# » 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. For more info see Kubernetes reference

### » Attributes

- spec Spec defines the behavior of a service. Kubernetes reference
- load\_balancer\_ingress A list containing ingress points for the loadbalancer (only valid if type = "LoadBalancer")

### » Nested Blocks

#### » metadata

### » Arguments

• name - (Optional) Name of the service, must be unique. Cannot be updated. For more info see Kubernetes reference

• 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. For more info see Kubernetes reference
- 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. For more info see Kubernetes reference
- 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. For more info see Kubernetes reference
- self\_link A URL representing this service.
- uid The unique in time and space value for this service. For more info see Kubernetes reference

#### » 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. For more info see Kubernetes reference
- 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". For more info see Kubernetes reference

#### » 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. For more info see Kubernetes reference
- 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. For more info see Kubernetes reference
- port The list of ports that are exposed by this service. For more info see Kubernetes reference
- selector Route service traffic to pods with label keys and values matching this selector. Only applies to types ClusterIP, NodePort, and LoadBalancer. For more info see Kubernetes reference
- session\_affinity Used to maintain session affinity. Supports ClientIP and None. Defaults to None. For more info see Kubernetes reference
- 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. For more info see Kubernetes reference

#### » 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. For more info see Kubernetes reference

### » Nested Blocks

### » metadata

### » Arguments

• name - (Required) Name of the storage class, must be unique. For more info see Kubernetes reference

### » 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. For more info see Kubernetes reference
- self\_link A URL representing this storage class.
- uid The unique in time and space value for this storage class. For more info see Kubernetes reference

# » 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.
- $\bullet\,$  storage\_provisioner Indicates the type of the provisioner this storage class represents
- reclaim\_policy Indicates the reclaim policy used.

# » 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. For more info see Kubernetes reference

### » Nested Blocks

- » metadata
- » Arguments

- annotations (Optional) An unstructured key value map stored with the config map that may be used to store arbitrary metadata. For more info see Kubernetes reference
- 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. For more info see Kubernetes reference
- 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. For more info see Kubernetes reference
- name (Optional) Name of the config map, must be unique. Cannot be updated. For more info see Kubernetes reference
- 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. For more info see Kubernetes reference
- self link A URL representing this config map.
- uid The unique in time and space value for this config map. For more info see Kubernetes reference

# » Import

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

\$ terraform import kubernetes\_config\_map.example default/my-config

# » kubernetes\_cluster\_role\_binding

A ClusterRoleBinding may be used to grant permission at the cluster level and in all namespaces

# » Example Usage

```
resource "kubernetes_cluster_role_binding" "example" {
   metadata {
        name = "terraform-example"
```

```
}
    role_ref {
        api_group = "rbac.authorization.k8s.io"
        kind = "ClusterRole"
        name = "cluster-admin"
    }
    subject {
        kind = "User"
        name = "admin"
        api_group = "rbac.authorization.k8s.io"
    }
    subject {
        kind = "ServiceAccount"
        name = "default"
        namespace = "kube-system"
    subject {
        kind = "Group"
        name = "system:masters"
        api_group = "rbac.authorization.k8s.io"
    }
}
```

# » Argument Reference

The following arguments are supported:

- metadata (Required) Standard kubernetes metadata. For more info see Kubernetes reference
- role\_ref (Required) The ClusterRole to bind Subjects to. For more info see Kubernetes reference
- subject (Required) The Users, Groups, or ServiceAccounts to grand permissions to. For more info see Kubernetes reference

### » Nested Blocks

### » metadata

#### » Arguments

- annotations (Optional) An unstructured key value map stored with the cluster role binding that may be used to store arbitrary metadata. For more info see Kubernetes reference
- 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. For more info see Kubernetes reference

- labels (Optional) Map of string keys and values that can be used to organize and categorize (scope and select) the cluster role binding. For more info see Kubernetes reference
- name (Optional) Name of the cluster role binding, must be unique. Cannot be updated. For more info see Kubernetes reference

#### » 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 object that can be used by clients to determine when the object has changed. For more info see Kubernetes reference
- self\_link A URL representing this cluster role binding.
- uid The unique in time and space value for this cluster role binding. For more info see Kubernetes reference

#### » role\_ref

#### » Arguments

- name (Required) The name of this ClusterRole to bind Subjects to.
- kind (Required) The type of binding to use. This value must be and defaults to ClusterRole
- api\_group (Optional) The API group to drive authorization decisions. This value must be and defaults to rbac.authorization.k8s.io

### » subject

## » Arguments

- name (Required) The name of this ClusterRole to bind Subjects to.
- namespace (Optional) Namespace defines the namespace of the ServiceAccount to bind to. This value only applies to kind ServiceAccount
- kind (Required) The type of binding to use. This value must be ServiceAccount, User or Group
- api\_group (Optional) The API group to drive authorization decisions. This value only applies to kind User and Group. It must be rbac.authorization.k8s.io

# » Import

ClusterRoleBinding can be imported using the name, e.g.

\$ terraform import kubernetes\_cluster\_role\_binding.example terraform-name