

## » **kubernetes\_\_service**

A Service is an abstraction which defines a logical set of pods and a policy by which to access them - sometimes called a micro-service. This data source allows you to pull data about such service.

### » **Example Usage**

```
data "kubernetes_service" "example" {
  metadata {
    name = "terraform-example"
  }
}

resource "aws_route53_record" "example" {
  zone_id = "${data.aws_route53_zone.k8.zone_id}"
  name     = "example"
  type     = "CNAME"
  ttl      = "300"
  records  = ["${data.kubernetes_service.example.load_balancer_ingress.0.hostname}"]
}
```

### » **Argument Reference**

The following arguments are supported:

- **metadata** - (Required) Standard service's metadata. More info: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#metadata>

### » **Attributes**

- **spec** - Spec defines the behavior of a service. <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#spec-and-status>
- **load\_balancer\_ingress** - A list containing ingress points for the load-balancer (only valid if **type** = "LoadBalancer")

## » Nested Blocks

### » `metadata`

### » Arguments

- **name** - (Optional) Name of the service, must be unique. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>
- **namespace** - (Optional) Namespace defines the space within which name of the service must be unique.

### » Attributes

- **annotations** - (Optional) An unstructured key value map stored with the service that may be used to store arbitrary metadata. More info: <http://kubernetes.io/docs/user-guide/annotations>
- **labels** - (Optional) Map of string keys and values that can be used to organize and categorize (scope and select) the service. May match selectors of replication controllers and services. More info: <http://kubernetes.io/docs/user-guide/labels>
- **generation** - A sequence number representing a specific generation of the desired state.
- **resource\_version** - An opaque value that represents the internal version of this service that can be used by clients to determine when service has changed. Read more: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#concurrency-control-and-consistency>
- **self\_link** - A URL representing this service.
- **uid** - The unique in time and space value for this service. More info: <http://kubernetes.io/docs/user-guide/identifiers#uids>

### » `port`

### » Attributes

- **name** - The name of this port within the service. All ports within the service must have unique names. Optional if only one `ServicePort` is defined on this service.
- **node\_port** - The port on each node on which this service is exposed when **type** is `NodePort` or `LoadBalancer`. Usually assigned by the system. If specified, it will be allocated to the service if unused or else creation of the service will fail. Default is to auto-allocate a port if the **type** of this service requires one. More info: <http://kubernetes.io/docs/user-guide/services#type--nodeport>
- **port** - The port that will be exposed by this service.

- **protocol** - The IP protocol for this port. Supports TCP and UDP. Default is TCP.
- **target\_port** - Number or name of the port to access on the pods targeted by the service. Number must be in the range 1 to 65535. This field is ignored for services with **cluster\_ip** = "None". More info: <http://kubernetes.io/docs/user-guide/services#defining-a-service>

» **spec**

» **Attributes**

- **cluster\_ip** - The IP address of the service. It is usually assigned randomly by the master. If an address is specified manually and is not in use by others, it will be allocated to the service; otherwise, creation of the service will fail. **None** can be specified for headless services when proxying is not required. Ignored if type is **ExternalName**. More info: <http://kubernetes.io/docs/user-guide/services#virtual-ips-and-service-proxies>
- **external\_ips** - A list of IP addresses for which nodes in the cluster will also accept traffic for this service. These IPs are not managed by Kubernetes. The user is responsible for ensuring that traffic arrives at a node with this IP. A common example is external load-balancers that are not part of the Kubernetes system.
- **external\_name** - The external reference that kubedns or equivalent will return as a CNAME record for this service. No proxying will be involved. Must be a valid DNS name and requires **type** to be **ExternalName**.
- **load\_balancer\_ip** - Only applies to **type** = **LoadBalancer**. LoadBalancer will get created with the IP specified in this field. This feature depends on whether the underlying cloud-provider supports specifying this field when a load balancer is created. This field will be ignored if the cloud-provider does not support the feature.
- **load\_balancer\_source\_ranges** - If specified and supported by the platform, this will restrict traffic through the cloud-provider load-balancer will be restricted to the specified client IPs. This field will be ignored if the cloud-provider does not support the feature. More info: <http://kubernetes.io/docs/user-guide/services-firewalls>
- **port** - The list of ports that are exposed by this service. More info: <http://kubernetes.io/docs/user-guide/services#virtual-ips-and-service-proxies>
- **selector** - Route service traffic to pods with label keys and values matching this selector. Only applies to types **ClusterIP**, **NodePort**, and **LoadBalancer**. More info: <http://kubernetes.io/docs/user-guide/services#overview>
- **session\_affinity** - Used to maintain session affinity. Supports **ClientIP** and **None**. Defaults to **None**. More info: <http://kubernetes.io/docs/user-guide/services#virtual-ips-and-service-proxies>
- **type** - Determines how the service is exposed. Defaults to **ClusterIP**.

Valid options are `ExternalName`, `ClusterIP`, `NodePort`, and `LoadBalancer`. `ExternalName` maps to the specified `external_name`. More info: <http://kubernetes.io/docs/user-guide/services#overview>

#### » `load_balancer_ingress`

#### » Attributes

- `hostname` - Hostname which is set for load-balancer ingress points that are DNS based (typically AWS load-balancers)
- `ip` - IP which is set for load-balancer ingress points that are IP based (typically GCE or OpenStack load-balancers)

#### » `kubernetes__storage__class`

Storage class is the foundation of dynamic provisioning, allowing cluster administrators to define abstractions for the underlying storage platform.

Read more at <http://blog.kubernetes.io/2017/03/dynamic-provisioning-and-storage-classes-kubernetes.html>

#### » Example Usage

```
data "kubernetes_storage_class" "example" {
  metadata {
    name = "terraform-example"
  }
}
```

#### » Argument Reference

The following arguments are supported:

- `metadata` - (Required) Standard storage class's metadata. More info: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#metadata>

#### » Nested Blocks

##### » `metadata`

##### » Arguments

- **name** - (Required) Name of the storage class, must be unique. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>

#### » Attributes

- **generation** - A sequence number representing a specific generation of the desired state.
- **resource\_version** - An opaque value that represents the internal version of this storage class that can be used by clients to determine when storage class has changed. Read more: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#concurrency-control-and-consistency>
- **self\_link** - A URL representing this storage class.
- **uid** - The unique in time and space value for this storage class. More info: <http://kubernetes.io/docs/user-guide/identifiers#uids>

#### » Argument Reference

The following attributes are exported:

- **parameters** - The parameters for the provisioner that creates volume of this storage class. Read more about available parameters.
- **storage\_provisioner** - Indicates the type of the provisioner this storage class represents

### » `kubernetes_config_map`

The resource provides mechanisms to inject containers with configuration data while keeping containers agnostic of Kubernetes. Config Map can be used to store fine-grained information like individual properties or coarse-grained information like entire config files or JSON blobs.

#### » Example Usage

```
resource "kubernetes_config_map" "example" {
  metadata {
    name = "my-config"
  }

  data {
    api_host = "myhost:443"
    db_host  = "dbhost:5432"
  }
}
```

}

## » Argument Reference

The following arguments are supported:

- **data** - (Optional) A map of the configuration data.
- **metadata** - (Required) Standard config map's metadata. More info: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#metadata>

## » Nested Blocks

### » **metadata**

### » Arguments

- **annotations** - (Optional) An unstructured key value map stored with the config map that may be used to store arbitrary metadata. More info: <http://kubernetes.io/docs/user-guide/annotations>
- **generate\_name** - (Optional) Prefix, used by the server, to generate a unique name ONLY IF the **name** field has not been provided. This value will also be combined with a unique suffix. Read more: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#idempotency>
- **labels** - (Optional) Map of string keys and values that can be used to organize and categorize (scope and select) the config map. May match selectors of replication controllers and services. More info: <http://kubernetes.io/docs/user-guide/labels>
- **name** - (Optional) Name of the config map, must be unique. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>
- **namespace** - (Optional) Namespace defines the space within which name of the config map must be unique.

### » Attributes

- **generation** - A sequence number representing a specific generation of the desired state.
- **resource\_version** - An opaque value that represents the internal version of this config map that can be used by clients to determine when config map has changed. Read more: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#concurrency-control-and-consistency>
- **self\_link** - A URL representing this config map.

- **uid** - The unique in time and space value for this config map. More info: <http://kubernetes.io/docs/user-guide/identifiers#uids>

## » Import

Config Map can be imported using its namespace and name, e.g.

```
$ terraform import kubernetes_config_map.example default/my-config
```

## » `kubernetes__horizontal__pod__autoscaler`

Horizontal Pod Autoscaler automatically scales the number of pods in a replication controller, deployment or replica set based on observed CPU utilization.

## » Example Usage

```
resource "kubernetes_horizontal_pod_autoscaler" "example" {
  metadata {
    name = "terraform-example"
  }
  spec {
    max_replicas = 10
    min_replicas = 8
    scale_target_ref {
      kind = "ReplicationController"
      name = "MyApp"
    }
  }
}
```

## » Argument Reference

The following arguments are supported:

- **metadata** - (Required) Standard horizontal pod autoscaler's metadata. More info: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#metadata>
- **spec** - (Required) Behaviour of the autoscaler. More info: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#spec-and-status>

## » Nested Blocks

### » metadata

### » Arguments

- **annotations** - (Optional) An unstructured key value map stored with the horizontal pod autoscaler that may be used to store arbitrary metadata. More info: <http://kubernetes.io/docs/user-guide/annotations>
- **generate\_name** - (Optional) Prefix, used by the server, to generate a unique name ONLY IF the **name** field has not been provided. This value will also be combined with a unique suffix. Read more: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#idempotency>
- **labels** - (Optional) Map of string keys and values that can be used to organize and categorize (scope and select) the horizontal pod autoscaler. May match selectors of replication controllers and services. More info: <http://kubernetes.io/docs/user-guide/labels>
- **name** - (Optional) Name of the horizontal pod autoscaler, must be unique. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>
- **namespace** - (Optional) Namespace defines the space within which name of the horizontal pod autoscaler must be unique.

### » Attributes

- **generation** - A sequence number representing a specific generation of the desired state.
- **resource\_version** - An opaque value that represents the internal version of this horizontal pod autoscaler that can be used by clients to determine when horizontal pod autoscaler has changed. Read more: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#concurrency-control-and-consistency>
- **self\_link** - A URL representing this horizontal pod autoscaler.
- **uid** - The unique in time and space value for this horizontal pod autoscaler. More info: <http://kubernetes.io/docs/user-guide/identifiers#uids>

### » spec

### » Arguments

- **max\_replicas** - (Required) Upper limit for the number of pods that can be set by the autoscaler.
- **min\_replicas** - (Optional) Lower limit for the number of pods that can be set by the autoscaler, defaults to 1.



- **scale\_target\_ref** - (Required) Reference to scaled resource. e.g. Replication Controller
- **target\_cpu\_utilization\_percentage** - (Optional) Target average CPU utilization (represented as a percentage of requested CPU) over all the pods. If not specified the default autoscaling policy will be used.

» **scale\_target\_ref**

» **Arguments**

- **api\_version** - (Optional) API version of the referent
- **kind** - (Required) Kind of the referent. e.g. `ReplicationController`. More info: <http://releases.k8s.io/HEAD/docs/devel/api-conventions.md#types-kinds>
- **name** - (Required) Name of the referent. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>

» **Import**

Horizontal Pod Autoscaler can be imported using the namespace and name, e.g.

```
$ terraform import kubernetes_horizontal_pod_autoscaler.example default/terraform-example
```

» **kubernetes\_limit\_range**

Limit Range sets resource usage limits (e.g. memory, cpu, storage) for supported kinds of resources in a namespace.

Read more in the official docs.

» **Example Usage**

```
resource "kubernetes_limit_range" "example" {
  metadata {
    name = "terraform-example"
  }
  spec {
    limit {
      type = "Pod"
      max {
        cpu = "200m"
        memory = "1024M"
      }
    }
  }
}
```

```

    }
    limit {
        type = "PersistentVolumeClaim"
        min {
            storage = "24M"
        }
    }
    limit {
        type = "Container"
        default {
            cpu = "50m"
            memory = "24M"
        }
    }
}
}

```

## » Argument Reference

The following arguments are supported:

- **metadata** - (Required) Standard limit range's metadata. More info: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#metadata>
- **spec** - (Optional) Spec defines the limits enforced. More info: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#spec-and-status>

## » Nested Blocks

### » spec

#### » Arguments

- **limit** - (Optional) The list of limits that are enforced.

### » limit

#### » Arguments

- **default** - (Optional) Default resource requirement limit value by resource name if resource limit is omitted.
- **default\_request** - (Optional) The default resource requirement request value by resource name if resource request is omitted.
- **max** - (Optional) Max usage constraints on this kind by resource name.

- **max\_limit\_request\_ratio** - (Optional) The named resource must have a request and limit that are both non-zero where limit divided by request is less than or equal to the enumerated value; this represents the max burst for the named resource.
- **min** - (Optional) Min usage constraints on this kind by resource name.
- **type** - (Optional) Type of resource that this limit applies to. e.g. Pod, Container or PersistentVolumeClaim

#### » metadata

#### » Arguments

- **annotations** - (Optional) An unstructured key value map stored with the limit range that may be used to store arbitrary metadata. More info: <http://kubernetes.io/docs/user-guide/annotations>
- **generate\_name** - (Optional) Prefix, used by the server, to generate a unique name ONLY IF the **name** field has not been provided. This value will also be combined with a unique suffix. Read more: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#idempotency>
- **labels** - (Optional) Map of string keys and values that can be used to organize and categorize (scope and select) the limit range. May match selectors of replication controllers and services. More info: <http://kubernetes.io/docs/user-guide/labels>
- **name** - (Optional) Name of the limit range, must be unique. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>
- **namespace** - (Optional) Namespace defines the space within which name of the limit range must be unique.

#### » Attributes

- **generation** - A sequence number representing a specific generation of the desired state.
- **resource\_version** - An opaque value that represents the internal version of this limit range that can be used by clients to determine when limit range has changed. Read more: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#concurrency-control-and-consistency>
- **self\_link** - A URL representing this limit range.
- **uid** - The unique in time and space value for this limit range. More info: <http://kubernetes.io/docs/user-guide/identifiers#uids>

## » Import

Limit Range can be imported using its namespace and name, e.g.

```
$ terraform import kubernetes_limit_range.example default/terraform-example
```

## » kubernetes\_\_namespace

Kubernetes supports multiple virtual clusters backed by the same physical cluster. These virtual clusters are called namespaces. Read more about namespaces at <https://kubernetes.io/docs/user-guide/namespaces/>

## » Example Usage

```
resource "kubernetes_namespace" "example" {  
  metadata {  
    annotations {  
      name = "example-annotation"  
    }  
  
    labels {  
      mylabel = "label-value"  
    }  
  
    name = "terraform-example-namespace"  
  }  
}
```

## » Argument Reference

The following arguments are supported:

- `metadata` - (Required) Standard namespace's metadata.

## » Nested Blocks

### » `metadata`

### » Arguments

- `annotations` - (Optional) An unstructured key value map stored with the namespace that may be used to store arbitrary metadata. More info: <http://kubernetes.io/docs/user-guide/annotations>

- **generate\_name** - (Optional) Prefix, used by the server, to generate a unique name ONLY IF the **name** field has not been provided. This value will also be combined with a unique suffix. Read more about name idempotency.
- **labels** - (Optional) Map of string keys and values that can be used to organize and categorize (scope and select) namespaces. May match selectors of replication controllers and services. More info: <http://kubernetes.io/docs/user-guide/labels>
- **name** - (Optional) Name of the namespace, must be unique. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>

#### » Attributes

- **generation** - A sequence number representing a specific generation of the desired state.
- **resource\_version** - An opaque value that represents the internal version of this namespace that can be used by clients to determine when namespaces have changed. Read more about concurrency control and consistency.
- **self\_link** - A URL representing this namespace.
- **uid** - The unique in time and space value for this namespace. More info: <http://kubernetes.io/docs/user-guide/identifiers#uids>

#### » Import

Namespaces can be imported using their name, e.g.

```
$ terraform import kubernetes_namespace.n terraform-example-namespace
```

#### » `kubernetes_persistent_volume`

The resource provides a piece of networked storage in the cluster provisioned by an administrator. It is a resource in the cluster just like a node is a cluster resource. Persistent Volumes have a lifecycle independent of any individual pod that uses the PV.

More info: <https://kubernetes.io/docs/concepts/storage/persistent-volumes/>

#### » Example Usage

```
resource "kubernetes_persistent_volume" "example" {
  metadata {
```

```

        name = "terraform-example"
    }
    spec {
        capacity {
            storage = "2Gi"
        }
        access_modes = ["ReadWriteMany"]
        persistent_volume_source {
            vsphere_volume {
                volume_path = "/absolute/path"
            }
        }
    }
}

```

## » Argument Reference

The following arguments are supported:

- **metadata** - (Required) Standard persistent volume's metadata. More info: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#metadata>
- **spec** - (Required) Spec of the persistent volume owned by the cluster. See below.

## » Nested Blocks

### » spec

#### » Arguments

- **access\_modes** - (Required) Contains all ways the volume can be mounted. More info: <http://kubernetes.io/docs/user-guide/persistent-volumes#access-modes>
- **capacity** - (Required) A description of the persistent volume's resources and capacity. More info: <http://kubernetes.io/docs/user-guide/persistent-volumes#capacity>
- **persistent\_volume\_reclaim\_policy** - (Optional) What happens to a persistent volume when released from its claim. Valid options are Retain (default) and Recycle. Recycling must be supported by the volume plugin underlying this persistent volume. More info: <http://kubernetes.io/docs/user-guide/persistent-volumes#recycling-policy>
- **persistent\_volume\_source** - (Required) The specification of a persistent volume.

- **storage\_class\_name** - (Optional) The name of the persistent volume's storage class. More info: <https://kubernetes.io/docs/concepts/storage/persistent-volumes/#class>

## » **persistent\_volume\_source**

### » **Arguments**

- **aws\_elastic\_block\_store** - (Optional) Represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <http://kubernetes.io/docs/user-guide/volumes#awselasticblockstore>
- **azure\_disk** - (Optional) Represents an Azure Data Disk mount on the host and bind mount to the pod.
- **azure\_file** - (Optional) Represents an Azure File Service mount on the host and bind mount to the pod.
- **ceph\_fs** - (Optional) Represents a Ceph FS mount on the host that shares a pod's lifetime
- **cinder** - (Optional) Represents a cinder volume attached and mounted on kubelets host machine. More info: <http://releases.k8s.io/HEAD/examples/mysql-cinder-pd/README.md>
- **fc** - (Optional) Represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
- **flex\_volume** - (Optional) Represents a generic volume resource that is provisioned/attached using an exec based plugin. This is an alpha feature and may change in future.
- **flocker** - (Optional) Represents a Flocker volume attached to a kubelet's host machine and exposed to the pod for its usage. This depends on the Flocker control service being running
- **gce\_persistent\_disk** - (Optional) Represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. Provisioned by an admin. More info: <http://kubernetes.io/docs/user-guide/volumes#gcepersistentdisk>
- **glusterfs** - (Optional) Represents a Glusterfs volume that is attached to a host and exposed to the pod. Provisioned by an admin. More info: <http://releases.k8s.io/HEAD/examples/volumes/glusterfs/README.md>
- **host\_path** - (Optional) Represents a directory on the host. Provisioned by a developer or tester. This is useful for single-node development and testing only! On-host storage is not supported in any way and WILL NOT WORK in a multi-node cluster. More info: <http://kubernetes.io/docs/user-guide/volumes#hostpath>
- **iscsi** - (Optional) Represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. Provisioned by an admin.
- **nfs** - (Optional) Represents an NFS mount on the host. Provisioned by

an admin. More info: <http://kubernetes.io/docs/user-guide/volumes#nfs>

- **photon\_persistent\_disk** - (Optional) Represents a PhotonController persistent disk attached and mounted on kubelets host machine
- **quobyte** - (Optional) Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
- **rbd** - (Optional) Represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <http://releases.k8s.io/HEAD/examples/volumes/rbd/README.md>
- **vsphere\_volume** - (Optional) Represents a vSphere volume attached and mounted on kubelets host machine

#### » **aws\_elastic\_block\_store**

##### » **Arguments**

- **fs\_type** - (Optional) Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <http://kubernetes.io/docs/user-guide/volumes#awselasticblockstore>
- **partition** - (Optional) The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
- **read\_only** - (Optional) Whether to set the read-only property in VolumeMounts to "true". If omitted, the default is "false". More info: <http://kubernetes.io/docs/user-guide/volumes#awselasticblockstore>
- **volume\_id** - (Required) Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <http://kubernetes.io/docs/user-guide/volumes#awselasticblockstore>

#### » **azure\_disk**

##### » **Arguments**

- **caching\_mode** - (Required) Host Caching mode: None, Read Only, Read Write.
- **data\_disk\_uri** - (Required) The URI the data disk in the blob storage
- **disk\_name** - (Required) The Name of the data disk in the blob storage
- **fs\_type** - (Optional) Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
- **read\_only** - (Optional) Whether to force the read-only setting in VolumeMounts. Defaults to false (read/write).



» **azure\_file**

» **Arguments**

- **read\_only** - (Optional) Whether to force the read-only setting in VolumeMounts. Defaults to false (read/write).
- **secret\_name** - (Required) The name of secret that contains Azure Storage Account Name and Key
- **share\_name** - (Required) Share Name

» **ceph\_fs**

» **Arguments**

- **monitors** - (Required) Monitors is a collection of Ceph monitors More info: <http://releases.k8s.io/HEAD/examples/volumes/cephfs/README.md#how-to-use-it>
- **path** - (Optional) Used as the mounted root, rather than the full Ceph tree, default is /
- **read\_only** - (Optional) Whether to force the read-only setting in VolumeMounts. Defaults to **false** (read/write). More info: <http://releases.k8s.io/HEAD/examples/volumes/cephfs/README.md#how-to-use-it>
- **secret\_file** - (Optional) The path to key ring for User, default is /etc/ceph/user.secret More info: <http://releases.k8s.io/HEAD/examples/volumes/cephfs/README.md#how-to-use-it>
- **secret\_ref** - (Optional) Reference to the authentication secret for User, default is empty. More info: <http://releases.k8s.io/HEAD/examples/volumes/cephfs/README.md#how-to-use-it>
- **user** - (Optional) User is the rados user name, default is admin. More info: <http://releases.k8s.io/HEAD/examples/volumes/cephfs/README.md#how-to-use-it>

» **cinder**

» **Arguments**

- **fs\_type** - (Optional) Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <http://releases.k8s.io/HEAD/examples/mysql-cinder-pd/README.md>
- **read\_only** - (Optional) Whether to force the read-only setting in VolumeMounts. Defaults to false (read/write). More info: <http://releases.k8s.io/HEAD/examples/mysql-cinder-pd/README.md>
- **volume\_id** - (Required) Volume ID used to identify the volume in Cinder. More info: <http://releases.k8s.io/HEAD/examples/mysql-cinder-pd/README.md>

» **fc**

» **Arguments**

- **fs\_type** - (Optional) Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
- **lun** - (Required) FC target lun number
- **read\_only** - (Optional) Whether to force the read-only setting in VolumeMounts. Defaults to false (read/write).
- **target\_ww\_ns** - (Required) FC target worldwide names (WWNs)

» **flex\_volume**

» **Arguments**

- **driver** - (Required) Driver is the name of the driver to use for this volume.
- **fs\_type** - (Optional) Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
- **options** - (Optional) Extra command options if any.
- **read\_only** - (Optional) Whether to force the ReadOnly setting in VolumeMounts. Defaults to false (read/write).
- **secret\_ref** - (Optional) Reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

» **flocker**

» **Arguments**

- **dataset\_name** - (Optional) Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
- **dataset\_uuid** - (Optional) UUID of the dataset. This is unique identifier of a Flocker dataset

» **gce\_persistent\_disk**

» **Arguments**

- **fs\_type** - (Optional) Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <http://kubernetes.io/docs/user-guide/volumes#gcepersistentdisk>

- **partition** - (Optional) The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume `/dev/sda1`, you specify the partition as `"1"`. Similarly, the volume partition for `/dev/sda` is `"0"` (or you can leave the property empty). More info: <http://kubernetes.io/docs/user-guide/volumes#gcepersistentdisk>
- **pd\_name** - (Required) Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <http://kubernetes.io/docs/user-guide/volumes#gcepersistentdisk>
- **read\_only** - (Optional) Whether to force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <http://kubernetes.io/docs/user-guide/volumes#gcepersistentdisk>

#### » **glusterfs**

##### » **Arguments**

- **endpoints\_name** - (Required) The endpoint name that details Glusterfs topology. More info: <http://releases.k8s.io/HEAD/examples/volumes/glusterfs/README.md#create-a-pod>
- **path** - (Required) The Glusterfs volume path. More info: <http://releases.k8s.io/HEAD/examples/volumes/glusterfs/README.md#create-a-pod>
- **read\_only** - (Optional) Whether to force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <http://releases.k8s.io/HEAD/examples/volumes/glusterfs/README.md#create-a-pod>

#### » **host\_path**

##### » **Arguments**

- **path** - (Optional) Path of the directory on the host. More info: <http://kubernetes.io/docs/user-guide/volumes#hostpath>

#### » **iscsi**

##### » **Arguments**

- **fs\_type** - (Optional) Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: `"ext4"`, `"xfs"`, `"ntfs"`. Implicitly inferred to be `"ext4"` if unspecified. More info: <http://kubernetes.io/docs/user-guide/volumes#iscsi>
- **iqn** - (Required) Target iSCSI Qualified Name.

- **iscsi\_interface** - (Optional) iSCSI interface name that uses an iSCSI transport. Defaults to 'default' (tcp).
- **lun** - (Optional) iSCSI target lun number.
- **read\_only** - (Optional) Whether to force the read-only setting in VolumeMounts. Defaults to false.
- **target\_portal** - (Required) iSCSI target portal. The portal is either an IP or ip\_addr:port if the port is other than default (typically TCP ports 860 and 3260).

#### » **metadata**

#### » **Arguments**

- **annotations** - (Optional) An unstructured key value map stored with the persistent volume that may be used to store arbitrary metadata. More info: <http://kubernetes.io/docs/user-guide/annotations>
- **labels** - (Optional) Map of string keys and values that can be used to organize and categorize (scope and select) the persistent volume. May match selectors of replication controllers and services. More info: <http://kubernetes.io/docs/user-guide/labels>
- **name** - (Optional) Name of the persistent volume, must be unique. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>

#### » **Attributes**

- **generation** - A sequence number representing a specific generation of the desired state.
- **resource\_version** - An opaque value that represents the internal version of this persistent volume that can be used by clients to determine when persistent volume has changed. Read more: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#concurrency-control-and-consistency>
- **self\_link** - A URL representing this persistent volume.
- **uid** - The unique in time and space value for this persistent volume. More info: <http://kubernetes.io/docs/user-guide/identifiers#uids>

#### » **nfs**

#### » **Arguments**

- **path** - (Required) Path that is exported by the NFS server. More info: <http://kubernetes.io/docs/user-guide/volumes#nfs>

- **read\_only** - (Optional) Whether to force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <http://kubernetes.io/docs/user-guide/volumes#nfs>
- **server** - (Required) Server is the hostname or IP address of the NFS server. More info: <http://kubernetes.io/docs/user-guide/volumes#nfs>

#### » **photon\_persistent\_disk**

##### » **Arguments**

- **fs\_type** - (Optional) Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
- **pd\_id** - (Required) ID that identifies Photon Controller persistent disk

#### » **quobyte**

##### » **Arguments**

- **group** - (Optional) Group to map volume access to Default is no group
- **read\_only** - (Optional) Whether to force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
- **registry** - (Required) Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
- **user** - (Optional) User to map volume access to Defaults to serviceaccount user
- **volume** - (Required) Volume is a string that references an already created Quobyte volume by name.

#### » **rbd**

##### » **Arguments**

- **ceph\_monitors** - (Required) A collection of Ceph monitors. More info: <http://releases.k8s.io/HEAD/examples/volumes/rbd/README.md#how-to-use-it>
- **fs\_type** - (Optional) Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <http://kubernetes.io/docs/user-guide/volumes#rbd>
- **keyring** - (Optional) Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <http://releases.k8s.io/HEAD/examples/volumes/rbd/README.md#how-to-use-it>

- **rados\_user** - (Optional) The rados user name. Default is admin. More info: <http://releases.k8s.io/HEAD/examples/volumes/rbd/README.md#how-to-use-it>
- **rbd\_image** - (Required) The rados image name. More info: <http://releases.k8s.io/HEAD/examples/volumes/rbd/README.md#how-to-use-it>
- **rbd\_pool** - (Optional) The rados pool name. Default is rbd. More info: <http://releases.k8s.io/HEAD/examples/volumes/rbd/README.md#how-to-use-it>.
- **read\_only** - (Optional) Whether to force the read-only setting in VolumeMounts. Defaults to false. More info: <http://releases.k8s.io/HEAD/examples/volumes/rbd/README.md#how-to-use-it>
- **secret\_ref** - (Optional) Name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <http://releases.k8s.io/HEAD/examples/volumes/rbd/README.md#how-to-use-it>

» **secret\_ref**

» **Arguments**

- **name** - (Optional) Name of the referent. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>

» **vsphere\_volume**

» **Arguments**

- **fs\_type** - (Optional) Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
- **volume\_path** - (Required) Path that identifies vSphere volume vmdk

» **Import**

Persistent Volume can be imported using its name, e.g.

```
$ terraform import kubernetes_persistent_volume.example terraform-example
```

» **kubernetes\_persistent\_volume\_claim**

This resource allows the user to request for and claim to a persistent volume.

## » Example Usage

```
resource "kubernetes_persistent_volume_claim" "example" {
  metadata {
    name = "exampleclaimname"
  }
  spec {
    access_modes = ["ReadWriteMany"]
    resources {
      requests {
        storage = "5Gi"
      }
    }
    volume_name = "${kubernetes_persistent_volume.example.metadata.0.name}"
  }
}

resource "kubernetes_persistent_volume" "example" {
  metadata {
    name = "examplevolumename"
  }
  spec {
    capacity {
      storage = "10Gi"
    }
    access_modes = ["ReadWriteMany"]
    persistent_volume_source {
      gce_persistent_disk {
        pd_name = "test-123"
      }
    }
  }
}
```

## » Argument Reference

The following arguments are supported:

- **metadata** - (Required) Standard persistent volume claim's metadata. More info: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#metadata>
- **spec** - (Required) Spec defines the desired characteristics of a volume requested by a pod author. More info: <http://kubernetes.io/docs/user-guide/persistent-volumes#persistentvolumeclaims>

- **wait\_until\_bound** - (Optional) Whether to wait for the claim to reach Bound state (to find volume in which to claim the space)

## » Nested Blocks

### » metadata

### » Arguments

- **annotations** - (Optional) An unstructured key value map stored with the persistent volume claim that may be used to store arbitrary metadata. More info: <http://kubernetes.io/docs/user-guide/annotations>
- **generate\_name** - (Optional) Prefix, used by the server, to generate a unique name ONLY IF the **name** field has not been provided. This value will also be combined with a unique suffix. Read more: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#idempotency>
- **labels** - (Optional) Map of string keys and values that can be used to organize and categorize (scope and select) the persistent volume claim. May match selectors of replication controllers and services. More info: <http://kubernetes.io/docs/user-guide/labels>
- **name** - (Optional) Name of the persistent volume claim, must be unique. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>
- **namespace** - (Optional) Namespace defines the space within which name of the persistent volume claim must be unique.

### » Attributes

- **generation** - A sequence number representing a specific generation of the desired state.
- **resource\_version** - An opaque value that represents the internal version of this persistent volume claim that can be used by clients to determine when persistent volume claim has changed. Read more: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#concurrency-control-and-consistency>
- **self\_link** - A URL representing this persistent volume claim.
- **uid** - The unique in time and space value for this persistent volume claim. More info: <http://kubernetes.io/docs/user-guide/identifiers#uids>

### » spec

### » Arguments



- **access\_modes** - (Required) A set of the desired access modes the volume should have. More info: <http://kubernetes.io/docs/user-guide/persistent-volumes#access-modes-1>
- **resources** - (Required) A list of the minimum resources the volume should have. More info: <http://kubernetes.io/docs/user-guide/persistent-volumes#resources>
- **selector** - (Optional) A label query over volumes to consider for binding.
- **volume\_name** - (Optional) The binding reference to the PersistentVolume backing this claim.
- **storage\_class\_name** - (Optional) Name of the storage class requested by the claim

#### » **match\_expressions**

##### » **Arguments**

- **key** - (Optional) The label key that the selector applies to.
- **operator** - (Optional) A key's relationship to a set of values. Valid operators are **In**, **NotIn**, **Exists** and **DoesNotExist**.
- **values** - (Optional) An array of string values. If the operator is **In** or **NotIn**, the values array must be non-empty. If the operator is **Exists** or **DoesNotExist**, the values array must be empty. This array is replaced during a strategic merge patch.

#### » **resources**

##### » **Arguments**

- **limits** - (Optional) Map describing the maximum amount of compute resources allowed. More info: <http://kubernetes.io/docs/user-guide/compute-resources/>
- **requests** - (Optional) Map describing the minimum amount of compute resources required. If this is omitted for a container, it defaults to **limits** if that is explicitly specified, otherwise to an implementation-defined value. More info: <http://kubernetes.io/docs/user-guide/compute-resources/>

#### » **selector**

##### » **Arguments**

- **match\_expressions** - (Optional) A list of label selector requirements. The requirements are ANDed.
- **match\_labels** - (Optional) A map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of

`match_expressions`, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

## » Import

Persistent Volume Claim can be imported using its namespace and name, e.g.

```
$ terraform import kubernetes_persistent_volume_claim.example default/example-name
```

## » kubernetes\_\_pod

A pod is a group of one or more containers, the shared storage for those containers, and options about how to run the containers. Pods are always co-located and co-scheduled, and run in a shared context.

Read more at <https://kubernetes.io/docs/concepts/workloads/pods/pod/>

## » Example Usage

```
resource "kubernetes_pod" "test" {
  metadata {
    name = "terraform-example"
  }

  spec {
    container {
      image = "nginx:1.7.9"
      name  = "example"
    }
  }
}
```

## » Argument Reference

The following arguments are supported:

- `metadata` - (Required) Standard pod's metadata. More info: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#metadata>
- `spec` - (Required) Spec of the pod owned by the cluster

## » Nested Blocks

### » `metadata`

#### » Arguments

- **annotations** - (Optional) An unstructured key value map stored with the pod that may be used to store arbitrary metadata. More info: <http://kubernetes.io/docs/user-guide/annotations>
- **generate\_name** - (Optional) Prefix, used by the server, to generate a unique name ONLY IF the **name** field has not been provided. This value will also be combined with a unique suffix. Read more: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#idempotency>
- **labels** - (Optional) Map of string keys and values that can be used to organize and categorize (scope and select) the pod. May match selectors of replication controllers and services. More info: <http://kubernetes.io/docs/user-guide/labels>
- **name** - (Optional) Name of the pod, must be unique. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>
- **namespace** - (Optional) Namespace defines the space within which name of the pod must be unique.

#### » Attributes

- **generation** - A sequence number representing a specific generation of the desired state.
- **resource\_version** - An opaque value that represents the internal version of this pod that can be used by clients to determine when pod has changed. Read more: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#concurrency-control-and-consistency>
- **self\_link** - A URL representing this pod.
- **uid** - The unique in time and space value for this pod. More info: <http://kubernetes.io/docs/user-guide/identifiers#uids>

### » `spec`

#### » Arguments

- **active\_deadline\_seconds** - (Optional) Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
- **container** - (Optional) List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one

container in a Pod. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/containers>

- **dns\_policy** - (Optional) Set DNS policy for containers within the pod. One of 'ClusterFirst' or 'Default'. Defaults to 'ClusterFirst'.
- **host\_ipc** - (Optional) Use the host's ipc namespace. Optional: Default to false.
- **host\_network** - (Optional) Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified.
- **host\_pid** - (Optional) Use the host's pid namespace.
- **hostname** - (Optional) Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.
- **image\_pull\_secrets** - (Optional) ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <http://kubernetes.io/docs/user-guide/images#specifying-imagepullsecrets-on-a-pod>
- **node\_name** - (Optional) NodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
- **node\_selector** - (Optional) NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <http://kubernetes.io/docs/user-guide/node-selection>.
- **restart\_policy** - (Optional) Restart policy for all containers within the pod. One of Always, OnFailure, Never. More info: <http://kubernetes.io/docs/user-guide/pod-states#restartpolicy>.
- **security\_context** - (Optional) SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty
- **service\_account\_name** - (Optional) ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: [http://releases.k8s.io/HEAD/docs/design/service\\_accounts.md](http://releases.k8s.io/HEAD/docs/design/service_accounts.md).
- **subdomain** - (Optional) If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all..
- **termination\_grace\_period\_seconds** - (Optional) Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process.
- **volume** - (Optional) List of volumes that can be mounted by containers belonging to the pod. More info: <http://kubernetes.io/docs/user-guide/>

volumes

» **container**

» **Arguments**

- **args** - (Optional) Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references `$(VAR_NAME)` are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The `$(VAR_NAME)` syntax can be escaped with a double `$$`, ie: `$$$(VAR_NAME)`. Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/containers#containers-and-commands>
- **command** - (Optional) Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references `$(VAR_NAME)` are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The `$(VAR_NAME)` syntax can be escaped with a double `$$`, ie: `$$$(VAR_NAME)`. Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/containers#containers-and-commands>
- **env** - (Optional) List of environment variables to set in the container. Cannot be updated.
- **image** - (Optional) Docker image name. More info: <http://kubernetes.io/docs/user-guide/images>
- **image\_pull\_policy** - (Optional) Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/images#updating-images>
- **lifecycle** - (Optional) Actions that the management system should take in response to container lifecycle events
- **liveness\_probe** - (Optional) Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/pod-states#container-probes>
- **name** - (Required) Name of the container specified as a DNS\_LABEL. Each container in a pod must have a unique name (DNS\_LABEL). Cannot be updated.
- **port** - (Optional) List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
- **readiness\_probe** - (Optional) Periodic probe of container service readi-

ness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/pod-states#container-probes>

- **resources** - (Optional) Compute Resources required by this container. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/persistent-volumes#resources>
- **security\_context** - (Optional) Security options the pod should run with. More info: [http://releases.k8s.io/HEAD/docs/design/security\\_context.md](http://releases.k8s.io/HEAD/docs/design/security_context.md)
- **stdin** - (Optional) Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF.
- **stdin\_once** - (Optional) Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF.
- **termination\_message\_path** - (Optional) Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Defaults to `/dev/termination-log`. Cannot be updated.
- **tty** - (Optional) Whether this container should allocate a TTY for itself
- **volume\_mount** - (Optional) Pod volumes to mount into the container's filesystem. Cannot be updated.
- **working\_dir** - (Optional) Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

## » **aws\_elastic\_block\_store**

### » **Arguments**

- **fs\_type** - (Optional) Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <http://kubernetes.io/docs/user-guide/volumes#awselasticblockstore>
- **partition** - (Optional) The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume `/dev/sda1`, you specify the partition as "1". Similarly, the volume partition for `/dev/sda` is "0" (or you can leave the property empty).

- **read\_only** - (Optional) Whether to set the read-only property in VolumeMounts to "true". If omitted, the default is "false". More info: <http://kubernetes.io/docs/user-guide/volumes#awselasticblockstore>
- **volume\_id** - (Required) Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <http://kubernetes.io/docs/user-guide/volumes#awselasticblockstore>

#### » **azure\_disk**

##### » **Arguments**

- **caching\_mode** - (Required) Host Caching mode: None, Read Only, Read Write.
- **data\_disk\_uri** - (Required) The URI the data disk in the blob storage
- **disk\_name** - (Required) The Name of the data disk in the blob storage
- **fs\_type** - (Optional) Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
- **read\_only** - (Optional) Whether to force the read-only setting in VolumeMounts. Defaults to false (read/write).

#### » **azure\_file**

##### » **Arguments**

- **read\_only** - (Optional) Whether to force the read-only setting in VolumeMounts. Defaults to false (read/write).
- **secret\_name** - (Required) The name of secret that contains Azure Storage Account Name and Key
- **share\_name** - (Required) Share Name

#### » **capabilities**

##### » **Arguments**

- **add** - (Optional) Added capabilities
- **drop** - (Optional) Removed capabilities

#### » **ceph\_fs**

##### » **Arguments**

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

- **path** - (Optional) Used as the mounted root, rather than the full Ceph tree, default is /
- **read\_only** - (Optional) Whether to force the read-only setting in VolumeMounts. Defaults to **false** (read/write). More info: <http://releases.k8s.io/HEAD/examples/volumes/cephfs/README.md#how-to-use-it>
- **secret\_file** - (Optional) The path to key ring for User, default is /etc/ceph/user.secret More info: <http://releases.k8s.io/HEAD/examples/volumes/cephfs/README.md#how-to-use-it>
- **secret\_ref** - (Optional) Reference to the authentication secret for User, default is empty. More info: <http://releases.k8s.io/HEAD/examples/volumes/cephfs/README.md#how-to-use-it>
- **user** - (Optional) User is the rados user name, default is admin. More info: <http://releases.k8s.io/HEAD/examples/volumes/cephfs/README.md#how-to-use-it>

» **cinder**

» **Arguments**

- **fs\_type** - (Optional) Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <http://releases.k8s.io/HEAD/examples/mysql-cinder-pd/README.md>
- **read\_only** - (Optional) Whether to force the read-only setting in VolumeMounts. Defaults to false (read/write). More info: <http://releases.k8s.io/HEAD/examples/mysql-cinder-pd/README.md>
- **volume\_id** - (Required) Volume ID used to identify the volume in Cinder. More info: <http://releases.k8s.io/HEAD/examples/mysql-cinder-pd/README.md>

» **config\_map**

» **Arguments**

- **default\_mode** - (Optional) Optional: mode bits to use on created files by default. Must be a value between 0 and 0777. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
- **items** - (Optional) If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume



setup will error. Paths must be relative and may not contain the `..` path or start with `..`.

- **name** - (Optional) Name of the referent. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>

#### » **config\_map\_key\_ref**

##### » **Arguments**

- **key** - (Optional) The key to select.
- **name** - (Optional) Name of the referent. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>

#### » **downward\_api**

##### » **Arguments**

- **default\_mode** - (Optional) Optional: mode bits to use on created files by default. Must be a value between 0 and 0777. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like `fsGroup`, and the result can be other mode bits set.
- **items** - (Optional) If unspecified, each key-value pair in the `Data` field of the referenced `ConfigMap` will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the `ConfigMap`, the volume setup will error. Paths must be relative and may not contain the `..` path or start with `..`.

#### » **empty\_dir**

##### » **Arguments**

- **medium** - (Optional) What type of storage medium should back this directory. The default is `""` which means to use the node's default medium. Must be an empty string (default) or `Memory`. More info: <http://kubernetes.io/docs/user-guide/volumes#emptydir>

#### » **env**

##### » **Arguments**

- **name** - (Required) Name of the environment variable. Must be a `C_IDENTIFIER`

- **value** - (Optional) Variable references `$(VAR_NAME)` are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The `$(VAR_NAME)` syntax can be escaped with a double `$$`, ie: `$$$(VAR_NAME)`. Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to `""`.
- **value\_from** - (Optional) Source for the environment variable's value

#### » **exec**

##### » **Arguments**

- **command** - (Optional) Command is the command line to execute inside the container, the working directory for the command is root (`'/'`) in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

#### » **fc**

##### » **Arguments**

- **fs\_type** - (Optional) Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. `"ext4"`, `"xfs"`, `"ntfs"`. Implicitly inferred to be `"ext4"` if unspecified.
- **lun** - (Required) FC target lun number
- **read\_only** - (Optional) Whether to force the read-only setting in VolumeMounts. Defaults to false (read/write).
- **target\_ww\_ns** - (Required) FC target worldwide names (WWNs)

#### » **field\_ref**

##### » **Arguments**

- **api\_version** - (Optional) Version of the schema the FieldPath is written in terms of, defaults to `"v1"`.
- **field\_path** - (Optional) Path of the field to select in the specified API version

#### » **flex\_volume**

##### » **Arguments**

- **driver** - (Required) Driver is the name of the driver to use for this volume.
- **fs\_type** - (Optional) Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
- **options** - (Optional) Extra command options if any.
- **read\_only** - (Optional) Whether to force the ReadOnly setting in VolumeMounts. Defaults to false (read/write).
- **secret\_ref** - (Optional) Reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

#### » **flocker**

##### » **Arguments**

- **dataset\_name** - (Optional) Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
- **dataset\_uuid** - (Optional) UUID of the dataset. This is unique identifier of a Flocker dataset

#### » **gce\_persistent\_disk**

##### » **Arguments**

- **fs\_type** - (Optional) Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <http://kubernetes.io/docs/user-guide/volumes#gcepersistentdisk>
- **partition** - (Optional) The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <http://kubernetes.io/docs/user-guide/volumes#gcepersistentdisk>
- **pd\_name** - (Required) Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <http://kubernetes.io/docs/user-guide/volumes#gcepersistentdisk>
- **read\_only** - (Optional) Whether to force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <http://kubernetes.io/docs/user-guide/volumes#gcepersistentdisk>

» **git\_repo**

» **Arguments**

- **directory** - (Optional) Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
- **repository** - (Optional) Repository URL
- **revision** - (Optional) Commit hash for the specified revision.

» **glusterfs**

» **Arguments**

- **endpoints\_name** - (Required) The endpoint name that details Glusterfs topology. More info: <http://releases.k8s.io/HEAD/examples/volumes/glusterfs/README.md#create-a-pod>
- **path** - (Required) The Glusterfs volume path. More info: <http://releases.k8s.io/HEAD/examples/volumes/glusterfs/README.md#create-a-pod>
- **read\_only** - (Optional) Whether to force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <http://releases.k8s.io/HEAD/examples/volumes/glusterfs/README.md#create-a-pod>

» **host\_path**

» **Arguments**

- **path** - (Optional) Path of the directory on the host. More info: <http://kubernetes.io/docs/user-guide/volumes#hostpath>

» **http\_get**

» **Arguments**

- **host** - (Optional) Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
- **http\_header** - (Optional) Scheme to use for connecting to the host.
- **path** - (Optional) Path to access on the HTTP server.
- **port** - (Optional) Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA\_SVC\_NAME.
- **scheme** - (Optional) Scheme to use for connecting to the host.

» **http\_header**

» **Arguments**

- **name** - (Optional) The header field name
- **value** - (Optional) The header field value

» **image\_pull\_secrets**

» **Arguments**

- **name** - (Required) Name of the referent. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>

» **iscsi**

» **Arguments**

- **fs\_type** - (Optional) Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <http://kubernetes.io/docs/user-guide/volumes#iscsi>
- **iqn** - (Required) Target iSCSI Qualified Name.
- **iscsi\_interface** - (Optional) iSCSI interface name that uses an iSCSI transport. Defaults to 'default' (tcp).
- **lun** - (Optional) iSCSI target lun number.
- **read\_only** - (Optional) Whether to force the read-only setting in VolumeMounts. Defaults to false.
- **target\_portal** - (Required) iSCSI target portal. The portal is either an IP or ip\_addr:port if the port is other than default (typically TCP ports 860 and 3260).

» **items**

» **Arguments**

- **key** - (Optional) The key to project.
- **mode** - (Optional) Optional: mode bits to use on this file, must be a value between 0 and 0777. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
- **path** - (Optional) The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

## » **lifecycle**

### » **Arguments**

- **post\_start** - (Optional) `post_start` is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <http://kubernetes.io/docs/user-guide/container-environment#hook-details>
- **pre\_stop** - (Optional) `pre_stop` is called immediately before a container is terminated. The container is terminated after the handler completes. The reason for termination is passed to the handler. Regardless of the outcome of the handler, the container is eventually terminated. Other management of the container blocks until the hook completes. More info: <http://kubernetes.io/docs/user-guide/container-environment#hook-details>

## » **limits**

### » **Arguments**

- **cpu** - (Optional) CPU
- **memory** - (Optional) Memory

## » **liveness\_probe**

### » **Arguments**

- **exec** - (Optional) `exec` specifies the action to take.
- **failure\_threshold** - (Optional) Minimum consecutive failures for the probe to be considered failed after having succeeded.
- **http\_get** - (Optional) Specifies the http request to perform.
- **initial\_delay\_seconds** - (Optional) Number of seconds after the container has started before liveness probes are initiated. More info: <http://kubernetes.io/docs/user-guide/pod-states#container-probes>
- **period\_seconds** - (Optional) How often (in seconds) to perform the probe
- **success\_threshold** - (Optional) Minimum consecutive successes for the probe to be considered successful after having failed.
- **tcp\_socket** - (Optional) `TCPSocket` specifies an action involving a TCP port. TCP hooks not yet supported
- **timeout\_seconds** - (Optional) Number of seconds after which the probe times out. More info: <http://kubernetes.io/docs/user-guide/pod-states#container-probes>

» **nfs**

» **Arguments**

- **path** - (Required) Path that is exported by the NFS server. More info: <http://kubernetes.io/docs/user-guide/volumes#nfs>
- **read\_only** - (Optional) Whether to force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <http://kubernetes.io/docs/user-guide/volumes#nfs>
- **server** - (Required) Server is the hostname or IP address of the NFS server. More info: <http://kubernetes.io/docs/user-guide/volumes#nfs>

» **persistent\_volume\_claim**

» **Arguments**

- **claim\_name** - (Optional) ClaimName is the name of a PersistentVolumeClaim in the same
- **read\_only** - (Optional) Will force the ReadOnly setting in VolumeMounts.

» **photon\_persistent\_disk**

» **Arguments**

- **fs\_type** - (Optional) Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
- **pd\_id** - (Required) ID that identifies Photon Controller persistent disk

» **port**

» **Arguments**

- **container\_port** - (Required) Number of port to expose on the pod's IP address. This must be a valid port number,  $0 < x < 65536$ .
- **host\_ip** - (Optional) What host IP to bind the external port to.
- **host\_port** - (Optional) Number of port to expose on the host. If specified, this must be a valid port number,  $0 < x < 65536$ . If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
- **name** - (Optional) If specified, this must be an IANA\_SVC\_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services
- **protocol** - (Optional) Protocol for port. Must be UDP or TCP. Defaults to "TCP".

» **post\_start**

» **Arguments**

- **exec** - (Optional) exec specifies the action to take.
- **http\_get** - (Optional) Specifies the http request to perform.
- **tcp\_socket** - (Optional) TCP Socket specifies an action involving a TCP port. TCP hooks not yet supported

» **pre\_stop**

» **Arguments**

- **exec** - (Optional) exec specifies the action to take.
- **http\_get** - (Optional) Specifies the http request to perform.
- **tcp\_socket** - (Optional) TCP Socket specifies an action involving a TCP port. TCP hooks not yet supported

» **quobyte**

» **Arguments**

- **group** - (Optional) Group to map volume access to Default is no group
- **read\_only** - (Optional) Whether to force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
- **registry** - (Required) Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
- **user** - (Optional) User to map volume access to Defaults to serviceaccount user
- **volume** - (Required) Volume is a string that references an already created Quobyte volume by name.

» **rbd**

» **Arguments**

- **ceph\_monitors** - (Required) A collection of Ceph monitors. More info: <http://releases.k8s.io/HEAD/examples/volumes/rbd/README.md#how-to-use-it>
- **fs\_type** - (Optional) Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <http://kubernetes.io/docs/user-guide/volumes#rbd>



- **keyring** - (Optional) Keyring is the path to key ring for RBDUser. Default is `/etc/ceph/keyring`. More info: <http://releases.k8s.io/HEAD/examples/volumes/rbd/README.md#how-to-use-it>
- **rados\_user** - (Optional) The rados user name. Default is `admin`. More info: <http://releases.k8s.io/HEAD/examples/volumes/rbd/README.md#how-to-use-it>
- **rbd\_image** - (Required) The rados image name. More info: <http://releases.k8s.io/HEAD/examples/volumes/rbd/README.md#how-to-use-it>
- **rbd\_pool** - (Optional) The rados pool name. Default is `rbd`. More info: <http://releases.k8s.io/HEAD/examples/volumes/rbd/README.md#how-to-use-it>
- **read\_only** - (Optional) Whether to force the read-only setting in VolumeMounts. Defaults to `false`. More info: <http://releases.k8s.io/HEAD/examples/volumes/rbd/README.md#how-to-use-it>
- **secret\_ref** - (Optional) Name of the authentication secret for RBDUser. If provided overrides keyring. Default is `nil`. More info: <http://releases.k8s.io/HEAD/examples/volumes/rbd/README.md#how-to-use-it>

#### » **readiness\_probe**

##### » **Arguments**

- **exec** - (Optional) `exec` specifies the action to take.
- **failure\_threshold** - (Optional) Minimum consecutive failures for the probe to be considered failed after having succeeded.
- **http\_get** - (Optional) Specifies the http request to perform.
- **initial\_delay\_seconds** - (Optional) Number of seconds after the container has started before liveness probes are initiated. More info: <http://kubernetes.io/docs/user-guide/pod-states#container-probes>
- **period\_seconds** - (Optional) How often (in seconds) to perform the probe
- **success\_threshold** - (Optional) Minimum consecutive successes for the probe to be considered successful after having failed.
- **tcp\_socket** - (Optional) TCP socket specifies an action involving a TCP port. TCP hooks not yet supported
- **timeout\_seconds** - (Optional) Number of seconds after which the probe times out. More info: <http://kubernetes.io/docs/user-guide/pod-states#container-probes>

#### » **resources**

##### » **Arguments**

- **limits** - (Optional) Describes the maximum amount of compute resources allowed. More info: <http://kubernetes.io/docs/user-guide/compute-resources>

resources/

- **requests** - (Optional) Describes the minimum amount of compute resources required.

» **requests**

» **Arguments**

- **cpu** - (Optional) CPU
- **memory** - (Optional) Memory

» **resource\_field\_ref**

» **Arguments**

- **container\_name** - (Optional) The name of the container
- **resource** - (Required) Resource to select

» **se\_linux\_options**

» **Arguments**

- **level** - (Optional) Level is SELinux level label that applies to the container.
- **role** - (Optional) Role is a SELinux role label that applies to the container.
- **type** - (Optional) Type is a SELinux type label that applies to the container.
- **user** - (Optional) User is a SELinux user label that applies to the container.

» **secret**

» **Arguments**

- **default\_mode** - (Optional) Mode bits to use on created files by default. Must be a value between 0 and 0777. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
- **items** - (Optional) List of Secret Items to project into the volume. See **items** block definition below. If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret,

the volume setup will error unless it is marked **optional**. Paths must be relative and may not contain the `..` path or start with `..`.

- **optional** - (Optional) Specify whether the Secret or its keys must be defined.
- **secret\_name** - (Optional) Name of the secret in the pod's namespace to use. More info: <http://kubernetes.io/docs/user-guide/volumes#secrets>

The **items** block supports the following:

- **key** - (Required) The key to project.
- **mode** - (Optional) Mode bits to use on this file, must be a value between 0 and 0777. If not specified, the volume defaultMode will be used.
- **path** - (Required) The relative path of the file to map the key to. May not be an absolute path. May not contain the path element `..`. May not start with the string `..`.

#### » **secret\_key\_ref**

##### » **Arguments**

- **key** - (Optional) The key of the secret to select from. Must be a valid secret key.
- **name** - (Optional) Name of the referent. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>

#### » **secret\_ref**

##### » **Arguments**

- **name** - (Optional) Name of the referent. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>

#### » **security\_context**

##### » **Arguments**

- **fs\_group** - (Optional) A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod: 1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw---- If unset, the Kubelet will not modify the ownership and permissions of any volume.
- **run\_as\_non\_root** - (Optional) Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to

ensure that it does not run as UID 0 (root) and fail to start the container if it does.

- **run\_as\_user** - (Optional) The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified
- **se\_linux\_options** - (Optional) The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
- **supplemental\_groups** - (Optional) A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.

#### » tcp\_socket

##### » Arguments

- **port** - (Required) Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA\_SVC\_NAME.

#### » value\_from

##### » Arguments

- **config\_map\_key\_ref** - (Optional) Selects a key of a ConfigMap.
- **field\_ref** - (Optional) Selects a field of the pod: supports metadata.name, metadata.namespace, metadata.labels, metadata.annotations, spec.nodeName, spec.serviceAccountName, status.podIP..
- **resource\_field\_ref** - (Optional) Selects a field of the pod: supports metadata.name, metadata.namespace, metadata.labels, metadata.annotations, spec.nodeName, spec.serviceAccountName, status.podIP..
- **secret\_key\_ref** - (Optional) Selects a field of the pod: supports metadata.name, metadata.namespace, metadata.labels, metadata.annotations, spec.nodeName, spec.serviceAccountName, status.podIP..

#### » volume

##### » Arguments

- **aws\_elastic\_block\_store** - (Optional) Represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <http://kubernetes.io/docs/user-guide/volumes#awselasticblockstore>

- **azure\_disk** - (Optional) Represents an Azure Data Disk mount on the host and bind mount to the pod.
- **azure\_file** - (Optional) Represents an Azure File Service mount on the host and bind mount to the pod.
- **ceph\_fs** - (Optional) Represents a Ceph FS mount on the host that shares a pod's lifetime
- **cinder** - (Optional) Represents a cinder volume attached and mounted on kubelets host machine. More info: <http://releases.k8s.io/HEAD/examples/mysql-cinder-pd/README.md>
- **config\_map** - (Optional) ConfigMap represents a configMap that should populate this volume
- **downward\_api** - (Optional) DownwardAPI represents downward API about the pod that should populate this volume
- **empty\_dir** - (Optional) EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <http://kubernetes.io/docs/user-guide/volumes#emptydir>
- **fc** - (Optional) Represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
- **flex\_volume** - (Optional) Represents a generic volume resource that is provisioned/attached using an exec based plugin. This is an alpha feature and may change in future.
- **flocker** - (Optional) Represents a Flocker volume attached to a kubelet's host machine and exposed to the pod for its usage. This depends on the Flocker control service being running
- **gce\_persistent\_disk** - (Optional) Represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. Provisioned by an admin. More info: <http://kubernetes.io/docs/user-guide/volumes#gcepersistentdisk>
- **git\_repo** - (Optional) GitRepo represents a git repository at a particular revision.
- **glusterfs** - (Optional) Represents a Glusterfs volume that is attached to a host and exposed to the pod. Provisioned by an admin. More info: <http://releases.k8s.io/HEAD/examples/volumes/glusterfs/README.md>
- **host\_path** - (Optional) Represents a directory on the host. Provisioned by a developer or tester. This is useful for single-node development and testing only! On-host storage is not supported in any way and WILL NOT WORK in a multi-node cluster. More info: <http://kubernetes.io/docs/user-guide/volumes#hostpath>
- **iscsi** - (Optional) Represents an iSCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. Provisioned by an admin.
- **name** - (Optional) Volume's name. Must be a DNS\_LABEL and unique within the pod. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>
- **nfs** - (Optional) Represents an NFS mount on the host. Provisioned by an admin. More info: <http://kubernetes.io/docs/user-guide/volumes#nfs>

- **persistent\_volume\_claim** - (Optional) The specification of a persistent volume.
- **photon\_persistent\_disk** - (Optional) Represents a PhotonController persistent disk attached and mounted on kubelets host machine
- **quobyte** - (Optional) Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
- **rbd** - (Optional) Represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <http://releases.k8s.io/HEAD/examples/volumes/rbd/README.md>
- **secret** - (Optional) Secret represents a secret that should populate this volume. More info: <http://kubernetes.io/docs/user-guide/volumes#secrets>
- **vsphere\_volume** - (Optional) Represents a vSphere volume attached and mounted on kubelets host machine

#### » **volume\_mount**

##### » **Arguments**

- **mount\_path** - (Required) Path within the container at which the volume should be mounted. Must not contain ':'.
- **name** - (Required) This must match the Name of a Volume.
- **read\_only** - (Optional) Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
- **sub\_path** - (Optional) Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).

#### » **vsphere\_volume**

##### » **Arguments**

- **fs\_type** - (Optional) Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
- **volume\_path** - (Required) Path that identifies vSphere volume vmdk

#### » **Import**

Pod can be imported using the namespace and name, e.g.

```
$ terraform import kubernetes_pod.example default/terraform-example
```

## » kubernetes\_replication\_controller

A Replication Controller ensures that a specified number of pod “replicas” are running at any one time. In other words, a Replication Controller makes sure that a pod or homogeneous set of pods are always up and available. If there are too many pods, it will kill some. If there are too few, the Replication Controller will start more.

### » Example Usage

```
resource "kubernetes_replication_controller" "example" {
  metadata {
    name = "terraform-example"
    labels {
      test = "MyExampleApp"
    }
  }

  spec {
    selector {
      test = "MyExampleApp"
    }
    template {
      container {
        image = "nginx:1.7.8"
        name  = "example"

        resources{
          limits{
            cpu    = "0.5"
            memory = "512Mi"
          }
          requests{
            cpu    = "250m"
            memory = "50Mi"
          }
        }
      }
    }
  }
}
```

## » Argument Reference

The following arguments are supported:

- **metadata** - (Required) Standard replication controller's metadata. More info: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#metadata>
- **spec** - (Required) Spec defines the specification of the desired behavior of the replication controller. More info: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#spec-and-status>

## » Nested Blocks

### » metadata

### » Arguments

- **annotations** - (Optional) An unstructured key value map stored with the replication controller that may be used to store arbitrary metadata. More info: <http://kubernetes.io/docs/user-guide/annotations>
- **generate\_name** - (Optional) Prefix, used by the server, to generate a unique name ONLY IF the **name** field has not been provided. This value will also be combined with a unique suffix. Read more: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#idempotency>
- **labels** - (Optional) Map of string keys and values that can be used to organize and categorize (scope and select) the replication controller. **Must match selector**. More info: <http://kubernetes.io/docs/user-guide/labels>
- **name** - (Optional) Name of the replication controller, must be unique. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>
- **namespace** - (Optional) Namespace defines the space within which name of the replication controller must be unique.

### » Attributes

- **generation** - A sequence number representing a specific generation of the desired state.
- **resource\_version** - An opaque value that represents the internal version of this replication controller that can be used by clients to determine when replication controller has changed. Read more: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#concurrency-control-and-consistency>



- **self\_link** - A URL representing this replication controller.
- **uid** - The unique in time and space value for this replication controller. More info: <http://kubernetes.io/docs/user-guide/identifiers#uids>

#### » spec

#### » Arguments

- **min\_ready\_seconds** - (Optional) Minimum number of seconds for which a newly created pod should be ready without any of its container crashing, for it to be considered available. Defaults to 0 (pod will be considered available as soon as it is ready)
- **replicas** - (Optional) The number of desired replicas. Defaults to 1. More info: <http://kubernetes.io/docs/user-guide/replication-controller#what-is-a-replication-controller>
- **selector** - (Required) A label query over pods that should match the Replicas count. Label keys and values that must match in order to be controlled by this replication controller. **Must match labels (metadata.0.labels)**. More info: <http://kubernetes.io/docs/user-guide/labels#label-selectors>
- **template** - (Required) Describes the pod that will be created if insufficient replicas are detected. This takes precedence over a TemplateRef. More info: <http://kubernetes.io/docs/user-guide/replication-controller#pod-template>

#### » template

#### » Arguments

- **active\_deadline\_seconds** - (Optional) Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
- **container** - (Optional) List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/containers>
- **dns\_policy** - (Optional) Set DNS policy for containers within the pod. One of 'ClusterFirst' or 'Default'. Defaults to 'ClusterFirst'.
- **host\_ipc** - (Optional) Use the host's ipc namespace. Optional: Default to false.
- **host\_network** - (Optional) Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified.
- **host\_pid** - (Optional) Use the host's pid namespace.

- **hostname** - (Optional) Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.
- **image\_pull\_secrets** - (Optional) ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <http://kubernetes.io/docs/user-guide/images#specifying-imagepullsecrets-on-a-pod>
- **node\_name** - (Optional) NodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
- **node\_selector** - (Optional) NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <http://kubernetes.io/docs/user-guide/node-selection>.
- **restart\_policy** - (Optional) Restart policy for all containers within the pod. One of Always, OnFailure, Never. More info: <http://kubernetes.io/docs/user-guide/pod-states#restartpolicy>.
- **security\_context** - (Optional) SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty
- **service\_account\_name** - (Optional) ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: [http://releases.k8s.io/HEAD/docs/design/service\\_accounts.md](http://releases.k8s.io/HEAD/docs/design/service_accounts.md).
- **subdomain** - (Optional) If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
- **termination\_grace\_period\_seconds** - (Optional) Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process.
- **volume** - (Optional) List of volumes that can be mounted by containers belonging to the pod. More info: <http://kubernetes.io/docs/user-guide/volumes>

## » container

### » Arguments

- **args** - (Optional) Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR\_NAME) are expanded using the container's environment. If a variable cannot be resolved,

the reference in the input string will be unchanged. The `$(VAR_NAME)` syntax can be escaped with a double `$$`, ie: `$$$(VAR_NAME)`. Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/containers#containers-and-commands>

- **command** - (Optional) Entrypoint array. Not executed within a shell. The docker image's `ENTRYPOINT` is used if this is not provided. Variable references `$(VAR_NAME)` are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The `$(VAR_NAME)` syntax can be escaped with a double `$$`, ie: `$$$(VAR_NAME)`. Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/containers#containers-and-commands>
- **env** - (Optional) List of environment variables to set in the container. Cannot be updated.
- **image** - (Optional) Docker image name. More info: <http://kubernetes.io/docs/user-guide/images>
- **image\_pull\_policy** - (Optional) Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/images#updating-images>
- **lifecycle** - (Optional) Actions that the management system should take in response to container lifecycle events
- **liveness\_probe** - (Optional) Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/pod-states#container-probes>
- **name** - (Required) Name of the container specified as a `DNS_LABEL`. Each container in a pod must have a unique name (`DNS_LABEL`). Cannot be updated.
- **port** - (Optional) List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
- **readiness\_probe** - (Optional) Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/pod-states#container-probes>
- **resources** - (Optional) Compute Resources required by this container. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/persistent-volumes#resources>
- **security\_context** - (Optional) Security options the pod should run with. More info: [http://releases.k8s.io/HEAD/docs/design/security\\_context.md](http://releases.k8s.io/HEAD/docs/design/security_context.md)
- **stdin** - (Optional) Whether this container should allocate a buffer for

stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF.

- **stdin\_once** - (Optional) Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF.
- **termination\_message\_path** - (Optional) Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Defaults to /dev/termination-log. Cannot be updated.
- **tty** - (Optional) Whether this container should allocate a TTY for itself
- **volume\_mount** - (Optional) Pod volumes to mount into the container's filesystem. Cannot be updated.
- **working\_dir** - (Optional) Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

## » **aws\_elastic\_block\_store**

### » **Arguments**

- **fs\_type** - (Optional) Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <http://kubernetes.io/docs/user-guide/volumes#awselasticblockstore>
- **partition** - (Optional) The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
- **read\_only** - (Optional) Whether to set the read-only property in VolumeMounts to "true". If omitted, the default is "false". More info: <http://kubernetes.io/docs/user-guide/volumes#awselasticblockstore>
- **volume\_id** - (Required) Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <http://kubernetes.io/docs/user-guide/volumes#awselasticblockstore>

## » **azure\_disk**

### » **Arguments**

- **caching\_mode** - (Required) Host Caching mode: None, Read Only, Read Write.
- **data\_disk\_uri** - (Required) The URI the data disk in the blob storage
- **disk\_name** - (Required) The Name of the data disk in the blob storage
- **fs\_type** - (Optional) Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
- **read\_only** - (Optional) Whether to force the read-only setting in VolumeMounts. Defaults to false (read/write).

#### » **azure\_file**

##### » **Arguments**

- **read\_only** - (Optional) Whether to force the read-only setting in VolumeMounts. Defaults to false (read/write).
- **secret\_name** - (Required) The name of secret that contains Azure Storage Account Name and Key
- **share\_name** - (Required) Share Name

#### » **capabilities**

##### » **Arguments**

- **add** - (Optional) Added capabilities
- **drop** - (Optional) Removed capabilities

#### » **ceph\_fs**

##### » **Arguments**

- **monitors** - (Required) Monitors is a collection of Ceph monitors More info: <http://releases.k8s.io/HEAD/examples/volumes/cephfs/README.md#how-to-use-it>
- **path** - (Optional) Used as the mounted root, rather than the full Ceph tree, default is /
- **read\_only** - (Optional) Whether to force the read-only setting in VolumeMounts. Defaults to **false** (read/write). More info: <http://releases.k8s.io/HEAD/examples/volumes/cephfs/README.md#how-to-use-it>
- **secret\_file** - (Optional) The path to key ring for User, default is /etc/ceph/user.secret More info: <http://releases.k8s.io/HEAD/examples/volumes/cephfs/README.md#how-to-use-it>
- **secret\_ref** - (Optional) Reference to the authentication secret for User, default is empty. More info: <http://releases.k8s.io/HEAD/examples/volumes/cephfs/README.md#how-to-use-it>

- **user** - (Optional) User is the rados user name, default is admin. More info: <http://releases.k8s.io/HEAD/examples/volumes/cephfs/README.md#how-to-use-it>

#### » **cinder**

##### » **Arguments**

- **fs\_type** - (Optional) Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <http://releases.k8s.io/HEAD/examples/mysql-cinder-pd/README.md>
- **read\_only** - (Optional) Whether to force the read-only setting in VolumeMounts. Defaults to false (read/write). More info: <http://releases.k8s.io/HEAD/examples/mysql-cinder-pd/README.md>
- **volume\_id** - (Required) Volume ID used to identify the volume in Cinder. More info: <http://releases.k8s.io/HEAD/examples/mysql-cinder-pd/README.md>

#### » **config\_map**

##### » **Arguments**

- **default\_mode** - (Optional) Optional: mode bits to use on created files by default. Must be a value between 0 and 0777. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
- **items** - (Optional) If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error. Paths must be relative and may not contain the '..' path or start with '..'.
- **name** - (Optional) Name of the referent. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>

#### » **config\_map\_key\_ref**

##### » **Arguments**

- **key** - (Optional) The key to select.
- **name** - (Optional) Name of the referent. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>

## » downward\_api

### » Arguments

- **default\_mode** - (Optional) Optional: mode bits to use on created files by default. Must be a value between 0 and 0777. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
- **items** - (Optional) If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error. Paths must be relative and may not contain the '.' path or start with '..'.

## » empty\_dir

### » Arguments

- **medium** - (Optional) What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <http://kubernetes.io/docs/user-guide/volumes#emptydir>

## » env

### » Arguments

- **name** - (Required) Name of the environment variable. Must be a C\_IDENTIFIER
- **value** - (Optional) Variable references \$(VAR\_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR\_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR\_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".
- **value\_from** - (Optional) Source for the environment variable's value

## » exec

### » Arguments

- **command** - (Optional) Command is the command line to execute inside the container, the working directory for the command is root ( '/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

» **fc**

» **Arguments**

- **fs\_type** - (Optional) Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
- **lun** - (Required) FC target lun number
- **read\_only** - (Optional) Whether to force the read-only setting in VolumeMounts. Defaults to false (read/write).
- **target\_ww\_ns** - (Required) FC target worldwide names (WWNs)

» **field\_ref**

» **Arguments**

- **api\_version** - (Optional) Version of the schema the FieldPath is written in terms of, defaults to "v1".
- **field\_path** - (Optional) Path of the field to select in the specified API version

» **flex\_volume**

» **Arguments**

- **driver** - (Required) Driver is the name of the driver to use for this volume.
- **fs\_type** - (Optional) Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
- **options** - (Optional) Extra command options if any.
- **read\_only** - (Optional) Whether to force the ReadOnly setting in VolumeMounts. Defaults to false (read/write).
- **secret\_ref** - (Optional) Reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.



» **flocker**

» **Arguments**

- **dataset\_name** - (Optional) Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
- **dataset\_uuid** - (Optional) UUID of the dataset. This is unique identifier of a Flocker dataset

» **gce\_persistent\_disk**

» **Arguments**

- **fs\_type** - (Optional) Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <http://kubernetes.io/docs/user-guide/volumes#gcepersistentdisk>
- **partition** - (Optional) The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <http://kubernetes.io/docs/user-guide/volumes#gcepersistentdisk>
- **pd\_name** - (Required) Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <http://kubernetes.io/docs/user-guide/volumes#gcepersistentdisk>
- **read\_only** - (Optional) Whether to force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <http://kubernetes.io/docs/user-guide/volumes#gcepersistentdisk>

» **git\_repo**

» **Arguments**

- **directory** - (Optional) Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
- **repository** - (Optional) Repository URL
- **revision** - (Optional) Commit hash for the specified revision.

» **glusterfs**

» **Arguments**

- **endpoints\_name** - (Required) The endpoint name that details Glusterfs topology. More info: <http://releases.k8s.io/HEAD/examples/volumes/glusterfs/README.md#create-a-pod>
- **path** - (Required) The Glusterfs volume path. More info: <http://releases.k8s.io/HEAD/examples/volumes/glusterfs/README.md#create-a-pod>
- **read\_only** - (Optional) Whether to force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <http://releases.k8s.io/HEAD/examples/volumes/glusterfs/README.md#create-a-pod>

#### » **host\_path**

##### » **Arguments**

- **path** - (Optional) Path of the directory on the host. More info: <http://kubernetes.io/docs/user-guide/volumes#hostpath>

#### » **http\_get**

##### » **Arguments**

- **host** - (Optional) Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
- **http\_header** - (Optional) Scheme to use for connecting to the host.
- **path** - (Optional) Path to access on the HTTP server.
- **port** - (Optional) Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA\_SVC\_NAME.
- **scheme** - (Optional) Scheme to use for connecting to the host.

#### » **http\_header**

##### » **Arguments**

- **name** - (Optional) The header field name
- **value** - (Optional) The header field value

#### » **image\_pull\_secrets**

##### » **Arguments**

- **name** - (Required) Name of the referent. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>

## » **iscsi**

### » **Arguments**

- **fs\_type** - (Optional) Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <http://kubernetes.io/docs/user-guide/volumes#iscsi>
- **iqn** - (Required) Target iSCSI Qualified Name.
- **iscsi\_interface** - (Optional) iSCSI interface name that uses an iSCSI transport. Defaults to 'default' (tcp).
- **lun** - (Optional) iSCSI target lun number.
- **read\_only** - (Optional) Whether to force the read-only setting in VolumeMounts. Defaults to false.
- **target\_portal** - (Required) iSCSI target portal. The portal is either an IP or ip\_addr:port if the port is other than default (typically TCP ports 860 and 3260).

## » **items**

### » **Arguments**

- **key** - (Optional) The key to project.
- **mode** - (Optional) Optional: mode bits to use on this file, must be a value between 0 and 0777. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
- **path** - (Optional) The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

## » **lifecycle**

### » **Arguments**

- **post\_start** - (Optional) post\_start is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <http://kubernetes.io/docs/user-guide/container-environment#hook-details>
- **pre\_stop** - (Optional) pre\_stop is called immediately before a container is terminated. The container is terminated after the handler completes. The reason for termination is passed to the handler. Regardless of the outcome of the handler, the container is eventually terminated. Other man-

agement of the container blocks until the hook completes. More info: <http://kubernetes.io/docs/user-guide/container-environment#hook-details>

» **limits**

» **Arguments**

- **cpu** - (Optional) CPU
- **memory** - (Optional) Memory

» **liveness\_probe**

» **Arguments**

- **exec** - (Optional) **exec** specifies the action to take.
- **failure\_threshold** - (Optional) Minimum consecutive failures for the probe to be considered failed after having succeeded.
- **http\_get** - (Optional) Specifies the http request to perform.
- **initial\_delay\_seconds** - (Optional) Number of seconds after the container has started before liveness probes are initiated. More info: <http://kubernetes.io/docs/user-guide/pod-states#container-probes>
- **period\_seconds** - (Optional) How often (in seconds) to perform the probe
- **success\_threshold** - (Optional) Minimum consecutive successes for the probe to be considered successful after having failed.
- **tcp\_socket** - (Optional) TCP socket specifies an action involving a TCP port. TCP hooks not yet supported
- **timeout\_seconds** - (Optional) Number of seconds after which the probe times out. More info: <http://kubernetes.io/docs/user-guide/pod-states#container-probes>

» **nfs**

» **Arguments**

- **path** - (Required) Path that is exported by the NFS server. More info: <http://kubernetes.io/docs/user-guide/volumes#nfs>
- **read\_only** - (Optional) Whether to force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <http://kubernetes.io/docs/user-guide/volumes#nfs>
- **server** - (Required) Server is the hostname or IP address of the NFS server. More info: <http://kubernetes.io/docs/user-guide/volumes#nfs>

» **persistent\_volume\_claim**

» **Arguments**

- **claim\_name** - (Optional) ClaimName is the name of a PersistentVolumeClaim in the same
- **read\_only** - (Optional) Will force the ReadOnly setting in VolumeMounts.

» **photon\_persistent\_disk**

» **Arguments**

- **fs\_type** - (Optional) Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
- **pd\_id** - (Required) ID that identifies Photon Controller persistent disk

» **port**

» **Arguments**

- **container\_port** - (Required) Number of port to expose on the pod's IP address. This must be a valid port number,  $0 < x < 65536$ .
- **host\_ip** - (Optional) What host IP to bind the external port to.
- **host\_port** - (Optional) Number of port to expose on the host. If specified, this must be a valid port number,  $0 < x < 65536$ . If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
- **name** - (Optional) If specified, this must be an IANA\_SVC\_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services
- **protocol** - (Optional) Protocol for port. Must be UDP or TCP. Defaults to "TCP".

» **post\_start**

» **Arguments**

- **exec** - (Optional) exec specifies the action to take.
- **http\_get** - (Optional) Specifies the http request to perform.
- **tcp\_socket** - (Optional) TCPsocket specifies an action involving a TCP port. TCP hooks not yet supported

» **pre\_stop**

» **Arguments**

- **exec** - (Optional) exec specifies the action to take.
- **http\_get** - (Optional) Specifies the http request to perform.
- **tcp\_socket** - (Optional) TCP socket specifies an action involving a TCP port. TCP hooks not yet supported

» **quobyte**

» **Arguments**

- **group** - (Optional) Group to map volume access to Default is no group
- **read\_only** - (Optional) Whether to force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
- **registry** - (Required) Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
- **user** - (Optional) User to map volume access to Defaults to serviceaccount user
- **volume** - (Required) Volume is a string that references an already created Quobyte volume by name.

» **rbd**

» **Arguments**

- **ceph\_monitors** - (Required) A collection of Ceph monitors. More info: <http://releases.k8s.io/HEAD/examples/volumes/rbd/README.md#how-to-use-it>
- **fs\_type** - (Optional) Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <http://kubernetes.io/docs/user-guide/volumes#rbd>
- **keyring** - (Optional) Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <http://releases.k8s.io/HEAD/examples/volumes/rbd/README.md#how-to-use-it>
- **rados\_user** - (Optional) The rados user name. Default is admin. More info: <http://releases.k8s.io/HEAD/examples/volumes/rbd/README.md#how-to-use-it>
- **rbid\_image** - (Required) The rados image name. More info: <http://releases.k8s.io/HEAD/examples/volumes/rbd/README.md#how-to-use-it>

- **rbd\_pool** - (Optional) The rados pool name. Default is rbd. More info: <http://releases.k8s.io/HEAD/examples/volumes/rbd/README.md#how-to-use-it>.
- **read\_only** - (Optional) Whether to force the read-only setting in VolumeMounts. Defaults to false. More info: <http://releases.k8s.io/HEAD/examples/volumes/rbd/README.md#how-to-use-it>
- **secret\_ref** - (Optional) Name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <http://releases.k8s.io/HEAD/examples/volumes/rbd/README.md#how-to-use-it>

#### » **readiness\_probe**

##### » **Arguments**

- **exec** - (Optional) exec specifies the action to take.
- **failure\_threshold** - (Optional) Minimum consecutive failures for the probe to be considered failed after having succeeded.
- **http\_get** - (Optional) Specifies the http request to perform.
- **initial\_delay\_seconds** - (Optional) Number of seconds after the container has started before liveness probes are initiated. More info: <http://kubernetes.io/docs/user-guide/pod-states#container-probes>
- **period\_seconds** - (Optional) How often (in seconds) to perform the probe
- **success\_threshold** - (Optional) Minimum consecutive successes for the probe to be considered successful after having failed.
- **tcp\_socket** - (Optional) TCP socket specifies an action involving a TCP port. TCP hooks not yet supported
- **timeout\_seconds** - (Optional) Number of seconds after which the probe times out. More info: <http://kubernetes.io/docs/user-guide/pod-states#container-probes>

#### » **resources**

##### » **Arguments**

- **limits** - (Optional) Describes the maximum amount of compute resources allowed. More info: <http://kubernetes.io/docs/user-guide/compute-resources/>
- **requests** - (Optional) Describes the minimum amount of compute resources required.

#### » **requests**

##### » **Arguments**

- **cpu** - (Optional) CPU

- **memory** - (Optional) Memory

» **resource\_field\_ref**

» **Arguments**

- **container\_name** - (Optional) The name of the container
- **resource** - (Required) Resource to select

» **se\_linux\_options**

» **Arguments**

- **level** - (Optional) Level is SELinux level label that applies to the container.
- **role** - (Optional) Role is a SELinux role label that applies to the container.
- **type** - (Optional) Type is a SELinux type label that applies to the container.
- **user** - (Optional) User is a SELinux user label that applies to the container.

» **secret**

» **Arguments**

- **default\_mode** - (Optional) Mode bits to use on created files by default. Must be a value between 0 and 0777. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like **fsGroup**, and the result can be other mode bits set.
- **items** - (Optional) List of Secret Items to project into the volume. See **items** block definition below. If unspecified, each key-value pair in the **Data** field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked **optional**. Paths must be relative and may not contain the **..** path or start with **..**.
- **optional** - (Optional) Specify whether the Secret or it's keys must be defined.
- **secret\_name** - (Optional) Name of the secret in the pod's namespace to use. More info: <http://kubernetes.io/docs/user-guide/volumes#secrets>

The **items** block supports:

- **key** - (Required) The key to project.



- **mode** - (Optional) Mode bits to use on this file, must be a value between 0 and 0777. If not specified, the volume defaultMode will be used.
- **path** - (Required) The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

#### » **secret\_key\_ref**

##### » **Arguments**

- **key** - (Optional) The key of the secret to select from. Must be a valid secret key.
- **name** - (Optional) Name of the referent. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>

#### » **secret\_ref**

##### » **Arguments**

- **name** - (Optional) Name of the referent. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>

#### » **security\_context**

##### » **Arguments**

- **fs\_group** - (Optional) A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod: 1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw---- If unset, the Kubelet will not modify the ownership and permissions of any volume.
- **run\_as\_non\_root** - (Optional) Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does.
- **run\_as\_user** - (Optional) The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified
- **se\_linux\_options** - (Optional) The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

- **supplemental\_groups** - (Optional) A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.

#### » **tcp\_socket**

##### » **Arguments**

- **port** - (Required) Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA\_SVC\_NAME.

#### » **value\_from**

##### » **Arguments**

- **config\_map\_key\_ref** - (Optional) Selects a key of a ConfigMap.
- **field\_ref** - (Optional) Selects a field of the pod: supports metadata.name, metadata.namespace, metadata.labels, metadata.annotations, spec.nodeName, spec.serviceAccountName, status.podIP..
- **resource\_field\_ref** - (Optional) Selects a field of the pod: supports metadata.name, metadata.namespace, metadata.labels, metadata.annotations, spec.nodeName, spec.serviceAccountName, status.podIP..
- **secret\_key\_ref** - (Optional) Selects a field of the pod: supports metadata.name, metadata.namespace, metadata.labels, metadata.annotations, spec.nodeName, spec.serviceAccountName, status.podIP..

#### » **volume**

##### » **Arguments**

- **aws\_elastic\_block\_store** - (Optional) Represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <http://kubernetes.io/docs/user-guide/volumes#awselasticblockstore>
- **azure\_disk** - (Optional) Represents an Azure Data Disk mount on the host and bind mount to the pod.
- **azure\_file** - (Optional) Represents an Azure File Service mount on the host and bind mount to the pod.
- **ceph\_fs** - (Optional) Represents a Ceph FS mount on the host that shares a pod's lifetime
- **cinder** - (Optional) Represents a cinder volume attached and mounted on kubelets host machine. More info: <http://releases.k8s.io/HEAD/examples/mysql-cinder-pd/README.md>

- **config\_map** - (Optional) ConfigMap represents a configMap that should populate this volume
- **downward\_api** - (Optional) DownwardAPI represents downward API about the pod that should populate this volume
- **empty\_dir** - (Optional) EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <http://kubernetes.io/docs/user-guide/volumes#emptydir>
- **fc** - (Optional) Represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
- **flex\_volume** - (Optional) Represents a generic volume resource that is provisioned/attached using an exec based plugin. This is an alpha feature and may change in future.
- **flocker** - (Optional) Represents a Flocker volume attached to a kubelet's host machine and exposed to the pod for its usage. This depends on the Flocker control service being running
- **gce\_persistent\_disk** - (Optional) Represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. Provisioned by an admin. More info: <http://kubernetes.io/docs/user-guide/volumes#gcepersistentdisk>
- **git\_repo** - (Optional) GitRepo represents a git repository at a particular revision.
- **glusterfs** - (Optional) Represents a Glusterfs volume that is attached to a host and exposed to the pod. Provisioned by an admin. More info: <http://releases.k8s.io/HEAD/examples/volumes/glusterfs/README.md>
- **host\_path** - (Optional) Represents a directory on the host. Provisioned by a developer or tester. This is useful for single-node development and testing only! On-host storage is not supported in any way and WILL NOT WORK in a multi-node cluster. More info: <http://kubernetes.io/docs/user-guide/volumes#hostpath>
- **iscsi** - (Optional) Represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. Provisioned by an admin.
- **name** - (Optional) Volume's name. Must be a DNS\_LABEL and unique within the pod. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>
- **nfs** - (Optional) Represents an NFS mount on the host. Provisioned by an admin. More info: <http://kubernetes.io/docs/user-guide/volumes#nfs>
- **persistent\_volume\_claim** - (Optional) The specification of a persistent volume.
- **photon\_persistent\_disk** - (Optional) Represents a PhotonController persistent disk attached and mounted on kubelets host machine
- **quobyte** - (Optional) Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
- **rbd** - (Optional) Represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <http://releases.k8s.io/HEAD/examples/volumes/rbd/README.md>

- **secret** - (Optional) Secret represents a secret that should populate this volume. More info: <http://kubernetes.io/docs/user-guide/volumes#secrets>
- **vsphere\_volume** - (Optional) Represents a vSphere volume attached and mounted on kubelets host machine

#### » **volume\_mount**

##### » **Arguments**

- **mount\_path** - (Required) Path within the container at which the volume should be mounted. Must not contain `.`.
- **name** - (Required) This must match the Name of a Volume.
- **read\_only** - (Optional) Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
- **sub\_path** - (Optional) Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).

#### » **vsphere\_volume**

##### » **Arguments**

- **fs\_type** - (Optional) Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
- **volume\_path** - (Required) Path that identifies vSphere volume vmdk

#### » **Timeouts**

The following Timeout configuration options are available:

- **create** - (Default 10 minutes) Used for creating new controller
- **update** - (Default 10 minutes) Used for updating a controller
- **delete** - (Default 10 minutes) Used for destroying a controller

#### » **Import**

Replication Controller can be imported using the namespace and name, e.g.

```
$ terraform import kubernetes_replication_controller.example default/terraform-example
```

## » `kubernetes_resource_quota`

A resource quota provides constraints that limit aggregate resource consumption per namespace. It can limit the quantity of objects that can be created in a namespace by type, as well as the total amount of compute resources that may be consumed by resources in that project.

### » Example Usage

```
resource "kubernetes_resource_quota" "example" {
  metadata {
    name = "terraform-example"
  }
  spec {
    hard {
      pods = 10
    }
    scopes = ["BestEffort"]
  }
}
```

### » Argument Reference

The following arguments are supported:

- **metadata** - (Required) Standard resource quota's metadata. More info: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#metadata>
- **spec** - (Optional) Spec defines the desired quota. <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#spec-and-status>

### » Nested Blocks

#### » **metadata**

#### » **Arguments**

- **annotations** - (Optional) An unstructured key value map stored with the resource quota that may be used to store arbitrary metadata. More info: <http://kubernetes.io/docs/user-guide/annotations>
- **labels** - (Optional) Map of string keys and values that can be used to organize and categorize (scope and select) the resource quota. May

match selectors of replication controllers and services. More info: <http://kubernetes.io/docs/user-guide/labels>

- **name** - (Optional) Name of the resource quota, must be unique. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>
- **namespace** - (Optional) Namespace defines the space within which name of the resource quota must be unique.

#### » Attributes

- **generation** - A sequence number representing a specific generation of the desired state.
- **resource\_version** - An opaque value that represents the internal version of this resource quota that can be used by clients to determine when resource quota has changed. Read more: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#concurrency-control-and-consistency>
- **self\_link** - A URL representing this resource quota.
- **uid** - The unique in time and space value for this resource quota. More info: <http://kubernetes.io/docs/user-guide/identifiers#uids>

#### » spec

#### » Arguments

- **hard** - (Optional) The set of desired hard limits for each named resource. More info: [http://releases.k8s.io/HEAD/docs/design/admission\\_control\\_resource\\_quota.md#admissioncontrol-plugin-resourcequota](http://releases.k8s.io/HEAD/docs/design/admission_control_resource_quota.md#admissioncontrol-plugin-resourcequota)
- **scopes** - (Optional) A collection of filters that must match each object tracked by a quota. If not specified, the quota matches all objects.

#### » Import

Resource Quota can be imported using its namespace and name, e.g.

```
$ terraform import kubernetes_resource_quota.example default/terraform-example
```

#### » kubernetes\_\_secret

The resource provides mechanisms to inject containers with sensitive information, such as passwords, while keeping containers agnostic of Kubernetes. Secrets can be used to store sensitive information either as individual properties or coarse-grained entries like entire files or JSON blobs. The resource will by

default create a secret which is available to any pod in the specified (or default) namespace.

Read more about security properties and risks involved with using Kubernetes secrets: <https://kubernetes.io/docs/user-guide/secrets/#security-properties>

**Note:** All arguments including the secret data will be stored in the raw state as plain-text. Read more about sensitive data in state.

## » Example Usage

```
resource "kubernetes_secret" "example" {
  metadata {
    name = "basic-auth"
  }

  data {
    username = "admin"
    password = "P4ssw0rd"
  }

  type = "kubernetes.io/basic-auth"
}
```

## » Example Usage (Docker config)

```
resource "kubernetes_secret" "example" {
  metadata {
    name = "docker-cfg"
  }

  data {
    ".dockercfg" = "${file("${path.module}/.docker/config.json")}"
  }

  type = "kubernetes.io/dockercfg"
}
```

## » Argument Reference

The following arguments are supported:

- **data** - (Optional) A map of the secret data.

- **metadata** - (Required) Standard secret's metadata. More info: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#metadata>
- **type** - (Optional) The secret type. Defaults to **Opaque**. More info: <https://github.com/kubernetes/community/blob/master/contributors/design-proposals/auth/secrets.md#proposed-design>

## » Nested Blocks

### » **metadata**

### » **Arguments**

- **annotations** - (Optional) An unstructured key value map stored with the secret that may be used to store arbitrary metadata. More info: <http://kubernetes.io/docs/user-guide/annotations>
- **generate\_name** - (Optional) Prefix, used by the server, to generate a unique name ONLY IF the **name** field has not been provided. This value will also be combined with a unique suffix. Read more: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#idempotency>
- **labels** - (Optional) Map of string keys and values that can be used to organize and categorize (scope and select) the secret. May match selectors of replication controllers and services. More info: <http://kubernetes.io/docs/user-guide/labels>
- **name** - (Optional) Name of the secret, must be unique. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>
- **namespace** - (Optional) Namespace defines the space within which name of the secret must be unique.

### » **Attributes**

- **generation** - A sequence number representing a specific generation of the desired state.
- **resource\_version** - An opaque value that represents the internal version of this secret that can be used by clients to determine when secret has changed. Read more: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#concurrency-control-and-consistency>
- **self\_link** - A URL representing this secret.
- **uid** - The unique in time and space value for this secret. More info: <http://kubernetes.io/docs/user-guide/identifiers#uids>



## » Import

Secret can be imported using its namespace and name, e.g.

```
$ terraform import kubernetes_secret.example default/my-secret
```

## » kubernetes\_service

A Service is an abstraction which defines a logical set of pods and a policy by which to access them - sometimes called a micro-service.

## » Example Usage

```
resource "kubernetes_service" "example" {
  metadata {
    name = "terraform-example"
  }
  spec {
    selector {
      app = "${kubernetes_pod.example.metadata.0.labels.app}"
    }
    session_affinity = "ClientIP"
    port {
      port = 8080
      target_port = 80
    }

    type = "LoadBalancer"
  }
}

resource "kubernetes_pod" "example" {
  metadata {
    name = "terraform-example"
    labels {
      app = "MyApp"
    }
  }

  spec {
    container {
      image = "nginx:1.7.9"
      name = "example"
    }
  }
}
```

```
}  
}
```

## » Argument Reference

The following arguments are supported:

- **metadata** - (Required) Standard service's metadata. More info: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#metadata>
- **spec** - (Required) Spec defines the behavior of a service. <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#spec-and-status>

## » Nested Blocks

### » metadata

### » Arguments

- **annotations** - (Optional) An unstructured key value map stored with the service that may be used to store arbitrary metadata. More info: <http://kubernetes.io/docs/user-guide/annotations>
- **generate\_name** - (Optional) Prefix, used by the server, to generate a unique name ONLY IF the **name** field has not been provided. This value will also be combined with a unique suffix. Read more: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#idempotency>
- **labels** - (Optional) Map of string keys and values that can be used to organize and categorize (scope and select) the service. May match selectors of replication controllers and services. More info: <http://kubernetes.io/docs/user-guide/labels>
- **name** - (Optional) Name of the service, must be unique. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>
- **namespace** - (Optional) Namespace defines the space within which name of the service must be unique.

### » Attributes

- **generation** - A sequence number representing a specific generation of the desired state.
- **resource\_version** - An opaque value that represents the internal version of this service that can be used by clients to determine when service has changed. Read more: <https://github.com/kubernetes/community/blob/>

master/contributors/devel/api-conventions.md#concurrency-control-and-consistency

- **self\_link** - A URL representing this service.
- **uid** - The unique in time and space value for this service. More info: <http://kubernetes.io/docs/user-guide/identifiers#uids>

## » spec

### » Arguments

- **cluster\_ip** - (Optional) The IP address of the service. It is usually assigned randomly by the master. If an address is specified manually and is not in use by others, it will be allocated to the service; otherwise, creation of the service will fail. **None** can be specified for headless services when proxying is not required. Ignored if **type** is **ExternalName**. More info: <http://kubernetes.io/docs/user-guide/services#virtual-ips-and-service-proxies>
- **external\_ips** - (Optional) A list of IP addresses for which nodes in the cluster will also accept traffic for this service. These IPs are not managed by Kubernetes. The user is responsible for ensuring that traffic arrives at a node with this IP. A common example is external load-balancers that are not part of the Kubernetes system.
- **external\_name** - (Optional) The external reference that kubedns or equivalent will return as a CNAME record for this service. No proxying will be involved. Must be a valid DNS name and requires **type** to be **ExternalName**.
- **load\_balancer\_ip** - (Optional) Only applies to **type = LoadBalancer**. LoadBalancer will get created with the IP specified in this field. This feature depends on whether the underlying cloud-provider supports specifying this field when a load balancer is created. This field will be ignored if the cloud-provider does not support the feature.
- **load\_balancer\_source\_ranges** - (Optional) If specified and supported by the platform, this will restrict traffic through the cloud-provider load-balancer will be restricted to the specified client IPs. This field will be ignored if the cloud-provider does not support the feature. More info: <http://kubernetes.io/docs/user-guide/services-firewalls>
- **port** - (Required) The list of ports that are exposed by this service. More info: <http://kubernetes.io/docs/user-guide/services#virtual-ips-and-service-proxies>
- **selector** - (Optional) Route service traffic to pods with label keys and values matching this selector. Only applies to types **ClusterIP**, **NodePort**, and **LoadBalancer**. More info: <http://kubernetes.io/docs/user-guide/services#overview>
- **session\_affinity** - (Optional) Used to maintain session affinity. Supports **ClientIP** and **None**. Defaults to **None**. More info:

<http://kubernetes.io/docs/user-guide/services#virtual-ips-and-service-proxies>

- **type** - (Optional) Determines how the service is exposed. Defaults to **ClusterIP**. Valid options are **ExternalName**, **ClusterIP**, **NodePort**, and **LoadBalancer**. **ExternalName** maps to the specified **external\_name**. More info: <http://kubernetes.io/docs/user-guide/services#overview>

#### » **port**

##### » **Arguments**

- **name** - (Optional) The name of this port within the service. All ports within the service must have unique names. Optional if only one ServicePort is defined on this service.
- **node\_port** - (Optional) The port on each node on which this service is exposed when **type** is **NodePort** or **LoadBalancer**. Usually assigned by the system. If specified, it will be allocated to the service if unused or else creation of the service will fail. Default is to auto-allocate a port if the **type** of this service requires one. More info: <http://kubernetes.io/docs/user-guide/services#type--nodeport>
- **port** - (Required) The port that will be exposed by this service.
- **protocol** - (Optional) The IP protocol for this port. Supports TCP and UDP. Default is TCP.
- **target\_port** - (Required) Number or name of the port to access on the pods targeted by the service. Number must be in the range 1 to 65535. This field is ignored for services with **cluster\_ip** = "None". More info: <http://kubernetes.io/docs/user-guide/services#defining-a-service>

##### » **Attributes**

- **load\_balancer\_ingress** - A list containing ingress points for the load-balancer (only valid if **type** = "LoadBalancer")

#### » **load\_balancer\_ingress**

##### » **Attributes**

- **ip** - IP which is set for load-balancer ingress points that are IP based (typically GCE or OpenStack load-balancers)
- **hostname** - Hostname which is set for load-balancer ingress points that are DNS based (typically AWS load-balancers)

## » Import

Service can be imported using its namespace and name, e.g.

```
$ terraform import kubernetes_service.example default/terraform-name
```

## » kubernetes\_service\_account

A service account provides an identity for processes that run in a Pod.

Read more at <https://kubernetes.io/docs/admin/service-accounts-admin/>

## » Example Usage

```
resource "kubernetes_service_account" "example" {
  metadata {
    name = "terraform-example"
  }
  secret {
    name = "${kubernetes_secret.example.metadata.0.name}"
  }
}

resource "kubernetes_secret" "example" {
  metadata {
    name = "terraform-example"
  }
}
```

## » Argument Reference

The following arguments are supported:

- **metadata** - (Required) Standard service account's metadata. More info: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#metadata>
- **image\_pull\_secret** - (Optional) A list of references to secrets in the same namespace to use for pulling any images in pods that reference this Service Account. More info: <http://kubernetes.io/docs/user-guide/secrets#manually-specifying-an-imagepullsecret>
- **secret** - (Optional) A list of secrets allowed to be used by pods running using this Service Account. More info: <http://kubernetes.io/docs/user-guide/secrets>

## » Nested Blocks

### » `metadata`

### » Arguments

- **annotations** - (Optional) An unstructured key value map stored with the service account that may be used to store arbitrary metadata. More info: <http://kubernetes.io/docs/user-guide/annotations>
- **generate\_name** - (Optional) Prefix, used by the server, to generate a unique name ONLY IF the **name** field has not been provided. This value will also be combined with a unique suffix. Read more: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#idempotency>
- **labels** - (Optional) Map of string keys and values that can be used to organize and categorize (scope and select) the service account. May match selectors of replication controllers and services. More info: <http://kubernetes.io/docs/user-guide/labels>
- **name** - (Optional) Name of the service account, must be unique. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>
- **namespace** - (Optional) Namespace defines the space within which name of the service account must be unique.

### » Attributes

- **generation** - A sequence number representing a specific generation of the desired state.
- **resource\_version** - An opaque value that represents the internal version of this service account that can be used by clients to determine when service account has changed. Read more: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#concurrency-control-and-consistency>
- **self\_link** - A URL representing this service account.
- **uid** - The unique in time and space value for this service account. More info: <http://kubernetes.io/docs/user-guide/identifiers#uids>

### » `image_pull_secret`

### » Arguments

- **name** - (Optional) Name of the referent. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>

» **secret**

» **Arguments**

- **name** - (Optional) Name of the referent. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>

» **Attributes Reference**

In addition to the arguments listed above, the following computed attributes are exported:

- **default\_secret\_name** - Name of the default secret the is created & managed by the service

» **kubernetes\_storage\_class**

Storage class is the foundation of dynamic provisioning, allowing cluster administrators to define abstractions for the underlying storage platform.

Read more at <http://blog.kubernetes.io/2017/03/dynamic-provisioning-and-storage-classes-kubernetes.html>

» **Example Usage**

```
resource "kubernetes_storage_class" "example" {  
  metadata {  
    name = "terraform-example"  
  }  
  storage_provisioner = "kubernetes.io/gce-pd"  
  parameters {  
    type = "pd-standard"  
  }  
}
```

» **Argument Reference**

The following arguments are supported:

- **metadata** - (Required) Standard storage class's metadata. More info: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#metadata>

- **parameters** - (Optional) The parameters for the provisioner that should create volumes of this storage class. Read more about available parameters.
- **storage\_provisioner** - (Required) Indicates the type of the provisioner

## » Nested Blocks

### » **metadata**

### » **Arguments**

- **annotations** - (Optional) An unstructured key value map stored with the storage class that may be used to store arbitrary metadata. More info: <http://kubernetes.io/docs/user-guide/annotations>
- **generate\_name** - (Optional) Prefix, used by the server, to generate a unique name ONLY IF the **name** field has not been provided. This value will also be combined with a unique suffix. Read more: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#idempotency>
- **labels** - (Optional) Map of string keys and values that can be used to organize and categorize (scope and select) the storage class. May match selectors of replication controllers and services. More info: <http://kubernetes.io/docs/user-guide/labels>
- **name** - (Optional) Name of the storage class, must be unique. Cannot be updated. More info: <http://kubernetes.io/docs/user-guide/identifiers#names>

### » **Attributes**

- **generation** - A sequence number representing a specific generation of the desired state.
- **resource\_version** - An opaque value that represents the internal version of this storage class that can be used by clients to determine when storage class has changed. Read more: <https://github.com/kubernetes/community/blob/master/contributors/devel/api-conventions.md#concurrency-control-and-consistency>
- **self\_link** - A URL representing this storage class.
- **uid** - The unique in time and space value for this storage class. More info: <http://kubernetes.io/docs/user-guide/identifiers#uids>

## » **Import**

`kubernetes_storage_class` can be imported using its name, e.g.

```
$ terraform import kubernetes_storage_class.example terraform-example
```