ManyToManyDescriptor instances.

Most of the implementation is delegated to a dynamically defined manager class built by create_forward_many_to_many_manager() defined below.

mount_path
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

objects = <django.db.models.manager.Manager object>

sub_path
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

2.2.3 Kubernetes Model-Mixins

class kubernetes_manager.models.mixins.**KubernetesTelemetryMixin**(**args*, ***kwargs*)

Bases: django.db.models.base.Model

Type mixin

Description Extends child model to include telemetry features.

Inherits django.db.models.Model

Fields object_status, average_cpu_usage, average_mem_usage, cpu_usage_seconds, mem_usage_seconds

Parameters

- **object_status** (*CharField*) – status of the object in Kubernetes
- **average_cpu_usage** (*DecimalField*) – Average PIT CPU units consumed
- **average_mem_usage** (*IntegerField*) – Average PIT bytes consumed
- **cpu_usage_seconds** (*DecimalField*) – Average cpu usage * seconds live
- **mem_usage_seconds** (*IntegerField*) – Average mem usage * seconds live

class Meta

Bases: object

abstract = False

average_cpu_usage

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

average_mem_usage

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

cpu_usage_seconds

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

mem_usage_seconds

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

object_status

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

parseSize(*size*)

Description Parses string as numeric, suffix and converts to bytes.

read_pod_metrics()

Description Uses metrics_server to get cadvisor data.

read_pod_usage()

Description Converts metrics into dictionary for api usage.

splitNumeric(*size*)

Description Parses string into numeric component.

status()

Description Returns status data of object.

2.2.4 Target Cluster Model

class kubernetes_manager.models.target_cluster.**TargetCluster**(**args*, ***kwargs*)
Bases: django_extensions.db.models.TitleSlugDescriptionModel

Type model

Description Holds data related to a cluster context.

Inherits django_extensions.db.models.TitleSlugDescriptionModel

Fields api_endpoint, telemetry_endpoint, telemetry_source, config

Parameters

- **id** (*AutoField*) – Id
- **title** (*CharField*) – Title
- **description** (*TextField*) – Description
- **slug** (*AutoSlugField*) – Slug
- **api_endpoint** (*URLField*) – Cluster Endpoint URL
- **telemetry_endpoint** (*URLField*) – Telemetry Endpoint URL
- **telemetry_source** (*CharField*) – Telemetry source
- **config** (*JSONField*) – Equivalent to .kube/config but all JSON

exception DoesNotExist
Bases: django.core.exceptions.ObjectDoesNotExist

exception MultipleObjectsReturned
Bases: django.core.exceptions.MultipleObjectsReturned

classmethod add(*kubeconfig*)
Class method to a new TargetCluster

Args: kubeconfig (str) - string contents of kubeconfig file

Returns: list(TargetCluster)

api_endpoint
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

config
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

get_telemetry_source_display(**, field=<django.db.models.fields.CharField: telemetry_source>*)

id
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

kubernetesconfigmap_set
Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Parent.children` is a `ReverseManyToOneDescriptor` instance.

Most of the implementation is delegated to a dynamically defined manager class built by `create_forward_many_to_many_manager()` defined below.

kubernetescontainer_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Parent.children` is a `ReverseManyToOneDescriptor` instance.

Most of the implementation is delegated to a dynamically defined manager class built by `create_forward_many_to_many_manager()` defined below.

kubernetesdeployment_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Parent.children` is a `ReverseManyToOneDescriptor` instance.

Most of the implementation is delegated to a dynamically defined manager class built by `create_forward_many_to_many_manager()` defined below.

kubernetesingress_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Parent.children` is a `ReverseManyToOneDescriptor` instance.

Most of the implementation is delegated to a dynamically defined manager class built by `create_forward_many_to_many_manager()` defined below.

kubernetesjob_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Parent.children` is a `ReverseManyToOneDescriptor` instance.

Most of the implementation is delegated to a dynamically defined manager class built by `create_forward_many_to_many_manager()` defined below.

kubernetesnamespace_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Parent.children` is a `ReverseManyToOneDescriptor` instance.

Most of the implementation is delegated to a dynamically defined manager class built by `create_forward_many_to_many_manager()` defined below.

kubernetespodtemplate_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Parent.children` is a `ReverseManyToOneDescriptor` instance.

Most of the implementation is delegated to a dynamically defined manager class built by `create_forward_many_to_many_manager()` defined below.

kubernetesservice_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Parent.children` is a `ReverseManyToOneDescriptor` instance.

Most of the implementation is delegated to a dynamically defined manager class built by `create_forward_many_to_many_manager()` defined below.

kubernetesvolume_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Parent.children` is a `ReverseManyToOneDescriptor` instance.

Most of the implementation is delegated to a dynamically defined manager class built by `create_forward_many_to_many_manager()` defined below.

kubernetesvolumemount_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

`Parent.children` is a `ReverseManyToOneDescriptor` instance.

Most of the implementation is delegated to a dynamically defined manager class built by `create_forward_many_to_many_manager()` defined below.

objects = <django.db.models.manager.Manager object>

telemetry_endpoint
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

telemetry_source
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

2.3 Serializers

2.3.1 API Serializers

class kubernetes_manager.serializers.base.**KubernetesBaseSerializer**(**args: Any*, ***kwargs: Any*)

Bases: rest_framework.serializers.HyperlinkedModelSerializer

class Meta
Bases: object

abstract = True

fields = ['title', 'description', 'cluster', 'config']

model
alias of *kubernetes_manager.models.base.KubernetesBase*

class kubernetes_manager.serializers.base.**KubernetesConfigMapSerializer**(**args: Any*, ***kwargs: Any*)

Bases: *kubernetes_manager.serializers.base.KubernetesMetadataObjBaseSerializer*

class Meta
Bases: object

fields = ['title', 'description', 'cluster', 'config', 'labels', 'annotations', 'da

model
alias of *kubernetes_manager.models.kube.KubernetesConfigMap*

class kubernetes_manager.serializers.base.**KubernetesContainerSerializer**(**args: Any*, ***kwargs: Any*)

Bases: *kubernetes_manager.serializers.base.KubernetesBaseSerializer*

class Meta
Bases: object

fields = ['title', 'description', 'cluster', 'config', 'image_name', 'image_tag',

model
alias of *kubernetes_manager.models.kube.KubernetesContainer*

class kubernetes_manager.serializers.base.**KubernetesDeploymentSerializer**(**args: Any*, ***kwargs: Any*)

Bases: *kubernetes_manager.serializers.base.KubernetesNetworkingBaseSerializer*

class Meta

Bases: object

fields = ['title', 'description', 'cluster', 'config', 'labels', 'annotations', 'ap

model

alias of *kubernetes_manager.models.kube.KubernetesDeployment*

class kubernetes_manager.serializers.base.**KubernetesIngressSerializer**(**args: Any*, ***kwargs: Any*)

Bases: *kubernetes_manager.serializers.base.KubernetesNetworkingBaseSerializer*

class Meta

Bases: object

fields = ['title', 'description', 'cluster', 'config', 'labels', 'annotations', 'ap

model

alias of *kubernetes_manager.models.kube.KubernetesIngress*

class kubernetes_manager.serializers.base.**KubernetesJobSerializer**(**args: Any*, ***kwargs: Any*)

Bases: *kubernetes_manager.serializers.base.KubernetesNetworkingBaseSerializer*

class Meta

Bases: object

fields = ['title', 'description', 'cluster', 'config', 'labels', 'annotations', 'ap

model

alias of *kubernetes_manager.models.kube.KubernetesJob*

class kubernetes_manager.serializers.base.**KubernetesMetadataObjBaseSerializer**(**args: Any*, ***kwargs: Any*)

Bases: *kubernetes_manager.serializers.base.KubernetesBaseSerializer*

class Meta

Bases: object

abstract = True

fields = ['title', 'description', 'cluster', 'config', 'labels', 'annotations']

model

alias of *kubernetes_manager.models.base.KubernetesMetadataObjBase*

class kubernetes_manager.serializers.base.**KubernetesNamespaceSerializer**(**args: Any*, ***kwargs: Any*)

Bases: *kubernetes_manager.serializers.base.KubernetesMetadataObjBaseSerializer*

class Meta

Bases: object

fields = ['title', 'description', 'cluster', 'config', 'labels', 'annotations', 'ap

model

alias of *kubernetes_manager.models.kube.KubernetesNamespace*

class kubernetes_manager.serializers.base.**KubernetesNetworkingBaseSerializer**(**args: Any*, ***kwargs: Any*)

Bases: *kubernetes_manager.serializers.base.KubernetesMetadataObjBaseSerializer*

class Meta

Bases: object

abstract = True

fields = ['title', 'description', 'cluster', 'config', 'labels', 'annotations', 'ap

model

alias of *kubernetes_manager.models.base.KubernetesNetworkingBase*

class kubernetes_manager.serializers.base.**KubernetesPodTemplateSerializer**(**args: Any*, ***kwargs: Any*)

Bases: *kubernetes_manager.serializers.base.KubernetesMetadataObjBaseSerializer*

class Meta

Bases: object

fields = ['title', 'description', 'cluster', 'config', 'labels', 'annotations', 'vo

model

alias of *kubernetes_manager.models.kube.KubernetesPodTemplate*

class kubernetes_manager.serializers.base.**KubernetesServiceSerializer**(**args: Any*, ***kwargs: Any*)

Bases: *kubernetes_manager.serializers.base.KubernetesNetworkingBaseSerializer*

class Meta

Bases: object

fields = ['title', 'description', 'cluster', 'config', 'labels', 'annotations', 'ap

model

alias of *kubernetes_manager.models.kube.KubernetesService*

class kubernetes_manager.serializers.base.**KubernetesVolumeMountSerializer**(**args: Any*, ***kwargs: Any*)

Bases: *kubernetes_manager.serializers.base.KubernetesBaseSerializer*

class Meta

Bases: object

fields = ['title', 'description', 'cluster', 'config', 'mount_path', 'sub_path']

model

alias of *kubernetes_manager.models.kube.KubernetesVolumeMount*

class kubernetes_manager.serializers.base.**KubernetesVolumeSerializer**(**args: Any*, ***kwargs: Any*)

Bases: *kubernetes_manager.serializers.base.KubernetesBaseSerializer*

class Meta

Bases: object

fields = ['title', 'description', 'cluster', 'config']

model

alias of *kubernetes_manager.models.kube.KubernetesVolume*

class kubernetes_manager.serializers.base.**TargetClusterSerializer**(**args: Any*, ***kwargs: Any*)

Bases: rest_framework.serializers.HyperlinkedModelSerializer

class Meta

Bases: object

fields = ['title', 'api_endpoint', 'telemetry_endpoint', 'config']

model

alias of *kubernetes_manager.models.target_cluster.TargetCluster*

2.4 Views

2.4.1 API Views

class kubernetes_manager.views.model_views.**KubernetesConfigMapViewSet**(**args: Any*, ***kwargs: Any*)

Bases: rest_framework.viewsets.ModelViewSet

API endpoint that allows configmaps to be edited or deleted

deploy(*request*, **args*, ***kwargs*)

Action to deploy the ConfigMap resource to target cluster.

permission_classes = [rest_framework.permissions.IsAuthenticated]

queryset

remove(*request*, **args*, ***kwargs*)
Action to delete the kubernetes ConfigMap from the cluster.

serializer_class
alias of *kubernetes_manager.serializers.base.KubernetesConfigMapSerializer*

class kubernetes_manager.views.model_views.**KubernetesContainerViewSet**(**args: Any*, ***kwargs: Any*)

Bases: rest_framework.viewsets.ModelViewSet

API endpoint that allows containers to be edited or deleted.

permission_classes = [rest_framework.permissions.IsAuthenticated]

queryset

serializer_class
alias of *kubernetes_manager.serializers.base.KubernetesContainerSerializer*

class kubernetes_manager.views.model_views.**KubernetesDeploymentViewSet**(**args: Any*, ***kwargs: Any*)

Bases: rest_framework.viewsets.ModelViewSet

API endpoint that allows deployments to be edited or deleted.

deploy(*request*, **args*, ***kwargs*)
Action to deploy the kubernetes resource to target cluster.

permission_classes = [rest_framework.permissions.IsAuthenticated]

pod_usage(*request*, **args*, ***kwargs*)
Action to fetch point-in-time cpu and memory usage of pod.

queryset

remove(*request*, **args*, ***kwargs*)
Action to delete the kubernetes resource from the cluster/namespaces

serializer_class
alias of *kubernetes_manager.serializers.base.KubernetesDeploymentSerializer*

class kubernetes_manager.views.model_views.**KubernetesIngressViewSet**(**args: Any*, ***kwargs: Any*)

Bases: rest_framework.viewsets.ModelViewSet

API endpoint that allows ingress to be edited or deleted.

deploy(*request*, **args*, ***kwargs*)
Action to deploy the kubernetes resource to target cluster.

permission_classes = [rest_framework.permissions.IsAuthenticated]

queryset

remove(*request*, **args*, ***kwargs*)
Action to delete the kubernetes resource from the cluster/namespace.

serializer_class
alias of *kubernetes_manager.serializers.base.KubernetesIngressSerializer*

class kubernetes_manager.views.model_views.**KubernetesJobViewSet**(**args: Any*, ***kwargs: Any*)

Bases: rest_framework.viewsets.ModelViewSet

API endpoint that allows jobs to be edited or deleted.

deploy(*request*, **args*, ***kwargs*)
Action to deploy the kubernetes resource to target cluster.

permission_classes = [rest_framework.permissions.IsAuthenticated]

pod_usage(*request*, **args*, ***kwargs*)
Action to fetch point-in-time cpu and memory usage of pod.

queryset

remove(*request*, **args*, ***kwargs*)
Action to delete the kubernetes resource from the target cluster/ns.

serializer_class
alias of *kubernetes_manager.serializers.base.KubernetesJobSerializer*

class kubernetes_manager.views.model_views.**KubernetesNamespaceViewSet**(**args: Any*, ***kwargs: Any*)

Bases: rest_framework.viewsets.ModelViewSet

API endpoint that allows namespaces to be created or deleted

deploy(*request*, **args*, ***kwargs*)
Action to deploy the namespace resource to target cluster.

permission_classes = [rest_framework.permissions.IsAuthenticated]

queryset

remove(*request*, **args*, ***kwargs*)
Action to delete the kubernetes namespace from the cluster.

serializer_class
alias of *kubernetes_manager.serializers.base.KubernetesNamespaceSerializer*

class kubernetes_manager.views.model_views.**KubernetesPodTemplateViewSet**(**args: Any*, ***kwargs: Any*)

Bases: rest_framework.viewsets.ModelViewSet

API endpoint that allows pod templates to be edited or deleted.

permission_classes = [rest_framework.permissions.IsAuthenticated]

queryset

serializer_class
alias of *kubernetes_manager.serializers.base.KubernetesPodTemplateSerializer*

class kubernetes_manager.views.model_views.**KubernetesServiceViewSet**(**args: Any*, ***kwargs: Any*)

Bases: rest_framework.viewsets.ModelViewSet

API endpoint that allows services to be edited or deleted.

deploy(*request*, **args*, ***kwargs*)
Action to deploy the kubernetes resource to target cluster.

permission_classes = [rest_framework.permissions.IsAuthenticated]

queryset

remove(*request*, **args*, ***kwargs*)
Action to delete the kubernetes resource from the cluster/namespace.

serializer_class
alias of *kubernetes_manager.serializers.base.KubernetesServiceSerializer*

class kubernetes_manager.views.model_views.**KubernetesVolumeMountViewSet**(**args: Any*, ***kwargs: Any*)

Bases: rest_framework.viewsets.ModelViewSet

API endpoint that allows volumes to be edited or deleted.

permission_classes = [rest_framework.permissions.IsAuthenticated]

queryset

serializer_class
alias of *kubernetes_manager.serializers.base.KubernetesVolumeMountSerializer*

class kubernetes_manager.views.model_views.**KubernetesVolumeViewSet**(**args: Any*, ***kwargs: Any*)

Bases: rest_framework.viewsets.ModelViewSet

API endpoint that allows volumes to be edited or deleted.

permission_classes = [rest_framework.permissions.IsAuthenticated]

queryset

serializer_class
alias of *kubernetes_manager.serializers.base.KubernetesVolumeSerializer*

class kubernetes_manager.views.model_views.**TargetClusterViewSet**(**args: Any*, ***kwargs: Any*)

Bases: rest_framework.viewsets.ModelViewSet

API endpoint that allows cluster configs to be edited or deleted

permission_classes = [rest_framework.permissions.IsAuthenticated]

queryset

serializer_class
alias of *kubernetes_manager.serializers.base.TargetClusterSerializer*

2.5 Utils

2.5.1 Kubernetes Utils

kubernetes_manager.utils.**coalesce_dicts**(*target=<class 'dict'>*, *source=<class 'dict'>*)

kubernetes_manager.utils.**find_namespaced_pods**(*namespace*, *job_name*, *api_client*)
find pod by namespace and job name

Args: namespace (str) - job_name (str) - api_client (CoreV1Api) -

Returns: str - Name of the pod if found

kubernetes_manager.utils.**generate_kubeconfig**(*context*, *cluster*, *user*, *default_name='k8s-job-runner'*)
Format helper for generating individual cluster kubeconfigs

Args: context (dict) - cluster (dict) - user (dict) -

Returns: dict -

kubernetes_manager.utils.**get_command_output**(*cmd*)
retrieve command output for a given command provided

kubernetes_manager.utils.**get_dict_hash**(*data*)

kubernetes_manager.utils.**run_command**(*cmd*, *log_method=<bound method Logger.info of <Logger kubernetes_manager.utils (WARNING)>>*)
Subprocess wrapper for capturing output of processes to logs

kubernetes_manager.utils.**split_kubeconfig**(*kubeconfig*)
Helper method to split a kubeconfig into separate, per-cluster configurations

Args: kubeconfig (dict or str) -

Returns: list(dict)

2.6 API Spec

2.6.1 clusters

GET /clusters/
API endpoint that allows cluster configs to be edited or deleted

Status Codes

- 200 OK –

Response JSON Object

- **[].api_endpoint** (*string*) – Cluster Endpoint URL (required)
- **[].telemetry_endpoint** (*string*) – Telemetry Endpoint URL (required)
- **[].title** (*string*) – (required)

POST /clusters/
API endpoint that allows cluster configs to be edited or deleted

Request JSON Object

- **api_endpoint** (*string*) – Cluster Endpoint URL (required)

- **telemetry_endpoint** (*string*) – Telemetry Endpoint URL (required)
- **title** (*string*) – (required)

Status Codes

- 201 Created –

Response JSON Object

- **api_endpoint** (*string*) – Cluster Endpoint URL (required)
- **telemetry_endpoint** (*string*) – Telemetry Endpoint URL (required)
- **title** (*string*) – (required)

GET /clusters/{id}/

API endpoint that allows cluster configs to be edited or deleted

Parameters

- **id** (*integer*) – A unique integer value identifying this target cluster.

Status Codes

- 200 OK –

Response JSON Object

- **api_endpoint** (*string*) – Cluster Endpoint URL (required)
- **telemetry_endpoint** (*string*) – Telemetry Endpoint URL (required)
- **title** (*string*) – (required)

PUT /clusters/{id}/

API endpoint that allows cluster configs to be edited or deleted

Parameters

- **id** (*integer*) – A unique integer value identifying this target cluster.

Request JSON Object

- **api_endpoint** (*string*) – Cluster Endpoint URL (required)
- **telemetry_endpoint** (*string*) – Telemetry Endpoint URL (required)
- **title** (*string*) – (required)

Status Codes

- 200 OK –

Response JSON Object

- **api_endpoint** (*string*) – Cluster Endpoint URL (required)
- **telemetry_endpoint** (*string*) – Telemetry Endpoint URL (required)
- **title** (*string*) – (required)

PATCH /clusters/{id}/

API endpoint that allows cluster configs to be edited or deleted

Parameters

- **id** (*integer*) – A unique integer value identifying this target cluster.

Request JSON Object

- **api_endpoint** (*string*) – Cluster Endpoint URL (required)
- **telemetry_endpoint** (*string*) – Telemetry Endpoint URL (required)
- **title** (*string*) – (required)

Status Codes

- 200 OK –

Response JSON Object

- **api_endpoint** (*string*) – Cluster Endpoint URL (required)
- **telemetry_endpoint** (*string*) – Telemetry Endpoint URL (required)
- **title** (*string*) – (required)

DELETE /clusters/{id}/

API endpoint that allows cluster configs to be edited or deleted

Parameters

- **id** (*integer*) – A unique integer value identifying this target cluster.

Status Codes

- 204 No Content –

2.6.2 configmaps

GET /configmaps/

API endpoint that allows configmaps to be edited or deleted

Status Codes

- 200 OK –

Response JSON Object

- **[].cluster** (*string*) – ForeignKey to TargetCluster object.
- **[].description** (*string*) –
- **[].kind** (*string*) –
- **[].title** (*string*) – (required)

POST /configmaps/

API endpoint that allows configmaps to be edited or deleted

Request JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) –
- **title** (*string*) – (required)

Status Codes

- 201 Created –

Response JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.

- **description** (*string*) –
- **kind** (*string*) –
- **title** (*string*) – (required)

GET /configmaps/{id}/
API endpoint that allows configmaps to be edited or deleted

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 200 OK –

Response JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) –
- **title** (*string*) – (required)

PUT /configmaps/{id}/
API endpoint that allows configmaps to be edited or deleted

Parameters

- **id** (*string*) – UUID Auto field.

Request JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) –
- **title** (*string*) – (required)

Status Codes

- 200 OK –

Response JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) –
- **title** (*string*) – (required)

PATCH /configmaps/{id}/
API endpoint that allows configmaps to be edited or deleted

Parameters

- **id** (*string*) – UUID Auto field.

Request JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –

- **kind** (*string*) –
- **title** (*string*) – (required)

Status Codes

- 200 OK –

Response JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) –
- **title** (*string*) – (required)

DELETE /configmaps/{id}/

API endpoint that allows configmaps to be edited or deleted

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 204 No Content –

GET /configmaps/{id}/deploy/

Action to deploy the ConfigMap resource to target cluster.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 200 OK –

Response JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) –
- **title** (*string*) – (required)

GET /configmaps/{id}/remove/

Action to delete the kubernetes ConfigMap from the cluster.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 200 OK –

Response JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) –
- **title** (*string*) – (required)

2.6.3 containers

GET /containers/
API endpoint that allows containers to be edited or deleted.

Status Codes

- 200 OK –

Response JSON Object

- **[].args** (*string*) – Comma separated args to run with command when instantiating container.
- **[].cluster** (*string*) – ForeignKey to TargetCluster object.
- **[].command** (*string*) – Command to run when start container
- **[].description** (*string*) –
- **[].image_name** (*string*) – Properly qualified image name.
- **[].image_pull_policy** (*string*) –
- **[].image_tag** (*string*) – Tag name for the image to be used for this job
- **[].port** (*integer*) –
- **[].title** (*string*) – (required)
- **[].volume_mount** (*string*) –

POST /containers/
API endpoint that allows containers to be edited or deleted.

Request JSON Object

- **args** (*string*) – Comma separated args to run with command when instantiating container.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **command** (*string*) – Command to run when start container
- **description** (*string*) –
- **image_name** (*string*) – Properly qualified image name.
- **image_pull_policy** (*string*) –
- **image_tag** (*string*) – Tag name for the image to be used for this job
- **port** (*integer*) –
- **title** (*string*) – (required)
- **volume_mount** (*string*) –

Status Codes

- 201 Created –

Response JSON Object

- **args** (*string*) – Comma separated args to run with command when instantiating container.
- **cluster** (*string*) – ForeignKey to TargetCluster object.

- **command** (*string*) – Command to run when start container
- **description** (*string*) –
- **image_name** (*string*) – Properly qualified image name.
- **image_pull_policy** (*string*) –
- **image_tag** (*string*) – Tag name for the image to be used for this job
- **port** (*integer*) –
- **title** (*string*) – (required)
- **volume_mount** (*string*) –

GET /containers/{id}/

API endpoint that allows containers to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 200 OK –

Response JSON Object

- **args** (*string*) – Comma separated args to run with command when instantiating container.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **command** (*string*) – Command to run when start container
- **description** (*string*) –
- **image_name** (*string*) – Properly qualified image name.
- **image_pull_policy** (*string*) –
- **image_tag** (*string*) – Tag name for the image to be used for this job
- **port** (*integer*) –
- **title** (*string*) – (required)
- **volume_mount** (*string*) –

PUT /containers/{id}/

API endpoint that allows containers to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Request JSON Object

- **args** (*string*) – Comma separated args to run with command when instantiating container.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **command** (*string*) – Command to run when start container
- **description** (*string*) –
- **image_name** (*string*) – Properly qualified image name.

- **image_pull_policy** (*string*) –
- **image_tag** (*string*) – Tag name for the image to be used for this job
- **port** (*integer*) –
- **title** (*string*) – (required)
- **volume_mount** (*string*) –

Status Codes

- 200 OK –

Response JSON Object

- **args** (*string*) – Comma separated args to run with command when instantiating container.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **command** (*string*) – Command to run when start container
- **description** (*string*) –
- **image_name** (*string*) – Properly qualified image name.
- **image_pull_policy** (*string*) –
- **image_tag** (*string*) – Tag name for the image to be used for this job
- **port** (*integer*) –
- **title** (*string*) – (required)
- **volume_mount** (*string*) –

PATCH /containers/{id}/

API endpoint that allows containers to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Request JSON Object

- **args** (*string*) – Comma separated args to run with command when instantiating container.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **command** (*string*) – Command to run when start container
- **description** (*string*) –
- **image_name** (*string*) – Properly qualified image name.
- **image_pull_policy** (*string*) –
- **image_tag** (*string*) – Tag name for the image to be used for this job
- **port** (*integer*) –
- **title** (*string*) – (required)
- **volume_mount** (*string*) –

Status Codes

- 200 OK –

Response JSON Object

- **args** (*string*) – Comma separated args to run with command when instantiating container.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **command** (*string*) – Command to run when start container
- **description** (*string*) –
- **image_name** (*string*) – Properly qualified image name.
- **image_pull_policy** (*string*) –
- **image_tag** (*string*) – Tag name for the image to be used for this job
- **port** (*integer*) –
- **title** (*string*) – (required)
- **volume_mount** (*string*) –

DELETE /containers/{id}/

API endpoint that allows containers to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 204 No Content –

2.6.4 deployments

GET /deployments/

API endpoint that allows deployments to be edited or deleted.

Status Codes

- 200 OK –

Response JSON Object

- **[].api_version** (*string*) – API version used to deploy child object.
- **[].cluster** (*string*) – ForeignKey to TargetCluster object.
- **[].description** (*string*) –
- **[].kind** (*string*) – String representation of Kubernetes object kind (required)
- **[].kuid** (*string*) – Object's UID in the cluster
- **[].namespace** (*string*) – Live namespace the object is associated with. (required)
- **[].pod_template** (*string*) – (required)
- **[].port** (*integer*) – Port object will expose
- **[].replicas** (*integer*) –
- **[].title** (*string*) – (required)

POST /deployments/

API endpoint that allows deployments to be edited or deleted.

Request JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **pod_template** (*string*) – (required)
- **port** (*integer*) – Port object will expose
- **replicas** (*integer*) –
- **title** (*string*) – (required)

Status Codes

- 201 Created –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **pod_template** (*string*) – (required)
- **port** (*integer*) – Port object will expose
- **replicas** (*integer*) –
- **title** (*string*) – (required)

GET /deployments/{id}/

API endpoint that allows deployments to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster

- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **pod_template** (*string*) – (required)
- **port** (*integer*) – Port object will expose
- **replicas** (*integer*) –
- **title** (*string*) – (required)

PUT /deployments/{id}/

API endpoint that allows deployments to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Request JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **pod_template** (*string*) – (required)
- **port** (*integer*) – Port object will expose
- **replicas** (*integer*) –
- **title** (*string*) – (required)

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **pod_template** (*string*) – (required)
- **port** (*integer*) – Port object will expose
- **replicas** (*integer*) –
- **title** (*string*) – (required)

PATCH /deployments/{id}/

API endpoint that allows deployments to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Request JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **pod_template** (*string*) – (required)
- **port** (*integer*) – Port object will expose
- **replicas** (*integer*) –
- **title** (*string*) – (required)

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **pod_template** (*string*) – (required)
- **port** (*integer*) – Port object will expose
- **replicas** (*integer*) –
- **title** (*string*) – (required)

DELETE /deployments/{id}/

API endpoint that allows deployments to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 204 No Content –

GET /deployments/{id}/deploy/

Action to deploy the kubernetes resource to target cluster.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **pod_template** (*string*) – (required)
- **port** (*integer*) – Port object will expose
- **replicas** (*integer*) –
- **title** (*string*) – (required)

GET /deployments/{id}/pod_usage/
Action to fetch point-in-time cpu and memory usage of pod.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **pod_template** (*string*) – (required)
- **port** (*integer*) – Port object will expose
- **replicas** (*integer*) –
- **title** (*string*) – (required)

GET /deployments/{id}/remove/
Action to delete the kubernetes resource from the cluster/namespaces

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –

- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **pod_template** (*string*) – (required)
- **port** (*integer*) – Port object will expose
- **replicas** (*integer*) –
- **title** (*string*) – (required)

2.6.5 ingresses

GET /ingresses/

API endpoint that allows ingress to be edited or deleted.

Status Codes

- 200 OK –

Response JSON Object

- **[].api_version** (*string*) – API version used to deploy child object.
- **[].cluster** (*string*) – ForeignKey to TargetCluster object.
- **[].description** (*string*) –
- **[].hostname** (*string*) –
- **[].kind** (*string*) – String representation of Kubernetes object kind (required)
- **[].kuid** (*string*) – Object's UID in the cluster
- **[].namespace** (*string*) – Live namespace the object is associated with. (required)
- **[].path** (*string*) –
- **[].port** (*integer*) – Port object will expose
- **[].target_service** (*string*) – (required)
- **[].title** (*string*) – (required)

POST /ingresses/

API endpoint that allows ingress to be edited or deleted.

Request JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **hostname** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **path** (*string*) –
- **port** (*integer*) – Port object will expose

- **target_service** (*string*) – (required)
- **title** (*string*) – (required)

Status Codes

- 201 Created –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **hostname** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **path** (*string*) –
- **port** (*integer*) – Port object will expose
- **target_service** (*string*) – (required)
- **title** (*string*) – (required)

GET /ingresses/{id}/

API endpoint that allows ingress to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **hostname** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **path** (*string*) –
- **port** (*integer*) – Port object will expose
- **target_service** (*string*) – (required)
- **title** (*string*) – (required)

PUT /ingresses/{id}/

API endpoint that allows ingress to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Request JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **hostname** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **path** (*string*) –
- **port** (*integer*) – Port object will expose
- **target_service** (*string*) – (required)
- **title** (*string*) – (required)

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **hostname** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **path** (*string*) –
- **port** (*integer*) – Port object will expose
- **target_service** (*string*) – (required)
- **title** (*string*) – (required)

PATCH /ingresses/{id}/

API endpoint that allows ingress to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Request JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **hostname** (*string*) –

- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **path** (*string*) –
- **port** (*integer*) – Port object will expose
- **target_service** (*string*) – (required)
- **title** (*string*) – (required)

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **hostname** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **path** (*string*) –
- **port** (*integer*) – Port object will expose
- **target_service** (*string*) – (required)
- **title** (*string*) – (required)

DELETE /ingresses/{id}/

API endpoint that allows ingress to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 204 No Content –

GET /ingresses/{id}/deploy/

Action to deploy the kubernetes resource to target cluster.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –

- **hostname** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **path** (*string*) –
- **port** (*integer*) – Port object will expose
- **target_service** (*string*) – (required)
- **title** (*string*) – (required)

GET /ingresses/{id}/remove/

Action to delete the kubernetes resource from the cluster/namespace.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **hostname** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **path** (*string*) –
- **port** (*integer*) – Port object will expose
- **target_service** (*string*) – (required)
- **title** (*string*) – (required)

2.6.6 jobs

GET /jobs/

API endpoint that allows jobs to be edited or deleted.

Status Codes

- 200 OK –

Response JSON Object

- **[].api_version** (*string*) – API version used to deploy child object.
- **[].backoff_limit** (*integer*) –
- **[].cluster** (*string*) – ForeignKey to TargetCluster object.
- **[].description** (*string*) –

- **[].kind** (*string*) – String representation of Kubernetes object kind (required)
- **[].kuid** (*string*) – Object's UID in the cluster
- **[].namespace** (*string*) – Live namespace the object is associated with. (required)
- **[].pod_template** (*string*) – (required)
- **[].port** (*integer*) – Port object will expose
- **[].title** (*string*) – (required)

POST /jobs/

API endpoint that allows jobs to be edited or deleted.

Request JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **backoff_limit** (*integer*) –
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **pod_template** (*string*) – (required)
- **port** (*integer*) – Port object will expose
- **title** (*string*) – (required)

Status Codes

- 201 Created –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **backoff_limit** (*integer*) –
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **pod_template** (*string*) – (required)
- **port** (*integer*) – Port object will expose
- **title** (*string*) – (required)

GET /jobs/{id}/

API endpoint that allows jobs to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **backoff_limit** (*integer*) –
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **pod_template** (*string*) – (required)
- **port** (*integer*) – Port object will expose
- **title** (*string*) – (required)

PUT /jobs/{id}/

API endpoint that allows jobs to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Request JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **backoff_limit** (*integer*) –
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **pod_template** (*string*) – (required)
- **port** (*integer*) – Port object will expose
- **title** (*string*) – (required)

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **backoff_limit** (*integer*) –
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster

- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **pod_template** (*string*) – (required)
- **port** (*integer*) – Port object will expose
- **title** (*string*) – (required)

PATCH /jobs/{id}/

API endpoint that allows jobs to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Request JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **backoff_limit** (*integer*) –
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **pod_template** (*string*) – (required)
- **port** (*integer*) – Port object will expose
- **title** (*string*) – (required)

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **backoff_limit** (*integer*) –
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **pod_template** (*string*) – (required)
- **port** (*integer*) – Port object will expose
- **title** (*string*) – (required)

DELETE /jobs/{id}/

API endpoint that allows jobs to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 204 No Content –

GET /jobs/{id}/deploy/
Action to deploy the kubernetes resource to target cluster.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **backoff_limit** (*integer*) –
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **pod_template** (*string*) – (required)
- **port** (*integer*) – Port object will expose
- **title** (*string*) – (required)

GET /jobs/{id}/pod_usage/
Action to fetch point-in-time cpu and memory usage of pod.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **backoff_limit** (*integer*) –
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **pod_template** (*string*) – (required)
- **port** (*integer*) – Port object will expose
- **title** (*string*) – (required)

GET /jobs/{id}/remove/
Action to delete the kubernetes resource from the target cluster/ns.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **backoff_limit** (*integer*) –
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **pod_template** (*string*) – (required)
- **port** (*integer*) – Port object will expose
- **title** (*string*) – (required)

2.6.7 mounts

GET /mounts/

API endpoint that allows volumes to be edited or deleted.

Status Codes

- 200 OK –

Response JSON Object

- **[].cluster** (*string*) – ForeignKey to TargetCluster object.
- **[].description** (*string*) –
- **[].mount_path** (*string*) –
- **[].sub_path** (*string*) –
- **[].title** (*string*) – (required)

POST /mounts/

API endpoint that allows volumes to be edited or deleted.

Request JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **mount_path** (*string*) –
- **sub_path** (*string*) –
- **title** (*string*) – (required)

Status Codes

- 201 Created –

Response JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **mount_path** (*string*) –
- **sub_path** (*string*) –
- **title** (*string*) – (required)

GET /mounts/{id}/
API endpoint that allows volumes to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 200 OK –

Response JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **mount_path** (*string*) –
- **sub_path** (*string*) –
- **title** (*string*) – (required)

PUT /mounts/{id}/
API endpoint that allows volumes to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Request JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **mount_path** (*string*) –
- **sub_path** (*string*) –
- **title** (*string*) – (required)

Status Codes

- 200 OK –

Response JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **mount_path** (*string*) –
- **sub_path** (*string*) –
- **title** (*string*) – (required)

PATCH /mounts/{id}/
API endpoint that allows volumes to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Request JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **mount_path** (*string*) –
- **sub_path** (*string*) –
- **title** (*string*) – (required)

Status Codes

- 200 OK –

Response JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **mount_path** (*string*) –
- **sub_path** (*string*) –
- **title** (*string*) – (required)

DELETE /mounts/{id}/
API endpoint that allows volumes to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 204 No Content –

2.6.8 namespaces

GET /namespaces/
API endpoint that allows namespaces to be created or deleted

Status Codes

- 200 OK –

Response JSON Object

- **[].api_version** (*string*) –
- **[].cluster** (*string*) – ForeignKey to TargetCluster object.
- **[].description** (*string*) –
- **[].exists** (*boolean*) –
- **[].kind** (*string*) –
- **[].title** (*string*) – (required)

POST /namespaces/

API endpoint that allows namespaces to be created or deleted

Request JSON Object

- **api_version** (*string*) –
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **exists** (*boolean*) –
- **kind** (*string*) –
- **title** (*string*) – (required)

Status Codes

- 201 Created –

Response JSON Object

- **api_version** (*string*) –
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **exists** (*boolean*) –
- **kind** (*string*) –
- **title** (*string*) – (required)

GET /namespaces/{id}/

API endpoint that allows namespaces to be created or deleted

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) –
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **exists** (*boolean*) –
- **kind** (*string*) –
- **title** (*string*) – (required)

PUT /namespaces/{id}/

API endpoint that allows namespaces to be created or deleted

Parameters

- **id** (*string*) – UUID Auto field.

Request JSON Object

- **api_version** (*string*) –

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **exists** (*boolean*) –
- **kind** (*string*) –
- **title** (*string*) – (required)

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) –
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **exists** (*boolean*) –
- **kind** (*string*) –
- **title** (*string*) – (required)

PATCH /namespaces/{id}/

API endpoint that allows namespaces to be created or deleted

Parameters

- **id** (*string*) – UUID Auto field.

Request JSON Object

- **api_version** (*string*) –
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **exists** (*boolean*) –
- **kind** (*string*) –
- **title** (*string*) – (required)

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) –
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **exists** (*boolean*) –
- **kind** (*string*) –
- **title** (*string*) – (required)

DELETE /namespaces/{id}/

API endpoint that allows namespaces to be created or deleted

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 204 No Content –

GET /namespaces/{id}/deploy/
Action to deploy the namespace resource to target cluster.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) –
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **exists** (*boolean*) –
- **kind** (*string*) –
- **title** (*string*) – (required)

GET /namespaces/{id}/remove/
Action to delete the kubernetes namespace from the cluster.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) –
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **exists** (*boolean*) –
- **kind** (*string*) –
- **title** (*string*) – (required)

2.6.9 pods

GET /pods/
API endpoint that allows pod templates to be edited or deleted.

Status Codes

- 200 OK –

Response JSON Object

- **[].cluster** (*string*) – ForeignKey to TargetCluster object.

- **[].description** (*string*) –
- **[].primary_container** (*string*) – (required)
- **[].restart_policy** (*string*) –
- **[].secondary_container** (*string*) –
- **[].title** (*string*) – (required)
- **[].volume** (*string*) –

POST /pods/

API endpoint that allows pod templates to be edited or deleted.

Request JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **primary_container** (*string*) – (required)
- **restart_policy** (*string*) –
- **secondary_container** (*string*) –
- **title** (*string*) – (required)
- **volume** (*string*) –

Status Codes

- 201 Created –

Response JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **primary_container** (*string*) – (required)
- **restart_policy** (*string*) –
- **secondary_container** (*string*) –
- **title** (*string*) – (required)
- **volume** (*string*) –

GET /pods/{id}/

API endpoint that allows pod templates to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 200 OK –

Response JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **primary_container** (*string*) – (required)
- **restart_policy** (*string*) –

- **secondary_container** (*string*) –
- **title** (*string*) – (required)
- **volume** (*string*) –

PUT /pods/{id}/

API endpoint that allows pod templates to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Request JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **primary_container** (*string*) – (required)
- **restart_policy** (*string*) –
- **secondary_container** (*string*) –
- **title** (*string*) – (required)
- **volume** (*string*) –

Status Codes

- 200 OK –

Response JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **primary_container** (*string*) – (required)
- **restart_policy** (*string*) –
- **secondary_container** (*string*) –
- **title** (*string*) – (required)
- **volume** (*string*) –

PATCH /pods/{id}/

API endpoint that allows pod templates to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Request JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **primary_container** (*string*) – (required)
- **restart_policy** (*string*) –
- **secondary_container** (*string*) –
- **title** (*string*) – (required)
- **volume** (*string*) –

Status Codes

- 200 OK –

Response JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **primary_container** (*string*) – (required)
- **restart_policy** (*string*) –
- **secondary_container** (*string*) –
- **title** (*string*) – (required)
- **volume** (*string*) –

DELETE /pods/{id}/

API endpoint that allows pod templates to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 204 No Content –

2.6.10 services

GET /services/

API endpoint that allows services to be edited or deleted.

Status Codes

- 200 OK –

Response JSON Object

- **[].api_version** (*string*) – API version used to deploy child object.
- **[].cluster** (*string*) – ForeignKey to TargetCluster object.
- **[].description** (*string*) –
- **[].kind** (*string*) – String representation of Kubernetes object kind (required)
- **[].kuid** (*string*) – Object's UID in the cluster
- **[].namespace** (*string*) – Live namespace the object is associated with. (required)
- **[].port** (*integer*) – Port object will expose
- **[].target_port** (*integer*) –
- **[].title** (*string*) – (required)

POST /services/

API endpoint that allows services to be edited or deleted.

Request JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.

- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **port** (*integer*) – Port object will expose
- **target_port** (*integer*) –
- **title** (*string*) – (required)

Status Codes

- 201 Created –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **port** (*integer*) – Port object will expose
- **target_port** (*integer*) –
- **title** (*string*) – (required)

GET /services/{id}/

API endpoint that allows services to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **port** (*integer*) – Port object will expose
- **target_port** (*integer*) –
- **title** (*string*) – (required)

PUT /services/{id}/

API endpoint that allows services to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Request JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **port** (*integer*) – Port object will expose
- **target_port** (*integer*) –
- **title** (*string*) – (required)

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **port** (*integer*) – Port object will expose
- **target_port** (*integer*) –
- **title** (*string*) – (required)

PATCH /services/{id}/

API endpoint that allows services to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Request JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **port** (*integer*) – Port object will expose

- **target_port** (*integer*) –
- **title** (*string*) – (required)

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **port** (*integer*) – Port object will expose
- **target_port** (*integer*) –
- **title** (*string*) – (required)

DELETE /services/{id}/

API endpoint that allows services to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 204 No Content –

GET /services/{id}/deploy/

Action to deploy the kubernetes resource to target cluster.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **port** (*integer*) – Port object will expose
- **target_port** (*integer*) –
- **title** (*string*) – (required)

GET /services/{id}/remove/
Action to delete the kubernetes resource from the cluster/namespace.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 200 OK –

Response JSON Object

- **api_version** (*string*) – API version used to deploy child object.
- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **kind** (*string*) – String representation of Kubernetes object kind (required)
- **kuid** (*string*) – Object's UID in the cluster
- **namespace** (*string*) – Live namespace the object is associated with. (required)
- **port** (*integer*) – Port object will expose
- **target_port** (*integer*) –
- **title** (*string*) – (required)

2.6.11 volumes

GET /volumes/
API endpoint that allows volumes to be edited or deleted.

Status Codes

- 200 OK –

Response JSON Object

- **[].cluster** (*string*) – ForeignKey to TargetCluster object.
- **[].description** (*string*) –
- **[].title** (*string*) – (required)

POST /volumes/
API endpoint that allows volumes to be edited or deleted.

Request JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **title** (*string*) – (required)

Status Codes

- 201 Created –

Response JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –

- **title** (*string*) – (required)

GET /volumes/{id}/

API endpoint that allows volumes to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 200 OK –

Response JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **title** (*string*) – (required)

PUT /volumes/{id}/

API endpoint that allows volumes to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Request JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **title** (*string*) – (required)

Status Codes

- 200 OK –

Response JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **title** (*string*) – (required)

PATCH /volumes/{id}/

API endpoint that allows volumes to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Request JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.
- **description** (*string*) –
- **title** (*string*) – (required)

Status Codes

- 200 OK –

Response JSON Object

- **cluster** (*string*) – ForeignKey to TargetCluster object.

- **description** (*string*) –
- **title** (*string*) – (required)

DELETE /volumes/{id}/

API endpoint that allows volumes to be edited or deleted.

Parameters

- **id** (*string*) – UUID Auto field.

Status Codes

- 204 No Content –

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