» alicloud_account

This data source provides information about the current account.

» Example Usage

```
data "alicloud_account" "current"{
}

output "current_account_id" {
  value = "${data.alicloud_account.current.id}"
}
```

» Attributes Reference

The following attributes are exported:

- `id` - Account ID (e.g. "1239306421830812"). It can be used to construct an ARN.

» alicloud_api_gateway_apis

This data source provides the apis of the current Alibaba Cloud user.

» Example Usage

```
data "alicloud_api_gateway_apis" "data_apigatway_apis" {
  output_file = "output_ApiGatawayApis"
}

output "first_api_id" {
  value = "${data.alicloud_api_gateway_apis.data_apigatway.apis.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `api_id` - (Optional) ID of the specified API.
- `group_id` - (Optional) ID of the specified group.
- `name_regex` - (Optional) A regex string to filter api gateway apis by name.

- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `apis` - A list of apis. Each element contains the following attributes:
  - `id` - API ID, which is generated by the system and globally unique.
  - `name` - API name.
  - `description` - API description.
  - `region_id` - The ID of the region where the API is located.
  - `group_id` - The group id that the apis belong to.
  - `group_name` - The group name that the apis belong to.

» alicloud_api_gateway_groups

This data source provides the api groups of the current Alibaba Cloud user.

» Example Usage

```
data "alicloud_api_gateway_groups" "data_apigatway"{
  output_file = "outgroups"
}

output "first_group_id" {
  value = "${data.alicloud_api_gateway_groups.data_apigatway.groups.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string to filter api gateway groups by name.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:
* `groups` - A list of api groups. Each element contains the following attributes:

* `id` - API group ID, which is generated by the system and globally unique. * `name` - API group name. * `description` - API group description. * `region_id` - The ID of the region where the API group is located. * `sub_domain` - Second-level domain name automatically assigned to the API group. * `created_time` - Creation time (Greenwich mean time). * `modified_time` - Last modification time (Greenwich mean time). * `traffic_limit` - Upper QPS limit of the API group; default value: 500, which can be increased by submitting an application. * `billing_status` - Billing status. - NORMAL: The API group is normal. - LOCKED: Locked due to outstanding payment. * `illegal_status` - Locking in invalid state. - NORMAL: The API group is normal. - LOCKED: Locked due to illegality.

» alicloud_api_gateway_apps

This data source provides the apps of the current Alibaba Cloud user.

» Example Usage

```
data "alicloud_api_gateway_apps" "data_apigatway"{
  output_file = "outapps"
}

output "first_app_id" {
  value = "${data.alicloud_api_gateway_apps.data_apigatway.apps.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string to filter apps by name.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `apps` - A list of apps. Each element contains the following attributes:
  - `id` - App ID, which is generated by the system and globally unique.
  - `name` - App name.
  - `description` - App description.

  - `created_time` - Creation time (Greenwich mean time).
  - `modified_time` - Last modification time (Greenwich mean time).

» alicloud_regions

This data source provides Alibaba Cloud regions.

» Example Usage

```
data "alicloud_regions" "current_region_ds" {
  current = true
}

output "current_region_id" {
  value = "${data.alicloud_regions.current_region_ds.regions.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Optional) The name of the region to select, such as `eu-central-1`.
- `current` - (Optional) Set to true to match only the region configured in the provider.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

NOTE: You will get an error if you set `current` to true and `name` to a different value from the one you configured in the provider. It is better to either use `name` or `current`, but not both at the same time.

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `ids` - A list of region IDs.
- `regions` - A list of regions. Each element contains the following attributes:
  - `id` - ID of the region.
  - `local_name` - Name of the region in the local language.

» alicloud_instance_types

This data source provides the ECS instance types of Alibaba Cloud.

NOTE: By default, only the upgraded instance types are returned. If you want to get outdated instance types, you must set `is_outdated` to true.

NOTE: If one instance type is sold out, it will not be exported.

» Example Usage

```
# Declare the data source
data "alicloud_instance_types" "types_ds" {
  cpu_core_count = 1
  memory_size = 2
}

# Create ECS instance with the first matched instance_type

resource "alicloud_instance" "instance" {
  instance_type = "${data.alicloud_instance_types.types_ds.instance_types.0.id}"

  # Other properties...
}
```

» Argument Reference

The following arguments are supported:

- `availability_zone` - (Optional) The zone where instance types are supported.
- `cpu_core_count` - (Optional) Filter the results to a specific number of cpu cores.
- `memory_size` - (Optional) Filter the results to a specific memory size in GB.
- `instance_type_family` - (Optional) Filter the results based on their family name. For example: 'ecs.n4'.
- `instance_charge_type` - (Optional) Filter the results by charge type. Valid values: `PrePaid` and `PostPaid`. Default to `PostPaid`.
- `network_type` - (Optional) Filter the results by network type. Valid values: `Classic` and `Vpc`.
- `spot_strategy` - (Optional) Filter the results by ECS spot type. Valid values: `NoSpot`, `SpotWithPriceLimit` and `SpotAsPriceGo`. Default to `NoSpot`.

- `eni_amount` - (Optional) Filter the result whose network interface number is no more than `eni_amount`.
- `kubernetes_node_role` - (Optional) Filter the result which is used to create a kubernetes cluster and managed kubernetes cluster. Optional Values: `Master` and `Worker`.
- `is_outdated` - (Optional, type: bool) If true, outdated instance types are included in the results. Default to false.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `ids` - A list of instance type IDs.
- `instance_types` - A list of image types. Each element contains the following attributes:
  - `id` - ID of the instance type.
  - `cpu_core_count` - Number of CPU cores.
  - `memory_size` - Size of memory, measured in GB.
  - `family` - The instance type family.
  - `availability_zones` - List of availability zones that support the instance type.
  - `gpu` - The GPU attribution of an instance type:
  - `amount` - The amount of GPU of an instance type.
  - `category` - The category of GPU of an instance type.
  - `burstable_instance` - The burstable instance attribution:
  - `initial_credit` - The initial CPU credit of a burstable instance.
  - `baseline_credit` - The compute performance benchmark CPU credit of a burstable instance.
  - `eni_amount` - The maximum number of network interfaces that an instance type can be attached to.
  - `local_storage` - Local storage of an instance type:
  - `capacity` - The capacity of a local storage in GB.
  - `amount` - The number of local storage devices that an instance has been attached to.
  - `category` - The category of local storage that an instance has been attached to.

» alicloud_images

This data source provides available image resources. It contains user's private images, system images provided by Alibaba Cloud, other public images and the ones available on the image market.

» Example Usage

```
data "alicloud_images" "images_ds" {
  owners = "system"
  name_regex = "^centos_6"
}

output "first_image_id" {
  value = "${data.alicloud_images.images_ds.images.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string to filter resulting images by name.
- `most_recent` - (Optional, type: bool) If more than one result are returned, select the most recent one.
- `owners` - (Optional) Filter results by a specific image owner. Valid items are `system`, `self`, `others`, `marketplace`.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

NOTE: At least one of the `name_regex`, `most_recent` and `owners` must be set.

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `ids` - A list of image IDs.
- `images` - A list of images. Each element contains the following attributes:
  - `id` - ID of the image.
  - `architecture` - Platform type of the image system: i386 or x86_64.
  - `creation_time` - Time of creation.
  - `description` - Description of the image.
  - `image_owner_alias` - Alias of the image owner.
  - `os_name` - Display name of the OS.
  - `status` - Status of the image. Possible values: `UnAvailable`, `Available`, `Creating` and `CreateFailed`.
  - `size` - Size of the image.
  - `disk_device_mappings` - Description of the system with disks and snapshots under the image.
  - `device` - Device information of the created disk: such as /dev/xvdb.
  - `size` - Size of the created disk.
  - `snapshot_id` - Snapshot ID.

- `product_code` - Product code of the image on the image market.
- `is_subscribed` - Whether the user has subscribed to the terms of service for the image product corresponding to the ProductCode.
- `image_version` - Version of the image.
- `progress` - Progress of image creation, presented in percentages.

» alicloud_zones

This data source provides availability zones that can be accessed by an Alibaba Cloud account within the region configured in the provider.

NOTE: If one zone is sold out, it will not be exported.

» Example Usage

```
# Declare the data source
data "alicloud_zones" "zones_ds" {
  "available_instance_type" = "ecs.n4.large"
  "available_disk_category" = "cloud_ssd"
}

# Create an ECS instance with the first matched zone
resource "alicloud_instance" "instance" {
  availability_zone = "${data.alicloud_zones.zones_ds.zones.0.id}"

  # Other properties...
}
```

» Argument Reference

The following arguments are supported:

- `available_instance_type` - (Optional) Filter the results by a specific instance type.
- `available_resource_creation` - (Optional) Filter the results by a specific resource type. Valid values: `Instance`, `Disk`, `VSwitch`, `Rds`, `KVStore`, `FunctionCompute`.
- `available_disk_category` - (Optional) Filter the results by a specific disk category. Can be either `cloud`, `cloud_efficiency` or `cloud_ssd`.
- `multi` - (Optional, type: bool) Indicate whether the zones can be used in a multi AZ configuration. Default to `false`. Multi AZ is usually used to launch RDS instances.

- `instance_charge_type` - (Optional) Filter the results by a specific ECS instance charge type. Valid values: `PrePaid` and `PostPaid`. Default to `PostPaid`.
- `network_type` - (Optional) Filter the results by a specific network type. Valid values: `Classic` and `Vpc`.
- `spot_strategy` - - (Optional) Filter the results by a specific ECS spot type. Valid values: `NoSpot`, `SpotWithPriceLimit` and `SpotAsPriceGo`. Default to `NoSpot`.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

NOTE: The disk category `cloud` has been outdated and can only be used by non-I/O Optimized ECS instances. Many availability zones don't support it. It is recommended to use `cloud_efficiency` or `cloud_ssd`.

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `ids` -A list of zone IDs.
- `zones` - A list of availability zones. Each element contains the following attributes:
  - `id` - ID of the zone.
  - `local_name` - Name of the zone in the local language.
  - `available_instance_types` - Allowed instance types.
  - `available_resource_creation` - Type of resources that can be created.
  - `available_disk_categories` - Set of supported disk categories.
  - `multi_zone_ids` - A list of zone ids in which the multi zone.

» alicloud_key_pairs

This data source provides a list of key pairs in an Alibaba Cloud account according to the specified filters.

» Example Usage

```
# Declare the data source
data "alicloud_key_pairs" "key_pairs_ds" {
    name_regex = "test"
    output_file = "my_key_pairs.json"
}
```

```
# Bind a key pair for several ECS instances by using the first matched key pair

resource "alicloud_key_pair_attachment" "attachment" {
  key_name = "${data.alicloud_key_pairs.key_pairs_ds.key_pairs.0.id}"
  instance_ids = [...]
}
```

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string to apply to the resulting key pairs.
- `finger_print` - (Optional) A finger print used to retrieve specified key pair.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `key_pairs` - A list of key pairs. Each element contains the following attributes:
  - `id` - ID of the key pair.
  - `key_name` - Name of the key pair.
  - `finger_print` - Finger print of the key pair.
  - `instances` - A list of ECS instances that has been bound this key pair.
  - `availability_zone` - The ID of the availability zone where the ECS instance is located.
  - `instance_id` - The ID of the ECS instance.
  - `instance_name` - The name of the ECS instance.
  - `vswitch_id` - The ID of the VSwitch attached to the ECS instance.
  - `public_ip` - The public IP address or EIP of the ECS instance.
  - `private_ip` - The private IP address of the ECS instance.

» alicloud_kms_keys

This data source provides a list of KMS keys in an Alibaba Cloud account according to the specified filters.

» Example Usage

```
# Declare the data source
data "alicloud_kms_keys" "kms_keys_ds" {
    description_regex = "Hello KMS"
    output_file = "kms_keys.json"
}

output "first_key_id" {
  value = "${data.alicloud_kms_keys.kms_keys_ds.keys.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `ids` - (Optional) A list of KMS key IDs.
- `description_regex` - (Optional) A regex string to filter the results by the KMS key description.
- `status` - (Optional) Filter the results by status of the KMS keys. Valid values: `Enabled`, `Disabled`, `PendingDeletion`.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `keys` - A list of KMS keys. Each element contains the following attributes:
  - `id` - ID of the key.
  - `arn` - The Alibaba Cloud Resource Name (ARN) of the key.
  - `description` - Description of the key.
  - `status` - Status of the key. Possible values: `Enabled`, `Disabled` and `PendingDeletion`.
  - `creation_date` - Creation date of key.
  - `delete_date` - Deletion date of key.
  - `creator` - The owner of the key.

» alicloud_instances

The Instances data source list ECS instance resources according to their ID, name regex, image id, status and other fields.

» Example Usage

```
data "alicloud_instances" "instances_ds" {
    name_regex = "web_server"
    status = "Running"
}

output "first_instance_id" {
  value = "${data.alicloud_instances.instances_ds.instances.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `ids` - (Optional) A list of ECS instance IDs.
- `name_regex` - (Optional) A regex string to filter results by instance name.
- `image_id` - (Optional) The image ID of some ECS instance used.
- `status` - (Optional) Instance status. Valid values: "Creating", "Starting", "Running", "Stopping" and "Stopped". If undefined, all statuses are considered.
- `vpc_id` - (Optional) ID of the VPC linked to the instances.
- `vswitch_id` - (Optional) ID of the VSwitch linked to the instances.
- `availability_zone` - (Optional) Availability zone where instances are located.
- `tags` - (Optional) A map of tags assigned to the ECS instances. It must be in the format: `data "alicloud_instances" "taggedInstances" { tags = { tagKey1 = "tagValue1", tagKey2 = "tagValue2" } }`
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `instances` - A list of instances. Each element contains the following attributes:
  - `id` - ID of the instance.
  - `region_id` - Region ID the instance belongs to.
  - `availability_zone` - Availability zone the instance belongs to.
  - `status` - Instance current status.
  - `name` - Instance name.
  - `description` - Instance description.
  - `instance_type` - Instance type.

  - `vpc_id` - ID of the VPC the instance belongs to.
  - `vswitch_id` - ID of the VSwitch the instance belongs to.
  - `image_id` - Image ID the instance is using.
  - `private_ip` - Instance private IP address.
  - `public_ip` - Instance public IP address.
  - `eip` - EIP address the VPC instance is using.
  - `security_groups` - List of security group IDs the instance belongs to.
  - `key_name` - Key pair the instance is using.
  - `creation_time` - Instance creation time.
  - `instance_charge_type` - Instance charge type.
  - `internet_charge_type` - Instance network charge type.
  - `internet_max_bandwidth_out` - Max output bandwidth for internet.
  - `spot_strategy` - Spot strategy the instance is using.
  - `disk_device_mappings` - Description of the attached disks.
  - `device` - Device information of the created disk: such as /dev/xvdb.
  - `size` - Size of the created disk.
  - `category` - Cloud disk category.
  - `type` - Cloud disk type: system disk or data disk.
  - `tags` - A map of tags assigned to the ECS instance.

» alicloud_disks

This data source provides the disks of the current Alibaba Cloud user.

» Example Usage

```
data "alicloud_disks" "disks_ds" {
  name_regex = "sample_disk"
}

output "first_disk_id" {
  value = "${data.alicloud_disks.disks_ds.disks.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `ids` - (Optional) A list of disks IDs.
- `name_regex` - (Optional) A regex string to filter results by disk name.
- `type` - (Optional) Disk type. Possible values: `system` and `data`.

- `category` - (Optional) Disk category. Possible values: `cloud` (basic cloud disk), `cloud_efficiency` (ultra cloud disk), `cloud_ssd` (SSD cloud disk), `ephemeral_ssd` (ephemeral SSD) and `ephemeral` (ephemeral disk).
- `encrypted` - (Optional) Indicate whether the disk is encrypted or not. Possible values: `on` and `off`.
- `instance_id` - (Optional) Filter the results by the specified ECS instance ID.
- `tags` - (Optional) A map of tags assigned to the disks. It must be in the format: `data "alicloud_disks" "disks_ds" { tags = { tagKey1 = "tagValue1", tagKey2 = "tagValue2" } }`
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `disks` - A list of disks. Each element contains the following attributes:
  - `id` - ID of the disk.
  - `name` - Disk name.
  - `description` - Disk description.
  - `region_id` - Region ID the disk belongs to.
  - `availability_zone` - Availability zone of the disk.
  - `status` - Current status. Possible values: `In_use`, `Available`, `Attaching`, `Detaching`, `Creating` and `ReIniting`.
  - `type` - Disk type. Possible values: `system` and `data`.
  - `category` - Disk category. Possible values: `cloud` (basic cloud disk), `cloud_efficiency` (ultra cloud disk), `cloud_ssd` (SSD cloud disk), `ephemeral_ssd` (ephemeral SSD) and `ephemeral` (ephemeral disk).
  - `encrypted` - Indicate whether the disk is encrypted or not. Possible values: `on` and `off`.
  - `size` - Disk size in GiB.
  - `image_id` - ID of the image from which the disk is created. It is null unless the disk is created using an image.
  - `snapshot_id` - Snapshot used to create the disk. It is null if no snapshot is used to create the disk.
  - `instance_id` - ID of the related instance. It is `null` unless the `status` is `In_use`.
  - `creation_time` - Disk creation time.
  - `attached_time` - Disk attachment time.
  - `detached_time` - Disk detachment time.
  - `expiration_time` - Disk expiration time.
  - `tags` - A map of tags assigned to the disk.

» alicloud_network_interfaces

Use this data source to get a list of elastic network interfaces according to the specified filters in an Alibaba Cloud account.

For information about elastic network interface and how to use it, see Elastic Network Interface

» Example Usage

```
data "alicloud_network_interfaces" "enis"  {
    ids = ["${alicloud_network_interface.eni.id}"]
    name_regex = "${alicloud_network_interface.eni.name}"
    vpc_id = "${alicloud_vpc.vpc.id}"
    vswitch_id = "${alicloud_vswitch.vswitch.id}"
    security_group_id = "${alicloud_security_group.sg.id}"
    name = "${alicloud_network_interface.eni.name}"
    tags = {
        TF-VER = "0.11.3"
    }
}

output "eni0_name" {
    value = "${data.alicloud_network_interfaces.enis.interfaces.0.name}"
}
```

» Argument Reference

The following arguments are supported:

- `ids` - (Optional) A list of ENI IDs.
- `name_regex` - (Optional) A regex string to filter results by ENI name.
- `vpc_id` - (Optional) The VPC ID linked to ENIs.
- `vswitch_id` - (Optional) The VSwitch ID linked to ENIs.
- `private_ip` - (Optional) The primary private IP address of the ENI.
- `security_group_id` - (Optional) The security group ID linked to ENIs.
- `name` - (Optional) The name of the ENIs.
- `type` - (Optional) The type of ENIs, Only support for "Primary" or "Secondary".
- `instance_id` - (Optional) The ECS instance ID that the ENI is attached to.
- `tags` - (Optional) A map of tags assigned to ENIs.
- `output_file` - (Optional) The name of output file that saves the filter results.

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `interfaces` - A list of ENIs. Each element contains the following attributes:
  - `id` - ID of the ENI.
  - `status` - Current status of the ENI.
  - `vpc_id` - ID of the VPC that the ENI belongs to.
  - `vswitch_id` - ID of the VSwitch that the ENI is linked to.
  - `zone_id` - ID of the availability zone that the ENI belongs to.
  - `public_ip` - Public IP of the ENI.
  - `private_ip` - Primary private IP of the ENI.
  - `private_ips` - A list of secondary private IP address that is assigned to the ENI.
  - `mac` - MAC address of the ENI.
  - `security_groups` - A list of security group that the ENI belongs to.
  - `name` - Name of the ENI.
  - `description` - Description of the ENI.
  - `instance_id` - ID of the instance that the ENI is attached to.
  - `creation_time` - Creation time of the ENI.
  - `tags` - A map of tags assigned to the ENI.

» alicloud_vpcs

This data source provides VPCs available to the user.

» Example Usage

```
data "alicloud_vpcs" "vpcs_ds"{
  cidr_block = "172.16.0.0/12"
  status = "Available"
  name_regex = "^foo"
}

output "first_vpc_id" {
  value = "${data.alicloud_vpcs.vpcs_ds.vpcs.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `cidr_block` - (Optional) Filter results by a specific CIDR block. For example: "172.16.0.0/12".
- `status` - (Optional) Filter results by a specific status. Valid value are `Pending` and `Available`.
- `name_regex` - (Optional) A regex string to filter VPCs by name.
- `is_default` - (Optional, type: bool) Indicate whether the VPC is the default one in the specified region.
- `vswitch_id` - (Optional) Filter results by the specified VSwitch.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `vpcs` - A list of VPCs. Each element contains the following attributes:
  - `id` - ID of the VPC.
  - `region_id` - ID of the region where the VPC is located.
  - `status` - Status of the VPC.
  - `vpc_name` - Name of the VPC.
  - `vswitch_ids` - List of VSwitch IDs in the specified VPC
  - `cidr_block` - CIDR block of the VPC.
  - `vrouter_id` - ID of the VRouter.
  - `route_table_id` - Route table ID of the VRouter.
  - `description` - Description of the VPC
  - `is_default` - Whether the VPC is the default VPC in the region.
  - `creation_time` - Time of creation.

» alicloud_vswitches

This data source provides a list of VSwitches owned by an Alibaba Cloud account.

» Example Usage

```
data "alicloud_vswitches" "vswitches_ds" {
  cidr_block = "172.16.0.0/12"
  name_regex = "^foo"
}

resource "alicloud_instance" "foo" {
  # ...
  instance_name = "in-the-vpc"
```

```
  vswitch_id = "${data.alicloud_vswitches.vswitches_ds.vswitches.0.id}"
  # ...
}
```

» Argument Reference

The following arguments are supported:

- `cidr_block` - (Optional) Filter results by a specific CIDR block. For example: "172.16.0.0/12".
- `zone_id` - (Optional) The availability zone of the VSwitch.
- `name_regex` - (Optional) A regex string to filter results by name.
- `is_default` - (Optional, type: bool) Indicate whether the VSwitch is created by the system.
- `vpc_id` - (Optional) ID of the VPC that owns the VSwitch.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `vswitches` - A list of VSwitches. Each element contains the following attributes:
  - `id` - ID of the VSwitch.
  - `zone_id` - ID of the availability zone where the VSwitch is located.
  - `vpc_id` - ID of the VPC that owns the VSwitch.
  - `name` - Name of the VSwitch.
  - `instance_ids` - List of ECS instance IDs in the specified VSwitch.
  - `cidr_block` - CIDR block of the VSwitch.
  - `description` - Description of the VSwitch.
  - `is_default` - Whether the VSwitch is the default one in the region.
  - `creation_time` - Time of creation.

» alicloud_router_interfaces

This data source provides information about router interfaces that connect VPCs together.

» Example Usage

```
data "alicloud_router_interfaces" "router_interfaces_ds" {
```

```
    name_regex = "^testenv"
    status = "Active"
}

output "first_router_interface_id" {
  value = "${data.alicloud_router_interfaces.router_interfaces_ds.interfaces.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string used to filter by router interface name.
- `status` - (Optional) Expected status. Valid values are `Active`, `Inactive` and `Idle`.
- `specification` - (Optional) Specification of the link, such as `Small.1` (10Mb), `Middle.1` (100Mb), `Large.2` (2Gb), ...etc.
- `router_id` - (Optional) ID of the VRouter located in the local region.
- `router_type` - (Optional) Router type in the local region. Valid values are `VRouter` and `VBR` (physical connection).
- `role` - (Optional) Role of the router interface. Valid values are `InitiatingSide` (connection initiator) and `AcceptingSide` (connection receiver). The value of this parameter must be `InitiatingSide` if the `router_type` is set to `VBR`.
- `opposite_interface_id` - (Optional) ID of the peer router interface.
- `opposite_interface_owner_id` - (Optional) Account ID of the owner of the peer router interface.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `interfaces` - A list of router interfaces. Each element contains the following attributes:
  - `id` - Router interface ID.
  - `status` - Router interface status. Possible values: `Active`, `Inactive` and `Idle`.
  - `name` - Router interface name.
  - `description` - Router interface description.
  - `role` - Router interface role. Possible values: `InitiatingSide` and `AcceptingSide`.

  - `specification` - Router interface specification. Possible values: `Small.1`, `Middle.1`, `Large.2`, ...etc.
  - `router_id` - ID of the VRouter located in the local region.
  - `router_type` - Router type in the local region. Possible values: `VRouter` and `VBR`.
  - `vpc_id` - ID of the VPC that owns the router in the local region.
  - `access_point_id` - ID of the access point used by the VBR.
  - `creation_time` - Router interface creation time.
  - `opposite_region_id` - Peer router region ID.
  - `opposite_interface_id` - Peer router interface ID.
  - `opposite_router_id` - Peer router ID.
  - `opposite_router_type` - Router type in the peer region. Possible values: `VRouter` and `VBR`.
  - `opposite_interface_owner_id` - Account ID of the owner of the peer router interface.
  - `health_check_source_ip` - Source IP address used to perform health check on the physical connection.
  - `health_check_target_ip` - Destination IP address used to perform health check on the physical connection.

» alicloud_eips

This data source provides a list of EIPs (Elastic IP address) owned by an Alibaba Cloud account.

» Example Usage

```
data "alicloud_eips" "eips_ds" {
}

output "first_eip_id" {
  value = "${data.alicloud_eips.eips_ds.eips.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `ids` - (Optional) A list of EIP IDs.
- `ip_addresses` - (Optional) A list of EIP public IP addresses.
- `in_use` - (Deprecated) Deprecated since the version 1.8.0 of this provider.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `eips` - A list of EIPs. Each element contains the following attributes:
  - `id` - ID of the EIP.
  - `status` - EIP status. Possible values are: `Associating`, `Unassociating`, `InUse` and `Available`.
  - `ip_address` - Public IP Address of the the EIP.
  - `bandwidth` - EIP internet max bandwidth in Mbps.
  - `internet_charge_type` - EIP internet charge type.
  - `instance_id` - The ID of the instance that is being bound.
  - `instance_type` - The instance type of that the EIP is bound.
  - `creation_time` - Time of creation.

» alicloud_vpn_gateways

The VPNs data source lists a number of VPNs resource information owned by an Alicloud account.

» Example Usage

```
data "alicloud_vpn_gateways" "vpn_gateways" {
    vpc_id = "fake-vpc-id"
    vpn_gateway_id = "fake-vpn-id"
    status = "active"
    business_status = "Normal"
    name_regex = "testAcc*"
    output_file = "/tmp/vpns"
}
```

» Argument Reference

The following arguments are supported:

- `vpc_id` - (Optional) Use the VPC ID as the search key.
- `ids` - (Optional) IDs of the VPN.
- `status` - (Optional) Limit search to specific status - valid value is ”Init”, ”Provisioning”, ”Active”, ”Updating”, ”Deleting”.
- `business_status` - (Optional) Limit search to specific business status - valid value is ”Normal”, ”FinancialLocked”.
- `name_regex` - (Optional) A regex string of VPN name.
- `output_file` - (Optional) Save the result to the file.

» Attributes Reference

The following attributes are exported:

- `gateways` - A list of VPN gateways. Each element contains the following attributes:
  - `id` - ID of the VPN.
  - `vpc_id` - ID of the VPC that the VPN belongs.
  - `internet_ip` - The internet ip of the VPN.
  - `create_time` - The creation time of the VPN gateway.
  - `end_time` - The expiration time of the VPN gateway.
  - `specification` - The Specification of the VPN
  - `name` - The name of the VPN.
  - `description` - The description of the VPN
  - `status` - The status of the VPN
  - `business_status` - The business status of the VPN gateway.
  - `instance_charge_type` - The charge type of the VPN gateway.
  - `enable_ipsec` - Whether the ipsec function is enabled.
  - `enable_ssl` - Whether the ssl function is enabled.
  - `ssl_connections` - Total count of ssl vpn connections.

» alicloud_vpn_customer_gateways

The VPN customers gateways data source lists a number of VPN customer gateways resource information owned by an Alicloud account.

» Example Usage

```
data "alicloud_vpn_customer_gateways" "foo" {
    name_regex = "testAcc*"
    customer_gateway_id = "fake-id*"
    output_file = "/tmp/cgws"
}
```

» Argument Reference

The following arguments are supported:

- `ids` - (Optional) ID of the VPN customer gateways.
- `name_regex` - (Optional) A regex string of VPN customer gateways name.
- `output_file` - (Optional) Save the result to the file.

» Attributes Reference

The following attributes are exported:

- `gateways` - A list of VPN customer gateways. Each element contains the following attributes:
  - `id` - ID of the VPN customer gateway .
  - `name` - The name of the VPN customer gateway.
  - `description` - The description of the VPN customer gateway.
  - `ip_address` - The ip address of the VPN customer gateway.
  - `create_time` - The creation time of the VPN customer gateway.

» alicloud_vpn_connections

The VPN connections data source lists lots of VPN connections resource information owned by an Alicloud account.

» Example Usage

```
data "alicloud_vpn_connections" "foo" {
    ids = ["fake-conn-id"]
    vpn_gateway_id = "fake-vpn-id"
    customer_gateway_id = "fake-cgw-id"
    output_file = "/tmp/vpnconn"
}
```

» Argument Reference

The following arguments are supported:

- `ids` - (Optional) IDs of the VPN connections.
- `vpn_gateway_id` - (Optional) Use the VPN gateway ID as the search key.
- `customer_gateway_id` - (Optional)Use the VPN customer gateway ID as the search key.
- `name_regex` - (Optional) A regex string of VPN connection name.
- `output_file` - (Optional) Save the result to the file.

» Attributes Reference

The following attributes are exported:

- `connections` - A list of VPN connections. Each element contains the following attributes:

  - `id` - ID of the VPN connection.
  - `customer_gateway_id` - ID of the VPN customer gateway.
  - `vpn_gateway_id` - ID of the VPN gateway.
  - `name` - The name of the VPN connection.
  - `local_subnet` - The local subnet of the VPN connection.
  - `remote_subnet` - The remote subnet of the VPN connection.
  - `status` - The status of the VPN connection, valid value:ike_sa_not_established, ike_sa_established, ipsec_sa_not_established, ipsec_sa_established.
  - `ike_config` - The configurations of phase-one negotiation.
  - `ipsec_config` - The configurations of phase-two negotiation.

Block ike_config

The ike_config mapping supports the following:

- `psk` - Used for authentication between the IPsec VPN gateway and the customer gateway.
- `ike_version` - The version of the IKE protocol.
- `ike_mode` - The negotiation mode of IKE phase-one.
- `ike_enc_alg` - The encryption algorithm of phase-one negotiation.
- `ike_auth_alg` - The authentication algorithm of phase-one negotiation.
- `ike_pfs` - The Diffie-Hellman key exchange algorithm used by phase-one negotiation.
- `ike_lifetime` - The SA lifecycle as the result of phase-one negotiation.
- `ike_local_id` - The identification of the VPN gateway.
- `ike_remote_id` - The identification of the customer gateway.

Block ipsec_config

The ipsec_config mapping supports the following:

- `ipsec_enc_alg` - The encryption algorithm of phase-two negotiation.
- `ipsec_auth_alg` - The authentication algorithm of phase-two negotiation.
- `ipsec_pfs` - The Diffie-Hellman key exchange algorithm used by phase-two negotiation.
- `ipsec_lifetime` - The SA lifecycle as the result of phase-two negotiation.

» alicloud_security_groups

This data source provides a list of Security Groups in an Alibaba Cloud account according to the specified filters.

» Example Usage

```
# Filter security groups and print the results into a file
data "alicloud_security_groups" "sec_groups_ds" {
```

```
  name_regex  = "^web-"
  output_file = "web_access.json"
}

# In conjunction with a VPC
resource "alicloud_vpc" "primary_vpc_ds" {
  # ...
}

data "alicloud_security_groups" "primary_sec_groups_ds" {
  vpc_id = "${alicloud_vpc.primary_vpc_ds.id}"
}

output "first_group_id" {
  value = "${data.alicloud_security_groups.primary_sec_groups_ds.groups.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string to filter the resulting security groups by their names.
- `vpc_id` - (Optional) Used to retrieve security groups that belong to the specified VPC ID.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).
- `tags` - (Optional) A map of tags assigned to the ECS instances. It must be in the format: `data "alicloud_security_groups" "taggedSecurityGroups" { tags = { tagKey1 = "tagValue1", tagKey2 = "tagValue2" } }`

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `groups` - A list of groups. Each element contains the following attributes:
  - `id` - The ID of the security group.
  - `name` - The name of the security group.
  - `description` - The description of the security group.
  - `vpc_id` - The ID of the VPC that owns the security group.
  - `inner_access` - Whether to allow inner network access.
  - `creation_time` - Creation time of the security group.
  - `tags` - A map of tags assigned to the ECS instance.

» alicloud_security_group_rules

The `alicloud_security_group_rules` data source provides a collection of security permissions of a specific security group. Each collection item represents a single `ingress` or `egress` permission rule. The ID of the security group can be provided via a variable or the result from the other data source `alicloud_security_groups`.

» Example Usage

The following example shows how to obtain details about a security group rule and how to pass its data to an instance at launch time.

```
# Get the security group id from a variable
variable "security_group_id" {}

# Or get it from the alicloud_security_groups data source.
# Please note that the data source arguments must be enough to filter results to one securit
data "alicloud_security_groups" "groups_ds" {
  name_regex = "api"
}

# Filter the security group rule by group
data "alicloud_security_group_rules" "ingress_rules_ds" {
  group_id = "${data.alicloud_security_groups.groups_ds.groups.0.id}" # or ${var.security_gr
  nic_type = "internet"
  direction = "ingress"
  ip_protocol = "TCP"
}

# Pass port_range to the backend service
resource "alicloud_instance" "backend" {
  # ...
  user_data = "config_service.sh --portrange=${data.alicloud_security_group_rules.ingress_ru
}
```

» Argument Reference

The following arguments are supported:

- `group_id` - (Required) The ID of the security group that owns the rules.
- `nic_type` - (Optional) Refers to the network type. Can be either `internet` or `intranet`. The default value is `internet`.
- `direction` - (Optional) Authorization direction. Valid values are: `ingress` or `egress`.

- `ip_protocol` - (Optional) The IP protocol. Valid values are: `tcp`, `udp`, `icmp`, `gre` and `all`.
- `policy` - (Optional) Authorization policy. Can be either `accept` or `drop`. The default value is `accept`.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `rules` - A list of rules. Each element contains the following attributes:
  - `group_name` - The name of the security group that owns the rules.
  - `group_desc` - The description of the security group that owns the rules.
  - `rules` - A list of security group rules. Each element contains the following attributes:
  - `ip_protocol` - The protocol. Can be `tcp`, `udp`, `icmp`, `gre` or `all`.
  - `port_range` - The range of port numbers.
  - `source_cidr_ip` - Source IP address segment for ingress authorization.
  - `source_security_group_id` - Source security group ID for ingress authorization.
  - `source_group_owner_account` - Alibaba Cloud account of the source security group.
  - `dest_cidr_ip` - Target IP address segment for egress authorization.
  - `dest_security_group_id` - Target security group id for ingress authorization.
  - `dest_group_owner_account` - Alibaba Cloud account of the target security group.
  - `policy` - Authorization policy. Can be either `accept` or `drop`.
  - `nic_type` - Network type, `internet` or `intranet`.
  - `priority` - Rule priority.
  - `direction` - Authorization direction, `ingress` or `egress`.
  - `description` - The description of the rule.

» alicloud_slbs

This data source provides the server load balancers of the current Alibaba Cloud user.

» Example Usage

```
data "alicloud_slbs" "slbs_ds" {
  name_regex = "sample_slb"
}

output "first_slb_id" {
  value = "${data.alicloud_slbs.slbs_ds.slbs.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `ids` - (Optional) A list of SLBs IDs.
- `name_regex` - (Optional) A regex string to filter results by SLB name.
- `master_availability_zone` - (Optional) Master availability zone of the SLBs.
- `slave_availability_zone` - (Optional) Slave availability zone of the SLBs.
- `network_type` - (Optional) Network type of the SLBs. Valid values: `vpc` and `classic`.
- `vpc_id` - (Optional) ID of the VPC linked to the SLBs.
- `vswitch_id` - (Optional) ID of the VSwitch linked to the SLBs.
- `address` - (Optional) Service address of the SLBs.
- `tags` - (Optional) A map of tags assigned to the SLB instances. The `tags` can have a maximum of 5 tag. It must be in the format: `data "alicloud_slbs" "taggedInstances" { tags = { tagKey1 = "tagValue1", tagKey2 = "tagValue2" } }`
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `slbs` - A list of SLBs. Each element contains the following attributes:
  - `id` - ID of the SLB.
  - `region_id` - Region ID the SLB belongs to.
  - `master_availability_zone` - Master availability zone of the SLBs.
  - `slave_availability_zone` - Slave availability zone of the SLBs.
  - `status` - SLB current status. Possible values: `inactive`, `active` and `locked`.
  - `name` - SLB name.

  - `network_type` - Network type of the SLB. Possible values: `vpc` and `classic`.
  - `vpc_id` - ID of the VPC the SLB belongs to.
  - `vswitch_id` - ID of the VSwitch the SLB belongs to.
  - `address` - Service address of the SLB.
  - `internet` - SLB addressType: internet if `true`, intranet if `false`. Must be `false` when `network_type` is `vpc`.
  - `creation_time` - SLB creation time.
  - `tags` - A map of tags assigned to the SLB instance.

» alicloud_slb_attachments

This data source provides the server load balancer attachments of the current Alibaba Cloud user.

» Example Usage

```
data "alicloud_slb_attachments" "sample_ds" {
  load_balancer_id = "${alicloud_slb.sample_slb.id}"
}

output "first_slb_attachment_instance_id" {
  value = "${data.alicloud_slb_attachments.sample_ds.slb_attachments.0.instance_id}"
}
```

» Argument Reference

The following arguments are supported:

- `load_balancer_id` - ID of the SLB with attachments.
- `instance_ids` - (Optional) List of attached ECS instance IDs.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `slb_attachments` - A list of SLB attachments. Each element contains the following attributes:
  - `instance_id` - ID of the attached ECS instance.
  - `weight` - Weight associated to the ECS instance.

» alicloud_slb_listeners

This data source provides the listeners related to a server load balancer of the current Alibaba Cloud user.

» Example Usage

```
data "alicloud_slb_listeners" "sample_ds" {
  load_balancer_id = "${alicloud_slb.sample_slb.id}"
}

output "first_slb_listener_protocol" {
  value = "${data.alicloud_slb_listeners.sample_ds.slb_listeners.0.protocol}"
}
```

» Argument Reference

The following arguments are supported:

- `load_balancer_id` - ID of the SLB with listeners.
- `protocol` - (Optional) Filter listeners by the specified protocol. Valid values: `http`, `https`, `tcp` and `udp`.
- `frontend_port` - (Optional) Filter listeners by the specified frontend port.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `slb_listeners` - A list of SLB listeners. Each element contains the following attributes:
  - `frontend_port` - Frontend port used to receive incoming traffic and distribute it to the backend servers.
  - `backend_port` - Port opened on the backend server to receive requests.
  - `protocol` - Listener protocol. Possible values: `http`, `https`, `tcp` and `udp`.
  - `status` - Listener status.
  - `security_status` - Security status. Only available when the protocol is `https`.
  - `bandwidth` - Peak bandwidth. If the value is set to -1, the listener is not limited by bandwidth.

- `scheduler` - Algorithm used to distribute traffic. Possible values: `wrr` (weighted round robin), `wlc` (weighted least connection) and `rr` (round robin).
- `server_group_id` - ID of the linked VServer group.
- `master_slave_server_group_id` - ID of the active/standby server group.
- `persistence_timeout` - Timeout value of the TCP connection in seconds. If the value is 0, the session persistence function is disabled. Only available when the protocol is `tcp`.
- `established_timeout` - Connection timeout in seconds for the Layer 4 TCP listener. Only available when the protocol is `tcp`.
- `sticky_session` - Indicate whether session persistence is enabled or not. If enabled, all session requests from the same client are sent to the same backend server. Possible values are `on` and `off`. Only available when the protocol is `http` or `https`.
- `sticky_session_type` - Method used to handle the cookie. Possible values are `insert` (cookie added to the response) and `server` (cookie set by the backend server). Only available when the protocol is `http` or `https` and sticky_session is `on`.
- `cookie_timeout` - Cookie timeout in seconds. Only available when the sticky_session_type is `insert`.
- `cookie` - Cookie configured by the backend server. Only available when the sticky_session_type is `server`.
- `health_check` - Indicate whether health check is enabled of not. Possible values are `on` and `off`.
- `health_check_type` - Health check method. Possible values are `tcp` and `http`. Only available when the protocol is `tcp`.
- `health_check_domain` - Domain name used for health check. The SLB sends HTTP head requests to the backend server, the domain is useful when the backend server verifies the host field in the requests. Only available when the protocol is `http`, `https` or `tcp` (in this case health_check_type must be `http`).
- `health_check_uri` - URI used for health check. Only available when the protocol is `http`, `https` or `tcp` (in this case health_check_type must be `http`).
- `health_check_connect_port` - Port used for health check.
- `health_check_connect_timeout` - Amount of time in seconds to wait for the response for a health check.
- `healthy_threshold` - Number of consecutive successes of health check performed on the same ECS instance (from failure to success).
- `unhealthy_threshold` - Number of consecutive failures of health check performed on the same ECS instance (from success to failure).
- `health_check_timeout` - Amount of time in seconds to wait for the response from a health check. If an ECS instance sends no response within the specified timeout period, the health check fails. Only available when the protocol is `http` or `https`.

- `health_check_interval` - Time interval between two consecutive health checks.
- `health_check_http_code` - HTTP status codes indicating that the health check is normal. It can contain several comma-separated values such as "http_2xx,http_3xx". Only available when the protocol is `http`, `https` or `tcp` (in this case health_check_type must be `http`).
- `gzip` - Indicate whether Gzip compression is enabled or not. Possible values are `on` and `off`. Only available when the protocol is `http` or `https`.
- `ssl_certificate_id` - ID of the server certificate. Only available when the protocol is `https`.
- `ca_certificate_id` - ID of the CA certificate (only required when two-way authentication is used). Only available when the protocol is `https`.
- `x_forwarded_for` - Indicate whether the HTTP header field "X-Forwarded-For" is added or not; it allows the backend server to know about the user's IP address. Possible values are `on` and `off`. Only available when the protocol is `http` or `https`.
- `x_forwarded_for_slb_ip` - Indicate whether the HTTP header field "X-Forwarded-For_SLBIP" is added or not; it allows the backend server to know about the SLB IP address. Possible values are `on` and `off`. Only available when the protocol is `http` or `https`.
- `x_forwarded_for_slb_id` - Indicate whether the HTTP header field "X-Forwarded-For_SLBID" is added or not; it allows the backend server to know about the SLB ID. Possible values are `on` and `off`. Only available when the protocol is `http` or `https`.
- `x_forwarded_for_slb_proto` - Indicate whether the HTTP header field "X-Forwarded-For_proto" is added or not; it allows the backend server to know about the user's protocol. Possible values are `on` and `off`. Only available when the protocol is `http` or `https`.
- `idle_timeout` - Timeout of http or https listener established connection idle timeout. Valid value range: [1-60] in seconds. Default to 15.
- `request_timeout` - Timeout of http or https listener request (which does not get response from backend) timeout. Valid value range: [1-180] in seconds. Default to 60.
- `enable_http2` - Whether to enable https listener support http2 or not. Valid values are `on` and `off`. Default to `on`.
- `tls_cipher_policy` - Https listener TLS cipher policy. Valid values are `tls_cipher_policy_1_0`, `tls_cipher_policy_1_1`, `tls_cipher_policy_1_2`, `tls_cipher_policy_1_2_strict`. Default to `tls_cipher_policy_1_0`.

» alicloud_slb_rules

This data source provides the rules associated with a server load balancer listener.

» Example Usage

```
data "alicloud_slb_rules" "sample_ds" {
  load_balancer_id = "${alicloud_slb.sample_slb.id}"
  frontend_port = 80
}

output "first_slb_rule_id" {
  value = "${data.alicloud_slb_rules.sample_ds.slb_rules.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `load_balancer_id` - ID of the SLB with listener rules.
- `frontend_port` - SLB listener port.
- `ids` - (Optional) A list of rules IDs to filter results.
- `name_regex` - (Optional) A regex string to filter results by rule name.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `slb_rules` - A list of SLB listener rules. Each element contains the following attributes:
  - `id` - Rule ID.
  - `name` - Rule name.
  - `domain` - Domain name in the HTTP request where the rule applies (e.g. "*.aliyun.com").
  - `url` - Path in the HTTP request where the rule applies (e.g. "/image").
  - `server_group_id` - ID of the linked VServer group.

» alicloud_slb_ca_certificates

This data source provides the CA certificate list.

» Example Usage

```
data "alicloud_slb_ca_certificates" "sample_ds" {
}

output "first_slb_ca_certificate_id" {
  value = "${data.alicloud_slb_ca_certificates.sample_ds.certificates.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `ids` - (Optional) A list of ca certificates IDs to filter results.
- `name_regex` - (Optional) A regex string to filter results by ca certificate name.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `certificates` - A list of SLB ca certificates. Each element contains the following attributes:
  - `id` - CA certificate ID.
  - `name` - CA certificate name.
  - `fingerprint` - CA certificate fingerprint.
  - `common_name` - CA certificate common name.
  - `expired_time` - CA certificate expired time.
  - `expired_timestamp` - CA certificate expired timestamp.
  - `created_time` - CA certificate created time.
  - `created_timestamp` - CA certificate created timestamp.
  - `resource_group_id` - The resource group Id of CA certificate.
  - `region_id` - The region Id of CA certificate.

» alicloud_slb_server_certificates

This data source provides the server certificate list.

» Example Usage

```
data "alicloud_slb_server_certificates" "sample_ds" {
}

output "first_slb_server_certificate_id" {
  value = "${data.alicloud_slb_server_certificates.sample_ds.certificates.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `ids` - (Optional) A list of server certificates IDs to filter results.
- `name_regex` - (Optional) A regex string to filter results by server certificate name.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `certificates` - A list of SLB server certificates. Each element contains the following attributes:
  - `id` - Server certificate ID.
  - `name` - Server certificate name.
  - `fingerprint` - Server certificate fingerprint.
  - `common_name` - Server certificate common name.
  - `subject_alternative_names` - Server certificate subject alternative name list.
  - `expired_time` - Server certificate expired time.
  - `expired_timestamp` - Server certificate expired timestamp.
  - `created_time` - Server certificate created time.
  - `created_timestamp` - Server certificate created timestamp.
  - `alicloud_certificate_id` - Id of server certificate issued by alibaba cloud.
  - `alicloud_certificate_name`- Name of server certificate issued by alibaba cloud.

  - `is_alicloud_certificate`- Is server certificate issued by alibaba cloud or not.

» alicloud_slb_server_groups

This data source provides the VServer groups related to a server load balancer.

» Example Usage

```
data "alicloud_slb_server_groups" "sample_ds" {
  load_balancer_id = "${alicloud_slb.sample_slb.id}"
}

output "first_slb_server_group_id" {
  value = "${data.alicloud_slb_server_groups.sample_ds.slb_server_groups.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `load_balancer_id` - ID of the SLB.
- `ids` - (Optional) A list of VServer group IDs to filter results.
- `name_regex` - (Optional) A regex string to filter results by VServer group name.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `slb_server_groups` - A list of SLB VServer groups. Each element contains the following attributes:
  - `id` - VServer group ID.
  - `name` - VServer group name.
  - `servers` - ECS instances associated to the group. Each element contains the following attributes:
  - `instance_id` - ID of the attached ECS instance.
  - `weight` - Weight associated to the ECS instance.

» alicloud_slb_acls

This data source provides the acls in the region.

» Example Usage

```
data "alicloud_slb_acls" "sample_ds" {
}

output "first_slb_acl_id" {
  value = "${data.alicloud_slb_acls.sample_ds.acls.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `ids` - (Optional) A list of acls IDs to filter results.
- `name_regex` - (Optional) A regex string to filter results by acl name.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `acls` - A list of SLB acls. Each element contains the following attributes:
  - `id` - Acl ID.
  - `name` - Acl name.
  - `entry_list` - A list of entry (IP addresses or CIDR blocks). Each entry contains two sub-fields as `Entry Block` follows.
  - `related_listeners` - A list of listener are attached by the acl. Each listener contains four sub-fields as `Listener Block` follows.

» Entry Block

The entry mapping supports the following:

- `entry` - An IP addresses or CIDR blocks.
- `comment` - the comment of the entry.

» Listener Block

The Listener mapping supports the following:

- `load_balancer_id` - the id of load balancer instance, the listener belongs to.
- `frontend_port` - the listener port.
- `protocol` - the listener protocol (such as tcp/udp/http/https, etc).
- `acl_type` - the type of acl (such as white/black).

» alicloud_oss_bucket_objects

This data source provides the objects of an OSS bucket.

» Example Usage

```
data "alicloud_oss_bucket_objects" "bucket_objects_ds" {
  bucket_name = "sample_bucket"
  key_regex = "sample/sample_object.txt"
}

output "first_object_key" {
  value = "${data.alicloud_oss_bucket_objects.bucket_objects_ds.bucket_objects.0.key}"
}
```

» Argument Reference

The following arguments are supported:

- `bucket_name` - Name of the bucket that contains the objects to find.
- `key_regex` - (Optional) A regex string to filter results by key.
- `key_prefix` - (Optional) Filter results by the given key prefix (such as "path/to/folder/logs-").
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `objects` - A list of bucket objects. Each element contains the following attributes:
  - `key` - Object key.

- `acl` - Object access control list. Possible values: `default`, `private`, `public-read` and `public-read-write`.
- `content_type` - Standard MIME type describing the format of the object data, e.g. "application/octet-stream".
- `content_length` - Size of the object in bytes.
- `cache_control` - Caching behavior along the request/reply chain. Read RFC2616 Cache-Control for further details.
- `content_disposition` - Presentational information for the object. Read RFC2616 Content-Disposition for further details.
- `content_encoding` - Content encodings that have been applied to the object and thus what decoding mechanisms must be applied to obtain the media-type referenced by the Content-Type header field. Read RFC2616 Content-Encoding for further details.
- `content_md5` - MD5 value of the content. Read MD5 for computing method.
- `expires` - Expiration date for the the request/response. Read RFC2616 Expires for further details.
- `server_side_encryption` - Server-side encryption of the object in OSS. It can be empty or `AES256`.
- `etag` - ETag generated for the object (MD5 sum of the object content).
- `storage_class` - Object storage type. Possible values: `Standard`, `IA` and `Archive`.
- `last_modification_time` - Last modification time of the object.

» alicloud_oss_buckets

This data source provides the OSS buckets of the current Alibaba Cloud user.

» Example Usage

```
data "alicloud_oss_buckets" "oss_buckets_ds" {
  name_regex = "sample_oss_bucket"
}

output "first_oss_bucket_name" {
  value = "${data.alicloud_oss_buckets.oss_buckets_ds.buckets.0.name}"
}
```

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string to filter results by bucket name.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `buckets` - A list of buckets. Each element contains the following attributes:
  - `name` - Bucket name.
  - `acl` - Bucket access control list. Possible values: `private`, `public-read` and `public-read-write`.
  - `extranet_endpoint` - Internet domain name for accessing the bucket from outside.
  - `intranet_endpoint` - Intranet domain name for accessing the bucket from an ECS instance in the same region.
  - `location` - Region of the data center where the bucket is located.
  - `owner` - Bucket owner.
  - `storage_class` - Object storage type. Possible values: `Standard`, `IA` and `Archive`.
  - `creation_date` - Bucket creation date.
  - `cors_rules` - A list of CORS rule configurations. Each element contains the following attributes:
  - `allowed_origins` - The origins allowed for cross-domain requests. Multiple elements can be used to specify multiple allowed origins. Each rule allows up to one wildcard "*". If "*" is specified, cross-domain requests of all origins are allowed.
  - `allowed_methods` - Specify the allowed methods for cross-domain requests. Possible values: `GET`, `PUT`, `DELETE`, `POST` and `HEAD`.
  - `allowed_headers` - Control whether the headers specified by Access-Control-Request-Headers in the OPTIONS prefetch command are allowed. Each header specified by Access-Control-Request-Headers must match a value in AllowedHeader. Each rule allows up to one wildcard "*" .
  - `expose_headers` - Specify the response headers allowing users to access from an application (for example, a Javascript XMLHttpRequest object). The wildcard "*" is not allowed.
  - `max_age_seconds` - Specify the cache time for the returned result of a browser prefetch (OPTIONS) request to a specific resource.
  - `website` - A list of one element containing configuration parameters used when the bucket is used as a website. It contains the following attributes:
  - `index_document` - Key of the HTML document containing the home page.

- `error_document` - Key of the HTML document containing the error page.
- `logging` - A list of one element containing configuration parameters used for storing access log information. It contains the following attributes:
- `target_bucket` - Bucket for storing access logs.
- `target_prefix` - Prefix of the saved access log file paths.
- `referer_config` - A list of one element containing referer configuration. It contains the following attributes:
- `allow_empty` - Indicate whether the access request referer field can be empty.
- `referers` - Referer access whitelist.
- `lifecycle_rule` - A list CORS of lifecycle configurations. When Lifecycle is enabled, OSS automatically deletes the objects or transitions the objects (to another storage class) corresponding the lifecycle rules on a regular basis. Each element contains the following attributes:
- `id` - Unique ID of the rule.
- `prefix` - Prefix applicable to a rule. Only those objects with a matching prefix can be affected by the rule.
- `enabled` - Indicate whether the rule is enabled or not.
- `expiration` - A list of one element containing expiration attributes of an object. It contains the following attributes:
  * `date` - Date after which the rule to take effect. The format is like 2017-03-09.
  * `days` - Indicate the number of days after the last object update until the rules take effect.

» alicloud_cr_namespaces

This data source provides a list Container Registry namespaces on Alibaba Cloud.

NOTE: Available in v1.35.0+

» Example Usage

```
# Declare the data source
data "alicloud_cr_namespaces" "my_namespaces" {
    name_regex = "my-namespace"
    output_file = "my-namespace-json"
}

output "output" {
  value = "${data.alicloud_cr_namespaces.my_namespaces.namespaces}"
```

```
}
```

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string to filter results by namespace name.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `ids` - A list of matched Container Registry namespaces. Its element is a namespace name.
- `namespaces` - A list of matched Container Registry namespaces. Each element contains the following attributes:
  - `name` - Name of Container Registry namespace.
  - `auto_create` - Boolean, when it set to true, repositories are automatically created when pushing new images. If it set to false, you create repository for images before pushing.
  - `default_visibility` - `PUBLIC` or `PRIVATE`, default repository visibility in this namespace.

» alicloud_cr_namespaces

This data source provides a list Container Registry namespaces on Alibaba Cloud.

NOTE: Available in v1.35.0+

» Example Usage

```
# Declare the data source
data "alicloud_cr_namespaces" "my_namespaces" {
    name_regex = "my-namespace"
    output_file = "my-namespace-json"
}

output "output" {
  value = "${data.alicloud_cr_namespaces.my_namespaces.namespaces}"
```

```
}
```

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string to filter results by namespace name.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `ids` - A list of matched Container Registry namespaces. Its element is a namespace name.
- `namespaces` - A list of matched Container Registry namespaces. Each element contains the following attributes:
  - `name` - Name of Container Registry namespace.
  - `auto_create` - Boolean, when it set to true, repositories are automatically created when pushing new images. If it set to false, you create repository for images before pushing.
  - `default_visibility` - `PUBLIC` or `PRIVATE`, default repository visibility in this namespace.

» alicloud_cs_kubernetes_clusters

This data source provides a list Container Service Kubernetes Clusters on Alibaba Cloud.

NOTE: Available in v1.34.0+.

» Example Usage

```
# Declare the data source
data "alicloud_cs_kubernetes_clusters" "k8s_clusters" {
  name_regex = "my-first-k8s"
  output_file = "my-first-k8s-json"
}

output "output" {
  value = "${data.alicloud_cs_kubernetes_clusters.k8s_clusters.clusters}"
```

```
}
```

» Argument Reference

The following arguments are supported:

- `ids` - (Optional) Cluster IDs to filter.
- `name_regex` - (Optional) A regex string to filter results by cluster name.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).
- `enabled_details` - (Optional) Boolean, false by default, only `id` and `name` are exported. Set to true if more details are needed, e.g., `master_disk_category`, `slb_internet_enabled`, `connections`. See full list in attributes.

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `ids` - A list of matched Kubernetes clusters' ids.
- `names` - A list of matched Kubernetes clusters' names.
- `clusters` - A list of matched Kubernetes clusters. Each element contains the following attributes:
  - `id` - The ID of the container cluster.
  - `name` - The name of the container cluster.
  - `availability_zone` - The ID of availability zone.
  - `key_name` - The keypair of ssh login cluster node, you have to create it first.
  - `worker_numbers` - The ECS instance node number in the current container cluster.
  - `vswitch_ids` - The ID of VSwitches where the current cluster is located.
  - `vpc_id` - The ID of VPC where the current cluster is located.
  - `slb_internet_enabled` - Whether internet load balancer for API Server is created
  - `security_group_id` - The ID of security group where the current cluster worker node is located.
  - `image_id` - The ID of node image.
  - `nat_gateway_id` - The ID of nat gateway used to launch kubernetes cluster.
  - `master_instance_types` - The instance type of master node.
  - `worker_instance_types` - The instance type of worker node.
  - `master_disk_category` - The system disk category of master node.
  - `master_disk_size` - The system disk size of master node.
  - `worker_disk_category` - The system disk category of worker node.

- `worker_disk_size` - The system disk size of worker node.
- `worker_data_disk_category` - The data disk size of worker node.
- `worker_data_disk_size` - The data disk category of worker node.
- `master_nodes` - List of cluster master nodes. It contains several attributes to `Block Nodes`.
- `worker_nodes` - List of cluster worker nodes. It contains several attributes to `Block Nodes`.
- `connections` - Map of kubernetes cluster connection information. It contains several attributes to `Block Connections`.
- `node_cidr_mask` - The network mask used on pods for each node.
- `log_config` - A list of one element containing information about the associated log store. It contains the following attributes:
- `type` - Type of collecting logs.
- `project` - Log Service project name.

» Block Nodes

- `id` - ID of the node.
- `name` - Node name.
- `private_ip` - The private IP address of node.
- `role` - (Deprecated from version 1.9.4)

» Block Connections

- `api_server_internet` - API Server Internet endpoint.
- `api_server_intranet` - API Server Intranet endpoint.
- `master_public_ip` - Master node SSH IP address.
- `service_domain` - Service Access Domain.

» alicloud_cs_managed_kubernetes_clusters

This data source provides a list Container Service Managed Kubernetes Clusters on Alibaba Cloud.

NOTE: Available in v1.35.0+

» Example Usage

```
# Declare the data source
data "alicloud_cs_managed_kubernetes_clusters" "k8s_clusters" {
  name_regex = "my-first-k8s"
  output_file = "my-first-k8s-json"
```

```
}

output "output" {
  value = "${data.alicloud_cs_managed_kubernetes_clusters.k8s_clusters.clusters}"
}
```

» Argument Reference

The following arguments are supported:

- `ids` - (Optional) Cluster IDs to filter.
- `name_regex` - (Optional) A regex string to filter results by cluster name.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).
- `enabled_details` - (Optional) Boolean, false by default, only `id` and `name` are exported. Set to true if more details are needed, e.g., `master_disk_category`, `slb_internet_enabled`, `connections`. See full list in attributes.

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `ids` - A list of matched Kubernetes clusters' ids.
- `names` - A list of matched Kubernetes clusters' names.
- `clusters` - A list of matched Kubernetes clusters. Each element contains the following attributes:
  - `id` - The ID of the container cluster.
  - `name` - The name of the container cluster.
  - `availability_zone` - The ID of availability zone.
  - `key_name` - The keypair of ssh login cluster node, you have to create it first.
  - `worker_numbers` - The ECS instance node number in the current container cluster.
  - `vswitch_ids` - The ID of VSwitches where the current cluster is located.
  - `vpc_id` - The ID of VPC where the current cluster is located.
  - `slb_internet_enabled` - Whether internet load balancer for API Server is created
  - `security_group_id` - The ID of security group where the current cluster worker node is located.
  - `image_id` - The ID of node image.
  - `nat_gateway_id` - The ID of nat gateway used to launch kubernetes cluster.
  - `worker_instance_types` - The instance type of worker node.

  - `worker_disk_category` - The system disk category of worker node.
  - `worker_disk_size` - The system disk size of worker node.
  - `worker_data_disk_category` - The data disk size of worker node.
  - `worker_data_disk_size` - The data disk category of worker node.
  - `worker_nodes` - List of cluster worker nodes. It contains several attributes to `Block Nodes`.
  - `connections` - Map of kubernetes cluster connection information. It contains several attributes to `Block Connections`.
  - `node_cidr_mask` - The network mask used on pods for each node.
  - `log_config` - A list of one element containing information about the associated log store. It contains the following attributes:
  - `type` - Type of collecting logs.
  - `project` - Log Service project name.

» Block Nodes

- `id` - ID of the node.
- `name` - Node name.
- `private_ip` - The private IP address of node.
- `role` - (Deprecated from version 1.9.4)

» Block Connections

- `api_server_internet` - API Server Internet endpoint.
- `api_server_intranet` - API Server Intranet endpoint.
- `master_public_ip` - Master node SSH IP address.
- `service_domain` - Service Access Domain.

» alicloud_fc_functions

This data source provides the Function Compute functions of the current Alibaba Cloud user.

» Example Usage

```
data "alicloud_fc_functions" "functions_ds" {
  service_name = "sample_service"
  name_regex = "sample_fc_function"
}

output "first_fc_function_name" {
  value = "${data.alicloud_fc_functions.functions_ds.functions.0.name}"
```

```
}
```

» Argument Reference

The following arguments are supported:

- `service_name` - Name of the service that contains the functions to find.
- `name_regex` - (Optional) A regex string to filter results by function name.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `functions` - A list of functions. Each element contains the following attributes:
  - `id` - Function ID.
  - `name` - Function name.
  - `description` - Function description.
  - `runtime` - Function runtime. The list of possible values is available here.
  - `handler` - Function entry point in the code.
  - `timeout` - Maximum amount of time the function can run in seconds.
  - `memory_size` - Amount of memory in MB the function can use at runtime.
  - `code_size` - Function code size in bytes.
  - `code_checksum` - Checksum (crc64) of the function code.
  - `creation_time` - Function creation time.
  - `last_modification_time` - Function last modification time.

» alicloud_fc_services

This data source provides the Function Compute services of the current Alibaba Cloud user.

» Example Usage

```
data "alicloud_fc_services" "fc_services_ds" {
  name_regex = "sample_fc_service"
}
```

```
output "first_fc_service_name" {
  value = "${data.alicloud_fc_services.fc_services_ds.services.0.name}"
}
```

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string to filter results by FC service name.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `services` - A list of FC services. Each element contains the following attributes:
  - `id` - FC service ID.
  - `name` - FC service name.
  - `description` - FC service description.
  - `role` - FC service role ARN.
  - `internet_access` - Indicate whether the service can access to internet or not.
  - `creation_time` - FC service creation time.
  - `last_modification_time` - FC service last modification time.
  - `log_config` - A list of one element containing information about the associated log store. It contains the following attributes:
  - `project` - Log Service project name.
  - `logstore` - Log Service store name.
  - `vpc_config` - A list of one element containing information about accessible VPC resources. It contains the following attributes:
  - `vpc_id` - Associated VPC ID.
  - `vswitch_ids` - Associated VSwitch IDs.
  - `security_group_id` - Associated security group ID.

» alicloud_fc_triggers

This data source provides the Function Compute triggers of the current Alibaba Cloud user.

» Example Usage

```
data "alicloud_fc_triggers" "fc_triggers_ds" {
  service_name = "sample_service"
  function_name = "sample_function"
  name_regex = "sample_fc_trigger"
}

output "first_fc_trigger_name" {
  value = "${data.alicloud_fc_triggers.fc_triggers_ds.triggers.0.name}"
}
```

» Argument Reference

The following arguments are supported:

- `service_name` - FC service name.
- `function_name` - FC function name.
- `name_regex` - (Optional) A regex string to filter results by FC trigger name.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `triggers` - A list of FC triggers. Each element contains the following attributes:
  - `id` - FC trigger ID.
  - `name` - FC trigger name.
  - `source_arn` - Event source resource address. See Create a trigger for more details.
  - `type` - Type of the trigger. Valid values: `oss`, `log`, `timer` and `http`.
  - `invocation_role` - RAM role arn attached to the Function Compute trigger. Role used by the event source to call the function. The value format is "acs:ram::$account-id:role/$role-name". See Create a trigger for more details.
  - `config` - JSON-encoded trigger configuration. See Configure triggers and events for more details.
  - `creation_time` - FC trigger creation time.
  - `last_modification_time` - FC trigger last modification time.

» alicloud_db_instances

The `alicloud_db_instances` data source provides a collection of RDS instances available in Alibaba Cloud account. Filters support regular expression for the instance name, searches by tags, and other filters which are listed below.

» Example Usage

```
data "alicloud_db_instances" "db_instances_ds" {
  name_regex = "data-\\d+"
  status     = "Running"
  tags       = <<EOF
{
  "type": "database",
  "size": "tiny"
}
EOF
}

output "first_db_instance_id" {
  value = "${data.alicloud_db_instances.db_instances_ds.instances.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string to filter results by instance name.
- `engine` - (Optional) Database type. Options are `MySQL`, `SQLServer`, `PostgreSQL` and `PPAS`. If no value is specified, all types are returned.
- `status` - (Optional) Status of the instance.
- `db_type` - (Optional) `Primary` for primary instance, `ReadOnly` for read-only instance, `Guard` for disaster recovery instance, and `Temp` for temporary instance.
- `vpc_id` - (Optional) Used to retrieve instances belong to specified VPC.
- `vswitch_id` - (Optional) Used to retrieve instances belong to specified `vswitch` resources.
- `connection_mode` - (Optional) `Standard` for standard access mode and `Safe` for high security access mode.
- `tags` - (Optional) Query the instance bound to the tag. The format of the incoming value is `json` string, including `TagKey` and `TagValue`. `TagKey` cannot be null, and `TagValue` can be empty. Format example `{"key1":"value1"}`.

- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `instances` - A list of RDS instances. Each element contains the following attributes:
  - `id` - The ID of the RDS instance.
  - `name` - The name of the RDS instance.
  - `charge_type` - Billing method. Value options: `Postpaid` for Pay-As-You-Go and `Prepaid` for subscription.
  - `db_type` - `Primary` for primary instance, `ReadOnly` for read-only instance, `Guard` for disaster recovery instance, and `Temp` for temporary instance.
  - `region_id` - Region ID the instance belongs to.
  - `create_time` - Creation time of the instance.
  - `expire_time` - Expiration time. Pay-As-You-Go instances never expire.
  - `status` - Status of the instance.
  - `engine` - Database type. Options are `MySQL`, `SQLServer`, `PostgreSQL` and `PPAS`. If no value is specified, all types are returned.
  - `engine_version` - Database version.
  - `net_type` - `Internet` for public network or `Intranet` for private network.
  - `connection_mode` - `Standard` for standard access mode and `Safe` for high security access mode.
  - `instance_type` - Sizing of the RDS instance.
  - `availability_zone` - Availability zone.
  - `master_instance_id` - ID of the primary instance. If this parameter is not returned, the current instance is a primary instance.
  - `guard_instance_id` - If a disaster recovery instance is attached to the current instance, the ID of the disaster recovery instance applies.
  - `temp_instance_id` - If a temporary instance is attached to the current instance, the ID of the temporary instance applies.
  - `readonly_instance_ids` - A list of IDs of read-only instances attached to the primary instance.
  - `vpc_id` - ID of the VPC the instance belongs to.
  - `vswitch_id` - ID of the VSwitch the instance belongs to.

» alicloud_kvstore_instances

The `alicloud_kvstore_instances` data source provides a collection of kvstore instances available in Alicloud account. Filters support regular expression for the instance name, searches by tags, and other filters which are listed below.

» Example Usage

```
data "alicloud_kvstore_instances" "dbs" {
  name_regex = "data-\\d+"
  status     = "Running"
  tags       = <<EOF
{
  "type": "cache",
  "size": "small"
}
EOF
}
```

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string to apply to the instance name.
- `instance_type` - (Optional) Database type. Options are `Memcache`, and `Redis`. If no value is specified, all types are returned.
- `status` - (Optional) Status of the instance.
- `instance_class`- (Optional) Type of the applied ApsaraDB for Redis instance. For more information, see Instance type table.
- `vpc_id` - (Optional) Used to retrieve instances belong to specified VPC.
- `vswitch_id` - (Optional) Used to retrieve instances belong to specified `vswitch` resources.
- `tags` - (Optional) Query the instance bound to the tag. The format of the incoming value is `json` string, including `TagKey` and `TagValue`. `TagKey` cannot be null, and `TagValue` can be empty. Format example `{"key1":"value1"}`.
- `output_file` - (Optional) The name of file that can save the collection of instances after running `terraform plan`.

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `instances` - A list of RDS instances. Its every element contains the following attributes:
  - `id` - The ID of the RKV instance.
  - `name` - The name of the RDS instance.
  - `charge_type` - Billing method. Value options: `PostPaid` for Pay-As-You-Go and `PrePaid` for subscription.
  - `region_id` - Region ID the instance belongs to.
  - `create_time` - Creation time of the instance.
  - `expire_time` - Expiration time. Pay-As-You-Go instances are never expire.
  - `status` - Status of the instance.
  - `instance_type` - (Optional) Database type. Options are `Memcache`, and `Redis`. If no value is specified, all types are returned.
  - `instance_class`- (Optional) Type of the applied ApsaraDB for Redis instance. For more information, see Instance type table.
  - `availability_zone` - Availability zone.
  - `vpc_id` - VPC ID the instance belongs to.
  - `vswitch_id` - VSwitch ID the instance belongs to.
  - `private_ip` - Private IP address of the instance.
  - `username` - The username of the instance.
  - `capacity` - Capacity of the applied ApsaraDB for Redis instance. Unit: MB.
  - `bandwidth` - Instance bandwidth limit. Unit: Mbit/s.
  - `connections` - Instance connection quantity limit. Unit: count.
  - `connections_domain` - Instance connection domain (only Intranet access supported).
  - `port` - Connection port of the instance.

» alicloud_mongo_instances

The `alicloud_mongo_instances` data source provides a collection of MongoDB instances available in Alicloud account. Filters support regular expression for the instance name, engine or instance type.

» Example Usage

```
data "alicloud_mongo_instances" "mongo" {
  name_regex        = "dds-.+\\d+"
  instance_type     = "replicate"
  instance_class    = "dds.mongo.mid"
  availability_zone = "eu-central-1a"
}
```

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string to apply to the instance name.
- `instance_type` - (Optional) Type of the instance to be queried. If it is set to `sharding`, the sharded cluster instances are listed. If it is set to `replicate`, replica set instances are listed. Default value `replicate`.
- `instance_class` - (Optional) Sizing of the instance to be queried.
- `availability_zone` - (Optional) Instance availability zone.
- `output_file` - (Optional) The name of file that can save the collection of instances after running `terraform plan`.

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `instances` - A list of MongoDB instances. Its every element contains the following attributes:
  - `id` - The ID of the MongoDB instance.
  - `name` - The name of the MongoDB instance.
  - `charge_type` - Billing method. Value options are `PostPaid` for Pay-As-You-Go and `PrePaid` for yearly or monthly subscription.
  - `instance_type` - Instance type. Optional values `sharding` or `replicate`.
  - `region_id` - Region ID the instance belongs to.
  - `creation_time` - Creation time of the instance in RFC3339 format.
  - `expiration_time` - Expiration time in RFC3339 format. Pay-As-You-Go instances are never expire.
  - `status` - Status of the instance.
  - `replication` - Replication factor corresponds to number of nodes. Optional values are `1` for single node and `3` for three nodes replica set.
  - `engine` - Database engine type. Supported option is `MongoDB`.
  - `engine_version` - Database engine version.
  - `network_type` - Classic network or VPC.
  - `instance_class` - Sizing of the MongoDB instance.
  - `lock_mode` - Lock status of the instance.
  - `storage` - Storage size.
  - `mongos` - Array composed of Mongos.
  - `node_id` - Mongos instance ID.
  - `description` - Mongos instance description.
  - `class` - Mongos instance specification.
  - `shards` - Array composed of shards.
  - `node_id` - Shard instance ID.
  - `description` - Shard instance description.

- `class` - Shard instance specification.
- `storage` - Shard disk.
- `availability_zone` - Instance availability zone.

» alicloud_dns_domain_groups

NOTE: This datasource has been deprecated from v1.3.2. Please use the datasource `alicloud_dns_groups` instead.

» alicloud_dns_domain_records

NOTE: This resource has been deprecated from v1.3.2. Please use the datasource `alicloud_dns_records` instead.

» alicloud_dns_groups

This data source provides a list of DNS Domain Groups in an Alibaba Cloud account according to the specified filters.

» Example Usage

```
data "alicloud_dns_groups" "groups_ds" {
  name_regex = "^y[A-Za-z]+"
  output_file = "groups.txt"
}

output "first_group_name" {
  value = "${data.alicloud_dns_groups.groups_ds.groups.0.group_name}"
}
```

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string to filter results by group name.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `groups` - A list of groups. Each element contains the following attributes:
  - `group_id` - Id of the group.
  - `group_name` - Name of the group.

» alicloud_dns_records

This data source provides a list of DNS Domain Records in an Alibaba Cloud account according to the specified filters.

» Example Usage

```
data "alicloud_dns_records" "records_ds" {
  domain_name = "xiaozhu.top"
  is_locked = false
  type = "A"
  host_record_regex = "^@"
  output_file = "records.txt"
}

output "first_record_id" {
  value = "${data.alicloud_dns_records.records_ds.records.0.record_id}"
}
```

» Argument Reference

The following arguments are supported:

- `domain_name` - (Required) The domain name associated to the records.
- `host_record_regex` - (Optional) Host record regex.
- `value_regex` - (Optional) Host record value regex.
- `type` - (Optional) Record type. Valid items are `A`, `NS`, `MX`, `TXT`, `CNAME`, `SRV`, `AAAA`, `REDIRECT_URL`, `FORWORD_URL` .
- `line` - (Optional) ISP line. Valid items are `default`, `telecom`, `unicom`, `mobile`, `oversea`, `edu`.
- `status` - (Optional) Record status. Valid items are `ENABLE` and `DISABLE`.
- `is_locked` - (Optional, type: bool) Whether the record is locked or not.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `records` - A list of records. Each element contains the following attributes:
  - `record_id` - ID of the record.
  - `domain_name` - Name of the domain the record belongs to.
  - `host_record` - Host record of the domain.
  - `value` - Host record value of the domain.
  - `type` - Type of the record.
  - `ttl` - TTL of the record.
  - `priority` - Priority of the `MX` record.
  - `line` - ISP line of the record.
  - `status` - Status of the record.
  - `locked` - Indicates whether the record is locked.

» alicloud_dns_domains

This data source provides a list of DNS Domains in an Alibaba Cloud account according to the specified filters.

» Example Usage

```
data "alicloud_dns_domains" "domains_ds" {
  domain_name_regex = "^hegu"
  output_file = "domains.txt"
}

output "first_domain_id" {
  value = "${data.alicloud_dns_domains.domains_ds.domains.0.domain_id}"
}
```

» Argument Reference

The following arguments are supported:

- `domain_name_regex` - (Optional) A regex string to filter results by the domain name.
- `group_name_regex` - (Optional) A regex string to filter results by the group name.
- `ali_domain` - (Optional, type: bool) Specifies whether the domain is from Alibaba Cloud or not.
- `instance_id` - (Optional) Cloud analysis product ID.

- `version_code` - (Optional) Cloud analysis version code.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `ids` - A list of domain IDs.
- `names` - A list of domain names.
- `domains` - A list of domains. Each element contains the following attributes:
  - `domain_id` - ID of the domain.
  - `domain_name` - Name of the domain.
  - `ali_domain` - Indicates whether the domain is an Alibaba Cloud domain.
  - `group_id` - Id of group that contains the domain.
  - `group_name` - Name of group that contains the domain.
  - `instance_id` - Cloud analysis product ID of the domain.
  - `version_code` - Cloud analysis version code of the domain.
  - `puny_code` - Punycode of the Chinese domain.
  - `dns_servers` - DNS list of the domain in the analysis system.

» alicloud_ram_account_aliases

This data source provides an alias for the Alibaba Cloud account.

» Example Usage

```
data "alicloud_ram_account_aliases" "alias_ds" {
  output_file = "alias.txt"
}

output "account_alias" {
  value = "${data.alicloud_ram_account_aliases.alias_ds.account_alias}"
}
```

» Argument Reference

The following arguments are supported:

- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `account_alias` - Alias of the account.

» alicloud_ram_account_alias

NOTE: This datasource has been deprecated from v1.3.2. Please use `alicloud_ram_account_aliases` instead.

» alicloud_ram_groups

This data source provides a list of RAM Groups in an Alibaba Cloud account according to the specified filters.

» Example Usage

```
data "alicloud_ram_groups" "groups_ds" {
  output_file = "groups.txt"
  user_name = "user1"
  name_regex = "^group[0-9]*"
}

output "first_group_name" {
  value = "${data.alicloud_ram_groups.groups_ds.groups.0.name}"
}
```

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string to filter the returned groups by their names.
- `user_name` - (Optional) Filter the results by a specific the user name.
- `policy_type` - (Optional) Filter the results by a specific policy type. Valid items are `Custom` and `System`. If you set this parameter, you must set `policy_name` as well.
- `policy_name` - (Optional) Filter the results by a specific policy name. If you set this parameter without setting `policy_type`, it will be automatically set to `System`.

- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `groups` - A list of groups. Each element contains the following attributes:
  - `name` - Name of the group.
  - `comments` - Comments of the group.

» alicloud_ram_policies

This data source provides a list of RAM policies in an Alibaba Cloud account according to the specified filters.

» Example Usage

```
data "alicloud_ram_policies" "policies_ds" {
  output_file = "policies.txt"
  user_name = "user1"
  group_name = "group1"
  type = "System"
}

output "first_policy_name" {
  value = "${data.alicloud_ram_policies.policies_ds.policies.0.name}"
}
```

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string to filter resulting policies by name.
- `type` - (Optional) Filter results by a specific policy type. Valid values are `Custom` and `System`.
- `user_name` - (Optional) Filter results by a specific user name. Returned policies are attached to the specified user.
- `group_name` - (Optional) Filter results by a specific group name. Returned policies are attached to the specified group.
- `role_name` - (Optional) Filter results by a specific role name. Returned policies are attached to the specified role.

- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `policies` - A list of policies. Each element contains the following attributes:
  - `name` - Name of the policy.
  - `type` - Type of the policy.
  - `description` - Description of the policy.
  - `default_version` - Default version of the policy.
  - `create_date` - Creation date of the policy.
  - `update_date` - Update date of the policy.
  - `attachment_count` - Attachment count of the policy.
  - `document` - Policy document of the policy.

» alicloud_ram_roles

This data source provides a list of RAM Roles in an Alibaba Cloud account according to the specified filters.

» Example Usage

```
data "alicloud_ram_roles" "roles_ds" {
  output_file = "roles.txt"
  name_regex = ".*test.*"
  policy_name = "AliyunACSDefaultAccess"
  policy_type = "Custom"
}

output "first_role_id" {
  value = "${data.alicloud_ram_roles.roles_ds.roles.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string to filter results by the role name.

- `policy_type` - (Optional) Filter results by a specific policy type. Valid values are `Custom` and `System`. If you set this parameter, you must set `policy_name` as well.
- `policy_name` - (Optional) Filter results by a specific policy name. If you set this parameter without setting `policy_type`, the later will be automatically set to `System`. The resulting roles will be attached to the specified policy.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `roles` - A list of roles. Each element contains the following attributes:
  - `id` - Id of the role.
  - `name` - Name of the role.
  - `arn` - Resource descriptor of the role.
  - `description` - Description of the role.
  - `assume_role_policy_document` - Authorization strategy of the role. This parameter is deprecated and replaced by `document`.
  - `document` - Authorization strategy of the role.
  - `create_date` - Creation date of the role.
  - `update_date` - Update date of the role.

» alicloud_ram_users

This data source provides a list of RAM users in an Alibaba Cloud account according to the specified filters.

» Example Usage

```
data "alicloud_ram_users" "users_ds" {
  output_file = "users.txt"
  group_name = "group1"
  policy_name = "AliyunACSDefaultAccess"
  policy_type = "Custom"
  name_regex = "^user"
}

output "first_user_id" {
  value = "${data.alicloud_ram_users.users_ds.users.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string to filter resulting users by their names.
- `group_name` - (Optional) Filter results by a specific group name. Returned users are in the specified group.
- `policy_type` - (Optional) Filter results by a specific policy type. Valid values are `Custom` and `System`. If you set this parameter, you must set `policy_name` as well.
- `policy_name` - (Optional) Filter results by a specific policy name. If you set this parameter without setting `policy_type`, the later will be automatically set to `System`. Returned users are attached to the specified policy.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `users` - A list of users. Each element contains the following attributes:
  - `id` - Id of the user.
  - `name` - Name of the user.
  - `create_date` - Creation date of the user.
  - `last_login_date` - Last login date of the user.

» alicloud_pvtz_zones

This data source lists a number of Private Zones resource information owned by an Alibaba Cloud account.

» Example Usage

```
data "alicloud_pvtz_zones" "pvtz_zones_ds" {
    keyword = "${alicloud_pvtz_zone.basic.zone_name}"
}

output "first_zone_id" {
  value = "${data.alicloud_pvtz_zones.pvtz_zones_ds.zones.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `keyword` - (Optional) keyword for zone name.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `zones` - A list of zones. Each element contains the following attributes:
  - `id` - ID of the Private Zone.
  - `remark` - Remark of the Private Zone.
  - `record_count` - Count of the Private Zone Record.
  - `name` - Name of the Private Zone.
  - `is_ptr` - Whether the Private Zone is ptr
  - `creation_time` - Time of creation of the Private Zone.
  - `update_time` - Time of update of the Private Zone.
  - `bind_vpcs` - List of the VPCs is bound to the Private Zone.

» alicloud_pvtz_zone_records

This data source provides Private Zone Records resource information owned by an Alibaba Cloud account.

» Example Usage

```
data "alicloud_pvtz_zone_records" "records_ds" {
    zone_id = "${alicloud_pvtz_zone.basic.id}"
    keyword = "${alicloud_pvtz_zone_record.foo.value}"
}

output "first_record_id" {
  value = "${data.alicloud_pvtz_zone_records.records_ds.records.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `keyword` - (Optional) Keyword for record rr and value.

- `zone_id` - (Required) ID of the Private Zone.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `records` - A list of zone records. Each element contains the following attributes:
  - `id` - ID of the Private Zone Record.
  - `resource_record` - Resource record of the Private Zone Record.
  - `type` - Type of the Private Zone Record.
  - `value` - Value of the Private Zone Record.
  - `ttl` - Ttl of the Private Zone Record.
  - `priority` - Priority of the Private Zone Record.

» alicloud_cen_instances

This data source provides CEN instances available to the user.

» Example Usage

```
data "alicloud_cen_instances" "cen_instances_ds"{
  ids = ["cen-id1"]
  name_regex = "^foo"
}

output "first_cen_instance_id" {
  value = "${data.alicloud_cen_instances.cen_instances_ds.instances.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `ids` - (Optional) A list of CEN instances IDs.
- `name_regex` - (Optional) A regex string to filter CEN instances by name.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `instances` - A list of CEN instances. Each element contains the following attributes:
  - `id` - ID of the CEN instance.
  - `name` - Name of the CEN instance.
  - `status` - Status of the CEN instance, including "Creating", "Active" and "Deleting".
  - `bandwidth_package_ids` - List of CEN Bandwidth Package IDs in the specified CEN instance.
  - `child_instance_ids` - List of child instance IDs in the specified CEN instance.
  - `description` - Description of the CEN instance.

» alicloud_cen_bandwidth_packages

This data source provides CEN Bandwidth Packages available to the user.

» Example Usage

```
data "alicloud_cen_bandwidth_packages" "bwp" {
    instance_id = "cen-id1"
    name_regex="^foo"
}

output "first_cen_bandwidth_package_id" {
  value = "${data.alicloud_cen_bandwidth_packages.bwp.packages.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `instance_id` - (Optional) ID of a CEN instance.
- `ids` - (Optional) Limit search to a list of specific CEN Bandwidth Package IDs.
- `name_regex` - (Optional) A regex string to filter CEN Bandwidth Package by name.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `packages` - A list of CEN bandwidth package. Each element contains the following attributes:
  - `id` - ID of the CEN Bandwidth Package.
  - `instance_id` - ID of CEN instance that owns the CEN Bandwidth Package.
  - `name` - Name of the CEN Bandwidth Package.
  - `description` - Description of the CEN Bandwidth Package.
  - `business_status` - Status of the CEN Bandwidth Package, including "Normal", "FinancialLocked" and "SecurityLocked".
  - `status` - Status of the CEN Bandwidth Package in CEN instance, including "Idle" and "InUse".
  - `bandwidth` - The bandwidth in Mbps of the CEN bandwidth package.
  - `creation_time` - Creation time of the CEN bandwidth package.
  - `bandwidth_package_charge_type` - The billing method, including "POSTPAY" and "PREPAY".
  - `geographic_region_a_id` - Region ID of the interconnected regions.
  - `geographic_region_b_id` - Region ID of the interconnected regions.

» alicloud_cen_bandwidth_limits

This data source provides CEN Bandwidth Limits available to the user.

» Example Usage

```
data "alicloud_cen_bandwidth_limits" "bwl"{
    instance_ids = ["cen-id1"]
}

output "first_cen_bandwidth_limits_local_region_id" {
  value = "${data.alicloud_cen_bandwidth_packages.bwl.bandwidth_limits.0.local_region_id}"
}
```

» Argument Reference

The following arguments are supported:

- `instance_ids` - (Optional) A list of CEN instances IDs.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `limits` - A list of CEN Bandwidth Limits. Each element contains the following attributes:
  - `instance_id` - ID of the CEN instance.
  - `local_region_id` - ID of local region.
  - `opposite_region_id` - ID of opposite region.
  - `status` - Status of the CEN Bandwidth Limit, including "Active" and "Modifying".
  - `bandwidth_limit` - The bandwidth limit configured for the interconnected regions communication.

» alicloud_cen_route_entries

This data source provides CEN Route Entries available to the user.

» Example Usage

```
data "alicloud_cen_route_entries" "entry"{
    instance_id = "cen-id1"
    route_table_id = "vtb-id1"
}

output "first_route_entries_route_entry_cidr_block" {
  value = "${data.alicloud_cen_route_entries.entry.entries.0.cidr_block}"
}
```

» Argument Reference

The following arguments are supported:

- `instance_id` - (Required) ID of the CEN instance.
- `route_table_id` - (Required) ID of the route table of the VPC or VBR.
- `cidr_block` - (Optional) The destination CIDR block of the route entry to query.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `entries` - A list of CEN Route Entries. Each element contains the following attributes:
  - `route_table_id` - ID of the route table.
  - `cidr_block` - The destination CIDR block of the route entry.
  - `next_hop_id` - ID of the next hop.
  - `next_hop_type` - Type of the next hop, including "Instance", "HaVip" and "RouterInterface".
  - `route_type` - Type of the route entry, including "System", "Custom" and "BGP".
  - `operational_mode` - Whether to allow the route entry to be published or removed to or from CEN.
  - `publish_status` - The publish status of the route entry in CEN, including "Published" and "NonPublished".
  - `conflicts` - A list of conflicted Route Entries. Each element contains the following attributes:
    - `cidr_block` - The destination CIDR block of the conflicted route entry.
    - `region_id` - ID of the region where the conflicted route entry is located.
    - `instance_id` - ID of the CEN child instance.
    - `instance_type` - The type of the CEN child instance.
    - `status` - Reasons of exceptions.

» alicloud_cen_region_route_entries

This data source provides CEN Regional Route Entries available to the user.

» Example Usage

```
data "alicloud_cen_region_route_entries" "entry"{
    instance_id = "cen-id1"
    region_id = "cn-beijing"
}

output "first_region_route_entries_route_entry_cidr_block" {
  value = "${data.alicloud_cen_region_route_entries.entry.entries.0.cidr_block}"
}
```

» Argument Reference

The following arguments are supported:

- `instance_id` - (Required) ID of the CEN instance.

- `region_id` - (Required) ID of the region.

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `entries` - A list of CEN Route Entries. Each element contains the following attributes:
  - `cidr_block` - The destination CIDR block of the route entry.
  - `type` - Type of the route entry.
  - `next_hop_id` - ID of the next hop.
  - `next_hop_type` - Type of the next hop.
  - `next_hop_region_id` - ID of the region where the next hop is located.

» alicloud_mns_queues

This data source provides a list of MNS queues in an Alibaba Cloud account according to the specified parameters.

» Example Usage

```
data "alicloud_mns_queues" "queues" {
  name_prefix = "tf-"
}

output "first_queue_id" {
  value = "${data.alicloud_mns_queues.queues.queues.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `name_prefix` - (Optional) A string to filter resulting queues by their name prefixs.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `queues` - A list of users. Each element contains the following attributes:
  - `id` - The id of the queue
  - `name` - The name of the queue
  - `delay_seconds` - This attribute defines the length of time, in seconds, after which every message sent to the queue is dequeued.
  - `maximum_message_size` - This indicates the maximum length, in bytes, of any message body sent to the queue.
  - `message_retention_period` - Messages are deleted from the queue after a specified length of time, whether they have been activated or not. This attribute defines the viability period, in seconds, for every message in the queue.
  - `visibility_timeout` - Dequeued messages change from active (visible) status to inactive (invisible) status. This attribute defines the length of time, in seconds, that messages remain invisible. Messages return to active status after the set period.
  - `polling_wait_seconds` - Long polling is measured in seconds. When this attribute is set to 0, long polling is disabled. When it is not set to 0, long polling is enabled and message dequeue requests will be processed only when valid messages are received or when long polling times out.

» alicloud_mns_topics

This data source provides a list of MNS topics in an Alibaba Cloud account according to the specified parameters.

» Example Usage

```
data "alicloud_mns_topics" "topics" {
  name_prefix = "tf-"
}

output "first_topic_id" {
  value = "${data.alicloud_mns_topics.topics.topics.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `name_prefix` - (Optional) A string to filter resulting topics by their name prefixs.

- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `topics` - A list of users. Each element contains the following attributes:
  - `id` - The id of the topic.
  - `name` - The name of the topic.
  - `maximum_message_size` - This indicates the maximum length, in bytes, of any message body sent to the topic.
  - `logging_enabled` - Whether to enable logging.

» alicloud_mns_topic_subscriptions

This data source provides a list of MNS topic subscriptions in an Alibaba Cloud account according to the specified parameters.

» Example Usage

```
data "alicloud_mns_topic_subscriptions" "subscriptions" {
  topic_name="topic_name"
  name_prefix = "tf-"
}

output "first_topic_subscription_id" {
  value = "${data.alicloud_mns_topic_subscriptions.subscriptions.subscriptions.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `topic_name` - (Required) Two topics on a single account in the same region cannot have the same name. A topic name must start with an English letter or a digit, and can contain English letters, digits, and hyphens, with the length not exceeding 256 characters.
- `name_prefix` - (Optional) A string to filter resulting subscriptions of the topic by their name prefixs.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `subscriptions` - A list of users. Each element contains the following attributes:
  - `id` - The ID of the topic subscription. Format to `<topic_name>:<name>`.
  - `name` - The name of the subscription.
  - `topic_name`- The topic which The subscription belongs to was named with the name.
  - `notify_strategy` - The NotifyStrategy attribute of Subscription. This attribute specifies the retry strategy when message sending fails.
  - `notify_content_format` - The NotifyContentFormat attribute of Subscription. This attribute specifies the content format of the messages pushed to users.
  - `endpoint` - Describe the terminal address of the message received in this subscription.
  - `filter_tag`- A string to filter resulting messages of the topic by their message tag.

» alicloud_drds_instance

The `alicloud_drds_instance` data source provides a collection of DRDS instances available in Alibaba Cloud account. Filters support regular expression for the instance name, searches by tags, and other filters which are listed below.

NOTE: Available in 1.35.0+.

» Example Usage

```
data "alicloud_drds_instances" "drds_instances_ds" {
  name_regex = "drds-\\d+"
  ids     = "drdsfacbz68g3299test"
}
 output "first_db_instance_id" {
  value = "${data.alicloud_drds_instances.drds_instances_ds.instances.0.drdsInstanceId}"
}
```

» Argument Reference

The following arguments are supported:

- `name_regex` - A regex string to filter results by instance name.
- `ids` - (Optional) A list of DRDS instance IDs.

» Attributes Reference

The following attributes are exported in addition to the arguments listed above: * `ids` - A list of DRDS instance IDs. * `id` - The ID of the DRDS instance. * `description` - The DRDS instance description. * `name` - The name of the RDS instance. * `status` - Status of the instance. * `type` - The DRDS Instance type. * `create_time` - Creation time of the instance. * `network_type` - `Classic` for public classic network or `VPC` for private network. * `zone_id` - Zone ID the instance belongs to. * `version` - The DRDS Instance version. * `ids` - A list of DRDS instance IDs.

» alicloud_elasticsearch_instances

The `alicloud_elasticsearch_instances` data source provides a collection of Elasticsearch instances available in Alicloud account. Filters support description regex and other filters which are listed below.

» Example Usage

```
data "alicloud_elasticsearch_instances" "instances" {
  description_regex = "myes"
  version           = "5.5.3_with_X-Pack"
}
```

» Argument Reference

The following arguments are supported:

- `description_regex` - (Optional) A regex string to apply to the instance description.
- `version` - (Optional) Elasticsearch version. Options are `5.5.3_with_X-Pack`, and `6.3.2_with_X-Pack`. If no value is specified, all versions are returned.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `ids` - A list of Elasticsearch instance IDs.
- `instances` - A list of Elasticsearch instances. Its every element contains the following attributes:

- `id` - The ID of the Elasticsearch instance.
- `description` - The description of the Elasticsearch instance.
- `instance_charge_type` - Billing method. Value options: `PostPaid` for Pay-As-You-Go and `PrePaid` for subscription.
- `data_node_amount` - The Elasticsearch cluster's data node quantity, between 2 and 50.
- `data_node_spec` - The data node specifications of the elasticsearch instance.
- `data_node_disk_size` - The single data node storage space. Unit: GB.
- `data_node_disk_type` - The data node disk type. Included values: `cloud_ssd` and `cloud_efficiency`.
- `vswitch_id` - VSwitch ID the instance belongs to.
- `version` - Elasticsearch version includes `5.5.3_with_X-Pack` and `6.3.2_with_X-Pack`.
- `cerated_at` - The creation time of the instance. It's a GTM format, such as: "2019-01-08T15:50:50.623Z".
- `updated_at` - The last modified time of the instance. It's a GMT format, such as: "2019-01-08T15:50:50.623Z".
- `status` - Status of the instance. It includes `active`, `activating`, `inactive`

» alicloud_nas_access_groups

This data source provides user-available access groups. Use when you can create mount points

NOTE: Available in 1.35.0+

» Example Usage

```
data "alicloud_nas_access_groups" "ag" {
  name_regex = "^foo"
  type = "Classic"
  description = "tf-testAccAccessGroupsdatasource"
}

output "first_nas_access_groups_id" {
  value = "${data.alicloud_nas_access_groups.nas_access_groups_ds.access_groups.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `name_regex` - (Required) A regex string to filter AccessGroups by name.
- `type` - (Optional) Filter results by a specific AccessGroupType.
- `description` - (Optional) Filter results by a specific Description.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `ids` - A list of AccessGroup IDs.
- `groups` - A list of AccessGroups. Each element contains the following attributes:
  - `id` - AccessGroupName of the AccessGroup.
  - `rule_count` - RuleCount of the AccessGroup.
  - `type` - AccessGroupType of the AccessGroup.
  - `mount_target_count` - MountTargetCount block of the AccessGroup
  - `description` - Destription of the AccessGroup.

» alicloud_nas_access_rules

This data source provides AccessRule available to the user.

NOTE: Available in 1.35.0+

» Example Usage

```
data "alicloud_nas_access_rules" "foo" {
  access_group_name = "tf-testAccAccessGroupsdatasource"
  source_cidr_ip = "168.1.1.0/16"
  rw_access_type = "RDWR"
  user_access_type = "no_squash"
  priority = 2
}

output "first_nas_accessrules_id" {
  value = "${data.alicloud_nas_accessrules.nas_accessrules_ds.accessrules.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `access_group_name` - (Required ForceNew) Filter results by a specific AccessGroupName.
- `source_cidr_ip` - (Optional) Filter results by a specific SourceCidrIp.
- `user_access` - (Optional) Filter results by a specific UserAccess.
- `rw_access` - (Optional) Filter results by a specific RWAccess.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `ids` - A list of rule id. Each item formats as `<access_group_name>:<access rule id>`.
- `rules` - A list of AccessRules. Each element contains the following attributes:
  - `source_cidr_ip` - SourceCidrIp of the AccessRule.
  - `priority` - Priority of the AccessRule.
  - `access_rule_id` - AccessRuleId of the AccessRule.
  - `user_access` - UserAccess of the AccessRule
  - `rw_access` - RWAccess of the AccessRule.

» alicloud_nas_file_systems

This data source provides FileSystems available to the user.

NOTE: Available in 1.35.0+

» Example Usage

```
data "alicloud_nas_file_systems" "fs" {
   protocol_type = "NFS"
   description = "${alicloud_nas_file_system.foo.description}"
}

output "first_nas_filesystems_id" {
  value = "${data.alicloud_nas_filesystems.nas_filesystems_ds.filesystems.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `ids` - (Optional) A list of FileSystemId.
- `storage_type` - (Optional) Filter results by a specific StorageType.
- `protocol_type` - (Optional) Filter results by a specific ProtocolType.
- `description_regex` - (Optional) A regex string to filter the results by the FileSystem description.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `ids` - A list of FileSystem Id.
- `systems` - A list of VPCs. Each element contains the following attributes:
  - `id` - ID of the FileSystem.
  - `region_id` - ID of the region where the FileSystem is located.
  - `description` - Destription of the FileSystem.
  - `protocol_type` - ProtocolType block of the FileSystem
  - `storage_type` - StorageType block of the FileSystem.
  - `metered_size` - MeteredSize of the FileSystem.
  - `creation_time` - Time of creation.

» alicloud_nas_mount_targets

This data source provides MountTargets available to the user.

NOTE: Available in 1.35.0+

» Example Usage

```
data "alicloud_nas_mount_targets" "mt" {
  file_system_id = "1a2sc4d"
  access_group_name = "tf-testAccNasConfig"
}

output "alicloud_nas_mount_targets_id" {
  value = "${data.alicloud_nas_mount_targets.alicloud_nas_mount_targets_ds.mount_targets.0.i
}
```

» Argument Reference

The following arguments are supported:

- `file_system_id` - (Required ForceNew) The ID of the FileSystem that owns the MountTarget.
- `access_group_name` - (Optional) Filter results by a specific AccessGroupName.
- `type` - (Optional) Filter results by a specific NetworkType.
- `mount_target_domain` - (Optional) Filter results by a specific MountTargetDomain.
- `vpc_id` - (Optional) Filter results by a specific VpcId.
- `vswitch_id` - (Optional) Filter results by a specific VSwitchId.
- `output_file` - (Optional) File name where to save data source results (after running `terraform plan`).

» Attributes Reference

The following attributes are exported in addition to the arguments listed above:

- `ids` - A list of MountTargetDomain.
- `targets` - A list of MountTargetDomains. Each element contains the following attributes:
  - `id` - ID of the MountTargetDomain.
  - `mount_target_domain` - MountTargetDomain of the MountTarget.
  - `type`- NetworkType of The MountTarget.
  - `vpc_id` - VpcId of The MountTarget.
  - `vswitch_id` - VSwitchId of The MountTarget.
  - `access_group_name` - AccessGroup of The MountTarget.

» alicloud_disk

Provides a ECS disk resource.

NOTE: One of `size` or `snapshot_id` is required when specifying an ECS disk. If all of them be specified, `size` must more than the size of snapshot which `snapshot_id` represents. Currently, `alicloud_disk` doesn't resize disk.

» Example Usage

```
# Create a new ECS disk.
resource "alicloud_disk" "ecs_disk" {
  # cn-beijing
  availability_zone = "cn-beijing-b"
```

```
  name              = "New-disk"
  description       = "Hello ecs disk."
  category          = "cloud_efficiency"
  size              = "30"

  tags {
    Name = "TerraformTest"
  }
}
```

» Argument Reference

The following arguments are supported:

- `availability_zone` - (Required, Forces new resource) The Zone to create the disk in.
- `name` - (Optional) Name of the ECS disk. This name can have a string of 2 to 128 characters, must contain only alphanumeric characters or hyphens, such as "-","."," _", and must not begin or end with a hyphen, and must not begin with http:// or https://. Default value is null.
- `description` - (Optional) Description of the disk. This description can have a string of 2 to 256 characters, It cannot begin with http:// or https://. Default value is null.
- `category` - (Optional, Forces new resource) Category of the disk. Valid values are `cloud`, `cloud_efficiency` and `cloud_ssd`. Default is `cloud_efficiency`.
- `size` - (Required) The size of the disk in GiBs. When resize the disk, the new size must be greater than the former value, or you would get an error `InvalidDiskSize.TooSmall`.
- `snapshot_id` - (Optional) A snapshot to base the disk off of. If the disk size required by snapshot is greater than `size`, the `size` will be ignored.
- `tags` - (Optional) A mapping of tags to assign to the resource.
- `encrypted` - (Optional) If true, the disk will be encrypted

NOTE: Disk category `cloud` has been outdated and it only can be used none I/O Optimized ECS instances. Recommend `cloud_efficiency` and `cloud_ssd` disk.

» Attributes Reference

The following attributes are exported:

- `id` - The disk ID.
- `availability_zone` - The Zone to create the disk in.
- `name` - The disk name.

- `description` - The disk description.
- `status` - The disk status.
- `category` - The disk category.
- `size` - The disk size.
- `snapshot_id` - The disk snapshot ID.
- `tags` - The disk tags.
- `encrypted` - Whether the disk is encrypted.

» Import

Cloud disk can be imported using the id, e.g.

```
$ terraform import alicloud_disk.example d-abc12345678
```

» alicloud_disk_attachment

Provides an Alicloud ECS Disk Attachment as a resource, to attach and detach disks from ECS Instances.

» Example Usage

Basic usage

```
# Create a new ECS disk-attachment and use it attach one disk to a new instance.

resource "alicloud_security_group" "ecs_sg" {
  name        = "terraform-test-group"
  description = "New security group"
}

resource "alicloud_disk" "ecs_disk" {
  availability_zone = "cn-beijing-a"
  size              = "50"

  tags {
    Name = "TerraformTest-disk"
  }
}

resource "alicloud_instance" "ecs_instance" {
  image_id              = "ubuntu_140405_64_40G_cloudinit_20161115.vhd"
  instance_type         = "ecs.n4.small"
  availability_zone     = "cn-beijing-a"
```

```
  security_groups       = ["${alicloud_security_group.ecs_sg.id}"]
  instance_name         = "Hello"
  instance_network_type = "classic"
  internet_charge_type  = "PayByBandwidth"

  tags {
    Name = "TerraformTest-instance"
  }
}

resource "alicloud_disk_attachment" "ecs_disk_att" {
  disk_id     = "${alicloud_disk.ecs_disk.id}"
  instance_id = "${alicloud_instance.ecs_instance.id}"
}
```

» Argument Reference

The following arguments are supported:

- `instance_id` - (Required, Forces new resource) ID of the Instance to attach to.
- `disk_id` - (Required, Forces new resource) ID of the Disk to be attached.
- `device_name` - (Deprecated) The device name has been deprecated, and when attaching disk, it will be allocated automatically by system according to default order from /dev/xvdb to /dev/xvdz.

» Attributes Reference

The following attributes are exported:

- `instance_id` - ID of the Instance.
- `disk_id` - ID of the Disk.
- `device_name` - The device name exposed to the instance.

» alicloud_instance

Provides a ECS instance resource.

NOTE: You can launch an ECS instance for a VPC network via specifying parameter `vswitch_id`. One instance can only belong to one VSwitch.

NOTE: If a VSwitchId is specified for creating an instance, SecurityGroupId and VSwitchId must belong to one VPC.

NOTE: Several instance types have outdated in some regions and availability zones, such as `ecs.t1.*`, `ecs.s2.*`, `ecs.n1.*` and so on. If you want to keep them, you should set `is_outdated` to true. For more about the upgraded instance type, refer to `alicloud_instance_types` datasource.

NOTE: At present, 'PrePaid' instance cannot be deleted and must wait it to be outdated and release it automatically.

NOTE: The resource supports modifying instance charge type from 'PrePaid' to 'PostPaid' from version 1.9.6. However, at present, this modification has some limitation about CPU core count in one month, so strongly recommand that `Don't modify instance charge type frequentlly in one month`.

» Example Usage

```
# Create a new ECS instance for a VPC
resource "alicloud_security_group" "group" {
  name        = "tf_test_foo"
  description = "foo"
  vpc_id = "${alicloud_vpc.vpc.id}"
}

resource "alicloud_instance" "instance" {
  # cn-beijing
  availability_zone = "cn-beijing-b"
  security_groups = ["${alicloud_security_group.group.*.id}"]

  # series III
  instance_type        = "ecs.n4.large"
  system_disk_category = "cloud_efficiency"
  image_id             = "ubuntu_140405_64_40G_cloudinit_20161115.vhd"
  instance_name        = "test_foo"
  vswitch_id = "${alicloud_vswitch.vswitch.id}"
  internet_max_bandwidth_out = 10
}

# Create a new ECS instance for VPC
resource "alicloud_vpc" "vpc" {
  # Other parameters...
}

resource "alicloud_vswitch" "vswitch" {
  vpc_id = "${alicloud_vpc.vpc.id}"
  # Other parameters...
}
```

```
resource "alicloud_slb" "slb" {
  name       = "test-slb-tf"
  vpc_id     = "${alicloud_vpc.vpc.id}"
  vswitch_id = "${alicloud_vswitch.vswitch.id}"
}
```

» Argument Reference

The following arguments are supported:

- `image_id` - (Required) The Image to use for the instance. ECS instance's image can be replaced via changing 'image_id'. When it is changed, the instance will reboot to make the change take effect.
- `instance_type` - (Required) The type of instance to start.
- `io_optimized` - (Deprecated) It has been deprecated on instance resource. All the launched alicloud instances will be I/O optimized.
- `is_outdated` - (Optional) Whether to use outdated instance type. Default to false.
- `security_groups` - (Required) A list of security group ids to associate with.
- `availability_zone` - (Optional) The Zone to start the instance in. It is ignored and will be computed when set `vswitch_id`.
- `instance_name` - (Optional) The name of the ECS. This instance_name can have a string of 2 to 128 characters, must contain only alphanumeric characters or hyphens, such as "-","."," _", and must not begin or end with a hyphen, and must not begin with http:// or https://. If not specified, Terraform will autogenerate a default name is `ECS-Instance`.
- `allocate_public_ip` - (Deprecated) It has been deprecated from version "1.7.0". Setting "internet_max_bandwidth_out" larger than 0 can allocate a public ip address for an instance.
- `system_disk_category` - (Optional) Valid values are `cloud_efficiency`, `cloud_ssd` and `cloud`. `cloud` only is used to some none I/O optimized instance. Default to `cloud_efficiency`.
- `system_disk_size` - (Optional) Size of the system disk, measured in GiB. Value range: [20, 500]. The specified value must be equal to or greater than max{20, Imagesize}. Default value: max{40, ImageSize}. ECS instance's system disk can be reset when replacing system disk.
- `description` - (Optional) Description of the instance, This description can have a string of 2 to 256 characters, It cannot begin with http:// or https://. Default value is null.

- `internet_charge_type` - (Optional) Internet charge type of the instance, Valid values are `PayByBandwidth`, `PayByTraffic`. Default is `PayByTraffic`. At present, 'PrePaid' instance cannot change the value to "PayByBandwidth" from "PayByTraffic".
- `internet_max_bandwidth_in` - (Optional) Maximum incoming bandwidth from the public network, measured in Mbps (Mega bit per second). Value range: [1, 200]. If this value is not specified, then automatically sets it to 200 Mbps.
- `internet_max_bandwidth_out` - (Optional) Maximum outgoing bandwidth to the public network, measured in Mbps (Mega bit per second). Value range: [0, 100]. Default to 0 Mbps.
- `host_name` - (Optional) Host name of the ECS, which is a string of at least two characters. "hostname" cannot start or end with "." or "-". In addition, two or more consecutive "." or "-" symbols are not allowed. On Windows, the host name can contain a maximum of 15 characters, which can be a combination of uppercase/lowercase letters, numerals, and "-". The host name cannot contain dots (".") or contain only numeric characters. On other OSs such as Linux, the host name can contain a maximum of 30 characters, which can be segments separated by dots ("."), where each segment can contain uppercase/lowercase letters, numerals, or "_". When it is changed, the instance will reboot to make the change take effect.
- `password` - (Optional) Password to an instance is a string of 8 to 30 characters. It must contain uppercase/lowercase letters and numerals, but cannot contain special symbols. When it is changed, the instance will reboot to make the change take effect.
- `vswitch_id` - (Optional) The virtual switch ID to launch in VPC. This parameter must be set unless you can create classic network instances.
- `instance_charge_type` - (Optional) Valid values are `PrePaid`, `PostPaid`, The default is `PostPaid`.
- `period_unit` - (Optional) The duration unit that you will buy the resource. It is valid when `instance_charge_type` is 'PrePaid'. Valid value: ["Week", "Month"]. Default to "Month".
- `period` - (Optional) The duration that you will buy the resource, in month. It is valid when `instance_charge_type` is `PrePaid`. Default to 1. Valid values:
  - [1-9, 12, 24, 36, 48, 60] when `period_unit` in "Month"
  - [1-3] when `period_unit` in "Week"
- `renewal_status` - (Optional) Whether to renew an ECS instance automatically or not. It is valid when `instance_charge_type` is `PrePaid`. Default to "Normal". Valid values:

  - `AutoRenewal`: Enable auto renewal.
  - `Normal`: Disable auto renewal.
  - `NotRenewal`: No renewal any longer. After you specify this value, Alibaba Cloud stop sending notification of instance expiry, and only gives a brief reminder on the third day before the instance expiry.

- `auto_renew_period` - (Optional) Auto renewal period of an instance, in the unit of month. It is valid when `instance_charge_type` is `PrePaid`. Default to 1. Valid value:
  - [1, 2, 3, 6, 12] when `period_unit` in "Month"
  - [1, 2, 3] when `period_unit` in "Week"

- `tags` - (Optional) A mapping of tags to assign to the resource.
  - Key: It can be up to 64 characters in length. It cannot begin with "aliyun", "acs:", "http://", or "https://". It cannot be a null string.
  - Value: It can be up to 128 characters in length. It cannot begin with "aliyun", "acs:", "http://", or "https://". It can be a null string.

- `volume_tags` - (Optional) A mapping of tags to assign to the devices created by the instance at launch time.
  - Key: It can be up to 64 characters in length. It cannot begin with "aliyun", "acs:", "http://", or "https://". It cannot be a null string.
  - Value: It can be up to 128 characters in length. It cannot begin with "aliyun", "acs:", "http://", or "https://". It can be a null string.

- `user_data` - (Optional) User-defined data to customize the startup behaviors of an ECS instance and to pass data into an ECS instance.

- `key_name` - (Optional, Force new resource) The name of key pair that can login ECS instance successfully without password. If it is specified, the password would be invalid.

- `role_name` - (Optional, Force new resource) Instance RAM role name. The name is provided and maintained by RAM. You can use `alicloud_ram_role` to create a new one.

- `include_data_disks` - (Optional) Whether to change instance disks charge type when changing instance charge type.

- `dry_run` - (Optional) Whether to pre-detection. When it is true, only pre-detection and not actually modify the payment type operation. It is valid when `instance_charge_type` is 'PrePaid'. Default to false.

- `private_ip` - (Optional) Instance private IP address can be specified when you creating new instance. It is valid when `vswitch_id` is specified.

- `spot_strategy` - (Optional, Force New) The spot strategy of a Pay-As-You-Go instance, and it takes effect only when parameter `instance_charge_type` is 'PostPaid'. Value range:

  - NoSpot: A regular Pay-As-You-Go instance.
  - SpotWithPriceLimit: A price threshold for a spot instance
  - SpotAsPriceGo: A price that is based on the highest Pay-As-You-Go instance

  Default to NoSpot. Note: Currently, the spot instance only supports domestic site account.

- `spot_price_limit` - (Optional, Float, Force New) The hourly price threshold of a instance, and it takes effect only when parameter 'spot_strategy' is 'SpotWithPriceLimit'. Three decimals is allowed at most.

- `deletion_protection` - (Optional, true) Whether enable the deletion protection or not.

  - true: Enable deletion protection.
  - false: Disable deletion protection.

  Default to false.

- `force_delete` - (Optional, Available 1.18.0+) If it is true, the "PrePaid" instance will be change to "PostPaid" and then deleted forcibly. However, because of changing instance charge type has CPU core count quota limitation, so strongly recommand that "Don't modify instance charge type frequentlly in one month".

- `security_enhancement_strategy` - (Optional, Force New) The security enhancement strategy.

  - Active: Enable security enhancement strategy, it only works on system images.
  - Deactive: Disable security enhancement strategy, it works on all images.

- `data_disks` - (Optional, Force New, Available 1.23.1+) The list of data disks created with instance.

  - `name` - (Optional, Force New) The name of the data disk.
  - `size` - (Required, Force New) The size of the data disk.
    * cloud [5, 2000]
    * cloud_efficiency [20, 32768]
    * cloud_ssd [20, 32768]
    * ephemeral_ssd [5, 800]
  - `category` - (Optional, Force New) The category of the disk:
    * `cloud`: The general cloud disk.
    * `cloud_efficiency`: The efficiency cloud disk.
    * `cloud_ssd`: The SSD cloud disk.
    * `ephemeral_ssd`: The local SSD disk.

Default to `cloud_efficiency`.

- `encrypted` -(Optional, Bool, Force New) Encrypted the data in this disk.

  Default to false

- `snapshot_id` - (Optional, Force New) The snapshot ID used to initialize the data disk. If the size specified by snapshot is greater that the size of the disk, use the size specified by snapshot as the size of the data disk.

- `delete_with_instance` - (Optional, Force New) Delete this data disk when the instance is destroyed. It only works on cloud, cloud_efficiency and cloud_ssd disk. If the category of this data disk was ephemeral_ssd, please don't set this param.

  Default to true

- `description` - (Optional, Force New) The description of the data disk.

NOTE: System disk category `cloud` has been outdated and it only can be used none I/O Optimized ECS instances. Recommend `cloud_efficiency` and `cloud_ssd` disk.

NOTE: From version 1.5.0, instance's charge type can be changed to "PrePaid" by specifying `period` and `period_unit`, but it is irreversible.

NOTE: From version 1.5.0, instance's private IP address can be specified when creating VPC network instance.

NOTE: From version 1.5.0, instance's vswitch and private IP can be changed in the same availability zone. When they are changed, the instance will reboot to make the change take effect.

NOTE: From version 1.7.0, setting "internet_max_bandwidth_out" larger than 0 can allocate a public IP for an instance. Setting "internet_max_bandwidth_out" to 0 can release allocated public IP for VPC instance(For Classic instnace, its public IP cannot be release once it allocated, even thougth its bandwidth out is 0). However, at present, 'PrePaid' instance cannot narrow its max bandwidth out when its 'internet_charge_type' is "PayByBandwidth".

NOTE: From version 1.7.0, instance's type can be changed. When it is changed, the instance will reboot to make the change take effect.

» Attributes Reference

The following attributes are exported:

- `id` - The instance ID.
- `availability_zone` - The Zone to start the instance in.
- `instance_name` - The instance name.
- `host_name` - The instance host name.
- `description` - The instance description.
- `status` - The instance status.
- `image_id` - The instance Image Id.
- `instance_type` - The instance type.
- `private_ip` - The instance private ip.
- `public_ip` - The instance public ip.
- `vswitch_id` - If the instance created in VPC, then this value is virtual switch ID.
- `tags` - The instance tags, use jsonencode(item) to display the value.
- `key_name` - The name of key pair that has been bound in ECS instance.
- `role_name` - The name of RAM role that has been bound in ECS instance.
- `user_data` - The hash value of the user data.
- `period` - The ECS instance using duration.
- `period_unit` - The ECS instance using duration unit.
- `renewal_status` - The ECS instance automatically renew status.
- `auto_renew_period` - Auto renewal period of an instance.
- `dry_run` - Whether to pre-detection.
- `spot_strategy` - The spot strategy of a Pay-As-You-Go instance
- `spot_price_limit` - The hourly price threshold of a instance.

» Import

Instance can be imported using the id, e.g.

```
$ terraform import alicloud_instance.example i-abc12345678
```

» alicloud_security_group

Provides a security group resource.

NOTE: `alicloud_security_group` is used to build and manage a security group, and `alicloud_security_group_rule` can define ingress or egress rules for it.

NOTE: From version 1.7.2, `alicloud_security_group` has supported to segregate different ECS instance in which the same security group.

» Example Usage

Basic Usage

```
resource "alicloud_security_group" "group" {
  name        = "terraform-test-group"
  description = "New security group"
}
```

Basic usage for vpc

```
resource "alicloud_security_group" "group" {
  name   = "new-group"
  vpc_id = "${alicloud_vpc.vpc.id}"
}

resource "alicloud_vpc" "vpc" {
  cidr_block = "10.1.0.0/21"
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Optional) The name of the security group. Defaults to null.
- `description` - (Optional, Forces new resource) The security group description. Defaults to null.
- `vpc_id` - (Optional, Forces new resource) The VPC ID.
- `inner_access` - (Optional) Whether to allow both machines to access each other on all ports in the same security group.
- `tags` - (Optional) A mapping of tags to assign to the resource.

Combining security group rules, the policy can define multiple application scenario. Default to true. It is valid from verison `1.7.2`.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the security group
- `vpc_id` - The VPC ID.
- `name` - The name of the security group
- `description` - The description of the security group
- `inner_access` - Whether to allow inner network access.
- `tags` - The instance tags, use jsonencode(item) to display the value.

» Import

Security Group can be imported using the id, e.g.

```
$ terraform import alicloud_security_group.example sg-abc123456
```

» alicloud_security_group_rule

Provides a security group rule resource. Represents a single `ingress` or `egress` group rule, which can be added to external Security Groups.

NOTE: `nic_type` should set to `intranet` when security group type is `vpc` or specifying the `source_security_group_id`. In this situation it does not distinguish between intranet and internet, the rule is effective on them both.

» Example Usage

Basic Usage

```
resource "alicloud_security_group" "default" {
  name = "default"
}

resource "alicloud_security_group_rule" "allow_all_tcp" {
  type              = "ingress"
  ip_protocol       = "tcp"
  nic_type          = "internet"
  policy            = "accept"
  port_range        = "1/65535"
  priority          = 1
  security_group_id = "${alicloud_security_group.default.id}"
  cidr_ip           = "0.0.0.0/0"
}
```

» Argument Reference

The following arguments are supported:

- `type` - (Required) The type of rule being created. Valid options are `ingress` (inbound) or `egress` (outbound).
- `ip_protocol` - (Required) The protocol. Can be `tcp`, `udp`, `icmp`, `gre` or `all`.
- `port_range` - (Required) The range of port numbers relevant to the IP protocol. Default to "-1/-1". When the protocol is tcp or udp, each side port number range from 1 to 65535 and '-1/-1' will be invalid. For example, `1/200` means that the range of the port numbers is 1-200. Other protocols' 'port_range' can only be "-1/-1", and other values will be invalid.

- `security_group_id` - (Required) The security group to apply this rule to.
- `nic_type` - (Optional, Forces new resource) Network type, can be either `internet` or `intranet`, the default value is `internet`.
- `policy` - (Optional, Forces new resource) Authorization policy, can be either `accept` or `drop`, the default value is `accept`.
- `priority` - (Optional, Forces new resource) Authorization policy priority, with parameter values: `1-100`, default value: 1.
- `cidr_ip` - (Optional, Forces new resource) The target IP address range. The default value is 0.0.0.0/0 (which means no restriction will be applied). Other supported formats include 10.159.6.18/12. Only IPv4 is supported.
- `source_security_group_id` - (Optional, Forces new resource) The target security group ID within the same region. If this field is specified, the `nic_type` can only select `intranet`.
- `source_group_owner_account` - (Optional, Forces new resource) The Alibaba Cloud user account Id of the target security group when security groups are authorized across accounts. This parameter is invalid if `cidr_ip` has already been set.

NOTE: Either the `source_security_group_id` or `cidr_ip` must be set.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the security group rule
- `type` - The type of rule, `ingress` or `egress`
- `name` - The name of the security group
- `port_range` - The range of port numbers
- `ip_protocol` - The protocol of the security group rule

» alicloud_eip

Provides an elastic IP resource.

NOTE: The resource only support to create `PayByTraffic` elastic IP for international account. Otherwise, you will happened error `COMMODITY.INVALID_COMPONENT`. Your account is international if you can use it to login in International Web Console.

NOTE: From version 1.10.1, this resource supports creating "PrePaid" EIP. In addition, it supports setting EIP name and description.

» Example Usage

```
# Create a new EIP.
resource "alicloud_eip" "example" {
  bandwidth            = "10"
  internet_charge_type = "PayByBandwidth"
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Optional) The name of the EIP instance. This name can have a string of 2 to 128 characters, must contain only alphanumeric characters or hyphens, such as "-","."," _", and must not begin or end with a hyphen, and must not begin with http:// or https://.
- `description` - (Optional) Description of the EIP instance, This description can have a string of 2 to 256 characters, It cannot begin with http:// or https://. Default value is null.
- `bandwidth` - (Optional) Maximum bandwidth to the elastic public network, measured in Mbps (Mega bit per second). If this value is not specified, then automatically sets it to 5 Mbps.
- `internet_charge_type` - (Optional, ForceNew) Internet charge type of the EIP, Valid values are `PayByBandwidth`, `PayByTraffic`. Default to `PayByBandwidth`. From version `1.7.1`, default to `PayByTraffic`.
- `instance_charge_type` - (Optional, ForceNew) Elastic IP instance charge type. Valid values are "PrePaid" and "PostPaid". Default to "PostPaid".
- `period` - (Optional, ForceNew) The duration that you will buy the resource, in month. It is valid when `instance_charge_type` is `PrePaid`. Default to 1. Valid values: [1-9, 12, 24, 36]. At present, the provider does not support modify "period" and you can do that via web console.

» Attributes Reference

The following attributes are exported:

- `id` - The EIP ID.
- `bandwidth` - The elastic public network bandwidth.
- `internet_charge_type` - The EIP internet charge type.
- `status` - The EIP current status.
- `ip_address` - The elastic ip address

» Import

Elastic IP address can be imported using the id, e.g.

```
$ terraform import alicloud_eip.example eip-abc12345678
```

» alicloud_eip_association

Provides an Alicloud EIP Association resource for associating Elastic IP to ECS Instance, SLB Instance or Nat Gateway.

NOTE: `alicloud_eip_association` is useful in scenarios where EIPs are either pre-existing or distributed to customers or users and therefore cannot be changed.

NOTE: From version 1.7.1, the resource support to associate EIP to SLB Instance or Nat Gateway.

NOTE: One EIP can only be associated with ECS or SLB instance which in the VPC.

» Example Usage

```
# Create a new EIP association and use it to associate a EIP form a instance.

resource "alicloud_vpc" "vpc" {
  cidr_block = "10.1.0.0/21"
}

resource "alicloud_vswitch" "vsw" {
  vpc_id            = "${alicloud_vpc.vpc.id}"
  cidr_block        = "10.1.1.0/24"
  availability_zone = "cn-beijing-a"

  depends_on = [
    "alicloud_vpc.vpc",
  ]
}

resource "alicloud_instance" "ecs_instance" {
  image_id              = "ubuntu_140405_64_40G_cloudinit_20161115.vhd"
  instance_type         = "ecs.n4.small"
  availability_zone     = "cn-beijing-a"
  security_groups       = ["${alicloud_security_group.group.id}"]
  vswitch_id            = "${alicloud_vswitch.vsw.id}"
```

```
  instance_name         = "hello"
  instance_network_type = "vpc"

  tags {
    Name = "TerraformTest-instance"
  }
}

resource "alicloud_eip" "eip" {}

resource "alicloud_eip_association" "eip_asso" {
  allocation_id = "${alicloud_eip.eip.id}"
  instance_id   = "${alicloud_instance.ecs_instance.id}"
}

resource "alicloud_security_group" "group" {
  name        = "terraform-test-group"
  description = "New security group"
  vpc_id      = "${alicloud_vpc.vpc.id}"
}
```

» Argument Reference

The following arguments are supported:

- `allocation_id` - (Required, ForcesNew) The allocation EIP ID.
- `instance_id` - (Required, ForcesNew) The ID of the ECS or SLB instance or Nat Gateway.

» Attributes Reference

The following attributes are exported:

- `allocation_id` - As above.
- `instance_id` - As above.

» alicloud_key_pair

Provides a key pair resource.

» Example Usage

Basic Usage

```
resource "alicloud_key_pair" "basic" {
    key_name = "terraform-test-key-pair"
}

// Using name prefix to build key pair
resource "alicloud_key_pair" "prefix" {
    key_name_prefix = "terraform-test-key-pair-prefix"
}

// Import an existing public key to build a alicloud key pair
resource "alicloud_key_pair" "publickey" {
    key_name = "my_public_key"
    public_key = "ssh-rsa AAAAB3Nza12345678qwertyuudsfsg"
}
```

» Argument Reference

The following arguments are supported:

- `key_name` - (Force new resource) The key pair's name. It is the only in one Alicloud account.
- `key_name_prefix` - (Force new resource) The key pair name's prefix. It is conflict with `key_name`. If it is specified, terraform will using it to build the only key name.
- `public_key` - (Force new resource) You can import an existing public key and using Alicloud key pair to manage it.
- `key_file` - (Force new resource) The name of file to save your new key pair's private key. Strongly suggest you to specified it when you creating key pair, otherwise, you wouldn't get its private key ever.

NOTE: If `key_name` and `key_name_prefix` are not set, terraform will produce a specified ID to replace.

» Attributes Reference

- `key_name` - The name of the key pair.
- `fingerprint` The finger print of the key pair.

» Import

Key pair can be imported using the name, e.g.

```
$ terraform import alicloud_key_pair.example my_public_key
```

» alicloud_key_pair_attachment

Provides a key pair attachment resource to bind key pair for several ECS instances.

NOTE: After the key pair is attached with sone instances, there instances must be rebooted to make the key pair affect.

» Example Usage

Basic Usage

```
resource "alicloud_key_pair" "key" {
    key_name = "terraform-test-key-pair"
}

resource "alicloud_instance" "instance" {
  instance_name = "test-keypair-${format(var.count_format, count.index+1)}"
  image_id = "ubuntu_140405_64_40G_cloudinit_20161115.vhd"
  instance_type = "ecs.n4.small"
  count = 2
  availability_zone = "${var.availability_zones}"
  ...
}

resource "alicloud_key_pair_attachment" "attach" {
  key_name = "${alicloud_key_pair.key.id}"
  instance_ids = ["${alicloud_instance.instance.*.id}"]
}
```

» Argument Reference

The following arguments are supported:

- `key_name` - (Required, Force new resource) The name of key pair used to bind.
- `instance_ids` - (Required, Force new resource) The list of ECS instance's IDs.
- `force` - (Required, Force new resource) Set it to true and it will reboot instances which attached with the key pair to make key pair affect immediately.

» Attributes Reference

- `key_name` - The name of the key pair.
- `instance_ids` The list of ECS instance's IDs.

» alicloud_network_interface

Provides an ECS Elastic Network Interface resource.

For information about Elastic Network Interface and how to use it, see Elastic Network Interface.

NOTE Only one of private_ips or private_ips_count can be specified when assign private IPs.

» Example Usage

```
resource "alicloud_network_interface" "eni0" {
    name = "terraform-test-eni0"
    vswitch_id = "${alicloud_vswith.vswith.id}"
    security_groups = [ "${alicloud_security_group.sg.id}" ]
    private_ips = [ "192.168.*.2", "192.168.*.3", "192.168.*.4" ]
}

resource "alicloud_network_interface" "eni1" {
    name = "terraform-test-eni1"
    vswitch_id = "{alicloud_vswith.vswith.id}"
    primary_ip_address = "192.168.*.8"
    security_groups = [ "${alicloud_security_group.sg.id}" ]
    private_ips = [ "192.168.*.5", "192.168.*.6", "192.168.*.7" ]
}

resource "alicloud_network_interface" "eni2" {
    name = "terraform-test-eni2"
    vswitch_id = "{alicloud_vswith.vswith.id}"
    security_groups = [ "${alicloud_security_group.sg.id}" ]
    private_ips_count = 10
}
```

» Argument Reference

The following arguments are supported:

- `vswitch_id` - (Required, ForceNew) The VSwitch to create the ENI in.

- `security_groups` - (Require) A list of security group ids to associate with.
- `private_ip` - (Optional) The primary private IP of the ENI.
- `name` - (Optional) Name of the ENI. This name can have a string of 2 to 128 characters, must contain only alphanumeric characters or hyphens, such as "-", ".", "_", and must not begin or end with a hyphen, and must not begin with http:// or https://. Default value is null.
- `description` - (Optional) Description of the ENI. This description can have a string of 2 to 256 characters, It cannot begin with http:// or https://. Default value is null.
- `private_ips` - (Optional) List of secondary private IPs to assign to the ENI. Don't use both private_ips and private_ips_count in the same ENI resource block.
- `private_ips_count` - (Optional) Number of secondary private IPs to assign to the ENI. Don't use both private_ips and private_ips_count in the same ENI resource block.
- `tags` - (Optional) A mapping of tags to assign to the resource.

» Attributes Reference

The following attributes are exported:

- `id` - The ENI ID.

» Import

ENI can be imported using the id, e.g.

```
$ terraform import alicloud_network_interface.eni eni-abc1234567890000
```

» alicloud_network_interface_attachment

Provides an Alicloud ECS Elastic Network Interface Attachment as a resource to attach ENI to or detach ENI from ECS Instances.

For information about Elastic Network Interface and how to use it, see Elastic Network Interface.

» Example Usage

Bacis Usage

```
...
resource "alicloud_network_interface_attachment" "at" {
```

```
    instance_id = "${alicloud_instance.instance.id}"
    network_interface_id = "${alicloud_eni.eni.id}"
}
...
```

» Argument Reference

The following argument are supported:

- `instance_id` - (Required, ForceNew) The instance ID to attach.
- `network_interface_id` - (Required, ForceNew) The ENI ID to attach.

» Attributes Reference

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

- `id` - The ID of the resource, formatted as `<network_interface_id>:<instance_id>`.

» Import

Network Interfaces Attachment resource can be imported using the id, e.g.

```
$ terraform import alicloud_network_interface.eni eni-abc123456789000:i-abc123456789000
```

» alicloud_slb

Provides an Application Load Balancer resource.

NOTE: Resource `alicloud_slb` has deprecated 'listener' filed from terraform-alicloud-provider version 1.3.0 . You can create new listeners for Load Balancer by resource `alicloud_slb_listener`. If you have had several listeners in one load balancer, you can import them via the specified listener ID. In the `alicloud_slb_listener`, listener ID is consist of load balancer ID and frontend port, and its format is `<load balancer ID>:<frontend port>`, like "lb-hr2fwnf32t:8080".

NOTE: At present, to avoid some unnecessary regulation confusion, SLB can not support alicloud international account to create "paybybandwidth" instance.

NOTE: The supported specifications vary by region. Currently not all regions support guaranteed-performance instances. For more details about guaranteed-performance instance, see Guaranteed-performance instances.

» Example Usage

```
# Create a new load balancer for classic
resource "alicloud_slb" "classic" {
  name                 = "test-slb-tf"
  internet             = true
  internet_charge_type = "PayByBandwidth"
  bandwidth            = 5
  specification = "slb.s1.small"
}

# Create a new load balancer for VPC
resource "alicloud_vpc" "default" {
  # Other parameters...
}

resource "alicloud_vswitch" "default" {
  # Other parameters...
}

resource "alicloud_slb" "vpc" {
  name       = "test-slb-tf"
  vswitch_id = "${alicloud_vswitch.default.id}"
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Optional) The name of the SLB. This name must be unique within your AliCloud account, can have a maximum of 80 characters, must contain only alphanumeric characters or hyphens, such as "-","/",".","_", and must not begin or end with a hyphen. If not specified, Terraform will autogenerate a name beginning with `tf-lb`.
- `internet` - (Optional, Forces New Resource) If true, the SLB addressType will be internet, false will be intranet, Default is false. If load balancer launched in VPC, this value must be "false".
- `internet_charge_type` - (Optional, Forces New Resource) Valid values are `PayByBandwidth`, `PayByTraffic`. If this value is "PayByBandwidth", then argument "internet" must be "true". Default is "PayByTraffic". If load balancer launched in VPC, this value must be "PayByTraffic". Before version 1.10.1, the valid values are "paybybandwidth" and "paybytraffic".
- `bandwidth` - (Optional) Valid value is between 1 and 1000, If argument "internet_charge_type" is "paybytraffic", then this value will be ignore.

- `listener` - (Deprecated) The field has been deprecated from terraform-alicloud-provider version 1.3.0, and use resource `alicloud_slb_listener` to replace.
- `vswitch_id` - (Required for a VPC SLB, Forces New Resource) The VSwitch ID to launch in.
- `specification` - (Optional) The specification of the Server Load Balancer instance. Default to empty string indicating it is "Shared-Performance" instance. Launching "Performance-guaranteed" instance, it is must be specified and it valid values are: "slb.s1.small", "slb.s2.small", "slb.s2.medium", "slb.s3.small", "slb.s3.medium" and "slb.s3.large".
- `tags` - (Optional) A mapping of tags to assign to the resource. The `tags` can have a maximum of 10 tag for every load balancer instance.
- `instance_charge_type` - (Optional, ForceNew, Available in v1.34.0+) The billing method of the load balancer. Valid values are "PrePaid" and "PostPaid". Default to "PostPaid".
- `period` - (Optional, ForceNew, Available in v1.34.0+) The duration that you will buy the resource, in month. It is valid when `instance_charge_type` is `PrePaid`. Default to 1. Valid values: [1-9, 12, 24, 36].

NOTE: A "Shared-Performance" instance can be changed to "Performance-guaranteed", but the change is irreversible.

NOTE: To change a "Shared-Performance" instance to a "Performance-guaranteed" instance, the SLB will have a short probability of business interruption (10 seconds-30 seconds). Advise to change it during the business downturn, or migrate business to other SLB Instances by using GSLB before changing.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the load balancer.
- `name` - The name of the load balancer.
- `internet` - The internet of the load balancer.
- `internet_charge_type` - The internet_charge_type of the load balancer.
- `bandwidth` - The bandwidth of the load balancer.
- `vswitch_id` - The VSwitch ID of the load balancer. Only available on SLB launched in a VPC.
- `address` - The IP address of the load balancer.
- `specification` - The specification of the Server Load Balancer instance.

» Import

Load balancer can be imported using the id, e.g.

```
$ terraform import alicloud_slb.example lb-abc123456
```

» alicloud_slb_attachment

Add a group of backend servers (ECS instance) to the Server Load Balancer or remove them from it.

» Example Usage

```
# Create a new load balancer attachment for classic
resource "alicloud_slb" "default" {
  # Other parameters...
}

resource "alicloud_instance" "default" {
  # Other parameters...
}

resource "alicloud_slb_attachment" "default" {
  load_balancer_id    = "${alicloud_slb.default.id}"
  instance_ids = ["${alicloud_instance.default.id}"]
}
```

» Argument Reference

The following arguments are supported:

- `load_balancer_id` - (Required) ID of the load balancer.
- `instance_ids` - (Required) A list of instance ids to added backend server in the SLB.
- `weight` - (Optional) Weight of the instances. Valid value range: [0-100]. Default to 100.
- `slb_id` - (Deprecated) It has been deprecated from provider version 1.6.0. New field 'load_balancer_id' replaces it.
- `instances` - (Deprecated) It has been deprecated from provider version 1.6.0. New field 'instance_ids' replaces it.

» Attributes Reference

The following attributes are exported:

- `id` - ID of the resource.
- `load_balancer_id` - ID of the load balancer.
- `instance_ids` - A list of instance ids that have been added in the SLB.
- `weight` - (Optional) Weight of the instances.
- `backend_servers` - The backend servers of the load balancer.

» Import

Load balancer attachment can be imported using the id or load balancer id, e.g.

```
$ terraform import alicloud_slb_attachment.example lb-abc123456
```

» alicloud_slb_listener

Provides an Application Load Balancer Listener resource.

For information about slb and how to use it, see What is Server Load Balancer.

For information about listener and how to use it, to see the following:

- Configure a HTTP Listener.
- Configure a HTTPS Listener.
- Configure a TCP Listener.
- Configure a UDP Listener.

» Example Usage

```
# Create a new load balancer and listeners
resource "alicloud_slb" "instance" {
  name                 = "test-slb-tf"
  internet             = true
  internet_charge_type = "paybybandwidth"
  bandwidth            = 25
}

resource "alicloud_slb_acl" "acl" {
  name = "tf-testAccSlbAcl"
  ip_version = "ipv4"
  entry_list = [
    {
      entry="10.10.10.0/24"
```

```
      comment="first"
    },
    {
      entry="168.10.10.0/24"
      comment="second"
    },
    {
      entry="172.10.10.0/24"
      comment="third"
    },
  ]
}

resource "alicloud_slb_listener" "http" {
  load_balancer_id = "${alicloud_slb.instance.id}"
  backend_port = 80
  frontend_port = 80
  bandwidth = 10
  protocol = "http"
  sticky_session = "on"
  sticky_session_type = "insert"
  cookie = "testslblistenercookie"
  cookie_timeout = 86400
  acl_status                = "off"
  acl_type                  = "white"
  acl_id                    = "${alicloud_slb_acl.acl.id}"
}
resource "alicloud_slb_listener" "tcp" {
  load_balancer_id = "${alicloud_slb.instance.id}"
  backend_port = "22"
  frontend_port = "22"
  protocol = "tcp"
  bandwidth = "10"
  health_check_type = "tcp"
  acl_status                = "on"
  acl_type                  = "black"
  acl_id                    = "${alicloud_slb_acl.acl.id}"
  established_timeout       = 600
}
```

» Argument Reference

The following arguments are supported:

- `load_balancer_id` - (Required, ForceNew) The Load Balancer ID which

is used to launch a new listener.

- `frontend_port` - (Required, ForceNew) Port used by the Server Load Balancer instance frontend. Valid value range: [1-65535].
- `backend_port` - (Required, ForceNew) Port used by the Server Load Balancer instance backend. Valid value range: [1-65535].
- `protocol` - (Required, ForceNew) The protocol to listen on. Valid values are [`http`, `https`, `tcp`, `udp`].
- `bandwidth` - (Required) Bandwidth peak of Listener. For the public network instance charged per traffic consumed, the Bandwidth on Listener can be set to -1, indicating the bandwidth peak is unlimited. Valid values are [-1, 1-1000] in Mbps.
- `scheduler` - (Optinal) Scheduling algorithm, Valid values are `wrr` and `wlc`. Default to "wrr".
- `sticky_session` - (Optinal) Whether to enable session persistence, Valid values are `on` and `off`. Default to `off`.
- `sticky_session_type` - (Optinal) Mode for handling the cookie. If `sticky_session` is "on", it is mandatory. Otherwise, it will be ignored. Valid values are `insert` and `server`. `insert` means it is inserted from Server Load Balancer; `server` means the Server Load Balancer learns from the backend server.
- `cookie_timeout` - (Optinal) Cookie timeout. It is mandatory when `sticky_session` is "on" and `sticky_session_type` is "insert". Otherwise, it will be ignored. Valid value range: [1-86400] in seconds.
- `cookie` - (Optinal) The cookie configured on the server. It is mandatory when `sticky_session` is "on" and `sticky_session_type` is "server". Otherwise, it will be ignored. Valid value String in line with RFC 2965, with length being 1- 200. It only contains characters such as ASCII codes, English letters and digits instead of the comma, semicolon or spacing, and it cannot start with $.
- `persistence_timeout` - (Optinal) Timeout of connection persistence. Valid value range: [0-3600] in seconds. Default to 0 and means closing it.
- `health_check` - (Optinal) Whether to enable health check. Valid values are`on` and `off`. TCP and UDP listener's HealthCheck is always on, so it will be ignore when launching TCP or UDP listener.
- `health_check_type` - (Optinal) Type of health check. Valid values are: `tcp` and `http`. Default to `tcp` . TCP supports TCP and HTTP health check mode, you can select the particular mode depending on your application.
- `health_check_domain` - (Optinal) Domain name used for health check. When it used to launch TCP listener, `health_check_type` must be "http". Its length is limited to 1-80 and only characters such as letters, digits, '-' and '.' are allowed. When it is not set or empty, Server Load Balancer uses the private network IP address of each backend server as Domain used for health check.
- `health_check_uri` - (Optinal) URI used for health check. When it used to launch TCP listener, `health_check_type` must be "http". Its length is

limited to 1-80 and it must start with /. Only characters such as letters, digits, '-', '/', '.', '%', '?', #' and '&' are allowed.

- `health_check_connect_port` - (Optinal) Port used for health check. Valid value range: [1-65535]. Default to "None" means the backend server port is used.
- `healthy_threshold` - (Optinal) Threshold determining the result of the health check is success. It is required when `health_check` is on. Valid value range: [1-10] in seconds. Default to 3.
- `unhealthy_threshold` - (Optinal) Threshold determining the result of the health check is fail. It is required when `health_check` is on. Valid value range: [1-10] in seconds. Default to 3.
- `health_check_timeout` - (Optinal) Maximum timeout of each health check response. It is required when `health_check` is on. Valid value range: [1-300] in seconds. Default to 5. Note: If `health_check_timeout` < `health_check_interval`, its will be replaced by `health_check_interval`.
- `health_check_interval` - (Optinal) Time interval of health checks. It is required when `health_check` is on. Valid value range: [1-50] in seconds. Default to 2.
- `health_check_http_code` - (Optinal) Regular health check HTTP status code. Multiple codes are segmented by ",". It is required when `health_check` is on. Default to `http_2xx`. Valid values are: `http_2xx`, `http_3xx`, `http_4xx` and `http_5xx`.
- `ssl_certificate_id` - (Optinal) Security certificate ID. It is required when `protocol` is `https`.
- `gzip` - (Optinal) Whether to enable "Gzip Compression". If enabled, files of specific file types will be compressed, otherwise, no files will be compressed. Default to true. Available in v1.13.0+.
- `x_forwarded_for` - (Optinal) Whether to set additional HTTP Header field "X-Forwarded-For" (documented below). Available in v1.13.0+.
- `acl_status` - (Optinal) Whether to enable "acl(access control list)", the acl is specified by `acl_id`. Valid values are `on` and `off`. Default to `off`.
- `acl_type` - (Optinal) Mode for handling the acl specified by acl_id. If `acl_status` is "on", it is mandatory. Otherwise, it will be ignored. Valid values are `white` and `black`. `white` means the Listener can only be accessed by client ip belongs to the acl; `black` means the Listener can not be accessed by client ip belongs to the acl.
- `acl_id` - (Optinal) the id of access control list to be apply on the listener, is the id of resource alicloud_slb_acl. If `acl_status` is "on", it is mandatory. Otherwise, it will be ignored.
- `established_timeout` - (Optinal) Timeout of tcp listener established connection idle timeout. Valid value range: [10-900] in seconds. Default to 900.
- `idle_timeout` - (Optinal) Timeout of http or https listener established connection idle timeout. Valid value range: [1-60] in seconds. Default to 15.

- `request_timeout` - (Optinal) Timeout of http or https listener request (which does not get response from backend) timeout. Valid value range: [1-180] in seconds. Default to 60.
- `enable_http2` - (Optinal) Whether to enable https listener support http2 or not. Valid values are `on` and `off`. Default to `on`.
- `tls_cipher_policy` - (Optinal) Https listener TLS cipher policy. Valid values are `tls_cipher_policy_1_0`, `tls_cipher_policy_1_1`, `tls_cipher_policy_1_2`, `tls_cipher_policy_1_2_strict`. Default to `tls_cipher_policy_1_0`. Currently the `tls_cipher_policy` can not be updated when load balancer instance is "Shared-Performance".
- `server_group_id` - (Optinal) the id of server group to be apply on the listener, is the id of resource `alicloud_slb_server_group`.

NOTE: Advantanced feature such as `tls_cipher_policy`, can not be updated when load balancer instance is "Shared-Performance". More info, please refer to Configure a HTTPS Listener.

» Block x_forwarded_for

The x_forwarded_for mapping supports the following:

- `retrive_slb_ip` - (Optional) Whether to use the XForwardedFor_SLBIP header to obtain the public IP address of the SLB instance. Default to false.
- `retrive_slb_id` - (Optional) Whether to use the XForwardedFor header to obtain the ID of the SLB instance. Default to false.
- `retrive_slb_proto` - (Optional) Whether to use the XForwarded-For_proto header to obtain the protocol used by the listener. Default to true.

» Listener fields and protocol mapping

load balance support 4 protocal to listen on, they are `http`,`https`,`tcp`,`udp`, the every listener support which portocal following:

listener parameter	support protocol	value range
backend_port	http & https & tcp & udp	1-65535
frontend_port	http & https & tcp & udp	1-65535
protocol	http & https & tcp & udp	
bandwidth	http & https & tcp & udp	-1 / 1-1000
scheduler	http & https & tcp & udp	wrr or wlc
sticky_session	http & https	on or off
sticky_session_type	http & https	insert or server
cookie_timeout	http & https	1-86400
cookie	http & https	

listener parameter	support protocol	value range
persistence_timeout	tcp & udp	0-3600
health_check	http & https	on or off
health_check_type	tcp	tcp or http
health_check_domain	http & https & tcp	
health_check_uri	http & https & tcp	
health_check_connect_port	http & https & tcp & udp	1-65535 or -520
healthy_threshold	http & https & tcp & udp	1-10
unhealthy_threshold	http & https & tcp & udp	1-10
health_check_timeout	http & https & tcp & udp	1-300
health_check_interval	http & https & tcp & udp	1-50
health_check_http_code	http & https & tcp	http_2xx,http_3xx,http_4xx,http_5xx
ssl_certificate_id	https	
gzip	http & https	true or false
x_forwarded_for	http & https	
acl_status	http & https & tcp & udp	on or off
acl_type	http & https & tcp & udp	white or black
acl_id	http & https & tcp & udp	the id of resource alicloud_slb_acl
established_timeout	tcp	10-900
idle_timeout	http & https	1-60
request_timeout	http & https	1-180
enable_http2	https	on or off
tls_cipher_policy	https	tls_cipher_policy_1_0, tls_cipher_policy_1_1,
server_group_id	http & https & tcp & udp	the id of resource alicloud_slb_server_group

The listener mapping supports the following:

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the load balancer listener. It is consist of `load_balancer_id` and `frontend_port`: `<load_balancer_id>:<frontend_port>`.
- `load_balancer_id` - The Load Balancer ID which is used to launch a new listener.
- `frontend_port` - Port used by the Server Load Balancer instance frontend.
- `backend_port` - Port used by the Server Load Balancer instance backend.
- `protocol` - The protocol to listen on.
- `bandwidth` - Bandwidth peak of Listener.
- `scheduler` - Scheduling algorithm.
- `sticky_session` - Whether to enable session persistence.
- `sticky_session_type` - Mode for handling the cookie.
- `cookie_timeout` - Cookie timeout.
- `cookie` - The cookie configured on the server.

- `persistence_timeout` - Timeout of connection persistence.
- `health_check` - Whether to enable health check.
- `health_check_type` - Type of health check.
- `health_check_domain` - Domain name used for health check.
- `health_check_uri` - URI used for health check.
- `health_check_connect_port` - Port used for health check.
- `healthy_threshold` - Threshold determining the result of the health check is success.
- `unhealthy_threshold` - Threshold determining the result of the health check is fail.
- `health_check_timeout` - Maximum timeout of each health check response.
- `health_check_interval` - Time interval of health checks.
- `health_check_http_code` - Regular health check HTTP status code.
- `ssl_certificate_id` - (Optinal) Security certificate ID.

» Import

Load balancer listener can be imported using the id, e.g.

```
$ terraform import alicloud_slb_listener.example "lb-abc123456:22"
```

» alicloud_slb_rule

A forwarding rule is configured in `HTTP/HTTPS` listener and it used to listen a list of backend servers which in one specified virtual backend server group. You can add forwarding rules to a listener to forward requests based on the domain names or the URL in the request.

NOTE: One virtual backend server group can be attached in multiple forwarding rules.

NOTE: At least one "Domain" or "Url" must be specified when creating a new rule.

NOTE: Having the same 'Domain' and 'Url' rule can not be created repeatedly in the one listener.

NOTE: Rule only be created in the `HTTP` or `HTTPS` listener.

NOTE: Only rule's virtual server group can be modified.

» Example Usage

```
# Create a new load balancer and virtual rule
```

```
resource "alicloud_slb" "instance" {
  name = "new-slb"
  vswitch_id = "<one vswitch id>"
}

resource "alicloud_slb_listener" "listener" {
  load_balancer_id = "${alicloud_slb.instance.id}"
  protocol = "http"
  ...
}

resource "alicloud_slb_server_group" "group" {
  load_balancer_id = "${alicloud_slb.instance.id}"
  ...
}

resource "alicloud_slb_rule" "rule" {
  count = 2
  load_balancer_id = "${alicloud_slb.instance.id}"
  frontend_port = "${alicloud_slb_listener.listener.frontend_port}"
  name = "from-tf"
  domain = "*.test.com"
  url = "/image/${count.index}"
  server_group_id = "${alicloud_slb_server_group.group.id}"
}
```

» Argument Reference

The following arguments are supported:

- `load_balancer_id` - (Required, ForceNew) The Load Balancer ID which is used to launch the new forwarding rule.
- `name` - (Optional, ForceNew) Name of the forwarding rule. Our plugin provides a default name: ”tf-slb-rule”.
- `frontend_port` - (Required, ForceNew) The listener frontend port which is used to launch the new forwarding rule. Valid range: [1-65535].
- `domain` - (Optional, ForceNew) Domain name of the forwarding rule. It can contain letters a-z, numbers 0-9, hyphens (-), and periods (.), and wildcard characters. The following two domain name formats are supported:
  - Standard domain name: www.test.com
  - Wildcard domain name: *.test.com. wildcard (*) must be the first character in the format of (*.)
- `url` - (Optional, ForceNew) Domain of the forwarding rule. It must be 2-80 characters in length. Only letters a-z, numbers 0-9, and characters

'-' '/' '?' '%' '#' and '&' are allowed. URLs must be started with the character '/', but cannot be '/' alone.
- `server_group_id` - (Required) ID of a virtual server group that will be forwarded.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the forwarding rule.
- `load_balancer_id` - The Load Balancer ID in which forwarding rule belongs.
- `name` - The name of the forwarding rule.
- `forntend_port` - The listener port in which forwarding rule belongs.
- `domain` - The domain name of the forwarding rule.
- `url` - The url of the forwarding rule.
- `server_group_id` - The Id of the virtual server group.

» Import

Load balancer forwarding rule can be imported using the id, e.g.

```
$ terraform import alicloud_slb_rule.example rule-abc123456
```

» alicloud_slb_server_group

A virtual server group contains several ECS instances. The virtual server group can help you to define multiple listening dimension, and to meet the personalized requirements of domain name and URL forwarding.

NOTE: One ECS instance can be added into multiple virtual server groups.

NOTE: One virtual server group can be attached with multiple listeners in one load balancer.

NOTE: One Classic and Internet load balancer, its virtual server group can add Classic and VPC ECS instances.

NOTE: One Classic and Intranet load balancer, its virtual server group can only add Classic ECS instances.

NOTE: One VPC load balancer, its virtual server group can only add the same VPC ECS instances.

» Example Usage

```
# Create a new load balancer and virtual server group

resource "alicloud_instance" "instance" {
  instance_name = "for-slb-server"
  count = 3
  ...
}

resource "alicloud_slb" "instance" {
  name = "new-slb"
  vswitch_id = "<one vswitch id>"
}

resource "alicloud_slb_server_group" "group" {
  load_balancer_id = "${alicloud_slb.instance.id}"
  servers = [
    {
      server_ids = ["${alicloud_instance.instance.*.id}"]
      port = 80
      weight = 100
    }
  ]
}
```

» Argument Reference

The following arguments are supported:

- `load_balancer_id` - (Required, ForceNew) The Load Balancer ID which is used to launch a new virtual server group.
- `name` - (Optional) Name of the virtual server group. Our plugin provides a default name: "tf-server-group".
- `servers` - (Required) A list of ECS instances to be added. At most 20 ECS instances can be supported in one resource. It contains three sub-fields as `Block server` follows.

» Block servers

The servers mapping supports the following:

- `server_ids` - (Required) A list backend server ID (ECS instance ID).
- `port` - (Required) The port used by the backend server. Valid value range: [1-65535].

- `weight` - (Optional) Weight of the backend server. Valid value range: [0-100]. Default to 100.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the virtual server group.
- `load_balancer_id` - The Load Balancer ID which is used to launch a new virtual server group.
- `name` - The name of the virtual server group.
- `servers` - A list of ECS instances that have be added.

» Import

Load balancer backend server group can be imported using the id, e.g.

```
$ terraform import alicloud_slb_server_group.example abc123456
```

» alicloud_slb_acl

An access control list contains multiple IP addresses or CIDR blocks. The access control list can help you to define multiple instance listening dimension, and to meet the multiple usage for single access control list.

Server Load Balancer allows you to configure access control for listeners. You can configure different whitelists or blacklists for different listeners.

You can configure access control when you create a listener or change access control configuration after a listener is created.

NOTE: One access control list can be attached to many Listeners in different load balancer as whitelists or blacklists.

NOTE: The maximum number of access control lists per region is 50.

NOTE: The maximum number of IP addresses added each time is 50.

NOTE: The maximum number of entries per access control list is 300.

NOTE: The maximum number of listeners that an access control list can be added to is 50.

For information about slb and how to use it, see What is Server Load Balancer.

For information about acl and how to use it, see Configure an access control list.

» Example Usage

```
resource "alicloud_slb_acl" "foo" {
  name = "tf-testAccSlbAcl"
  ip_version = "ipv4"
  entry_list = [
    {
      entry="10.10.10.0/24"
      comment="first-a"
    },
    {
      entry="168.10.10.0/24"
      comment="abc-test-abc-b"
    },
  ]
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Required) Name of the access control list.
- `ip_version` - (Optional, ForceNew) The IP Version of access control list is the type of its entry (IP addresses or CIDR blocks). It values ipv4/ipv6. Our plugin provides a default ip_version: "ipv4".
- `entry_list` - (Optional) A list of entry (IP addresses or CIDR blocks) to be added. At most 50 etnry can be supported in one resource. It contains two sub-fields as `Entry Block` follows.

» Entry Block

The entry mapping supports the following:

- `entry` - (Required) An IP addresses or CIDR blocks.
- `comment` - (Optional) the comment of the entry.

» Attributes Reference

The following attributes are exported:

- `id` - The Id of the access control list.

» Import

Server Load balancer access control list can be imported using the id, e.g.

```
$ terraform import alicloud_slb_acl.example acl-abc123456
```

» alicloud_slb_ca_certificate

A Load Balancer CA Certificate is used by the listener of the protocol https.

For information about slb and how to use it, see What is Server Load Balancer.

For information about CA Certificate and how to use it, see Configure CA Certificate.

» Example Usage

- using CA certificate content

```
# create a CA certificate
resource "alicloud_slb_ca_certificate" "foo" {
  name = "tf-testAccSlbCACertificate"
  ca_certificate = "-----BEGIN CERTIFICATE-----\nMIIDRjCCAq+gAwIBAgIJAJnI******90EAxEG/bJ
}
```

- using CA certificate file

```
resource "alicloud_slb_ca_certificate" "foo-file" {
  name = "tf-testAccSlbCACertificate"
  ca_certificate = "${file("${path.module}/ca_certificate.pem")}"
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Optional) Name of the CA Certificate.
- `ca_certificate` - (Required, ForceNew) the content of the CA certificate.

» Attributes Reference

The following attributes are exported:

- `id` - The Id of CA Certificate .

» Import

Server Load balancer CA Certificate can be imported using the id, e.g.

```
$ terraform import alicloud_slb_ca_certificate.example abc123456
```

» alicloud_slb_server_certificate

A Load Balancer Server Certificate is an ssl Certificate used by the listener of the protocol https.

For information about slb and how to use it, see What is Server Load Balancer.

For information about Server Certificate and how to use it, see Configure Server Certificate.

» Example Usage

- using server_certificate/private content as string example

```
# create a server certificate
resource "alicloud_slb_server_certificate" "foo" {
  name = "tf-testAccSlbServerCertificate"
  server_certificate = "-----BEGIN CERTIFICATE-----\nMIIDRjCCAq+gAwIBAgI+OuMs******XTtI90
  private_key = "-----BEGIN RSA PRIVATE KEY-----\nMIICXAIBAAKBgQDOOknDrlNdiys******ErVpjs
}

# create a https listener with the server certificate above.
resource "alicloud_slb" "instance" {
  name                 = "${var.slb_name}"
  internet_charge_type = "${var.internet_charge_type}"
  internet             = "${var.internet}"
}

resource "alicloud_slb_listener" "https" {
  load_balancer_id          = "${alicloud_slb.instance.id}"
  backend_port              = 80
  frontend_port             = 443
  protocol                  = "https"
  sticky_session            = "on"
  sticky_session_type       = "insert"
  cookie                    = "testslblistenercookie"
  cookie_timeout            = 86400
  health_check              = "on"
  health_check_uri          = "/cons"
```

```
  health_check_connect_port = 20
  healthy_threshold         = 8
  unhealthy_threshold       = 8
  health_check_timeout      = 8
  health_check_interval     = 5
  health_check_http_code    = "http_2xx,http_3xx"
  bandwidth                 = 10
  ssl_certificate_id        = "${alicloud_slb_server_certificate.foo.id}"
}
variable "slb_name" {
  default = "slb_htts_server_certificate"
}

variable "internet_charge_type" {
  default = "PayByTraffic"
}

variable "internet" {
  default = true
}
```

- using server_certificate/private file example

```
# create a server certificate
resource "alicloud_slb_server_certificate" "foo" {
  name = "tf-testAccSlbServerCertificate"
  server_certificate = "${file("${path.module}/server_certificate.pem")}"
  private_key = "${file("${path.module}/private_key.pem")}"
}

# create a https listener with the server certificate above.
resource "alicloud_slb" "instance" {
  name                 = "${var.slb_name}"
  internet_charge_type = "${var.internet_charge_type}"
  internet             = "${var.internet}"
}

resource "alicloud_slb_listener" "https" {
  load_balancer_id          = "${alicloud_slb.instance.id}"
  backend_port              = 80
  frontend_port             = 443
  protocol                  = "https"
  sticky_session            = "on"
  sticky_session_type       = "insert"
  cookie                    = "testslblistenercookie"
  cookie_timeout            = 86400
  health_check              = "on"
```

```
  health_check_uri          = "/cons"
  health_check_connect_port = 20
  healthy_threshold         = 8
  unhealthy_threshold       = 8
  health_check_timeout      = 8
  health_check_interval     = 5
  health_check_http_code    = "http_2xx,http_3xx"
  bandwidth                 = 10
  ssl_certificate_id        = "${alicloud_slb_server_certificate.foo.id}"
}
variable "slb_name" {
  default = "slb_htts_server_certificate"
}

variable "internet_charge_type" {
  default = "PayByTraffic"
}

variable "internet" {
  default = true
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Optional) Name of the Server Certificate.
- `server_certificate` - (Optional, ForceNew) the content of the ssl certificate. where `alicloud_certificate_id` is null, it is required, otherwise it is ignored.
- `private_key` - (Optional, ForceNew) the content of privat key of the ssl certificate specified by `server_certificate`. where `alicloud_certificate_id` is null, it is required, otherwise it is ignored.
- `alicloud_certificate_id` - (Optional) an id of server certificate ssued/proxied by alibaba cloud. but it is not supported on the international site of alibaba cloud now.
- `alicloud_certificate_name`- (Optional) the name of the certificate specified by `alicloud_certificate_id`.but it is not supported on the international site of alibaba cloud now.

» Attributes Reference

The following attributes are exported:

- `id` - The Id of Server Certificate (SSL Certificate).

» Import

Server Load balancer Server Certificate can be imported using the id, e.g.

```
$ terraform import alicloud_slb_server_certificate.example abc123456
```

» alicloud_vpc

Provides a VPC resource.

NOTE: Terraform will auto build a router and a route table while it uses `alicloud_vpc` to build a vpc resource.

» Example Usage

Basic Usage

```
resource "alicloud_vpc" "vpc" {
  name       = "tf_test_foo"
  cidr_block = "172.16.0.0/12"
}
```

» Argument Reference

The following arguments are supported:

- `cidr_block` - (Required, Forces new resource) The CIDR block for the VPC.
- `name` - (Optional) The name of the VPC. Defaults to null.
- `description` - (Optional) The VPC description. Defaults to null.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the VPC.
- `cidr_block` - The CIDR block for the VPC.
- `name` - The name of the VPC.
- `description` - The description of the VPC.
- `router_id` - The ID of the router created by default on VPC creation.

- `route_table_id` - The route table ID of the router created by default on VPC creation.

» Import

VPC can be imported using the id, e.g.

```
$ terraform import alicloud_vpc.example vpc-abc123456
```

» alicloud_vswitch

Provides a VPC switch resource.

» Example Usage

Basic Usage

```
resource "alicloud_vpc" "vpc" {
  name       = "tf_test_foo"
  cidr_block = "172.16.0.0/12"
}

resource "alicloud_vswitch" "vsw" {
  vpc_id            = "${alicloud_vpc.vpc.id}"
  cidr_block        = "172.16.0.0/21"
  availability_zone = "cn-beijing-b"
}
```

» Argument Reference

The following arguments are supported:

- `availability_zone` - (Required, Forces new resource) The AZ for the switch.
- `vpc_id` - (Required, Forces new resource) The VPC ID.
- `cidr_block` - (Required, Forces new resource) The CIDR block for the switch.
- `name` - (Optional) The name of the switch. Defaults to null.
- `description` - (Optional) The switch description. Defaults to null.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the switch.
- `availability_zone` The AZ for the switch.
- `cidr_block` - The CIDR block for the switch.
- `vpc_id` - The VPC ID.
- `name` - The name of the switch.
- `description` - The description of the switch.

» Import

Vswitch can be imported using the id, e.g.

```
$ terraform import alicloud_vswitch.example vsw-abc123456
```

» alicloud_route_entry

Provides a route entry resource. A route entry represents a route item of one VPC route table.

» Example Usage

Basic Usage

```
resource "alicloud_vpc" "vpc" {
  name       = "tf_test_foo"
  cidr_block = "172.16.0.0/12"
}

resource "alicloud_route_entry" "default" {
  route_table_id        = "${alicloud_vpc.default.router_table_id}"
  destination_cidrblock = "${var.entry_cidr}"
  nexthop_type          = "Instance"
  nexthop_id            = "${alicloud_instance.snat.id}"
}

resource "alicloud_instance" "snat" {
  // ...
}
```

» Argument Reference

The following arguments are supported:

- `router_id` - (Deprecated) This argument has beeb deprecated. Please use other arguments to launch a custom route entry.
- `route_table_id` - (Required, Forces new resource) The ID of the route table.
- `destination_cidrblock` - (Required, Forces new resource) The RouteEntry's target network segment.
- `nexthop_type` - (Required, Forces new resource) The next hop type. Available values:
  - `Instance` (Default): Route the traffic destined for the destination CIDR block to an ECS instance in the VPC.
  - `RouterInterface`: Route the traffic destined for the destination CIDR block to a router interface.
  - `VpnGateway`: Route the traffic destined for the destination CIDR block to a VPN Gateway.
  - `HaVip`: Route the traffic destined for the destination CIDR block to an HAVIP.
  - `NetworkInterface`: Route the traffic destined for the destination CIDR block to an NetworkInterface.
  - `NatGateway`: Route the traffic destined for the destination CIDR block to an Nat Gateway.
- `nexthop_id` - (Required, Forces new resource) The route entry's next hop. ECS instance ID or VPC router interface ID.

» Attributes Reference

The following attributes are exported:

- `router_id` - The ID of the virtual router attached to Vpc.
- `route_table_id` - The ID of the route table.
- `destination_cidrblock` - The RouteEntry's target network segment.
- `nexthop_type` - The next hop type.
- `nexthop_id` - The route entry's next hop.

» Import

Router entry can be imported using the id, e.g.

```
$ terraform import alicloud_route_entry.example abc123456
```

» alicloud_route_table

Provides a route table resource to add customized route tables.

NOTE: Terraform will auto build route table instance while it uses `alicloud_route_table` to build a route table resource.

Currently, customized route tables are available in most regions apart from China (Beijing), China (Hangzhou), and China (Shenzhen) regions. For information about route table and how to use it, see What is Route Table.

» Example Usage

Basic Usage

```
resource "alicloud_route_table" "foo" {
  vpc_id = "vpc-fakeid"
  name = "test_route_table"
  description = "test_route_table"
}
```

» Argument Reference

The following arguments are supported:

- `vpc_id` - (Required, Forces new resource) The vpc_id of the route table, the field can't be changed.
- `name` - (Optional) The name of the route table.
- `description` - (Optional) The description of the route table instance.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the route table instance id.

» Import

The route table can be imported using the id, e.g.

```
$ terraform import alicloud_route_table.foo vtb-abc123456
```

» alicloud_route_table_attachment

Provides an Alicloud Route Table Attachment resource for associating Route Table to VSwitch Instance.

NOTE: Terraform will auto build route table attachment while it uses `alicloud_route_table_attachment` to build a route table attachment resource.

For information about route table and how to use it, see What is Route Table.

» Example Usage

Basic Usage

```
resource "alicloud_vpc" "foo" {
    cidr_block = "172.16.0.0/12"
    name = "route_table_attachment"
}
 data "alicloud_zones" "default" {
    "available_resource_creation"= "VSwitch"
}
 resource "alicloud_vswitch" "foo" {
    vpc_id = "${alicloud_vpc.foo.id}"
    cidr_block = "172.16.0.0/21"
    availability_zone = "${data.alicloud_zones.default.zones.0.id}"
    name = "route_table_attachment"
}

resource "alicloud_route_table" "foo" {
    vpc_id = "${alicloud_vpc.foo.id}"
    name = "route_table_attachment"
    description = "route_table_attachment"
}

resource "alicloud_route_table_attachment" "foo" {
    vswitch_id = "${alicloud_vswitch.foo.id}"
    route_table_id = "${alicloud_route_table.foo.id}"
}
```

» Argument Reference

The following arguments are supported:

- `vswitch_id` - (Required, Forces new resource) The vswitch_id of the route table attachment, the field can't be changed.

- `route_table_id` - (Required, Forces new resource) The route_table_id of the route table attachment, the field can't be changed.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the route table attachment id and formates as `<route_table_id>:<vswitch_id>`.

» Import

The route table attachemnt can be imported using the id, e.g.

```
$ terraform import alicloud_route_table_attachment.foo vtb-abc123456:vsw-abc123456
```

» alicloud_common_bandwidth_package

Provides a common bandwidth package resource.

NOTE: Terraform will auto build common bandwidth package instance while it uses `alicloud_common_bandwidth_package` to build a common bandwidth package resource.

For information about common bandwidth package and how to use it, see What is Common Bandwidth Package.

For information about common bandwidth package billing methods, see Common Bandwidth Package Billing Methods.

» Example Usage

Basic Usage

```
resource "alicloud_common_bandwidth_package" "foo" {
  bandwidth = "200"
  internet_charge_type = "PayByBandwidth"
  name = "test_common_bandwidth_package"
  description = "test_common_bandwidth_package"
}
```

» Argument Reference

The following arguments are supported:

- `bandwidth` - (Required) The bandwidth of the common bandwidth package, in Mbps.
- `internet_charge_type` - (Optional, ForceNew) The billing method of the common bandwidth package. Valid values are "PayByBandwidth" and "PayBy95" and "PayByTraffic". "PayBy95" is pay by classic 95th percentile pricing. International Account doesn't supports "PayByBandwidth" and "PayBy95". Default to "PayByTraffic".
- `ratio` - (Optional) Ratio of the common bandwidth package. It is valid when `internet_charge_type` is `PayBy95`. Default to 100. Valid values: [10-100].
- `name` - (Optional) The name of the common bandwidth package.
- `description` - (Optional) The description of the common bandwidth package instance.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the common bandwidth package instance id.

» Import

The common bandwidth package can be imported using the id, e.g.

```
$ terraform import alicloud_common_bandwidth_package.foo cbwp-abc123456
```

» alicloud_common_bandwidth_package_attachment

Provides an Alicloud Common Bandwidth Package Attachment resource for associating Common Bandwidth Package to EIP Instance.

NOTE: Terraform will auto build common bandwidth package attachment while it uses `alicloud_common_bandwidth_package_attachment` to build a common bandwidth package attachment resource.

For information about common bandwidth package and how to use it, see What is Common Bandwidth Package.

» Example Usage

Basic Usage

```
resource "alicloud_common_bandwidth_package" "foo" {
  bandwidth = "2"
  name = "test_common_bandwidth_package"
  description = "test_common_bandwidth_package"
}

resource "alicloud_eip" "foo" {
  bandwidth            = "2"
  internet_charge_type = "PayByBandwidth"
}

resource "alicloud_common_bandwidth_package_attachment" "foo" {
  bandwidth_package_id = "${alicloud_common_bandwidth_package.foo.id}"
  instance_id = "${alicloud_eip.foo.id}"
}
```

» Argument Reference

The following arguments are supported:

- `bandwidth_package_id` - (Required, ForceNew) The bandwidth_package_id of the common bandwidth package attachment, the field can't be changed.
- `instance_id` - (Required, ForceNew) The instance_id of the common bandwidth package attachment, the field can't be changed.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the common bandwidth package attachment id and formates as `<bandwidth_package_id>:<instance_id>`.

» Import

The common bandwidth package attachemnt can be imported using the id, e.g.

```
$ terraform import alicloud_common_bandwidth_package_attachment.foo cbwp-abc123456:eip-abc12
```

» alicloud_nat_gateway

Provides a resource to create a VPC NAT Gateway.

NOTE: Resource bandwidth packages will not be supported since 00:00 on November 4, 2017, and public IP can be replaced be elastic IPs. If a Nat Gateway has already bought some bandwidth packages, it can not bind elastic IP and you have to submit the work order to solve. If you want to add public IP, you can use resource 'alicloud_eip_association' to bind several elastic IPs for one Nat Gateway.

NOTE: From version 1.7.1, this resource has deprecated bandwidth packages. But, in order to manage stock bandwidth packages, version 1.13.0 re-support configuring 'bandwidth_packages'.

» Example Usage

Basic usage

```
resource "alicloud_vpc" "vpc" {
  name       = "tf_test_foo"
  cidr_block = "172.16.0.0/12"
}

resource "alicloud_vswitch" "vsw" {
  vpc_id            = "${alicloud_vpc.vpc.id}"
  cidr_block        = "172.16.0.0/21"
  availability_zone = "cn-beijing-b"
}

resource "alicloud_nat_gateway" "nat_gateway" {
  vpc_id = "${alicloud_vpc.vpc.id}"
  spec   = "Small"
  name   = "test_foo"
}
```

» Argument Reference

The following arguments are supported:

- `vpc_id` - (Required, Forces New Resorce) The VPC ID.
- `spec` - (Deprecated) It has been deprecated from provider version 1.7.1, and new field 'specification' can replace it.
- `specification` - (Optional) The specification of the nat gateway. Valid values are `Small`, `Middle` and `Large`. Default to `Small`. Details refer to Nat Gateway Specification.

- `name` - (Optional) Name of the nat gateway. The value can have a string of 2 to 128 characters, must contain only alphanumeric characters or hyphens, such as "-","."," _", and must not begin or end with a hyphen, and must not begin with http:// or https://. Defaults to null.
- `description` - (Optional) Description of the nat gateway, This description can have a string of 2 to 256 characters, It cannot begin with http:// or https://. Defaults to null.
- `bandwidth_packages` - (Optional) A list of bandwidth packages for the nat gatway. Only support nat gateway created before 00:00 on November 4, 2017. Available in v1.13.0+ and v1.7.1-.

» Block bandwidth packages

The bandwidth package mapping supports the following:

- `ip_count` - (Required) The IP number of the current bandwidth package. Its value range from 1 to 50.
- `bandwidth` - (Required) The bandwidth value of the current bandwidth package. Its value range from 5 to 5000.
- `zone` - (Optional) The AZ for the current bandwidth. If this value is not specified, Terraform will set a random AZ.
- `public_ip_addresses` - (Computer) The public ip for bandwidth package. the public ip count equal `ip_count`, multi ip would complex with ",", such as "10.0.0.1,10.0.0.2".

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the nat gateway.
- `name` - The name of the nat gateway.
- `description` - The description of the nat gateway.
- `spec` - It has been deprecated from provider version 1.7.1.
- `specification` - The specification of the nat gateway.
- `vpc_id` - The VPC ID for the nat gateway.
- `bandwidth_package_ids` - A list ID of the bandwidth packages, and split them with commas.
- `snat_table_ids` - The nat gateway will auto create a snap and forward item, the `snat_table_ids` is the created one.
- `forward_table_ids` - The nat gateway will auto create a snap and forward item, the `forward_table_ids` is the created one.

» Import

Nat gateway can be imported using the id, e.g.

```
$ terraform import alicloud_nat_gateway.example ngw-abc123456
```

» alicloud_router_interface

Provides a VPC router interface resource aim to build a connection between two VPCs.

NOTE: Only one pair of connected router interfaces can exist between two routers. Up to 5 router interfaces can be created for each router and each account.

NOTE: The router interface is not connected when it is created. It can be connected by means of resource alicloud_router_interface_connection.

» Example Usage

```
resource "alicloud_vpc" "foo" {
  name = "tf_test_foo12345"
  cidr_block = "172.16.0.0/12"
}

resource "alicloud_router_interface" "interface" {
  opposite_region = "cn-beijing"
  router_type = "VRouter"
  router_id = "${alicloud_vpc.foo.router_id}"
  role = "InitiatingSide"
  specification = "Large.2"
  name = "test1"
  description = "test1"
}
```

» Argument Reference

The following arguments are supported:

- `opposite_region` - (Required, Force New) The Region of peer side.
- `router_type` - (Required, Forces New) Router Type. Optional value: VRouter, VBR. Accepting side router interface type only be VRouter.

- `opposite_router_type` - (Deprecated) It has been deprecated from version 1.11.0. resource alicloud_router_interface_connection's 'opposite_router_type' instead.
- `router_id` - (Required, Force New) The Router ID.
- `opposite_router_id` - (Deprecated) It has been deprecated from version 1.11.0. Use resource alicloud_router_interface_connection's 'opposite_router_id' instead.
- `role` - (Required, Force New) The role the router interface plays. Optional value: `InitiatingSide`, `AcceptingSide`.
- `specification` - (Optional) Specification of router interfaces. It is valid when `role` is `InitiatingSide`. Accepting side's role is default to set as 'Negative'. For more about the specification, refer to Router interface specification.
- `access_point_id` - (Deprecated) It has been deprecated from version 1.11.0.
- `opposite_access_point_id` - (Deprecated) It has been deprecated from version 1.11.0.
- `opposite_interface_id` - (Deprecated) It has been deprecated from version 1.11.0. Use resource alicloud_router_interface_connection's 'opposite_router_id' instead.
- `opposite_interface_owner_id` - (Deprecated) It has been deprecated from version 1.11.0. Use resource alicloud_router_interface_connection's 'opposite_interface_id' instead.
- `name` - (Optional) Name of the router interface. Length must be 2-80 characters long. Only Chinese characters, English letters, numbers, period (.), underline (_), or dash (-) are permitted. If it is not specified, the default value is interface ID. The name cannot start with http:// and https://.
- `description` - (Optional) Description of the router interface. It can be 2-256 characters long or left blank. It cannot start with http:// and https://.
- `health_check_source_ip` - (Optional) Used as the Packet Source IP of health check for disaster recovery or ECMP. It is only valid when `router_type` is `VBR`. The IP must be an unused IP in the local VPC. It and `health_check_target_ip` must be specified at the same time.
- `health_check_target_ip` - (Optional) Used as the Packet Target IP of health check for disaster recovery or ECMP. It is only valid when `router_type` is `VBR`. The IP must be an unused IP in the local VPC. It and `health_check_source_ip` must be specified at the same time.
- `instance_charge_type` - (Optional, ForceNew) The billing method of the router interface. Valid values are "PrePaid" and "PostPaid". Default to "PostPaid". Router Interface doesn't support "PrePaid" when region and opposite_region are the same.
- `period` - (Optional, ForceNew) The duration that you will buy the resource, in month. It is valid when `instance_charge_type` is `PrePaid`. Default to 1. Valid values: [1-9, 12, 24, 36]. At present, the provider does not support modify "period" and you can do that via web console.

» Attributes Reference

The following attributes are exported:

- `id` - Router interface ID.
- `router_id` - Router ID.
- `router_type` - Router type.
- `role` - Router interface role.
- `name` - Router interface name.
- `description` - Router interface description.
- `specification` - Router nterface specification.
- `access_point_id` - Access point of the router interface.
- `opposite_access_point_id` - (Deprecated) It has been deprecated from version 1.11.0.
- `opposite_router_type` - Peer router type.
- `opposite_router_id` - Peer router ID.
- `opposite_interface_id` - Peer router interface ID.
- `opposite_interface_owner_id` - Peer account ID.
- `health_check_source_ip` - Source IP of Packet of Line HealthCheck.
- `health_check_target_ip` - Target IP of Packet of Line HealthCheck.

» Import

The router interface can be imported using the id, e.g.

```
$ terraform import alicloud_router_interface.interface ri-abc123456
```

» alicloud_router_interface_connection

Provides a VPC router interface connection resource to connect two router interfaces which are in two different VPCs. After that, all of the two router interfaces will be active.

NOTE: At present, Router interface does not support changing opposite router interface, the connection delete action is only deactivating it to inactive, not modifying the connection to empty.

NOTE: If you want to changing opposite router interface, you can delete router interface and re-build them.

NOTE: A integrated router interface connection tunnel requires both InitiatingSide and AcceptingSide configuring opposite router interface.

NOTE: Please remember to add a `depends_on` clause in the router interface connection from the InitiatingSide to the AcceptingSide, because the connection from the AcceptingSide to the InitiatingSide must be done first.

» Example Usage

```
resource "alicloud_vpc" "foo" {
  name = "vpc-for-initiating"
  cidr_block = "172.16.0.0/12"
}

resource "alicloud_router_interface" "initiating" {
  opposite_region = "cn-beijing"
  router_type = "VRouter"
  router_id = "${alicloud_vpc.foo.router_id}"
  role = "InitiatingSide"
  specification = "Large.2"
  name = "initaiting"
}

resource "alicloud_vpc" "bar" {
  name = "vpc-for-accepting"
  cidr_block = "192.168.0.0/16"
}

resource "alicloud_router_interface" "accepting" {
  opposite_region = "cn-beijing"
  router_type = "VRouter"
  router_id = "${alicloud_vpc.bar.router_id}"
  role = "AcceptingSide"
  name = "accepting"
}
// A integrated router interface connection tunnel requires both InitiatingSide and Acceptin
resource "alicloud_router_interface_connection" "foo" {
  interface_id = "${alicloud_router_interface.initiating.id}"
  opposite_interface_id = "${alicloud_router_interface.accepting.id}"
  depends_on = [
    "alicloud_router_interface_connection.bar" // The connection must start from the accepti
  ]
}

resource "alicloud_router_interface_connection" "bar" {
  interface_id = "${alicloud_router_interface.accepting.id}"
  opposite_interface_id = "${alicloud_router_interface.initiating.id}"
}
```

» Argument Reference

The following arguments are supported:

- `interface_id` - (Required, ForceNew) One side router interface ID.
- `opposite_interface_id` - (Required, ForceNew) Another side router interface ID. It must belong the specified "opposite_interface_owner_id" account.
- `opposite_interface_owner_id` - (Optional, ForceNew) Another side router interface account ID. Log on to the Alibaba Cloud console, select User Info > Account Management to check the account ID. Default to Provider account_id.
- `opposite_router_id` - (Optional, ForceNew) Another side router ID. It must belong the specified "opposite_interface_owner_id" account. It is valid when field "opposite_interface_owner_id" is specified.
- `opposite_router_type` - (Optional, ForceNew) Another side router Type. Optional value: VRouter, VBR. It is valid when field "opposite_interface_owner_id" is specified.

NOTE: The value of "opposite_interface_owner_id" or "account_id" must be main account and not be sub account.

» Attributes Reference

The following attributes are exported:

- `id` - Router interface ID. The value is equal to "interface_id".

» Import

The router interface connection can be imported using the id, e.g.

```
$ terraform import alicloud_router_interface_connection.foo ri-abc123456
```

» alicloud_forward

Provides a forward resource.

» Example Usage

Basic Usage

```
resource "alicloud_vpc" "foo" {
  ...
}

resource "alicloud_vswitch" "foo" {
```

```
  ...
}

resource "alicloud_nat_gateway" "foo" {
  vpc_id = "${alicloud_vpc.foo.id}"
  spec   = "Small"
  name   = "test_foo"

  bandwidth_packages = [
    {
      ip_count  = 2
      bandwidth = 5
      zone      = ""
    },
    {
      ip_count  = 1
      bandwidth = 6
      zone      = "cn-beijing-b"
    }
  ]

  depends_on = [
    "alicloud_vswitch.foo",
  ]
}

resource "alicloud_forward_entry" "foo" {
  forward_table_id = "${alicloud_nat_gateway.foo.forward_table_ids}"
  external_ip      = "${alicloud_nat_gateway.foo.bandwidth_packages.0.public_ip_addresses}"
  external_port    = "80"
  ip_protocol      = "tcp"
  internal_ip      = "172.16.0.3"
  internal_port    = "8080"
}
```

» Argument Reference

The following arguments are supported:

- `forward_table_id` - (Required, Forces new resource) The value can get from `alicloud_nat_gateway` Attributes "forward_table_ids".
- `external_ip` - (Required, Forces new resource) The external ip address, the ip must along bandwidth package public ip which `alicloud_nat_gateway` argument `bandwidth_packages`.
- `external_port` - (Required) The external port, valid value is 1~65535|any.

- `ip_protocol` - (Required) The ip protocal, valid value is tcp|udp|any.
- `internal_ip` - (Required) The internal ip, must a private ip.
- `internal_port` - (Required) The internal port, valid value is 1~65535|any.

» alicloud_snat

Provides a snat resource.

» Example Usage

Basic Usage

```
resource "alicloud_vpc" "foo" {
  ...
}

resource "alicloud_vswitch" "foo" {
  ...
}

resource "alicloud_nat_gateway" "foo" {
  vpc_id = "${alicloud_vpc.foo.id}"
  spec   = "Small"
  name   = "test_foo"

  bandwidth_packages = [
    {
      ip_count  = 2
      bandwidth = 5
      zone      = ""
    },
    {
      ip_count  = 1
      bandwidth = 6
      zone      = "cn-beijing-b"
    }
  ]

  depends_on = [
    "alicloud_vswitch.foo"
  ]
}

resource "alicloud_snat_entry" "foo" {
```

```
  snat_table_id     = "${alicloud_nat_gateway.foo.snat_table_ids}"
  source_vswitch_id = "${alicloud_vswitch.foo.id}"
  snat_ip           = "${alicloud_nat_gateway.foo.bandwidth_packages.0.public_ip_addresses}"
}
```

» Argument Reference

The following arguments are supported:

- `snat_table_id` - (Required, Forces new resource) The value can get from `alicloud_nat_gateway` Attributes "snat_table_ids".
- `source_vswitch_id` - (Required, Forces new resource) The vswitch ID.
- `snat_ip` - (Required) The SNAT ip address, the ip must along bandwidth package public ip which `alicloud_nat_gateway` argument `bandwidth_packages`.

» alicloud_vpn_gateway

Provides a VPN gateway resource.

NOTE: Terraform will auto build vpn instance while it uses `alicloud_vpn_gateway` to build a vpn resource.

Currently International-Site account can open `PostPaid` VPN gateway and China-Site account can open `PrePaid` VPN gateway.

» Example Usage

Basic Usage

```
resource "alicloud_vpn_gateway" "foo" {
    name = "testAccVpnConfig"
    vpc_id = "vpc-fakeid"
    bandwidth = "10"
    enable_ssl = true
    instance_charge_type = "PostPaid"
    description = "test_create_description"
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Optional) The name of the VPN. Defaults to null.

- `vpc_id` - (Required, Forces new resource) The VPN belongs the vpc_id, the field can't be changed.
- `instance_charge_type` - (Optional) The charge type for instance. Valid value: PostPaid, PrePaid. Default to PostPaid.
- `period` - (Optional) The filed is only required while the InstanceChargeType is prepaid.
- `bandwidth` - (Required) The value should be 10, 100, 200, 500, 1000 if the user is postpaid, otherwise it can be 5, 10, 20, 50, 100, 200, 500, 1000. It can't be changed by terraform.
- `enable_ipsec` - (Optional) Enable or Disable IPSec VPN. At least one type of VPN should be enabled.
- `enable_ssl` - (Optional) Enable or Disable SSL VPN. At least one type of VPN should be enabled.
- `ssl_connections` - (Optional) The max connections of SSL VPN. Default to 5. This field is ignored when enable_ssl is false.
- `description` - (Optional) The description of the VPN instance.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the VPN instance id.
- `internet_ip` - The internet ip of the VPN.
- `status` - The status of the VPN gateway.
- `business_status` - The business status of the VPN gateway.

» alicloud_vpn_customer_gateway

Provides a VPN customer gateway resource.

NOTE: Terraform will auto build vpn customer gateway instance while it uses `alicloud_vpn_customer_gateway` to build a vpn customer gateway resource.

» Example Usage

Basic Usage

```
resource "alicloud_vpn_customer_gateway" "foo" {
    name = "testAccVpnCgwName_Create"
    ip_address = "43.104.22.228"
    description = "testAccVpnCgwDesc_Create"
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Optional) The name of the VPN customer gateway. Defaults to null.
- `ip_address` - (Required, Forces new resource) The IP address of the customer gateway.
- `description` - (Optional) The description of the VPN customer gateway instance.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the VPN customer gateway instance id.

» alicloud_vpn_connection

Provides a VPN connection resource.

NOTE: Terraform will auto build vpn connection while it uses `alicloud_vpn_connection` to build a vpn connection resource. The vpn connection depends on VPN and VPN customer gateway.

» Example Usage

Basic Usage

```
resource "alicloud_vpn_gateway" "foo" {
    name = "testAccVpnConfig_create"
    vpc_id = "vpc-fake-id"
    bandwidth = "10"
    enable_ssl = true
    instance_charge_type = "PostPaid"
    description = "test_create_description"
}

resource "alicloud_vpn_customer_gateway" "foo" {
    name = "testAccVpnCgwName"
    ip_address = "42.104.22.228"
    description = "testAccVpnCgwDesc"
}
```

```
resource "alicloud_vpn_connection" "foo" {
    name = "tf-vco_test1"
    vpn_gateway_id = "${alicloud_vpn_gateway.foo.id}"
    customer_gateway_id = "${alicloud_vpn_customer_gateway.foo.id}"
    local_subnet = ["172.16.0.0/24", "172.16.1.0/24"]
    remote_subnet = ["10.0.0.0/24", "10.0.1.0/24"]
    effect_immediately = true
    ike_config = [{
        ike_auth_alg = "md5"
        ike_enc_alg = "des"
        ike_version = "ikev1"
        ike_mode = "main"
        ike_lifetime = 86400
        psk = "tf-testvpn2"
        ike_pfs = "group1"
        ike_remote_id = "testbob2"
        ike_local_id = "testalice2"
        }
    ]
    ipsec_config = [{
        ipsec_pfs = "group5"
        ipsec_enc_alg = "des"
        ipsec_auth_alg = "md5"
        ipsec_lifetime = 8640
    }]
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Optional) The name of the IPsec connection.
- `vpn_gateway_id` - (Required ForceNew) The ID of the VPN gateway.
- `customer_gateway_id` - (Required) The ID of the customer gateway.
- `local_subnet` - (Required, Type:Set) The CIDR block of the VPC to be connected with the local data center. This parameter is used for phase-two negotiation.
- `remote_subnet` - (Required, Type:Set) The CIDR block of the local data center. This parameter is used for phase-two negotiation.
- `effect_immediately` - (Optional) Whether to delete a successfully negotiated IPsec tunnel and initiate a negotiation again. Valid value:true,false.
- `ike_config` - (Optional) The configurations of phase-one negotiation.
- `ipsec_config` - (Optional) The configurations of phase-two negotiation.

» Block ike_config

The ike_config mapping supports the following:

- `psk` - (Optional) Used for authentication between the IPsec VPN gateway and the customer gateway.
- `ike_version` - (Optional) The version of the IKE protocol. Valid value: ikev1 | ikev2. Default value: ikev1
- `ike_mode` - (Optional) The negotiation mode of IKE V1. Valid value: main (main mode) | aggressive (aggressive mode). Default value: main
- `ike_enc_alg` - (Optional) The encryption algorithm of phase-one negotiation. Valid value: aes | aes192 | aes256 | des | 3des. Default Valid value: aes
- `ike_auth_alg` - (Optional) The authentication algorithm of phase-one negotiation. Valid value: md5 | sha1. Default value: sha1
- `ike_pfs` - (Optional) The Diffie-Hellman key exchange algorithm used by phase-one negotiation. Valid value: group1 | group2 | group5 | group14 | group24. Default value: group2
- `ike_lifetime` - (Optional) The SA lifecycle as the result of phase-one negotiation. The valid value of n is [0, 86400], the unit is second and the default value is 86400.
- `ike_local_id` - (Optional) The identification of the VPN gateway.
- `ike_remote_id` - (Optional) The identification of the customer gateway.

» Block ipsec_config

The ipsec_config mapping supports the following:

- `ipsec_enc_alg` - (Optional) The encryption algorithm of phase-two negotiation. Valid value: aes | aes192 | aes256 | des | 3des. Default value: aes
- `ipsec_auth_alg` - (Optional) The authentication algorithm of phase-two negotiation. Valid value: md5 | sha1. Default value: sha1
- `ipsec_pfs` - (Optional) The Diffie-Hellman key exchange algorithm used by phase-two negotiation. Valid value: group1 | group2 | group5 | group14 | group24. Default value: group2
- `ipsec_lifetime` - (Optional) The SA lifecycle as the result of phase-two negotiation. The valid value is [0, 86400], the unit is second and the default value is 86400.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the VPN connection id.
- `status` - The status of VPN connection.

» alicloud_ssl_vpn_server

Provides a SSL VPN server resource. Refer to details

NOTE: Terraform will auto build ssl vpn server while it uses `alicloud_ssl_vpn_server` to build a ssl vpn server resource.

» Example Usage

Basic Usage

```
resource "alicloud_vpn_gateway" "foo" {
    name = "testAccVpnConfig_create"
    vpc_id = "vpc-fake-id"
    bandwidth = "10"
    enable_ssl = true
    instance_charge_type = "PostPaid"
    description = "test_create_description"
}

resource "alicloud_ssl_vpn_server" "foo" {
    name = "testAccSslVpnServerConfig_create"
    vpn_gateway_id = "${alicloud_vpn_gateway.foo.id}"
    client_ip_pool = "192.168.0.0/16"
    local_subnet = "172.16.0.0/21"
    protocol = "UDP"
    cipher = "AES-128-CBC"
    port = 1194
    compress = "false"
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Optional) The name of the SSL-VPN server.
- `vpn_gateway_id` - (Required, ForceNew) The ID of the VPN gateway.
- `client_ip_pool` - (Required) The CIDR block from which access addresses are allocated to the virtual network interface card of the client.
- `local_subnet` - (Required) The CIDR block to be accessed by the client through the SSL-VPN connection.
- `protocol` - (Optional) The protocol used by the SSL-VPN server. Valid value: UDP(default) |TCP

- `cipher` - (Optional) The encryption algorithm used by the SSL-VPN server. Valid value: AES-128-CBC (default)| AES-192-CBC | AES-256-CBC | none
- `port` - (Optional) The port used by the SSL-VPN server. The default value is 1194.The following ports cannot be used: [22, 2222, 22222, 9000, 9001, 9002, 7505, 80, 443, 53, 68, 123, 4510, 4560, 500, 4500].
- `compress` - (Optional) Specify whether to compress the communication. Valid value: true (default) | false

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the SSL-VPN server.
- `internet_ip` - The internet IP of the SSL-VPN server.
- `connections` - The number of current connections.
- `max_connections` - The maximum number of connections.

» alicloud_ssl_vpn_client_cert

Provides a SSL VPN client cert resource.

NOTE: Terraform will auto build SSL VPN client certs while it uses `alicloud_ssl_vpn_client_cert` to build a ssl vpn client certs resource. It depends on VPN instance and SSL VPN Server.

» Example Usage

Basic Usage

```
resource "alicloud_ssl_vpn_client_cert" "foo" {
    ssl_vpn_server_id = "ssl_vpn_server_fake_id"
    name = "testAcc_create_client_cert"
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Optional) The name of the client certificate.
- `ssl_vpn_server_id` - (Required, Forces new resource) The ID of the SSL-VPN server.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the SSL-VPN client certificate.
- `status` - The status of the client certificate.

» alicloud_cen_instance

Provides a CEN instance resource. Cloud Enterprise Network (CEN) is a service that allows you to create a global network for rapidly building a distributed business system with a hybrid cloud computing solution. CEN enables you to build a secure, private, and enterprise-class interconnected network between VPCs in different regions and your local data centers. CEN provides enterprise-class scalability that automatically responds to your dynamic computing requirements.

For information about CEN and how to use it, see What is Cloud Enterprise Network.

» Example Usage

Basic Usage

```
resource "alicloud_cen_instance" "cen" {
    name = "tf_test_foo"
    description = "an example for cen"
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Optional) The name of the CEN instance. Defaults to null.
- `description` - (Optional) The description of the CEN instance. Defaults to null.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the CEN instance.
- `name` - The name of the CEN instance.
- `description` - The description of the CEN instance.

» Import

CEN instance can be imported using the id, e.g.

```
$ terraform import alicloud_cen_instance.example cen-abc123456
```

» alicloud_cen_instance_attachment

Provides a CEN child instance attachment resource.

» Example Usage

Basic Usage

```
# Create a new instance-attachment and use it to attach one child instance to a new CEN
variable "name"{
    default = "tf-testAccCenInstanceAttachmentBasic"
}

resource "alicloud_cen_instance" "cen" {
    name = "${var.name}"
    description = "terraform01"
}

resource "alicloud_vpc" "vpc" {
    name = "${var.name}"
    cidr_block = "192.168.0.0/16"
}

resource "alicloud_cen_instance_attachment" "foo" {
    instance_id = "${alicloud_cen_instance.cen.id}"
    child_instance_id = "${alicloud_vpc.vpc.id}"
    child_instance_region_id = "cn-beijing"
}
```

» Argument Reference

The following arguments are supported:

- `instance_id` - (Required) The ID of the CEN.
- `child_instance_id` - (Required) The ID of the child instance to attach.
- `child_instance_region_id` - (Required) The region ID of the child instance to attach.

~>**NOTE:** Ensure that the child instance is not used in Express Connect.

» Attributes Reference

The following attributes are exported:

- `id` - ID of the resource, formatted as `<instance_id>:<child_instance_id>`.

» Import

CEN instance can be imported using the id, e.g.

```
$ terraform import alicloud_cen_instance.example cen-abc123456:vpc-abc123456
```

» alicloud_cen_bandwidth_package

Provides a CEN bandwidth package resource. The CEN bandwidth package is an abstracted object that includes an interconnection bandwidth and interconnection areas. To buy a bandwidth package, you must specify the areas to connect. An area consists of one or more Alibaba Cloud regions. The areas in CEN include Mainland China, Asia Pacific, North America, and Europe.

For information about CEN and how to use it, see Manage bandwidth packages.

» Example Usage

Basic Usage

```
resource "alicloud_cen_bandwidth_package" "foo" {
    name = "tf-testAccCenBandwidthPackageConfig"
    bandwidth = 5
    geographic_region_ids = [
        "China",
        "Asia-Pacific"]
}
```

» Argument Reference

The following arguments are supported:

- `bandwidth` - (Required) The bandwidth in Mbps of the bandwidth package. Cannot be less than 1Mbps.

- `geographic_region_ids` - (Required) List of the two areas to connect. Valid value: China | North-America | Asia-Pacific | Europe | Middle-East.
- `name` - (Optional) The name of the bandwidth package. Defaults to null.
- `description` - (Optional) The description of the bandwidth package. Default to null.
- `charge_type` - (Optional) The billing method. Valid value: PostPaid | PrePaid. Default to PostPaid. If set to PrePaid, the bandwidth package can't be deleted before expired time.
- `period` - (Optional) The purchase period in month. Valid value: 1, 2, 3, 6, 12. Default to 1.

~>**NOTE:** PrePaid mode will deduct fees from the account directly.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the bandwidth package.
- `expired_time` - The time of the bandwidth package to expire.
- `status` - The status of the bandwidth, including "InUse" and "Idle".

» Import

CEN bandwidth package can be imported using the id, e.g.

```
$ terraform import alicloud_cen_bandwidth_package.example cenbwp-abc123456
```

» alicloud_cen_bandwidth_package_attachment

Provides a CEN bandwidth package attachment resource. The resource can be used to bind a bandwidth package to a specified CEN instance.

» Example Usage

Basic Usage

```
# Create a new bandwidth package attachment and use it to attach a bandwidth package to a ne
resource "alicloud_cen_instance" "cen" {
     name = "tf-testAccCenBandwidthPackageAttachmentConfig"
     description = "tf-testAccCenBandwidthPackageAttachmentDescription"
}

resource "alicloud_cen_bandwidth_package" "bwp" {
```

```
    bandwidth = 20
    geographic_region_ids = [
        "China",
        "Asia-Pacific"]
}

resource "alicloud_cen_bandwidth_package_attachment" "foo" {
    instance_id = "${alicloud_cen_instance.cen.id}"
    bandwidth_package_id = "${alicloud_cen_bandwidth_package.bwp.id}"
}
```

» Argument Reference

The following arguments are supported:

- `instance_id` - (Required) The ID of the CEN.
- `bandwidth_package_id` - (Required) The ID of the bandwidth package.

» Attributes Reference

The following attributes are exported:

- `id` - ID of the resource, the same as bandwidth_package_id.

» Import

CEN bandwidth package attachment resource can be imported using the id, e.g.

```
$terraform import alicloud_cen_instance.example bwp-abc123456
```

» alicloud_cen_bandwidth_limit

Provides a CEN cross-regional interconnection bandwidth resource. To connect networks in different regions, you must set cross-region interconnection bandwidth after buying a bandwidth package. The total bandwidth set for all the interconnected regions of a bandwidth package cannot exceed the bandwidth of the bandwidth package. By default, 1 Kbps bandwidth is provided for connectivity test. To run normal business, you must buy a bandwidth package and set a proper interconnection bandwidth.

For example, a CEN instance is bound to a bandwidth package of 20 Mbps and the interconnection areas are Mainland China and North America. You can set the cross-region interconnection bandwidth between US West 1 and China East

1, China East 2, China South 1, and so on. However, the total bandwidth set for all the interconnected regions cannot exceed 20 Mbps.

For information about CEN and how to use it, see Cross-region interconnection bandwidth

» Example Usage

Basic Usage

```
variable "name"{
    default = "tf-testAccCenBandwidthLimitConfig"
}

provider "alicloud" {
    alias = "fra"
    region = "eu-central-1"
}

provider "alicloud" {
    alias = "sh"
    region = "cn-shanghai"
}

resource "alicloud_vpc" "vpc1" {
  provider = "alicloud.fra"
  name = "${var.name}"
  cidr_block = "192.168.0.0/16"
}

resource "alicloud_vpc" "vpc2" {
  provider = "alicloud.sh"
  name = "${var.name}"
  cidr_block = "172.16.0.0/12"
}

resource "alicloud_cen_instance" "cen" {
     name = "${var.name}"
     description = "tf-testAccCenBandwidthLimitConfigDescription"
}

resource "alicloud_cen_bandwidth_package" "bwp" {
    bandwidth = 5
    geographic_region_ids = [
        "Europe",
        "China"]
```

```
}

resource "alicloud_cen_bandwidth_package_attachment" "bwp_attach" {
    instance_id = "${alicloud_cen_instance.cen.id}"
    bandwidth_package_id = "${alicloud_cen_bandwidth_package.bwp.id}"
}

resource "alicloud_cen_instance_attachment" "vpc_attach_1" {
    instance_id = "${alicloud_cen_instance.cen.id}"
    child_instance_id = "${alicloud_vpc.vpc1.id}"
    child_instance_region_id = "eu-central-1"
}

resource "alicloud_cen_instance_attachment" "vpc_attach_2" {
    instance_id = "${alicloud_cen_instance.cen.id}"
    child_instance_id = "${alicloud_vpc.vpc2.id}"
    child_instance_region_id = "cn-shanghai"
}

resource "alicloud_cen_bandwidth_limit" "foo" {
    instance_id = "${alicloud_cen_instance.cen.id}"
    region_ids = [
        "eu-central-1",
        "cn-shanghai"]
     bandwidth_limit = 4
     depends_on = [
        "alicloud_cen_bandwidth_package_attachment.bwp_attach",
        "alicloud_cen_instance_attachment.vpc_attach_1",
        "alicloud_cen_instance_attachment.vpc_attach_2"]
}
```

» Argument Reference

The following arguments are supported:

- `instance_id` - (Required) The ID of the CEN.
- `region_ids` - (Required) List of the two regions to interconnect. Must be two different regions.
- `bandwidth_limit` - (Required) The bandwidth configured for the interconnected regions communication.

~>**NOTE:** The "alicloud_cen_bandwidthlimit" resource depends on the related "alicloud_cen_bandwidth_package_attachment" resource and "alicloud_cen_instance_attachment" resource.

» Attributes Reference

The following attributes are exported:

- `id` - ID of the resource, formatted as `<instance_id>:<region_id_1>:<region_id_2>`.

~>**NOTE:** The region_id_1 and region_id_2 are sorted lexicographically.

» Import

CEN bandwidth limit can be imported using the id, e.g.

```
terraform import alicloud_cen_bandwidth_limit.example cen-abc123456:cn-beijing:eu-west-1
```

~>**NOTE:** The sequence of the region_id_1 and region_id_2 makes no difference when import. But the in the id of the resource, they are sorted lexicographically.

» alicloud_cen_route_entry

Provides a CEN route entry resource. Cloud Enterprise Network (CEN) supports publishing and withdrawing route entries of attached networks. You can publish a route entry of an attached VPC or VBR to a CEN instance, then other attached networks can learn the route if there is no route conflict. You can withdraw a published route entry when CEN does not need it any more.

For information about CEN route entries publishment and how to use it, see Manage network routes.

» Example Usage

Basic Usage

```
# Create a cen_route_entry resource and use it to publish a route entry pointing to an ECS.

provider "alicloud" {
    alias = "hz"
    region = "cn-hangzhou"
}

variable "name" {
    default = "tf-testAccCenRouteEntryConfig"
}

data "alicloud_zones" "default" {
```

```
    provider = "alicloud.hz"
    available_disk_category = "cloud_efficiency"
    available_resource_creation = "VSwitch"
}

data "alicloud_instance_types" "default" {
    provider = "alicloud.hz"
    availability_zone = "${data.alicloud_zones.default.zones.0.id}"
    cpu_core_count = 1
    memory_size = 2
}

data "alicloud_images" "default" {
    provider = "alicloud.hz"
    name_regex = "^ubuntu_14.*_64"
    most_recent = true
    owners = "system"
}

resource "alicloud_vpc" "vpc" {
    provider = "alicloud.hz"
    name = "${var.name}"
    cidr_block = "172.16.0.0/12"
}

resource "alicloud_vswitch" "default" {
    provider = "alicloud.hz"
    vpc_id = "${alicloud_vpc.vpc.id}"
    cidr_block = "172.16.0.0/21"
    availability_zone = "${data.alicloud_zones.default.zones.0.id}"
    name = "${var.name}"
}

resource "alicloud_security_group" "default" {
    provider = "alicloud.hz"
    name = "${var.name}"
    description = "foo"
    vpc_id = "${alicloud_vpc.vpc.id}"
}

resource "alicloud_instance" "default" {
    provider = "alicloud.hz"
    vswitch_id = "${alicloud_vswitch.default.id}"
    image_id = "${data.alicloud_images.default.images.0.id}"
    instance_type = "${data.alicloud_instance_types.default.instance_types.0.id}"
    system_disk_category = "cloud_efficiency"
```

```
    internet_charge_type = "PayByTraffic"
    internet_max_bandwidth_out = 5
    security_groups = ["${alicloud_security_group.default.id}"]
    instance_name = "${var.name}"
}

resource "alicloud_cen_instance" "cen" {
    name = "${var.name}"
}

resource "alicloud_cen_instance_attachment" "attach" {
    instance_id = "${alicloud_cen_instance.cen.id}"
    child_instance_id = "${alicloud_vpc.vpc.id}"
    child_instance_region_id = "cn-hangzhou"
    depends_on = [
      "alicloud_vswitch.default"]
}

resource "alicloud_route_entry" "route" {
    provider = "alicloud.hz"
    route_table_id = "${alicloud_vpc.vpc.route_table_id}"
    destination_cidrblock = "11.0.0.0/16"
    nexthop_type = "Instance"
    nexthop_id = "${alicloud_instance.default.id}"
}

resource "alicloud_cen_route_entry" "foo" {
    provider = "alicloud.hz"
    instance_id = "${alicloud_cen_instance.cen.id}"
    route_table_id = "${alicloud_vpc.vpc.route_table_id}"
    cidr_block = "${alicloud_route_entry.route.destination_cidrblock}"
    depends_on = [
        "alicloud_cen_instance_attachment.attach"]
}
```

» Argument Reference

The following arguments are supported:

- `instance_id` - (Required) The ID of the CEN.
- `route_table_id` - (Required) The route table of the attached VBR or VPC.
- `cidr_block` - (Required) The destination CIDR block of the route entry to publish.

~>**NOTE:** The "alicloud_cen_instance_route_entries" resource depends on

the related "alicloud_cen_instance_attachment" resource.

~>**NOTE:** The "alicloud_cen_instance_attachment" resource should depend on the related "alicloud_vswitch" resource.

» Attributes Reference

The following attributes are exported:

- `id` - ID of the resource, formatted as `<instance_id>:<route_table_id>:<cidr_block>`.

» Import

CEN instance can be imported using the id, e.g.

```
$ terraform import alicloud_cen_instance.example cen-abc123456:vtb-abc123:192.168.0.0/24
```

» alicloud_db_account

Provides an RDS account resource and used to manage databases. A RDS instance supports multiple database account.

» Example Usage

```
resource "alicloud_db_account" "default" {
    instance_id = "rm-2eps..."
    name = "tf_account"
    password = "..."
}
```

» Argument Reference

The following arguments are supported:

- `instance_id` - (Required) The Id of instance in which account belongs.
- `name` - (Required) Operation account requiring a uniqueness check. It may consist of lower case letters, numbers, and underlines, and must start with a letter and have no more than 16 characters.
- `password` - (Required) Operation password. It may consist of letters, digits, or underlines, with a length of 6 to 32 characters.

- `description` - (Optional) Database description. It cannot begin with https://. It must start with a Chinese character or English letter. It can include Chinese and English characters, underlines (_), hyphens (-), and numbers. The length may be 2-256 characters.
- `type` - Privilege type of account.
  - Normal: Common privilege.
  - Super: High privilege.

  Default to Normal. It is is valid for MySQL 5.5/5.6 only. Currently, MySQL 5.7, SQL Server 2012/2016, PostgreSQL, and PPAS each can have only one initial account. Other accounts are created by the initial account that has logged on to the database. Refer to details.

» Attributes Reference

The following attributes are exported:

- `id` - The current account resource ID. Composed of instance ID and account name with format `<instance_id>:<name>`.
- `instance_id` - The Id of DB instance.
- `name` - The name of DB account.
- `description` - The account description.
- `type` - Privilege type of account.

» Import

RDS account can be imported using the id, e.g.

```
$ terraform import alicloud_db_account.example "rm-12345:tf_account"
```

» alicloud_db_account_privilege

Provides an RDS account privilege resource and used to grant several database some access privilege. A database can be granted by multiple account.

» Example Usage

```
resource "alicloud_db_database" "default" {
    count = 2
    instance_id = "rm-2eps..."
    name = "tf_database"
    character_set = "utf8"
```

```
}

resource "alicloud_db_account_privilege" "default" {
    instance_id = "rm-2eps..."
    account_name = "tf_account"
    privilege = "ReadOnly"
    db_names = ["${alicloud_db_database.base.*.name}"]
}
```

» Argument Reference

The following arguments are supported:

- `instance_id` - (Required) The Id of instance in which account belongs.
- `account_name` - (Required) A specified account name.
- `privilege` - The privilege of one account access database. Valid values: [”ReadOnly”, ”ReadWrite”]. Default to ”ReadOnly”.
- `db_names` - (Optional) List of specified database name.

» Attributes Reference

The following attributes are exported:

- `id` - The current account resource ID. Composed of instance ID, account name and privilege with format `<instance_id>:<name>:<privilege>`.
- `instance_id` - The Id of DB instance.
- `account_name` - The name of DB account.
- `privilege` - The specified account privilege.
- `db_names` - List of granted privilege database names.

» Import

RDS account privilege can be imported using the id, e.g.

```
$ terraform import alicloud_db_account_privilege.example "rm-12345:tf_account:ReadOnly"
```

» alicloud_db_backup_policy

Provides an RDS instance backup policy resource and used to configure instance backup policy.

NOTE: Each DB instance has a backup policy and it will be set default values when destroying the resource.

» Example Usage

```
resource "alicloud_db_backup_policy" "default" {
    instance_id = "rm-2eps..."
    backup_period = ["Monday", "Wednesday"]
    backup_time = "02:00Z-03:00Z"
    retention_period = 7
    log_backup = true
}
```

» Argument Reference

The following arguments are supported:

- `instance_id` - (Required) The Id of instance that can run database.
- `backup_period` - (Optional) DB Instance backup period. Valid values: [Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday]. Default to [”Tuesday”, ”Thursday”, ”Saturday”].
- `backup_time` - (Optional) DB instance backup time, in the format of HH:mmZ- HH:mmZ. Time setting interval is one hour. Default to ”02:00Z-03:00Z”. China time is 8 hours behind it.
- `retention_period` - (Optional) Instance backup retention days. Valid values: [7-730]. Default to 7.
- `log_backup` - (Optional) Whether to backup instance log. Default to true.
- `log_retention_period` - (Optional) Instance log backup retention days. Valid values: [7-730]. Default to 7. It can be larger than 'retention_period'.

» Attributes Reference

The following attributes are exported:

- `id` - The current backup policy resource ID. It is same as 'instance_id'.
- `instance_id` - The Id of DB instance.
- `backup_period` - DB Instance backup period.
- `backup_time` - DB instance backup time.
- `retention_period` - Instance backup retention days.
- `log_backup` - Whether to backup instance log.
- `log_retention_period` - Instance log backup retention days.

» Import

RDS backup policy can be imported using the id or instance id, e.g.

```
$ terraform import alicloud_db_backup_policy.example "rm-12345678"
```

» alicloud_db_connection

Provides an RDS connection resource to allocate an Internet connection string for RDS instance.

NOTE: Each RDS instance will allocate a intranet connnection string automatically and its prifix is RDS instance ID. To avoid unnecessary conflict, please specified a internet connection prefix before applying the resource.

» Example Usage

```
resource "alicloud_db_connection" "default" {
    instance_id = "rm-2eps..."
    connection_prefix = "alicloud"
    port = "3306"
}
```

» Argument Reference

The following arguments are supported:

- `instance_id` - (Required) The Id of instance that can run database.
- `connection_prefix` - (Optional) Prefix of an Internet connection string. It must be checked for uniqueness. It may consist of lowercase letters, numbers, and underlines, and must start with a letter and have no more than 30 characters. Default to + 'tf'.
- `port` - (Optional) Internet connection port. Valid value: [3001-3999]. Default to 3306.

» Attributes Reference

The following attributes are exported:

- `id` - The current instance connection resource ID. Composed of instance ID and connection string with format `<instance_id>:<connection_prefix>`.
- `connection_prefix` - Prefix of a connection string.
- `port` - Connection instance port.
- `connection_string` - Connection instance string.
- `ip_address` - The ip address of connection string.

» Import

RDS connection can be imported using the id, e.g.

```
$ terraform import alicloud_db_connection.example abc12345678
```

» alicloud_db_read_write_splitting_connection

Provides an RDS read write splitting connection resource to allocate an Intranet connection string for RDS instance.

» Example Usage

```
resource "alicloud_vpc" "default" {
    name       = "vpc-123456"
    cidr_block = "172.16.0.0/16"
}

resource "alicloud_vswitch" "default" {
    vpc_id            = "${alicloud_vpc.default.id}"
    cidr_block        = "172.16.0.0/24"
    availability_zone = "${data.alicloud_zones.default.zones.0.id}"
    name              = "vpc-123456"
}

resource "alicloud_db_instance" "default" {
    engine = "MySQL"
    engine_version = "5.6"
    db_instance_class = "rds.mysql.t1.small"
    db_instance_storage = "10"
    vswitch_id = "${alicloud_vswitch.default.id}"
}

resource "alicloud_db_readonly_instance" "foo" {
    master_db_instance_id = "${alicloud_db_instance.default.id}"
    engine_version = "${alicloud_db_instance.default.engine_version}"
    instance_type = "${alicloud_db_instance.default.instance_type}"
    instance_storage = "30"
    instance_name = "rm-123456_ro"
    vswitch_id = "${alicloud_vswitch.default.id}"
}

resource "alicloud_db_read_write_splitting_connection" "foo" {
    instance_id = "${alicloud_db_instance.default.id}"
```

```
    connection_prefix = "t-con-${alicloud_db_instance.default.id}"
    distribution_type = "Custom"
    max_delay_time = 300
    weight = "${map(
        "${alicloud_db_instance.default.id}", "0",
        "${alicloud_db_readonly_instance.foo.id}", "500"
    )}"

    depends_on = ["alicloud_db_readonly_instance.foo"]
}
```

NOTE: Resource `alicloud_db_read_write_splitting_connection` should be created after `alicloud_db_readonly_instance`, so the `depends_on` statement is necessary.

» Argument Reference

The following arguments are supported:

- `instance_id` - (Required, ForceNew) The Id of instance that can run database.
- `distribution_type` - (Required) Read weight distribution mode. Values are as follows: `Standard` indicates automatic weight distribution based on types, `Custom` indicates custom weight distribution.
- `connection_prefix` - (Optional, ForceNew) Prefix of an Internet connection string. It must be checked for uniqueness. It may consist of lowercase letters, numbers, and underlines, and must start with a letter and have no more than 30 characters. Default to + 'rw'.
- `port` - (Optional) Intranet connection port. Valid value: [3001-3999]. Default to 3306.
- `max_delay_time` - (Optional) Delay threshold, in seconds. The value range is 0 to 7200. Default to 30. Read requests are not routed to the read-only instances with a delay greater than the threshold.

- `weight` - (Optional) Read weight distribution. Read weights increase at a step of 100 up to 10,000. Enter weights in the following format: {"Instanceid":"Weight","Instanceid":"Weight"}. This parameter must be set when distribution_type is set to Custom.

» Attributes Reference

The following attributes are exported:

- `id` - The Id of DB instance.
- `connection_string` - Connection instance string.

» Import

RDS read write splitting connection can be imported using the id, e.g.

```
$ terraform import alicloud_db_read_write_splitting_connection.example abc12345678
```

» alicloud_db_database

Provides an RDS database resource. A DB database deployed in a DB instance. A DB instance can own multiple databases.

NOTE: This resource does not support creating 'PostgreSQL' database and you can use Postgresql Provider to do it.

NOTE: This resource does not support creating 'PPAS' database. You have to login RDS instance to create manually.

» Example Usage

```
resource "alicloud_db_database" "default" {
    instance_id = "rm-2eps..."
    name = "tf_database"
    character_set = "utf8"
}
```

» Argument Reference

The following arguments are supported:

- `instance_id` - (Required) The Id of instance that can run database.
- `name` - (Required) Name of the database requiring a uniqueness check. It may consist of lower case letters, numbers, and underlines, and must start with a letter and have no more than 64 characters.
- `character_set` - (Required) Character set. The value range is limited to the following:
  - MySQL: [utf8, gbk, latin1, utf8mb4] (`utf8mb4` only supports versions 5.5 and 5.6).
  - SQLServer: [Chinese_PRC_CI_AS, Chinese_PRC_CS_AS, SQL_Latin1_General_CP1_CI_AS, SQL_Latin1_General_CP1_CS_AS, Chinese_PRC_BIN]

- `description` - (Optional) Database description. It cannot begin with https://. It must start with a Chinese character or English letter. It can include Chinese and English characters, underlines (_), hyphens (-), and numbers. The length may be 2-256 characters.

» Attributes Reference

The following attributes are exported:

- `id` - The current database resource ID. Composed of instance ID and database name with format `<instance_id>:<name>`.
- `instance_id` - The Id of DB instance.
- `name` - The name of DB database.
- `character_set` - Character set that database used.
- `description` - The database description.

» Import

RDS database can be imported using the id, e.g.

```
$ terraform import alicloud_db_database.example "rm-12345:tf_database"
```

» alicloud_db_instance

Provides an RDS instance resource. A DB instance is an isolated database environment in the cloud. A DB instance can contain multiple user-created databases.

» Example Usage

» Create a RDS MySQL instance

```
resource "alicloud_vpc" "default" {
    name       = "vpc-123456"
    cidr_block = "172.16.0.0/16"
}

resource "alicloud_vswitch" "default" {
    vpc_id            = "${alicloud_vpc.default.id}"
    cidr_block        = "172.16.0.0/24"
    availability_zone = "${data.alicloud_zones.default.zones.0.id}"
    name              = "vpc-123456"
```

```
}

resource "alicloud_db_instance" "default" {
    engine = "MySQL"
    engine_version = "5.6"
    db_instance_class = "rds.mysql.t1.small"
    db_instance_storage = "10"
    vswitch_id = "${alicloud_vswitch.default.id}"
}
```

» Create a RDS MySQL instance with specific parameters

```
resource "alicloud_vpc" "default" {
    name       = "vpc-123456"
    cidr_block = "172.16.0.0/16"
}

resource "alicloud_vswitch" "default" {
    vpc_id            = "${alicloud_vpc.default.id}"
    cidr_block        = "172.16.0.0/24"
    availability_zone = "${data.alicloud_zones.default.zones.0.id}"
    name              = "vpc-123456"
}

resource "alicloud_db_instance" "default" {
    engine = "MySQL"
    engine_version = "5.6"
    db_instance_class = "rds.mysql.t1.small"
    db_instance_storage = "10"
    vswitch_id = "${alicloud_vswitch.default.id}"
}

resource "alicloud_db_instance" "default" {
    engine = "MySQL"
    engine_version = "5.6"
    db_instance_class = "rds.mysql.t1.small"
    db_instance_storage = "10"
    parameters = [{
        name = "innodb_large_prefix"
        value = "ON"
    },{
        name = "connect_timeout"
        value = "50"
    }]
}
```

» Argument Reference

The following arguments are supported:

- `engine` - (Required) Database type. Value options: MySQL, SQLServer, PostgreSQL, and PPAS.
- `engine_version` - (Required) Database version. Value options can refer to the latest docs CreateDBInstance `EngineVersion`.
- `db_instance_class` - (Deprecated) It has been deprecated from version 1.5.0 and use 'instance_type' to replace.
- `instance_type` - (Required) DB Instance type. For details, see Instance type table.
- `db_instance_storage` - (Deprecated) It has been deprecated from version 1.5.0 and use 'instance_storage' to replace.
- `instance_storage` - (Required) User-defined DB instance storage space. Value range:
  - [5, 2000] for MySQL/PostgreSQL/PPAS HA dual node edition;
  - [20,1000] for MySQL 5.7 basic single node edition;
  - [10, 2000] for SQL Server 2008R2;
  - [20,2000] for SQL Server 2012 basic single node edition Increase progressively at a rate of 5 GB. For details, see Instance type table.
- `instance_name` - (Optional) The name of DB instance. It a string of 2 to 256 characters.
- `instance_charge_type` - (Optional) Valid values are `Prepaid`, `Postpaid`, Default to `Postpaid`.
- `period` - (Optional) The duration that you will buy DB instance (in month). It is valid when instance_charge_type is `PrePaid`. Valid values: [1~9], 12, 24, 36. Default to 1.
- `auto_renew` - (Optional, Available in 1.34.0+) Whether to renewal a DB instance automatically or not. It is valid when instance_charge_type is `PrePaid`. Default to `false`.
- `auto_renew_period` - (Optional, Available in 1.34.0+) Auto-renewal period of an instance, in the unit of the month. It is valid when instance_charge_type is `PrePaid`. Valid value:[1~12], Default to 1.
- `zone_id` - (Optional) The Zone to launch the DB instance. From version 1.8.1, it supports multiple zone. If it is a multi-zone and `vswitch_id` is specified, the vswitch must in the one of them. The multiple zone ID can be retrieved by setting `multi` to "true" in the data source `alicloud_zones`.

- `multi_az` - (Optional) It has been deprecated from version 1.8.1, and `zone_id` can support multiple zone.
- `db_instance_net_type` - (Deprecated) It has been deprecated from version 1.5.0. If you want to set public connection, please use new resource `alicloud_db_connection`. Default to Intranet.
- `allocate_public_connection` - (Deprecated) It has been deprecated from version 1.5.0. If you want to allocate public connection string, please use new resource `alicloud_db_connection`.
- `instance_network_type` - (Deprecated) It has been deprecated from version 1.5.0. If you want to create instances in VPC network, this parameter must be set.
- `vswitch_id` - (Optional) The virtual switch ID to launch DB instances in one VPC.
- `master_user_name` - (Deprecated) It has been deprecated from version 1.5.0. New resource `alicloud_db_account` field 'name' replaces it.
- `master_user_password` - (Deprecated) It has been deprecated from version 1.5.0. New resource `alicloud_db_account` field 'password' replaces it.
- `preferred_backup_period` - (Deprecated) It has been deprecated from version 1.5.0. New resource `alicloud_db_backup_policy` field 'backup_period' replaces it.
- `preferred_backup_time` - (Deprecated) It has been deprecated from version 1.5.0. New resource `alicloud_db_backup_policy` field 'backup_time' replaces it.
- `backup_retention_period` - (Deprecated) It has been deprecated from version 1.5.0. New resource `alicloud_db_backup_policy` field 'retention_period' replaces it.
- `security_ips` - (Optional) List of IP addresses allowed to access all databases of an instance. The list contains up to 1,000 IP addresses, separated by commas. Supported formats include 0.0.0.0/0, 10.23.12.24 (IP), and 10.23.12.24/24 (Classless Inter-Domain Routing (CIDR) mode. /24 represents the length of the prefix in an IP address. The range of the prefix length is [1,32]).
- `db_mappings` - (Deprecated) It has been deprecated from version 1.5.0. New resource `alicloud_db_database` replaces it.
- `parameters` - (Optional) Set of parameters needs to be set after DB instance was launched. Available parameters can refer to the latest docs View database parameter templates .

- `tags` - (Optional) the instance bound to the tag. The format of the incoming value is `json` string, including `TagKey` and `TagValue`. `TagKey` cannot be null, and `TagValue` can be empty, and both cannot begin with `aliyun`. Format example `{"key1":"value1"}`.

NOTE: Because of data backup and migration, change DB instance type and storage would cost 15~20 minutes. Please make full preparation before changing them.

» Attributes Reference

The following attributes are exported:

- `id` - The RDS instance ID.
- `port` - RDS database connection port.
- `connection_string` - RDS database connection string.

» Import

RDS instance can be imported using the id, e.g.

```
$ terraform import alicloud_db_instance.example rm-abc12345678
```

» alicloud_db_readonly_instance

Provides an RDS readonly instance resource.

» Example Usage

```
resource "alicloud_vpc" "default" {
    name       = "vpc-123456"
    cidr_block = "172.16.0.0/16"
}

resource "alicloud_vswitch" "default" {
    vpc_id            = "${alicloud_vpc.default.id}"
    cidr_block        = "172.16.0.0/24"
    availability_zone = "${data.alicloud_zones.default.zones.0.id}"
    name              = "vpc-123456"
}

resource "alicloud_db_instance" "default" {
    engine = "MySQL"
```

```
    engine_version = "5.6"
    db_instance_class = "rds.mysql.t1.small"
    db_instance_storage = "10"
    vswitch_id = "${alicloud_vswitch.default.id}"
}

resource "alicloud_db_readonly_instance" "foo" {
    master_db_instance_id = "${alicloud_db_instance.default.id}"
    engine_version = "${alicloud_db_instance.default.engine_version}"
    instance_type = "${alicloud_db_instance.default.instance_type}"
    instance_storage = "30"
    instance_name = "rm-123456_ro"
    vswitch_id = "${alicloud_vswitch.default.id}"
    parameters = [{
        name = "innodb_large_prefix"
        value = "ON"
    },{
        name = "connect_timeout"
        value = "50"
    }]
}
```

» Argument Reference

The following arguments are supported:

- `engine_version` - (Required, ForceNew) Database version. Value options can refer to the latest docs CreateDBInstance `EngineVersion`.
- `master_db_instance_id` - (Required, ForceNew) ID of the master instance.
- `instance_type` - (Required) DB Instance type. For details, see Instance type table.
- `instance_storage` - (Required) User-defined DB instance storage space. Value range: [5, 2000] for MySQL/SQL Server HA dual node edition. Increase progressively at a rate of 5 GB. For details, see Instance type table.
- `instance_name` - (Optional) The name of DB instance. It a string of 2 to 256 characters.
- `parameters` - (Optional) Set of parameters needs to be set after DB instance was launched. Available parameters can refer to the latest docs View database parameter templates.
- `zone_id` - (Optional, ForceNew) The Zone to launch the DB instance.
- `vswitch_id` - (Optional, ForceNew) The virtual switch ID to launch DB instances in one VPC.

NOTE: Because of data backup and migration, change DB instance type and

storage would cost 15~20 minutes. Please make full preparation before changing them.

» Attributes Reference

The following attributes are exported:

- `id` - The RDS instance ID.
- `engine` - Database type.
- `port` - RDS database connection port.
- `connection_string` - RDS database connection string.

» Import

RDS readonly instance can be imported using the id, e.g.

```
$ terraform import alicloud_db_readonly_instance.example rm-abc12345678
```

» alicloud_kvstore_instance

Provides an ApsaraDB Redis / Memcache instance resource. A DB instance is an isolated database environment in the cloud. It can be associated with IP whitelists and backup configuration which are separate resource providers.

» Example Usage

```
resource "alicloud_kvstore_instance" "default" {
  instance_class = "redis.master.small.default"
  instance_name  = "myredis"
  password       = "Passw0rd"
  vswitch_id     = "some vswitch id"
}
```

» Argument Reference

The following arguments are supported:

- `instance_name` - (Optional) The name of DB instance. It a string of 2 to 256 characters.
- `password`- (Optional) The password of the DB instance. The password is a string of 8 to 30 characters and must contain uppercase letters, lowercase letters, and numbers.

- `instance_class` - (Required) Type of the applied ApsaraDB for Redis instance. For more information, see Instance type table.
- `availability_zone` - (Optional) The Zone to launch the DB instance.
- `instance_charge_type` - (Optional) Valid values are `PrePaid`, `PostPaid`, Default to `PostPaid`.
- `period` - (Optional) The duration that you will buy DB instance (in month). It is valid when instance_charge_type is `PrePaid`. Valid values: [1~9], 12, 24, 36. Default to 1.
- `instance_type` - (Optional) The engine to use: `Redis` or `Memcache`. Defaults to `Redis`.
- `vswitch_id` - (Optional) The ID of VSwitch.
- `engine_version`- (Optional) Engine version. Supported values: 2.8 and 4.0. Default value: 2.8. Only 2.8 can be supported for Memcache Instance.
- `security_ips`- (Optional) Set the instance's IP whitelist of the default security group.
- `private_ip`- (Optional) Set the instance's private IP.
- `backup_id`- (Optional) If an instance created based on a backup set generated by another instance is valid, this parameter indicates the ID of the generated backup set.
- `vpc_auth_mode`- (Optional) Only meaningful if instance_type is `Redis` and network type is VPC. Valid values are `Close`, `Open`. Defaults to `Open`. `Close` means the redis instance can be accessed without authentication. `Open` means authentication is required.
- `parameters` - (Optional) Set of parameters needs to be set after instance was launched. Available parameters can refer to the latest docs Instance configurations table .

» Attributes Reference

The following attributes are exported:

- `id` - The KVStore instance ID.
- `connection_domain` - Instance connection domain (only Intranet access supported).

» Import

KVStore instance can be imported using the id, e.g.

```
$ terraform import alicloud_kvstore_instance.example r-abc12345678
```

» alicloud_kvstore_backup_policy

Provides a backup policy for ApsaraDB Redis / Memcache instance resource.

» Example Usage

```
resource "alicloud_kvstore_backup_policy" "redisbackup" {
  instance_id             = "${alicloud_kvstore_instance.myredis.id}"
  preferred_backup_time   = "00:00Z-04:00Z"
  preferred_backup_period = "Friday"
}
```

» Argument Reference

The following arguments are supported:

- `instance_id` - (Required) The id of ApsaraDB for Redis or Memcache intance.
- `backup_time` - (Required) Backup time, in the format of HH:mmZ-HH:mm Z
- `backup_period` - (Required) Backup Cycle. Allowed values: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday

» Attributes Reference

The following attributes are exported:

- `id` - The id of the backup policy.
- `instance_id` - The id of ApsaraDB for Redis or Memcache intance.
- `backup_time` - Backup time, in the format of HH:mmZ- HH:mm Z
- `backup_period` - Backup Cycle. Allowed values: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday

» Import

KVStore backup policy can be imported using the id, e.g.

```
$ terraform import alicloud_kvstore_backup_policy.example r-abc12345678
```

» alicloud_drds_instance

Distributed Relational Database Service (DRDS) is a lightweight (stateless), flexible, stable, and efficient middleware product independently developed by Alibaba Group to resolve scalability issues with single-host relational databases. With its compatibility with MySQL protocols and syntaxes, DRDS enables database/table sharding, smooth scaling, configuration upgrade/downgrade, transparent read/write splitting, and distributed transactions, providing O&M capabilities for distributed databases throughout their entire lifecycle.

For information about DRDS and how to use it, see What is DRDS.

NOTE: At present, DRDS instance only can be supported in the regions: cn-shenzhen, cn-beijing, cn-hangzhou, cn-hongkong, cn-qingdao.

NOTE: Currently, this resource only support `Domestic Site Account`.

» Example Usage

```
resource "alicloud_drds_instance" "default" {
  description = "drds instance"
  instance_charge_type = "PostPaid"
  zone_id = "cn-hangzhou-e"
  vswitch_id = "vsw-bp1jlu3swk8rq2yoi40ey"
  instance_series = "drds.sn1.4c8g"
  specification = "drds.sn1.4c8g.8C16G"
}
```

» Argument Reference

The following arguments are supported:

- `description` - (Required) Description of the DRDS instance, This description can have a string of 2 to 256 characters.
- `zone_id` - (Optional, ForceNew) The Zone to launch the DRDS instance.
- `instance_charge_type` - (Optional, ForceNew) Valid values are `PrePaid`, `PostPaid`, Default to `PostPaid`.
- `vswitch_id` - (Optional, ForceNew) The VSwitch ID to launch in.
- `instance_series` - (Required, ForceNew) User-defined DRDS instance node spec. Value range:
  - `drds.sn1.4c8g` for DRDS instance Starter version;
  - `drds.sn1.8c16g` for DRDS instance Standard edition;
  - `drds.sn1.16c32g` for DRDS instance Enterprise Edition;
  - `drds.sn1.32c64g` for DRDS instance Extreme Edition;
- `specification` - (Required, ForceNew) User-defined DRDS instance specification. Value range:

  - drds.sn1.4c8g for DRDS instance Starter version;
    * value range : drds.sn1.4c8g.8c16g, drds.sn1.4c8g.16c32g, drds.sn1.4c8g.32c64g, drds.sn1.4c8g.64c128g
  - drds.sn1.8c16g for DRDS instance Standard edition;
    * value range : drds.sn1.8c16g.16c32g, drds.sn1.8c16g.32c64g, drds.sn1.8c16g.64c128g
  - drds.sn1.16c32g for DRDS instance Enterprise Edition;
    * value range : drds.sn1.16c32g.32c64g, drds.sn1.16c32g.64c128g
  - drds.sn1.32c64g for DRDS instance Extreme Edition;
    * value range : drds.sn1.32c64g.128c256g

» Attributes Reference

The following attributes are exported:

- id - The DRDS instance ID.

» Import

Distributed Relational Database Service (DRDS) can be imported using the id, e.g.

```
$ terraform import alicloud_drds_instance.example drds-abc123456
```

» alicloud_ess_alarm

Provides a ESS alarm task resource.

» Example Usage

```
data "alicloud_zones" "default" {
    "available_disk_category"= "cloud_efficiency"
    "available_resource_creation"= "VSwitch"
}

data "alicloud_images" "ecs_image" {
  most_recent = true
  name_regex =  "^centos_6\\w{1,5}[64].*"
}

data "alicloud_instance_types" "default" {
    availability_zone = "${data.alicloud_zones.default.zones.0.id}"
```

```
    cpu_core_count = 1
    memory_size = 2
}

resource "alicloud_vpc" "foo" {
    name = "tf-testAccEssAlarm_basic"
    cidr_block = "172.16.0.0/16"
}

resource "alicloud_vswitch" "foo" {
    name = "tf-testAccEssAlarm_basic_foo"
    vpc_id = "${alicloud_vpc.foo.id}"
    cidr_block = "172.16.0.0/24"
    availability_zone = "${data.alicloud_zones.default.zones.0.id}"
}

resource "alicloud_vswitch" "bar" {
    name = "tf-testAccEssAlarm_basic_bar"
    vpc_id = "${alicloud_vpc.foo.id}"
    cidr_block = "172.16.1.0/24"
    availability_zone = "${data.alicloud_zones.default.zones.0.id}"
}

resource "alicloud_ess_scaling_group" "foo" {
    min_size = 1
    max_size = 1
    scaling_group_name = "tf-testAccEssAlarm_basic"
    removal_policies = ["OldestInstance", "NewestInstance"]
    vswitch_ids = ["${alicloud_vswitch.foo.id}","${alicloud_vswitch.bar.id}"]
}

resource "alicloud_ess_scaling_rule" "foo" {
    scaling_rule_name = "tf-testAccEssAlarm_basic"
    scaling_group_id = "${alicloud_ess_scaling_group.foo.id}"
    adjustment_type = "TotalCapacity"
    adjustment_value = 2
    cooldown = 60
}

resource "alicloud_ess_alarm" "foo" {
    name = "tf-testAccEssAlarm_basic"
    description = "Acc alarm test"
    alarm_actions = ["${alicloud_ess_scaling_rule.foo.ari}"]
    scaling_group_id = "${alicloud_ess_scaling_group.foo.id}"
    metric_type = "system"
    metric_name = "CpuUtilization"
```

```
    period = 300
    statistics = "Average"
    threshold = 200.3
    comparison_operator = ">="
    evaluation_count = 2
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Optional) The name for ess alarm.
- `description` - (Optional) The description for the alarm.
- `alarm_actions` - (Required) The list of actions to execute when this alarm transition into an ALARM state. Each action is specified as ess scaling rule ari.
- `scaling_group_id` - (Required) The scaling group associated with this alarm.
- `metric_type` - (Optional) The type for the alarm's associated metric. Supported value: system, custom. "system" means the metric data is collected by Aliyun Cloud Monitor Service(CMS), "custom" means the metric data is upload to CMS by users. Defaults to system.
- `metric_name` - (Required) The name for the alarm's associated metric.
- `period` - (Optional) The period in seconds over which the specified statistic is applied. Supported value: 60, 120, 300, 900. Defaults to 300.
- `statistics` - (Optional) The statistic to apply to the alarm's associated metric. Supported value: Average, Minimum, Maximum. Defaults to Average.
- `threshold` - (Required) The value against which the specified statistics is compared.
- `comparison_operator` - (Optional) The arithmetic operation to use when comparing the specified Statistic and Threshold. The specified Statistic value is used as the first operand. Supported value: >=, <=, >, <. Defaults to >=.
- `evaluation_count` - (Optional) The number of times that needs to satisfies comparison condition before transition into ALARM state. Defaults to 3.
- `cloud_monitor_group_id` - (Optional) Defines the application group id defined by CMS which is assigned when you upload custom metric to CMS, only available for custom metirc.
- `dimensions` - (Optional) The dimension map for the alarm's associated metric (documented below). For all metrics, you can not set the dimension key as "scaling_group" or "userId", which is set by default, the second dimension for metric, such as "device" for "PackagesNetIn", need to be set by users.

» Attribute Reference

The following attributes are exported:

- `id` - The id for ess alarm.
- `state` - The state of specified alarm.

» Import

Ess alarm can be imported using the id, e.g.

```
$ terraform import alicloud_ess_alarm.example asg-2ze500_045efffe-4d05
```

» alicloud_ess_attachment

Attaches several ECS instances to a specified scaling group or remove them from it.

NOTE: ECS instances can be attached or remove only when the scaling group is active and it has no scaling activity in progress.

NOTE: There are two types ECS instances in a scaling group: "AutoCreated" and "Attached". The total number of them can not larger than the scaling group "MaxSize".

» Example Usage

```
resource "alicloud_instance" "instance" {
  # Other parameters...
}
resource "alicloud_ess_scaling_group" "scaling" {
  min_size           = 0
  max_size           = 2
  removal_policies   = ["OldestInstance", "NewestInstance"]

  # Other parameters...
}

resource "alicloud_ess_scaling_configuration" "config" {
  scaling_group_id  = "${alicloud_ess_scaling_group.scaling.id}"
  image_id          = "ubuntu_140405_64_40G_cloudinit_20161115.vhd"
  instance_type     = "ecs.n4.large"
  security_group_id = "${alicloud_security_group.classic.id}"
```

```
  active = true
  enable = true
}

resource "alicloud_ess_attachment" "att" {
  scaling_group_id = "${alicloud_ess_scaling_group.scaling.id}"
  instance_ids = ["${alicloud_instance.instance.*.id}"]
  force = true
}
```

» Argument Reference

The following arguments are supported:

- `scaling_group_id` - (Required) ID of the scaling group of a scaling configuration.
- `instance_ids` - (Required) ID of the ECS instance to be attached to the scaling group. You can input up to 20 IDs.
- `force` - (Optional) Whether to remove forcibly "AutoCreated" ECS instances in order to release scaling group capacity "MaxSize" for attaching ECS instances. Default to false.

NOTE: "AutoCreated" ECS instance will be deleted after it is removed from scaling group, but "Attached" will be not.

NOTE: Restrictions on attaching ECS instances:

- The attached ECS instances and the scaling group must have the same region and network type(`Classic` or `VPC`).
- The attached ECS instances and the instance with active scaling configurations must have the same instance type.
- The attached ECS instances must in the running state.
- The attached ECS instances has not been attached to other scaling groups.
- The attached ECS instances supports Subscription and Pay-As-You-Go payment methods.

» Attributes Reference

The following attributes are exported:

- `id` - The ESS attachment resource ID.
- `instance_ids` - ID of list "Attached" ECS instance.
- `force` - Whether to delete "AutoCreated" ECS instances.

» Import

ESS attachment can be imported using the id or scaling group id, e.g.

```
$ terraform import alicloud_ess_attachment.example asg-abc123456
```

» alicloud_ess_scaling_group

Provides a ESS scaling group resource which is a collection of ECS instances with the same application scenarios.

It defines the maximum and minimum numbers of ECS instances in the group, and their associated Server Load Balancer instances, RDS instances, and other attributes.

NOTE: You can launch an ESS scaling group for a VPC network via specifying parameter `vswitch_ids`.

» Example Usage

```
resource "alicloud_ess_scaling_group" "scaling" {
  min_size           = 1
  max_size           = 2
  removal_policies   = ["OldestInstance", "NewestInstance"]
}
```

» Argument Reference

The following arguments are supported:

- `min_size` - (Required) Minimum number of ECS instances in the scaling group. Value range: [0, 1000].
- `max_size` - (Required) Maximum number of ECS instances in the scaling group. Value range: [0, 1000].
- `scaling_group_name` - (Optional) Name shown for the scaling group, which must contain 2-40 characters (English or Chinese). If this parameter is not specified, the default value is ScalingGroupId.
- `default_cooldown` - (Optional) Default cool-down time (in seconds) of the scaling group. Value range: [0, 86400]. The default value is 300s.
- `vswitch_id` - (Deprecated) It has been deprecated from version 1.7.1 and new field 'vswitch_ids' replaces it.
- `vswitch_ids` - (Optional) List of virtual switch IDs in which the ecs instances to be launched.

- `removal_policies` - (Optional) RemovalPolicy is used to select the ECS instances you want to remove from the scaling group when multiple candidates for removal exist. Optional values:
  - OldestInstance: removes the first ECS instance attached to the scaling group.
  - NewestInstance: removes the first ECS instance attached to the scaling group.
  - OldestScalingConfiguration: removes the ECS instance with the oldest scaling configuration.
  - Default values: OldestScalingConfiguration and OldestInstance. You can enter up to two removal policies.
- `db_instance_ids` - (Optional) If an RDS instance is specified in the scaling group, the scaling group automatically attaches the Intranet IP addresses of its ECS instances to the RDS access whitelist.
  - The specified RDS instance must be in running status.
  - The specified RDS instance's whitelist must have room for more IP addresses.
- `loadbalancer_ids` - (Optional) If a Server Load Balancer instance is specified in the scaling group, the scaling group automatically attaches its ECS instances to the Server Load Balancer instance.
  - The Server Load Balancer instance must be enabled.
  - At least one listener must be configured for each Server Load Balancer and it HealthCheck must be on. Otherwise, creation will fail (it may be useful to add a `depends_on` argument targeting your `alicloud_slb_listener` in order to make sure the listener with its HealthCheck configuration is ready before creating your scaling group).
  - The Server Load Balancer instance attached with VPC-type ECS instances cannot be attached to the scaling group.
  - The default weight of an ECS instance attached to the Server Load Balancer instance is 50.
- `multi_az_policy` - (Optional) Multi-AZ scaling group ECS instance expansion and contraction strategy. PRIORITY or BALANCE.

» Attributes Reference

The following attributes are exported:

- `id` - The scaling group ID.
- `min_size` - The minimum number of ECS instances.
- `max_size` - The maximum number of ECS instances.
- `scaling_group_name` - The name of the scaling group.
- `default_cooldown` - The default cool-down of the scaling group.
- `removal_policies` - The removal policy used to select the ECS instance to remove from the scaling group.

- `db_instance_ids` - The db instances id which the ECS instance attached to.
- `loadbalancer_ids` - The slb instances id which the ECS instance attached to.
- `vswitch_ids` - The vswitches id in which the ECS instance launched.

» Import

ESS scaling group can be imported using the id, e.g.

```
$ terraform import alicloud_ess_scaling_group.example asg-abc123456
```

» alicloud_ess_scaling_configuration

Provides a ESS scaling configuration resource.

NOTE: Several instance types have outdated in some regions and availability zones, such as `ecs.t1.*`, `ecs.s2.*`, `ecs.n1.*` and so on. If you want to keep them, you should set `is_outdated` to true. For more about the upgraded instance type, refer to `alicloud_instance_types` datasource.

» Example Usage

```
resource "alicloud_security_group" "classic" {
  # Other parameters...
}
resource "alicloud_ess_scaling_group" "scaling" {
  min_size           = 1
  max_size           = 2
  removal_policies   = ["OldestInstance", "NewestInstance"]
}

resource "alicloud_ess_scaling_configuration" "config" {
  scaling_group_id  = "${alicloud_ess_scaling_group.scaling.id}"

  image_id          = "ubuntu_140405_64_40G_cloudinit_20161115.vhd"
  instance_type     = "ecs.n4.large"
  security_group_id = "${alicloud_security_group.classic.id}"
}
```

» Argument Reference

The following arguments are supported:

- `scaling_group_id` - (Required) ID of the scaling group of a scaling configuration.
- `image_id` - (Required) ID of an image file, indicating the image resource selected when an instance is enabled.
- `instance_type` - (Required) Resource type of an ECS instance.
- `instance_name` - (Optional) Name of an ECS instance. Default to "ESS-Instance". It is valid from version 1.7.1.
- `io_optimized` - (Deprecated) It has been deprecated on instance resource. All the launched alicloud instances will be I/O optimized.
- `is_outdated` - (Optional) Whether to use outdated instance type. Default to false.
- `security_group_id` - (Required) ID of the security group to which a newly created instance belongs.
- `scaling_configuration_name` - (Optional) Name shown for the scheduled task. If this parameter value is not specified, the default value is ScalingConfigurationId.
- `internet_charge_type` - (Optional) Network billing type, Values: PayByBandwidth or PayByTraffic. Default to `PayByBandwidth`.
- `internet_max_bandwidth_in` - (Optional) Maximum incoming bandwidth from the public network, measured in Mbps (Mega bit per second). The value range is [1,200].
- `internet_max_bandwidth_out` - (Optional) Maximum outgoing bandwidth from the public network, measured in Mbps (Mega bit per second). The value range for PayByBandwidth is [0,100].
- `system_disk_category` - (Optional) Category of the system disk. The parameter value options are `cloud_efficiency`, `cloud_ssd` and `cloud`. `cloud` only is used to some no I/O optimized instance. Default to `cloud_efficiency`.
- `system_disk_size` - (Optional) Size of system disk, in GiB. Optional values: cloud: 40-500, cloud_efficiency: 40-500, cloud_ssd: 40-500, ephemeral_ssd: 40-500 The default value is {40, ImageSize}. If this parameter is set, the system disk size must be greater than or equal to max{40, ImageSize}.
- `enable` - (Optional) Whether enable the specified scaling group(make it active) to which the current scaling configuration belongs.
- `active` - (Optional) Whether active current scaling configuration in the specified scaling group. Default to `false`.
- `substitute` - (Optional) The another scaling configuration which will be active automatically and replace current configuration when setting `active` to 'false'. It is invalid when `active` is 'true'.
- `user_data` - (Optional) User-defined data to customize the startup behaviors of the ECS instance and to pass data into the ECS instance.
- `key_name` - (Optional) The name of key pair that can login ECS instance successfully without password. If it is specified, the password would be invalid.
- `role_name` - (Optional) Instance RAM role name. The name is provided

and maintained by RAM. You can use `alicloud_ram_role` to create a new one.
- `force_delete` - (Optional) The last scaling configuration will be deleted forcibly with deleting its scaling group. Default to false.
- `data_disk` - (Optional) DataDisk mappings to attach to ecs instance. See Block datadisk below for details.
- `instance_ids` - (Deprecated) It has been deprecated from version 1.6.0. New resource `alicloud_ess_attachment` replaces it.
- `tags` - (Optional) A mapping of tags to assign to the resource. It will be applied for ECS instances finally.
  - Key: It can be up to 64 characters in length. It cannot begin with "aliyun", "http://", or "https://". It cannot be a null string.
  - Value: It can be up to 128 characters in length. It cannot begin with "aliyun", "http://", or "https://" It can be a null string.

NOTE: Before enabling the scaling group, it must have a active scaling configuration.

NOTE: If the number of attached ECS instances by `instance_ids` is smaller than MinSize, the Auto Scaling Service will automatically create ECS Pay-As-You-Go instance to cater to MinSize. For example, MinSize=5 and 2 existing ECS instances has been attached to the scaling group. When the scaling group is enabled, it will create 3 instnaces automatically based on its current active scaling configuration.

NOTE: Restrictions on attaching ECS instances:

- The attached ECS instances and the scaling group must have the same region and network type(`Classic` or `VPC`).
- The attached ECS instances and the instance with active scaling configurations must have the same instance type.
- The attached ECS instances must in the running state.
- The attached ECS instances has not been attached to other scaling groups.
- The attached ECS instances supports Subscription and Pay-As-You-Go payment methods.

NOTE: The last scaling configuration can't be set to inactive and deleted alone.

» Block datadisk

The datadisk mapping supports the following:

- `size` - (Optional) Size of data disk, in GB. The value ranges from 5 to 2,000 for a cloud disk and from 5 to 1,024 for an ephemeral disk. A maximum of four values can be entered.
- `category` - (Optional) Category of data disk. The parameter value options are cloud and ephemeral.

- `snapshot_id` - (Optional) Snapshot used for creating the data disk. If this parameter is specified, the size parameter is neglected, and the size of the created disk is the size of the snapshot.
- `delete_with_instance` - (Optional) Whether to delete data disks attached on ecs when release ecs instance. Optional value: `true` or `false`, default to `true`.

» Attributes Reference

The following attributes are exported:

- `id` - The scaling configuration ID.
- `active` - Wether the current scaling configuration is actived.
- `image_id` - The ecs instance Image id.
- `instance_type` - The ecs instance type.
- `security_group_id` - ID of the security group to which a newly created instance belongs.
- `scaling_configuration_name` - Name of scaling configuration.
- `internet_charge_type` - Internet charge type of ecs instance.
- `key_name` - The name of key pair that has been bound in ECS instance.
- `role_name` - The name of RAM role that has been bound in ECS instance.
- `user_data` - The hash value of the user data.
- `force_delete` - Whether delete the last scaling configuration forcibly with deleting its scaling group.
- `tags` - The scaling instance tags, use jsonencode(item) to display the value.
- `instance_name` - The ecs instance name.

» alicloud_ess_lifecycle_hook

Provides a ESS lifecycle hook resource. More about Ess lifecycle hook, see LifecycleHook.

» Example Usage

```
data "alicloud_zones" "default" {
    "available_disk_category"= "cloud_efficiency"
    "available_resource_creation"= "VSwitch"
}

resource "alicloud_vpc" "foo" {
    name = "testAccEssScalingGroup_vpc"
    cidr_block = "172.16.0.0/16"
}
```

```
resource "alicloud_vswitch" "foo" {
    vpc_id = "${alicloud_vpc.foo.id}"
    cidr_block = "172.16.0.0/24"
    availability_zone = "${data.alicloud_zones.default.zones.0.id}"
}

resource "alicloud_vswitch" "bar" {
    vpc_id = "${alicloud_vpc.foo.id}"
    cidr_block = "172.16.1.0/24"
    availability_zone = "${data.alicloud_zones.default.zones.0.id}"
}

resource "alicloud_ess_scaling_group" "foo" {
    min_size = 1
    max_size = 1
    scaling_group_name = "testAccEssScaling_group"
    removal_policies = ["OldestInstance", "NewestInstance"]
    vswitch_ids = ["${alicloud_vswitch.foo.id}","${alicloud_vswitch.bar.id}"]
}

resource "alicloud_ess_lifecycle_hook" "foo"{
    scaling_group_id = "${alicloud_ess_scaling_group.foo.id}"
    name = "testAccEssLifecycle_hook"
    lifecycle_transition = "SCALE_OUT"
    heartbeat_timeout = 400
    notification_metadata = "helloworld"
}
```

» Argument Reference

The following arguments are supported:

- `scaling_group_id` - (Required, ForceNew) The ID of the Auto Scaling group to which you want to assign the lifecycle hook.
- `name` - (Optional, ForceNew) The name of the lifecycle hook, which is a string containing 2 to 40 English or Chinese characters. If this parameter value is not specified, the default value is lifecycle hook id.
- `lifecycle_transition` - (Required) Type of Scaling activity attached to lifecycle hook. Supported value: SCALE_OUT, SCALE_IN.
- `heartbeat_timeout` - (Optional) Defines the amount of time, in seconds, that can elapse before the lifecycle hook times out. When the lifecycle hook times out, Auto Scaling performs the action defined in the default_result parameter. Default value: 600.
- `default_result` - (Optional) Defines the action the Auto Scaling group

should take when the lifecycle hook timeout elapses. Applicable value: CONTINUE, ABANDON, default value: CONTINUE.
- `notification_arn` - (Optional) The Arn of notification target.
- `notification_metadata` - (Optional) Additional information that you want to include when Auto Scaling sends a message to the notification target.

» Attribute Reference

The following attributes are exported:

- `id` - The ID of lifecycle hook.
- `scaling_group_id` - The scalingGroupId to which lifecycle belongs.
- `name` - The name of lifecycle hook.
- `default_result` - The action the Auto Scaling group should take when the lifecycle hook timeout elapses.
- `heartbeat_timeout` - The amount of time that can elapse before the lifecycle hook time out.
- `lifecycle_transition` - Type of Scaling activity attached to lifecycle hook.
- `notification_metadata` - Additional information that will be sent to notification target.
- `notification_arn` - The arn of notification target.

» Import

Ess lifecycle hook can be imported using the id, e.g.

```
$ terraform import alicloud_ess_lifecycle_hook.example ash-l12345
```

» alicloud_ess_scaling_rule

Provides a ESS scaling rule resource.

» Example Usage

```
resource "alicloud_ess_scaling_group" "scaling" {
  # Other parameters...
}

resource "alicloud_ess_scaling_configuration" "config" {
  # Other parameters...
```

```
}

resource "alicloud_ess_scaling_rule" "rule" {
  scaling_group_id = "${alicloud_ess_scaling_group.scaling.id}"
  adjustment_type  = "TotalCapacity"
  adjustment_value = 2
  cooldown         = 60
}
```

» Argument Reference

The following arguments are supported:

- `scaling_group_id` - (Required) ID of the scaling group of a scaling rule.
- `adjustment_type` - (Required) Adjustment mode of a scaling rule. Optional values:
  - QuantityChangeInCapacity: It is used to increase or decrease a specified number of ECS instances.
  - PercentChangeInCapacity: It is used to increase or decrease a specified proportion of ECS instances.
  - TotalCapacity: It is used to adjust the quantity of ECS instances in the current scaling group to a specified value.
- `adjustment_value` - (Required) Adjusted value of a scaling rule. Value range:
  - QuantityChangeInCapacity (0, 100] U (-100, 0]
  - PercentChangeInCapacity [0, 10000] U [-10000, 0]
  - TotalCapacity [0, 100]
- `scaling_rule_name` - (Optional) Name shown for the scaling rule, which is a string containing 2 to 40 English or Chinese characters.
- `cooldown` - (Optional) Cool-down time of a scaling rule. Value range: [0, 86,400], in seconds. The default value is empty.

» Attributes Reference

The following attributes are exported:

- `id` - The scaling rule ID.
- `scaling_group_id` - The id of scaling group.
- `ari` - Unique identifier of a scaling rule.
- `adjustment_type` - Adjustment mode of a scaling rule.
- `adjustment_value` - Adjustment value of a scaling rule.
- `scaling_rule_name` - Name of a scaling rule.
- `cooldown` - Cool-down time of a scaling rule.

» alicloud_ess_schedule

Provides a ESS schedule resource.

» Example Usage

```
resource "alicloud_ess_scaling_group" "scaling" {
  # Other parameters...
}

resource "alicloud_ess_scaling_configuration" "config" {
  # Other parameters...
}

resource "alicloud_ess_scaling_rule" "rule" {
  # Other parameters...
}

resource "alicloud_ess_schedule" "schedule" {
  scheduled_action    = "${alicloud_ess_scaling_rule.rule.ari}"
  launch_time         = "2017-04-29T07:30Z"
  scheduled_task_name = "sg-schedule"
}
```

» Argument Reference

The following arguments are supported:

- `scheduled_action` - (Required) Operations performed when the scheduled task is triggered. Fill in the unique identifier of the scaling rule.
- `launch_time` - (Required) Operations performed when the scheduled task is triggered. Fill in the unique identifier of the scaling rule.
- `scheduled_task_name` - (Optional) Display name of the scheduled task, which must be 2-40 characters (English or Chinese) long.
- `description` - (Optional) Description of the scheduled task, which is 2-200 characters (English or Chinese) long.
- `launch_expiration_time` - (Optional) Time period within which the failed scheduled task is retried. The default value is 600s. Value range: [0, 21600]
- `recurrence_type` - (Optional) Type of the scheduled task to be repeated. RecurrenceType, RecurrenceValue and RecurrenceEndTime must be specified. Optional values:
  - Daily: Recurrence interval by day for a scheduled task.
  - Weekly: Recurrence interval by week for a scheduled task.

  - Monthly: Recurrence interval by month for a scheduled task.
- `recurrence_value` - (Optional) Value of the scheduled task to be repeated. RecurrenceType, RecurrenceValue and RecurrenceEndTime must be specified.
  - Daily: Only one value in the range [1,31] can be filled.
  - Weekly: Multiple values can be filled. The values of Sunday to Saturday are 0 to 6 in sequence. Multiple values shall be separated by a comma ",".
  - Monthly: In the format of A-B. The value range of A and B is 1 to 31, and the B value must be greater than the A value.
- `recurrence_end_time` - (Optional) End time of the scheduled task to be repeated. The date format follows the ISO8601 standard and uses UTC time. It is in the format of YYYY-MM-DDThh:mmZ. A time point 90 days after creation or modification cannot be entered. RecurrenceType, RecurrenceValue and RecurrenceEndTime must be specified.

- `task_enabled` - (Optional) Whether to enable the scheduled task. The default value is true.

» Attributes Reference

The following attributes are exported:

- `id` - The schedule task ID.
- `scheduled_action` - The action of schedule task.
- `launch_time` - The time of schedule task be triggered.
- `scheduled_task_name` - The name of schedule task.
- `description` - The description of schedule task.
- `task_enabled` - Wether the task is enabled.

» Import

ESS schedule task can be imported using the id, e.g.

```
$ terraform import alicloud_ess_schedule.example abc123456
```

» alicloud_oss_bucket

Provides a resource to create a oss bucket and set its attribution.

NOTE: The bucket namespace is shared by all users of the OSS system. Please set bucket name as unique as possible.

» Example Usage

Private Bucket

```
resource "alicloud_oss_bucket" "bucket-acl"{
  bucket = "bucket-170309-acl"
  acl = "private"
}
```

Static Website

```
resource "alicloud_oss_bucket" "bucket-website" {
  bucket = "bucket-170309-website"

  website = {
    index_document = "index.html"
    error_document = "error.html"
  }
}
```

Enable Logging

```
resource "alicloud_oss_bucket" "bucket-target"{
  bucket = "bucket-170309-acl"
  acl = "public-read"
}

resource "alicloud_oss_bucket" "bucket-logging" {
  bucket = "bucket-170309-logging"

  logging {
    target_bucket = "${alicloud_oss_bucket.bucket-target.id}"
    target_prefix = "log/"
  }

  logging_isenable = true
}
```

Referer configuration

```
resource "alicloud_oss_bucket" "bucket-referer" {
  bucket = "bucket-170309-referer"
  acl = "private"

  referer_config {
      allow_empty = false
      referers = ["http://www.aliyun.com", "https://www.aliyun.com"]
  }
}
```

Set lifecycle rule

```
resource "alicloud_oss_bucket" "bucket-lifecycle" {
  bucket = "bucket-170309-lifecycle"
  acl = "public-read"

  lifecycle_rule {
    id = "rule-days"
    prefix = "path1/"
    enabled = true

    expiration {
      days = 365
    }
  }
  lifecycle_rule {
    id = "rule-date"
    prefix = "path2/"
    enabled = true

    expiration {
      date = "2018-01-12"
    }
  }
}
```

» Argument Reference

The following arguments are supported:

- `bucket` - (Optional, Forces New Resorce) The name of the bucket. If omitted, Terraform will assign a random and unique name.
- `acl` - (Optional) The canned ACL to apply. Defaults to "private".
- `cors_rule` - (Optional) A list rules of Cross-Origin Resource Sharing (documented below). The items of cors rule are no more than 10 for every OSS bucket.
- `website` - (Optional) A list website objects(documented below). The items of website are no more than 1 for every OSS bucket.
- `logging` - (Optional) A list settings of bucket logging (documented below). The items of logging are no more than 1 for every OSS bucket.
- `logging_isenable` - (Optional) The flag of using logging enable container. Defaults true.
- `referer_config` - (Optional) A list configurations of referer (documented below). The items of referer_config are no more than 1 for every OSS bucket.

- `lifecycle_rule` - (Optional) A list configurations of object lifecycle management (documented below). The items of rules are no more than 1000 for every OSS bucket.

» Block cors_rule

The cors_rule mapping supports the following:

- `allowed_headers` - (Optional) Specifies which headers are allowed.
- `allowed_methods` - (Required) Specifies which methods are allowed. Can be GET, PUT, POST, DELETE or HEAD.
- `allowed_origins` - (Required) Specifies which origins are allowed.
- `expose_headers` - (Optional) Specifies expose header in the response.
- `max_age_seconds` - (Optional) Specifies time in seconds that browser can cache the response for a preflight request.

» Block website

The website mapping supports the following:

- `index_document` - (Required) Alicloud OSS returns this index document when requests are made to the root domain or any of the subfolders.
- `error_document` - (Optional) An absolute path to the document to return in case of a 4XX error.

» Block logging

The logging object supports the following:

- `target_bucket` - (Required) The name of the bucket that will receive the log objects.
- `target_prefix` - (Optional) To specify a key prefix for log objects.

» Block referer configuration

The referer configuration supports the following:

- `allow_empty` - (Optional, Type: bool) Allows referer to be empty. Defaults true.
- `referers` - (Required, Type: list) The list of referer.

» Block lifecycle_rule

The lifecycle_rule object supports the following:

- `id` - (Optional) Unique identifier for the rule. If omitted, OSS bucket will assign a unique name.
- `prefix` - (Required) Object key prefix identifying one or more objects to which the rule applies.
- `enabled` - (Required, Type: bool) Specifies lifecycle rule status.
- `expiration` - (Optional, Type: set) Specifies a period in the object's expire (documented below).

» Block expiration

The lifecycle_rule expiration object supports the following:

- `date` - (Optional) Specifies the date after which you want the corresponding action to take effect. The value obeys ISO8601 format like `2017-03-09`.
- `days` - (Optional, Type: int) Specifies the number of days after object creation when the specific rule action takes effect.

`NOTE`: One and only one of "date" and "days" can be specified in one expiration configuration.

» Attributes Reference

The following attributes are exported:

- `id` - The name of the bucket.
- `acl` - The acl of the bucket.
- `creation_date` - The creation date of the bucket.
- `extranet_endpoint` - The extranet access endpoint of the bucket.
- `intranet_endpoint` - The intranet access endpoint of the bucket.
- `location` - The location of the bucket.
- `owner` - The bucket owner.
- `storage_class` - The bucket storage type.

» Import

OSS bucket can be imported using the bucket name, e.g.

```
$ terraform import alicloud_oss_bucket.bucket bucket-12345678
```

» alicloud_oss_bucket_object

Provides a resource to put a object(content or file) to a oss bucket.

» Example Usage

» Uploading a file to a bucket

```
resource "alicloud_oss_bucket_object" "object-source" {
  bucket = "your_bucket_name"
  key    = "new_object_key"
  source = "path/to/file"
}
```

» Uploading a content to a bucket

```
resource "alicloud_oss_bucket" "example" {
  bucket = "your_bucket_name"
  acl = "public-read"
}

resource "alicloud_oss_bucket_object" "object-content" {
  bucket = "${alicloud_oss_bucket.example.bucket}"
  key    = "new_object_key"
  content = "the content that you want to upload."
}
```

» Argument Reference

Note: If you specify `content_encoding` you are responsible for encoding the body appropriately (i.e. `source` and `content` both expect already encoded/compressed bytes)

The following arguments are supported:

- `bucket` - (Required) The name of the bucket to put the file in.
- `key` - (Required) The name of the object once it is in the bucket.
- `source` - (Required) The path to the source file being uploaded to the bucket.
- `content` - (Required unless `source` given) The literal content being uploaded to the bucket.
- `acl` - (Optional) The canned ACL to apply. Defaults to ”private”.

- `content_type` - (Optional) A standard MIME type describing the format of the object data, e.g. application/octet-stream. All Valid MIME Types are valid for this input.
- `cache_control` - (Optional) Specifies caching behavior along the request/reply chain. Read RFC2616 Cache-Control for further details.
- `content_disposition` - (Optional) Specifies presentational information for the object. Read RFC2616 Content-Disposition for further details.
- `content_encoding` - (Optional) Specifies what content encodings have been applied to the object and thus what decoding mechanisms must be applied to obtain the media-type referenced by the Content-Type header field. Read RFC2616 Content-Encoding for further details.
- `content_md5` - (Optional) The MD5 value of the content. Read MD5 for computing method.
- `expires` - (Optional) Specifies expire date for the the request/response. Read RFC2616 Expires for further details.
- `server_side_encryption` - (Optional) Specifies server-side encryption of the object in OSS. At present, it valid value is "`AES256`".

Either `source` or `content` must be provided to specify the bucket content. These two arguments are mutually-exclusive.

» Attributes Reference

The following attributes are exported

- `id` - the `key` of the resource supplied above.
- `content_length` - the content length of request.
- `etag` - the ETag generated for the object (an MD5 sum of the object content).

» alicloud_container_cluster

NOTE: This resource name has been replaced by `alicloud_cs_swarm` from version 1.8.2. Please update it.

» alicloud_cs_application

This resource use an orchestration template to define and deploy a multi-container application. An application is created by using an orchestration template. Each application can contain one or more services.

NOTE: Application orchestration template must be a valid Docker Compose YAML template.

NOTE: At present, this resource only support swarm cluster.

» Example Usage

Basic Usage

```
resource "alicloud_cs_application" "app" {
  cluster_name = "my-first-swarm"
  name = "wordpress"
  version = "1.2"
  template = "${file("wordpress.yml")}"
  latest_image = true
  environment = {
    EXTERNAL_URL = "123.123.123.123:8080"
  }
}
```

» Argument Reference

The following arguments are supported:

- `cluster_name` - (Required, Force new resource) The swarm cluster's name.
- `name` - (Required, Force new resource) The application name. It should be 1-64 characters long, and can contain numbers, English letters and hyphens, but cannot start with hyphens.
- `description` - The description of application.
- `version` - The application deploying version. Each updating, it must be different with current. Default to "1.0"
- `template` - The application deployment template and it must be Docker Compose format.
- `environment` - A key/value map used to replace the variable parameter in the Compose template.
- `latest_image` - Whether to use latest docker image while each updating application. Default to false.
- `blue_green` - Wherther to use "Blue Green" method when release a new version. Default to false.
- `blue_green_confirm` - Whether to confirm a "Blue Green" application. Default to false. It will be ignored when `blue_green` is false.

NOTE: Each update of `template`, `environment`, `latest_image` and `blue_green`, it requires a new `version`. Otherwise, the update will be ignored.

NOTE: If you want to rollback a "Blue Green" application, just set `blue_green` as false.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the container application. It's formate is `<cluster_name>:<name>`.
- `cluster_name` - The name of the container cluster.
- `name` - The application name.
- `description` - The application description.
- `template` - The application deploying template.
- `environment` - The application environment variables.
- `services` - List of services in the application. It contains several attributes to `Block Nodes`.
- `default_domain` - The application default domain and it can be used to configure routing service.

» Block Nodes

- `id` - ID of the service.
- `name` - Service name.
- `status` - The current status of service.
- `version` - The current version of service.

» Import

Swarm application can be imported using the id, e.g.

```
$ terraform import alicloud_cs_application.app my-first-swarm:wordpress
```

» alicloud_cs_swarm

This resource will help you to manager a Swarm Cluster.

NOTE: Swarm cluster only supports VPC network and you can specify a VPC network by filed `vswitch_id`.

» Example Usage

Basic Usage

```
resource "alicloud_cs_swarm" "my_cluster" {
  password = "Test12345"
  instance_type = "ecs.n4.small"
  name = "ClusterFromAlicloud"
```

```
  node_number = 2
  disk_category = "cloud_efficiency"
  disk_size = 20
  cidr_block = "172.18.0.0/24"
  image_id = "${var.image_id}"
  vswitch_id = "${var.vswitch_id}"
}
```

» Argument Reference

The following arguments are supported:

- `name` - The container cluster's name. It is the only in one Alicloud account.
- `name_prefix` - The container cluster name's prefix. It is conflict with `name`. If it is specified, terraform will using it to build the only cluster name. Default to 'Terraform-Creation'.
- `size` - Field 'size' has been deprecated from provider version 1.9.1. New field 'node_number' replaces it.
- `node_number` - The ECS node number of the container cluster. Its value choices are 1~50, and default to 1.
- `cidr_block` - (Required, Force new resource) The CIDR block for the Container. It can not be same as the CIDR used by the VPC. Valid value:
  - 192.168.0.0/16
  - 172.19-30.0.0/16
  - 10.0.0.0/16

System reserved private network address: 172.16/17/18/31.0.0/16. Maximum number of hosts allowed in the cluster: 256.

- `image_id` - (Force new resource) The image ID of ECS instance node used. Default to System automate allocated.
- `instance_type` - (Required, Force new resource) The type of ECS instance node.
- `is_outdated` - (Optional) Whether to use outdated instance type. Default to false.
- `password` - (Required, Force new resource) The password of ECS instance node.
- `disk_category` - (Force new resource) The data disk category of ECS instance node. Its valid value are `cloud_ssd` and `cloud_efficiency`. Default to `cloud_efficiency`.
- `disk_size` - (Force new resource) The data disk size of ECS instance node. Its valid value is 20~32768 GB. Default to 20.
- `vswitch_id` - (Required, Force new resource) The password of ECS instance node. If it is not specified, the container cluster's network mode will be `Classic`.

- `release_eip` - Whether to release EIP after creating swarm cluster successfully. Default to false.
- `need_slb`- Whether to create the default simple routing Server Load Balancer instance for the cluster. The default value is true.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the container cluster.
- `name` - The name of the container cluster.
- `size` - It has been deprecated from provider version 1.9.1. New field 'node_number' replaces it.
- `node_number` - The node number.
- `vpc_id` - The ID of VPC where the current cluster is located.
- `vswitch_id` - The ID of VSwitch where the current cluster is located.
- `slb_id` - The ID of load balancer where the current cluster worker node is located.
- `security_group_id` - The ID of security group where the current cluster worker node is located.
- `agent_version` - The nodes agent version.
- `instance_type` - The instance type of nodes.
- `disk_category` - The data disk category of nodes.
- `disk_size` - The data disk size of nodes.
- `nodes` - List of cluster nodes. It contains several attributes to `Block Nodes`.

» Block Nodes

- `id` - ID of the node.
- `name` - Node name.
- `private_ip` - The private IP address of node.
- `eip` - The Elastic IP address of node.
- `status` - The node current status. It is different with instance status.

» Import

Swarm cluster can be imported using the id, e.g.

```
$ terraform import alicloud_cs_swarm.foo cf123456789
```

» alicloud_cs_kubernetes

This resource will help you to manager a Kubernetes Cluster. The cluster is same as container service created by web console.

NOTE: Kubernetes cluster only supports VPC network and it can access internet while creating kubernetes cluster. A Nat Gateway and configuring a SNAT for it can ensure one VPC network access internet. If there is no nat gateway in the VPC, you can set `new_nat_gateway` to "true" to create one automatically.

NOTE: If there is no specified `vswitch_ids`, the resource will create a new VPC and VSwitch while creating kubernetes cluster.

NOTE: Each kubernetes cluster contains 3 master nodes and those number cannot be changed at now.

NOTE: Creating kubernetes cluster need to install several packages and it will cost about 15 minutes. Please be patient.

NOTE: From version 1.9.4, the provider supports to download kube config, client certificate, client key and cluster ca certificate after creating cluster successfully, and you can put them into the specified location, like '~/.kube/config'.

NOTE: From version 1.16.0, the provider supports Multiple Availability Zones Kubernetes Cluster. To create a cluster of this kind, you must specify three items in `vswitch_ids`, `master_instance_types` and `worker_instance_types`.

NOTE: From version 1.20.0, the provider supports disabling internet load balancer for API Server by setting `false` to `slb_internet_enabled`.

NOTE: If you want to manage Kubernetes, you can use Kubernetes Provider.

» Example Usage

Single AZ Kubernetes Cluster

```
data "alicloud_zones" "default" {
  "available_resource_creation"= "VSwitch"
}

resource "alicloud_cs_kubernetes" "main" {
  name_prefix = "my-first-k8s"
  availability_zone = "${data.alicloud_zones.default.zones.0.id}"
  new_nat_gateway = true
  master_instance_types = ["ecs.n4.small"]
  worker_instance_types = ["ecs.n4.small"]
  worker_numbers = [3]
  password = "Test12345"
  pod_cidr = "192.168.1.0/24"
```

```
  service_cidr = "192.168.2.0/24"
  enable_ssh = true
  install_cloud_monitor = true
}
```

Three AZ Kubernetes Cluster

```
variable "name" {
    default = "my-first-3az-k8s"
}

data "alicloud_zones" main {
  available_resource_creation = "VSwitch"
}

data "alicloud_instance_types" "instance_types_1_master" {
    availability_zone = "${data.alicloud_zones.main.zones.0.id}"
    cpu_core_count = 2
    memory_size = 4
    kubernetes_node_role = "Master"
}
data "alicloud_instance_types" "instance_types_2_master" {
    availability_zone = "${lookup(data.alicloud_zones.main.zones[(length(data.alicloud_zones
    cpu_core_count = 2
    memory_size = 4
    kubernetes_node_role = "Master"
}
data "alicloud_instance_types" "instance_types_3_master" {
    availability_zone = "${lookup(data.alicloud_zones.main.zones[(length(data.alicloud_zones
    cpu_core_count = 2
    memory_size = 4
    kubernetes_node_role = "Master"
}

data "alicloud_instance_types" "instance_types_1_worker" {
    availability_zone = "${data.alicloud_zones.main.zones.0.id}"
    cpu_core_count = 2
    memory_size = 4
    kubernetes_node_role = "Worker"
}
data "alicloud_instance_types" "instance_types_2_worker" {
    availability_zone = "${lookup(data.alicloud_zones.main.zones[(length(data.alicloud_zones
    cpu_core_count = 2
    memory_size = 4
    kubernetes_node_role = "Worker"
}
data "alicloud_instance_types" "instance_types_3_worker" {
```

```
    availability_zone = "${lookup(data.alicloud_zones.main.zones[(length(data.alicloud_zones
    cpu_core_count = 2
    memory_size = 4
    kubernetes_node_role = "Worker"
}
resource "alicloud_vpc" "foo" {
  name = "${var.name}"
  cidr_block = "10.1.0.0/21"
}

resource "alicloud_vswitch" "vsw1" {
  name = "${var.name}"
  vpc_id = "${alicloud_vpc.foo.id}"
  cidr_block = "10.1.1.0/24"
  availability_zone = "${data.alicloud_zones.main.zones.0.id}"
}

resource "alicloud_vswitch" "vsw2" {
  name = "${var.name}"
  vpc_id = "${alicloud_vpc.foo.id}"
  cidr_block = "10.1.2.0/24"
  availability_zone = "${lookup(data.alicloud_zones.main.zones[(length(data.alicloud_zones.m
}

resource "alicloud_vswitch" "vsw3" {
  name = "${var.name}"
  vpc_id = "${alicloud_vpc.foo.id}"
  cidr_block = "10.1.3.0/24"
  availability_zone = "${lookup(data.alicloud_zones.main.zones[(length(data.alicloud_zones.m
}

resource "alicloud_nat_gateway" "nat_gateway" {
  name = "${var.name}"
  vpc_id = "${alicloud_vpc.foo.id}"
  specification = "Small"
}

resource "alicloud_snat_entry" "snat_entry_1" {
  snat_table_id     = "${alicloud_nat_gateway.nat_gateway.snat_table_ids}"
  source_vswitch_id = "${alicloud_vswitch.vsw1.id}"
  snat_ip           = "${alicloud_eip.eip.ip_address}"
}

resource "alicloud_snat_entry" "snat_entry_2" {
  snat_table_id     = "${alicloud_nat_gateway.nat_gateway.snat_table_ids}"
  source_vswitch_id = "${alicloud_vswitch.vsw2.id}"
```

```
  snat_ip           = "${alicloud_eip.eip.ip_address}"
}

resource "alicloud_snat_entry" "snat_entry_3" {
  snat_table_id     = "${alicloud_nat_gateway.nat_gateway.snat_table_ids}"
  source_vswitch_id = "${alicloud_vswitch.vsw3.id}"
  snat_ip           = "${alicloud_eip.eip.ip_address}"
}

resource "alicloud_eip" "eip" {
  name = "${var.name}"
  bandwidth = "100"
}

resource "alicloud_eip_association" "eip_asso" {
  allocation_id = "${alicloud_eip.eip.id}"
  instance_id   = "${alicloud_nat_gateway.nat_gateway.id}"
}

resource "alicloud_cs_kubernetes" "k8s" {
  name = "${var.name}"
  vswitch_ids = ["${alicloud_vswitch.vsw1.id}", "${alicloud_vswitch.vsw2.id}", "${alicloud_v
  new_nat_gateway = true
  master_instance_types = ["${data.alicloud_instance_types.instance_types_1_master.instance_
  worker_instance_types = ["${data.alicloud_instance_types.instance_types_1_worker.instance_
  worker_numbers = [1, 2, 3]
  master_disk_category  = "cloud_ssd"
  worker_disk_size = 50
  worker_data_disk_category  = "cloud_ssd"
  worker_data_disk_size = 50
  password = "Test12345"
  pod_cidr = "192.168.1.0/24"
  service_cidr = "192.168.2.0/24"
  enable_ssh = true
  slb_internet_enabled = true
  node_cidr_mask = 25
  install_cloud_monitor = true
}
```

» Argument Reference

The following arguments are supported:

- `name` - The kubernetes cluster's name. It is the only in one Alicloud account.

- `name_prefix` - The kubernetes cluster name's prefix. It is conflict with `name`. If it is specified, terraform will using it to build the only cluster name. Default to "Terraform-Creation".
- `availability_zone` - (Force new resource) The Zone where new kubernetes cluster will be located. If it is not be specified, the value will be vswitch's zone.
- `vswitch_id` - (Deprecated from version 1.16.0)(Force new resource) The vswitch where new kubernetes cluster will be located. If it is not specified, a new VPC and VSwicth will be built. It must be in the zone which `availability_zone` specified.
- `vswitch_ids` - (Force new resource) The vswitch where new kubernetes cluster will be located. For SingleAZ Cluster, if it is not specified, a new VPC and VSwicth will be built. It must be in the zone which `availability_zone` specified. For MultiAZ Cluster, you must create three vswitches firstly, specify them here.
- `new_nat_gateway` - (Force new resource) Whether to create a new nat gateway while creating kubernetes cluster. Default to true.
- `master_instance_type` - (Deprecated from version 1.16.0)(Required, Force new resource) The instance type of master node.
- `master_instance_types` - (Required, Force new resource) The instance type of master node. Specify one type for single AZ Cluster, three types for MultiAZ Cluster. You can get the available kubetnetes master node instance types by datasource instance_types
- `worker_instance_type` - (Deprecated from version 1.16.0)(Required, Force new resource) The instance type of worker node.
- `worker_instance_types` - (Required, Force new resource) The instance type of worker node. Specify one type for single AZ Cluster, three types for MultiAZ Cluster. You can get the available kubetnetes master node instance types by datasource instance_types
- `worker_number` - The worker node number of the kubernetes cluster. Default to 3. It is limited up to 50 and if you want to enlarge it, please apply white list or contact with us.
- `password` - (Required, Force new resource) The password of ssh login cluster node. You have to specify one of `password` and `key_name` fields.
- `key_name` - (Required, Force new resource) The keypair of ssh login cluster node, you have to create it first.
- `user_ca` - (Optional, Force new resource) The path of customized CA cert, you can use this CA to sign client certs to connect your cluster.
- `cluster_network_type` - (Required, Force new resource) The network that cluster uses, use `flannel` or `terway`.
- `pod_cidr` - (Required, Force new resource) The CIDR block for the pod network. It will be allocated automatically when `vswitch_ids` is not specified. It cannot be duplicated with the VPC CIDR and CIDR used by Kubernetes cluster in VPC, cannot be modified after creation. Maximum number of hosts allowed in the cluster: 256. Refer to Plan Kubernetes CIDR blocks under VPC.

- `service_cidr` - (Required, Force new resource) The CIDR block for the service network. It will be allocated automatically when `vswitch_id` is not specified. It cannot be duplicated with the VPC CIDR and CIDR used by Kubernetes cluster in VPC, cannot be modified after creation.
- `master_instance_charge_type` - (Optional, Force new resource) Master payment type. `PrePaid` or `PostPaid`, defaults to `PostPaid`.
- `master_period_unit` - (Optional) Master payment period unit. `Month` or `Week`, defaults to `Month`.
- `master_period` - (Optional) Master payment period. When period unit is `Month`, it can be one of { “1”, “2”, “3”, “4”, “5”, “6”, “7”, “8”, “9”, “12”, “24”, “36”,”48”,”60”}. When period unit is `Week`, it can be one of {“1”, “2”, “3”, “4”}.
- `master_auto_renew` - (Optional) Enable master payment auto-renew, defaults to false.
- `master_auto_renew_period` - (Optional) Master payment auto-renew period. When period unit is `Month`, it can be one of {“1”, “2”, “3”, “6”, “12”}. When period unit is `Week`, it can be one of {“1”, “2”, “3”}.
- `worker_instance_charge_type` - (Optional, Force new resource) Worker payment type. `PrePaid` or `PostPaid`, defaults to `PostPaid`.
- `worker_period_unit` - (Optional) Worker payment period unit. `Month` or `Week`, defaults to `Month`.
- `worker_period` - (Optional) Worker payment period. When period unit is `Month`, it can be one of { “1”, “2”, “3”, “4”, “5”, “6”, “7”, “8”, “9”, “12”, “24”, “36”,”48”,”60”}. When period unit is `Week`, it can be one of {“1”, “2”, “3”, “4”}.
- `worker_auto_renew` - (Optional) Enable worker payment auto-renew, defaults to false.
- `worker_auto_renew_period` - (Optional) Worker payment auto-renew period. When period unit is `Month`, it can be one of {“1”, “2”, “3”, “6”, “12”}. When period unit is `Week`, it can be one of {“1”, “2”, “3”}.
- `node_cidr_mask` - (Optional, Force new resource) The network mask used on pods for each node, ranging from `24` to `28`. Larger this number is, less pods can be allocated on each node. Default value is `24`, means you can allocate 256 pods on each node.
- `log_config` - (Optional, Force new resource) A list of one element containing information about the associated log store. It contains the following attributes:
  - `type` - Type of collecting logs, only `SLS` are supported currently.
  - `project` - Log Service project name, cluster logs will output to this project.
- `enable_ssh` - (Force new resource) Whether to allow to SSH login kubernetes. Default to false.
- `slb_internet_enabled` - (Force new resource) Whether to create internet load balancer for API Server. Default to true.
- `master_disk_category` - (Force new resource) The system disk category of master node. Its valid value are `cloud_ssd` and `cloud_efficiency`.

Default to `cloud_efficiency`.

- `master_disk_size` - (Force new resource) The system disk size of master node. Its valid value range [20~32768] in GB. Default to 20.
- `worker_disk_category` - (Force new resource) The system disk category of worker node. Its valid value are `cloud_ssd` and `cloud_efficiency`. Default to `cloud_efficiency`.
- `worker_disk_size` - (Force new resource) The system disk size of worker node. Its valid value range [20~32768] in GB. Default to 20.
- `worker_data_disk_size` - (Force new resource) The data disk size of worker node. Its valid value range [20~32768] in GB. When `worker_data_disk_category` is presented, it defaults to 40.
- `worker_data_disk_category` - (Force new resource) The data disk category of worker node. Its valid value are `cloud_ssd` and `cloud_efficiency`, if not set, data disk will not be created.
- `install_cloud_monitor` - (Force new resource) Whether to install cloud monitor for the kubernetes' node.
- `is_outdated` - (Optional) Whether to use outdated instance type. Default to false.
- `kube_config` - (Optional) The path of kube config, like `~/.kube/config`.
- `client_cert` - (Optional) The path of client certificate, like `~/.kube/client-cert.pem`.
- `client_key` - (Optional) The path of client key, like `~/.kube/client-key.pem`.
- `cluster_ca_cert` - (Optional) The path of cluster ca certificate, like `~/.kube/cluster-ca-cert.pem`

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the container cluster.
- `name` - The name of the container cluster.
- `availability_zone` - The ID of availability zone.
- `key_name` - The keypair of ssh login cluster node, you have to create it first.
- `worker_number` - (Deprecated from version 1.16.0) The ECS instance node number in the current container cluster.
- `worker_numbers` - The ECS instance node number in the current container cluster.
- `vswitch_id` - (Deprecated from version 1.16.0) The ID of VSwitch where the current cluster is located.
- `vswitch_ids` - The ID of VSwitches where the current cluster is located.
- `vpc_id` - The ID of VPC where the current cluster is located.
- `slb_id` - (Deprecated from version 1.9.2).
- `slb_internet_enabled` - Whether internet load balancer for API Server is created
- `slb_internet` - The ID of public load balancer where the current cluster

master node is located.
- `slb_intranet` - The ID of private load balancer where the current cluster master node is located.
- `security_group_id` - The ID of security group where the current cluster worker node is located.
- `image_id` - The ID of node image.
- `nat_gateway_id` - The ID of nat gateway used to launch kubernetes cluster.
- `master_instance_type` - (Deprecated from version 1.16.0) The instance type of master node.
- `master_instance_types` - The instance type of master node.
- `worker_instance_type` - (Deprecated from version 1.16.0)The instance type of worker node.
- `worker_instance_types` - The instance type of worker node.
- `master_disk_category` - The system disk category of master node.
- `master_disk_size` - The system disk size of master node.
- `worker_disk_category` - The system disk category of worker node.
- `worker_disk_size` - The system disk size of worker node.
- `worker_data_disk_category` - The data disk size of worker node.
- `worker_data_disk_size` - The data disk category of worker node.
- `nodes` - (Deprecated from version 1.9.4) It has been deprecated from provider version 1.9.4. New field `master_nodes` and `worker_nodes` replace it.
- `master_nodes` - List of cluster master nodes. It contains several attributes to `Block Nodes`.
- `worker_nodes` - List of cluster worker nodes. It contains several attributes to `Block Nodes`.
- `connections` - Map of kubernetes cluster connection information. It contains several attributes to `Block Connections`.
- `node_cidr_mask` - The network mask used on pods for each node.
- `log_config` - A list of one element containing information about the associated log store. It contains the following attributes:
  - `type` - Type of collecting logs.
  - `project` - Log Service project name.

» Block Nodes

- `id` - ID of the node.
- `name` - Node name.
- `private_ip` - The private IP address of node.
- `role` - (Deprecated from version 1.9.4)

» Block Connections

- `api_server_internet` - API Server Internet endpoint.
- `api_server_intranet` - API Server Intranet endpoint.
- `master_public_ip` - Master node SSH IP address.
- `service_domain` - Service Access Domain.

» Import

Kubernetes cluster can be imported using the id, e.g.

```
$ terraform import alicloud_cs_kubernetes.main ce4273f9156874b46bb
```

» alicloud_cs_managed_kubernetes

This resource will help you to manager a Managed Kubernetes Cluster. The cluster is same as container service created by web console.

NOTE: Managed Kubernetes cluster only supports single availability zone currently. Arguments `vswitch_ids`, `worker_numbers`, `worker_instance_types` only accept one item.

NOTE: Managed Kubernetes cluster only supports VPC network and it can access internet while creating kubernetes cluster. A Nat Gateway and configuring a SNAT for it can ensure one VPC network access internet. If there is no nat gateway in the VPC, you can set `new_nat_gateway` to "true" to create one automatically.

NOTE: If there is no specified `vswitch_ids`, the resource will create a new VPC and VSwitch while creating managed kubernetes cluster.

NOTE: Creating managed kubernetes cluster need to install several packages and it will cost about 10 minutes. Please be patient.

NOTE: The provider supports to download kube config, client certificate, client key and cluster ca certificate after creating cluster successfully, and you can put them into the specified location, like '~/.kube/config'.

NOTE: If you want to manage managed Kubernetes, you can use Kubernetes Provider.

» Example Usage

Basic Usage

```
variable "name" {
    default = "my-first-k8s"
}
data "alicloud_zones" main {
  available_resource_creation = "VSwitch"
}

data "alicloud_instance_types" "default" {
    availability_zone = "${data.alicloud_zones.main.zones.0.id}"
    cpu_core_count = 1
    memory_size = 2
}

resource "alicloud_cs_managed_kubernetes" "k8s" {
  name = "${var.name}"
  availability_zone = "${data.alicloud_zones.main.zones.0.id}"
  new_nat_gateway = true
  worker_instance_types = ["${data.alicloud_instance_types.default.instance_types.0.id}"]
  worker_numbers = [2]
  password = "Test12345"
  pod_cidr = "172.20.0.0/16"
  service_cidr = "172.21.0.0/20"
  install_cloud_monitor = true
  slb_internet_enabled = true
  worker_disk_category  = "cloud_efficiency"
}
```

» Argument Reference

The following arguments are supported:

- `name` - The kubernetes cluster's name. It is the only in one Alicloud account.
- `name_prefix` - The kubernetes cluster name's prefix. It is conflict with `name`. If it is specified, terraform will using it to build the only cluster name. Default to "Terraform-Creation".
- `availability_zone` - (Force new resource) The Zone where new kubernetes cluster will be located. If it is not be specified, the value will be vswitch's zone.
- `vswitch_ids` - (Force new resource) The vswitch where new kubernetes cluster will be located. Specify one vswitch's id, if it is not specified, a new VPC and VSwicth will be built. It must be in the zone which `availability_zone` specified.
- `new_nat_gateway` - (Force new resource) Whether to create a new nat gateway while creating kubernetes cluster. Default to true.

- `password` - (Required, Force new resource) The password of ssh login cluster node. You have to specify one of `password` and `key_name` fields.
- `key_name` - (Required, Force new resource) The keypair of ssh login cluster node, you have to create it first.
- `pod_cidr` - (Required, Force new resource) The CIDR block for the pod network. It will be allocated automatically when `vswitch_ids` is not specified. It cannot be duplicated with the VPC CIDR and CIDR used by Kubernetes cluster in VPC, cannot be modified after creation. Maximum number of hosts allowed in the cluster: 256. Refer to Plan Kubernetes CIDR blocks under VPC.
- `service_cidr` - (Required, Force new resource) The CIDR block for the service network. It will be allocated automatically when `vswitch_id` is not specified. It cannot be duplicated with the VPC CIDR and CIDR used by Kubernetes cluster in VPC, cannot be modified after creation.
- `slb_internet_enabled` - (Force new resource) Whether to create internet load balancer for API Server. Default to true.
- `install_cloud_monitor` - (Force new resource) Whether to install cloud monitor for the kubernetes' node.
- `worker_disk_size` - (Force new resource) The system disk size of worker node. Its valid value range [20~32768] in GB. Default to 20.
- `worker_disk_category` - (Force new resource) The system disk category of worker node. Its valid value are `cloud_ssd` and `cloud_efficiency`. Default to `cloud_efficiency`.
- `worker_data_disk_size` - (Force new resource) The data disk size of worker node. Its valid value range [20~32768] in GB. When `worker_data_disk_category` is presented, it defaults to 40.
- `worker_data_disk_category` - (Force new resource) The data disk category of worker node. Its valid value are `cloud_ssd` and `cloud_efficiency`, if not set, data disk will not be created.
- `worker_numbers` - The worker node number of the kubernetes cluster. Default to [3]. It is limited up to 50 and if you want to enlarge it, please apply white list or contact with us.
- `worker_instance_types` - (Required, Force new resource) The instance type of worker node. Specify one type for single AZ Cluster, three types for MultiAZ Cluster. You can get the available kubetnetes master node instance types by datasource instance_types
- `worker_instance_charge_type` - (Optional, Force new resource) Worker payment type. `PrePaid` or `PostPaid`, defaults to `PostPaid`.
- `worker_period_unit` - (Optional) Worker payment period unit. `Month` or `Week`, defaults to `Month`.
- `worker_period` - (Optional) Worker payment period. When period unit is `Month`, it can be one of { "1", "2", "3", "4", "5", "6", "7", "8", "9", "12", "24", "36","48","60"}. When period unit is `Week`, it can be one of {"1", "2", "3", "4"}.
- `worker_auto_renew` - (Optional) Enable worker payment auto-renew, defaults to false.

- `worker_auto_renew_period` - (Optional) Worker payment auto-renew period. When period unit is `Month`, it can be one of {“1”, “2”, “3”, “6”, “12”}. When period unit is `Week`, it can be one of {“1”, “2”, “3”}.
- `cluster_network_type` - (Optional, Force new resource) The network that cluster uses, use `flannel` or `terway`.
- `kube_config` - (Optional) The path of kube config, like `~/.kube/config`.
- `client_cert` - (Optional) The path of client certificate, like `~/.kube/client-cert.pem`.
- `client_key` - (Optional) The path of client key, like `~/.kube/client-key.pem`.
- `cluster_ca_cert` - (Optional) The path of cluster ca certificate, like `~/.kube/cluster-ca-cert.pem`

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the container cluster.
- `name` - The name of the container cluster.
- `availability_zone` - The ID of availability zone.
- `key_name` - The keypair of ssh login cluster node, you have to create it first.
- `worker_numbers` - The ECS instance node number in the current container cluster.
- `vswitch_ids` - The ID of VSwitches where the current cluster is located.
- `vpc_id` - The ID of VPC where the current cluster is located.
- `security_group_id` - The ID of security group where the current cluster worker node is located.
- `image_id` - The ID of node image.
- `nat_gateway_id` - The ID of nat gateway used to launch kubernetes cluster.
- `worker_instance_types` - The instance type of worker node.
- `worker_disk_size` - The system disk size of worker node.
- `worker_disk_category` - The system disk category of worker node.
- `worker_data_disk_size` - The data disk category of worker node.
- `worker_data_disk_category` - The data disk size of worker node.
- `worker_nodes` - List of cluster worker nodes. It contains several attributes to `Block Nodes`.

» Block Nodes

- `id` - ID of the node.
- `name` - Node name.
- `private_ip` - The private IP address of node.

» Import

Managed Kubernetes cluster can be imported using the id, e.g.

```
$ terraform import alicloud_cs_managed_kubernetes.main ce4273f9156874b46bb
```

» alicloud_cr_namespace

This resource will help you to manager Container Registry namespaces.

NOTE: Available in v1.34.0+.

NOTE: You need to set your registry password in Container Registry console before use this resource.

» Example Usage

Basic Usage

```
resource "alicloud_cr_namespace" "my-namespace" {
    name = "my-namespace"
    auto_create = false
    default_visibility = "PUBLIC"
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Required, ForceNew) Name of Container Registry namespace.
- `auto_create` - (Required) Boolean, when it set to true, repositories are automatically created when pushing new images. If it set to false, you create repository for images before pushing.
- `default_visibility` - (Required) `PUBLIC` or `PRIVATE`, default repository visibility in this namespace.

» Attributes Reference

The following attributes are exported:

- `id` - The id of Container Registry namespace. The value is same as its name.

» Import

Container Registry namespace can be imported using the namespace, e.g.

```
$ terraform import alicloud_cr_namespace.default my-namespace
```

» alicloud_cr_repo

This resource will help you to manager Container Registry repositories.

NOTE: Available in v1.35.0+.

» Example Usage

Basic Usage

```
resource "alicloud_cr_namespace" "my-namespace" {
    name = "my-namespace"
    auto_create = false
    default_visibility = "PUBLIC"
}

resource "alicloud_cr_repo" "my-repo" {
    namespace = "${alicloud_cr_namespace.my-namespace.name}"
    name = "my-repo"
    summary = "this is summary of my new repo"
    repo_type = "PUBLIC"
    detail  = "this is a public repo"
}
```

» Argument Reference

The following arguments are supported:

- `namespace` - (Required, ForceNew) Name of container registry namespace where repository is located.
- `name` - (Required, ForceNew) Name of container registry repository.
- `summary` - (Required) The repository general information. It can contain 1 to 80 characters.
- `repo_type` - (Required) `PUBLIC` or `PRIVATE`, repo's visibility.
- `detail` - (Optional) The repository specific information. MarkDown format is supported, and the length limit is 2000.

» Attributes Reference

The following attributes are exported:

- `id` - The id of Container Registry repository. The value is in format `namespace/repository`.
- `domain_list` - The repository domain list.
  - `public` - Domain of public endpoint.
  - `internal` - Domain of internal endpoint, only in some regions.
  - `vpc` - Domain of vpc endpoint.

» Import

Container Registry repository can be imported using the `namespace/repository`, e.g.

```
$ terraform import alicloud_cr_repo.default `my-namespace/my-repo`
```

» alicloud_fc_service

Provides a Alicloud Function Compute Service resource. The resource is the base of launching Function and Trigger configuration. For information about Service and how to use it, see What is Function Compute.

NOTE: The resource requires a provider field 'account_id'. See account_id.

NOTE: If you happen the error "Argument 'internetAccess' is not supported", you need to log on web console and click button "Apply VPC Function" which is in the upper of Function Service Web Console page.

NOTE: Currently not all regions support Function Compute Service. For more details supported regions, see Service endpoints

» Example Usage

Basic Usage

```
variable "region" {
  default = "cn-hangzhou"
}
variable "account" {
  default = "12345"
}

provider "alicloud" {
```

```
  account_id = "${var.account}"
  region = "${var.region}"
}

resource "alicloud_fc_service" "foo" {
    name = "my-fc-service"
    description = "created by tf"
    internet_access = false
}
```

» Argument Reference

The following arguments are supported:

- `name` - (ForceNew) The Function Compute service name. It is the only in one Alicloud account and is conflict with "name_prefix".
- `name_prefix` - (ForceNew) Setting a prefix to get a only name. It is conflict with "name".
- `description` - (Optional) The function compute service description.
- `internet_access` - (Optional) Whether to allow the service to access Internet. Default to "true".
- `role` - (Optional) RAM role arn attached to the Function Compute service. This governs both who / what can invoke your Function, as well as what resources our Function has access to. See User Permissions for more details.
- `log_config` - (Optional) Provide this to store your FC service logs. Fields documented below. See Create a Service.
- `vpc_config` - (Optional) Provide this to allow your FC service to access your VPC. Fields documented below. See Function Compute Service in VPC.

log_config requires the following:

- `project` - (Required) The project name of Logs service.
- `logstore` - (Required) The log store name of Logs service.

NOTE: If both `project` and `logstore` are empty, log_config is considered to be empty or unset.

vpc_config requires the following:

- `vswitch_ids` - (Required) A list of vswitch IDs associated with the FC service.
- `security_group_id` - (Required) A security group ID associated with the FC service.

NOTE: If both `vswitch_ids` and `security_group_id` are empty, vpc_config is considered to be empty or unset.

» Attributes Reference

The following arguments are exported:

- `id` - The ID of the FC service. The value is same as name.
- `last_modified` - The date this resource was last modified.

» Import

Function Compute Service can be imported using the id or name, e.g.

```
$ terraform import alicloud_fc_service.foo my-fc-service
```

» alicloud_fc_function

Provides a Alicloud Function Compute Function resource. Function allows you to trigger execution of code in response to events in Alibaba Cloud. The Function itself includes source code and runtime configuration. For information about Service and how to use it, see What is Function Compute.

NOTE: The resource requires a provider field 'account_id'. See account_id.

» Example Usage

Basic Usage

```
variable "region" {
  default = "cn-hangzhou"
}
variable "account" {
  default = ""
}

provider "alicloud" {
  account_id = "${var.account}"
  region = "${var.region}"
}

resource "alicloud_fc_service" "foo" {
    name = "my-fc-service"
    description = "created by tf"
    internet_access = false
}
```

```
resource "alicloud_fc_function" "foo" {
  service = "${alicloud_fc_service.foo.name}"
  name = "hello-world"
  description = "tf unit test"
  filename = "./hello.zip"
  memory_size = "512"
  runtime = "python2.7"
  handler = "hello.handler"
}
```

» Argument Reference

The following arguments are supported:

- `service` - (Required, ForceNew) The Function Compute service name.
- `name` - (ForceNew) The Function Compute function name. It is the only in one service and is conflict with "name_prefix".
- `name_prefix` - (ForceNew) Setting a prefix to get a only function name. It is conflict with "name".
- `description` - (Optional) The Function Compute function description.
- `filename` - (Optional) The path to the function's deployment package within the local filesystem. It is conflict with the `oss_`-prefixed options.
- `oss_bucket` - (Optional) The OSS bucket location containing the function's deployment package. Conflicts with `filename`. This bucket must reside in the same Alibaba Cloud region where you are creating the function.
- `oss_key` - (Optional) The OSS key of an object containing the function's deployment package. Conflicts with `filename`.
- `handler` - (Required) The function entry point in your code.
- `memory_size` - (Optional) Amount of memory in MB your Function can use at runtime. Defaults to `128`. Limits to [128, 3072].
- `runtime` - (Required) See [Runtimes][https://www.alibabacloud.com/help/doc-detail/52077.htm] for valid values.
- `timeout` - (Optional) The amount of time your Function has to run in seconds.

NOTE: For more information, see Limits.

» Attributes Reference

The following arguments are exported:

- `id` - The ID of the function. The value is formate as `<service>:<name>`.
- `last_modified` - The date this resource was last modified.

» Import

Function Compute function can be imported using the id, e.g.

```
$ terraform import alicloud_fc_service.foo my-fc-service:hello-world
```

» alicloud_fc_function

Provides a Alicloud Function Compute Trigger resource. Based on trigger, execute your code in response to events in Alibaba Cloud. For information about Service and how to use it, see What is Function Compute.

NOTE: The resource requires a provider field 'account_id'. See account_id.

» Example Usage

Basic Usage

```
variable "region" {
  default = "cn-hangzhou"
}
variable "account" {
  default = "12345"
}

provider "alicloud" {
  account_id = "${var.account}"
  region = "${var.region}"
}

resource "alicloud_fc_trigger" "foo" {
  service = "my-fc-service"
  function = "hello-world"
  name = "hello-trigger"
  role = "${alicloud_ram_role.foo.arn}"
  source_arn = "acs:log:${var.region}:${var.account}:project/${alicloud_log_project.foo.name
  type = "log"
  config = <<EOF
    {
        "sourceConfig": {
            "project": "project-for-fc",
            "logstore": "project-for-fc"
        },
        "jobConfig": {
            "maxRetryTime": 3,
```

```
            "triggerInterval": 60
        },
        "functionParameter": {
            "a": "b",
            "c": "d"
        },
        "logConfig": {
            "project": "project-for-fc",
            "logstore": "project-for-fc"
        },
        "enable": true
    }
  EOF
  depends_on = ["alicloud_ram_role_policy_attachment.foo"]
}

resource "alicloud_ram_role" "foo" {
  name = "${var.name}-trigger"
  document = <<EOF
  {
    "Statement": [
      {
        "Action": "sts:AssumeRole",
        "Effect": "Allow",
        "Principal": {
          "Service": [
            "log.aliyuncs.com"
          ]
        }
      }
    ],
    "Version": "1"
  }
  EOF
  description = "this is a test"
  force = true
}

resource "alicloud_ram_role_policy_attachment" "foo" {
  role_name = "${alicloud_ram_role.foo.name}"
  policy_name = "AliyunLogFullAccess"
  policy_type = "System"
}
```

» Argument Reference

The following arguments are supported:

- `service` - (Required, ForceNew) The Function Compute service name.
- `function` - (Required, ForceNew) The Function Compute function name.
- `name` - (ForceNew) The Function Compute trigger name. It is the only in one service and is conflict with "name_prefix".
- `name_prefix` - (ForceNew) Setting a prefix to get a only trigger name. It is conflict with "name".
- `role` - (Optional) RAM role arn attached to the Function Compute trigger. Role used by the event source to call the function. The value format is "acs:ram::$account-id:role/$role-name". See Create a trigger for more details.
- `source_arn` - (Optional, ForceNew) Event source resource address. See Create a trigger for more details.
- `config` - (Optional) The config of Function Compute trigger. See Configure triggers and events for more details.
- `type` - (Required, ForceNew) The Type of the trigger. Valid values: ["oss", "log", "timer", "http"].

» Attributes Reference

The following arguments are exported:

- `id` - The ID of the function. The value is formate as `<service>:<function>:<name>`.
- `last_modified` - The date this resource was last modified.

» Import

Function Compute trigger can be imported using the id, e.g.

```
$ terraform import alicloud_fc_service.foo my-fc-service:hello-world:hello-trigger
```

» alicloud_cms_alarm

This resource provides a alarm rule resource and it can be used to monitor several cloud services according different metrics. Details for alarm rule.

» Example Usage

Basic Usage

```
resource "alicloud_cms_alarm" "basic" {
  name = "tf-testAccCmsAlarm_basic"
  project = "acs_ecs_dashboard"
  metric = "disk_writebytes"
  dimensions = {
    instanceId = "i-bp1247,i-bp11gd"
    device = "/dev/vda1,/dev/vdb1"
  }
  statistics ="Average"
  period = 900
  operator = "<="
  threshold = 35
  triggered_count = 2
  contact_groups = ["test-group"]
  end_time = 20
  start_time = 6
  notify_type = 1
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Required) The alarm rule name.
- `project` - (Required, ForceNew) Monitor project name, such as "acs_ecs_dashboard" and "acs_rds_dashboard". For more information, see Metrics Reference.
- `metric` - (Required, ForceNew) Name of the monitoring metrics corresponding to a project, such as "CPUUtilization" and "networkin_rate". For more information, see Metrics Reference.
- `dimensions` - (Required, ForceNew) Map of the resources associated with the alarm rule, such as "instanceId", "device" and "port". Each key's value is a string and it uses comma to split multiple items. For more information, see Metrics Reference.
- `period` - Index query cycle, which must be consistent with that defined for metrics. Default to 300, in seconds.
- `statistics` - Statistical method. It must be consistent with that defined for metrics. Valid values: ["Average", "Minimum", "Maximum"]. Default to "Average".
- `operator` - Alarm comparison operator. Valid values: ["<=", "<", ">", ">=", "==", "!="]. Default to "==".
- `threshold` - (Required) Alarm threshold value, which must be a numeric value currently.
- `triggered_count` - Number of consecutive times it has been detected that the values exceed the threshold. Default to 3.

- `contact_groups` - (Required) List contact groups of the alarm rule, which must have been created on the console.
- `start_time` - Start time of the alarm effective period. Default to 0 and it indicates the time 00:00. Valid value range: [0, 24].
- `end_time` - End time of the alarm effective period. Default value 24 and it indicates the time 24:00. Valid value range: [0, 24].
- `silence_time` - Notification silence period in the alarm state, in seconds. Valid value range: [300, 86400]. Default to 86400
- `notify_type` - Notification type. Valid value [0, 1]. The value 0 indicates TradeManager+email, and the value 1 indicates that TradeManager+email+SMS
- `enabled` - Whether to enable alarm rule. Default to true.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the alarm rule.
- `name` - The alarm name.
- `project` - Monitor project name.
- `metric` - Name of the monitoring metrics.
- `dimensions` - Map of the resources associated with the alarm rule.
- `period` - Index query cycle.
- `statistics` - Statistical method.
- `operator` - Alarm comparison operator.
- `threshold` - Alarm threshold value.
- `triggered_count` - Number of trigger alarm.
- `contact_groups` - List contact groups of the alarm rule.
- `start_time` - Start time of the alarm effective period.
- `end_time` - End time of the alarm effective period.
- `silence_time` - Notification silence period in the alarm state.
- `notify_type` - Notification type.
- `enabled` - Whether to enable alarm rule.
- `status` - The current alarm rule status.

» Import

Alarm rule can be imported using the id, e.g.

```
$ terraform import alicloud_cms_alarm.alarm abc12345
```

» alicloud_dns

Provides a DNS resource.

NOTE: The domain name which you want to add must be already registered and had not added by another account. Every domain name can only exist in a unique group.

» Example Usage

```
# Add a new Domain.
resource "alicloud_dns" "dns" {
  name = "starmove.com"
  group_id = "85ab8713-4a30-4de4-9d20-155ff830f651"
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Required) Name of the domain. This name without suffix can have a string of 1 to 63 characters, must contain only alphanumeric characters or "-", and must not begin or end with "-", and "-" must not in the 3th and 4th character positions at the same time. Suffix `.sh` and `.tel` are not supported.
- `group_id` - (Optional) Id of the group in which the domain will add. If not supplied, then use default group.

» Attributes Reference

The following attributes are exported:

- `id` - The domain id.
- `name` - The domain name.
- `group_id` - The group id of domain.
- `dns_server` - A list of the dns server name.

» Import

DNS can be imported using the id or domain name, e.g.

```
$ terraform import alicloud_dns.example "aliyun.com"
```

» alicloud_dns_group

Provides a DNS Group resource.

» Example Usage

```
# Add a new Domain group.
resource "alicloud_dns_group" "group" {
  name = "testgroup"
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Required) Name of the domain group.

» Attributes Reference

The following attributes are exported:

- `id` - The group id.
- `name` - The group name.

» alicloud_dns

Provides a DNS Record resource.

» Example Usage

```
# Create a new Domain record
resource "alicloud_dns_record" "record" {
  name = "domainname"
  host_record = "@"
  type = "A"
  value = "192.168.99.99"
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Required) Name of the domain. This name without suffix can have a string of 1 to 63 characters, must contain only alphanumeric characters or "-", and must not begin or end with "-", and "-" must not in the 3th and 4th character positions at the same time. Suffix `.sh` and `.tel` are not supported.
- `host_record` - (Required) Host record for the domain record. This host_record can have at most 253 characters, and each part split with "." can have at most 63 characters, and must contain only alphanumeric characters or hyphens, such as "-","."","*","@", and must not begin or end with "-".
- `type` - (Required) The type of domain record. Valid values are `A`,`NS`,`MX`,`TXT`,`CNAME`,`SRV`,`AAAA`,`CAA`, `REDIRECT_URL` and `FORWORD_URL`.
- `value` - (Required) The value of domain record.
- `ttl` - (Optional) The effective time of domain record. Its scope depends on the edition of the cloud resolution. Free is `[600, 86400]`, Basic is `[120, 86400]`, Standard is `[60, 86400]`, Ultimate is `[10, 86400]`, Exclusive is `[1, 86400]`. Default value is `600`.
- `priority` - (Optional) The priority of domain record. Valid values are `[1-10]`. When the `type` is `MX`, this parameter is required.
- `routing` - (Optional) The parsing line of domain record. Valid values are `default`, `telecom`, `unicom`, `mobile`, `oversea` and `edu`. When the `type` is `FORWORD_URL`, this parameter must be `default`. Default value is `default`.

» Attributes Reference

The following attributes are exported:

- `id` - The record id.
- `name` - (Required) The record domain name.
- `type` - (Required) The record type.
- `host_record` - The host record of record.
- `value` - The record value.
- `ttl` - The record effective time.
- `priority` - The record priority.
- `routing` - The record parsing line.
- `status` - The record status. `Enable` or `Disable`.
- `Locked` - The record locked state. `true` or `false`.

» Import

RDS record can be imported using the id, e.g.

```
$ terraform import alicloud_dns_record.example abc123456
```

» alicloud_log_project

The project is the resource management unit in Log Service and is used to isolate and control resources. You can manage all the logs and the related log sources of an application by using projects. Refer to details.

» Example Usage

Basic Usage

```
resource "alicloud_log_project" "example" {
  name       = "tf-log"
  description = "created by terraform"
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Required, ForceNew) The name of the log project. It is the only in one Alicloud account.
- `description` - (Optional) Description of the log project.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the log project. It sames as its name.
- `name` - Log project name.
- `description` - Log project description.

» Import

Log project can be imported using the id or name, e.g.

```
$ terraform import alicloud_log_project.example tf-log
```

» alicloud_log_store

The log store is a unit in Log Service to collect, store, and query the log data. Each log store belongs to a project, and each project can create multiple Logstores. Refer to details

» Example Usage

Basic Usage

```
resource "alicloud_log_project" "example" {
  name        = "tf-log"
  description = "created by terraform"
}

resource "alicloud_log_store" "example" {
  project               = "${alicloud_log_project.example.name}"
  name                  = "tf-log-store"
  shard_count           = 3
  auto_split            = true
  max_split_shard_count = 60
  append_meta           = true
}
```

» Argument Reference

The following arguments are supported:

- `project` - (Required, ForceNew) The project name to the log store belongs.
- `name` - (Required, ForceNew) The log store, which is unique in the same project.
- `retention_period` - The data retention time (in days). Valid values: [1-3650]. Default to 30. Log store data will be stored permanently when the value is "3650".
- `shard_count` - The number of shards in this log store. Default to 2. You can modify it by "Split" or "Merge" operations. Refer to details
- `auto_split` - Determines whether to automatically split a shard. Default to true.
- `max_split_shard_count` - The maximum number of shards for automatic split, which is in the range of 1 to 64. You must specify this parameter when autoSplit is true.
- `append_meta` - Determines whether to append log meta automatically. The meta includes log receive time and client IP address. Default to true.

- `enable_web_tracking` - Determines whether to enable Web Tracking. Default false.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the log project. It formats of `<project>:<name>`.
- `project` - The project name.
- `name` - Log store name.
- `retention_period` - The data retention time.
- `shard_count` - The number of shards.
- `auto_split` - Determines whether to automatically split a shard.
- `max_split_shard_count` - The maximum number of shards for automatic split.
- `append_meta` - Determines whether to append log meta automatically.
- `enable_web_tracking` - Determines whether to enable Web Tracking.

» Import

Log store can be imported using the id, e.g.

```
$ terraform import alicloud_log_store.example tf-log:tf-log-store
```

» alicloud_log_store_index

Log Service provides the LogSearch/Analytics function to query and analyze large amounts of logs in real time. You can use this function by enabling the index and field statistics. Refer to details

» Example Usage

Basic Usage

```
resource "alicloud_log_project" "example" {
  name       = "tf-log"
  description = "created by terraform"
}
resource "alicloud_log_store" "example" {
  project = "${alicloud_log_project.example.name}"
  name       = "tf-log-store"
  description = "created by terraform"
}
```

```
resource "alicloud_log_store_index" "example" {
  project = "${alicloud_log_project.example.name}"
  logstore = "${alicloud_log_store.example.name}"
  full_text {
    case_sensitive = true
    token = " #$%^*\r\n\t"
  }
  field_search = [
    {
      name = "terraform"
      enable_analytics = true
    }
  ]
}
```

» Argument Reference

The following arguments are supported:

- `project` - (Required, ForceNew) The project name to the log store belongs.
- `logstore` - (Required, ForceNew) The log store name to the query index belongs.
- `full_text` - The configuration of full text index. Valid item as follows:
  - `case_sensitive` - Whether the case sensitive. Default to false.
  - `include_chinese` - Whether includes the chinese. Default to false.
  - `token` - The string of several split words, like "\r", "#"
- `field_search` - List configurations of field search index. Valid item as follows:
  - `name` - (Required) The field name, which is unique in the same log store.
  - `type` - The type of one field. Valid values: ["long", "text", "double", "json"]. Default to "long".
  - `alias` - The alias of one field
  - `case_sensitive` - Whether the case sensitive for the field. Default to false. It is valid when "type" is "text" or "json".
  - `include_chinese` - Whether includes the chinese for the field. Default to false. It is valid when "type" is "text" or "json".
  - `token` - The string of several split words, like "\r", "#". It is valid when "type" is "text" or "json".
  - `enable_analytics` - Whether to enable field analytics. Default to true.

Note: At least one of the ”full_text” and ”field_search” should be specified.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the log store index. It formats of `<project>:<logstore>`.
- `project` - The project name.
- `logstore` - Log store name.
- `full_text` - The full text index config.
- `field_search` - The field search index config.

» Import

Log store index can be imported using the id, e.g.

```
$ terraform import alicloud_log_store_index.example tf-log:tf-log-store
```

» alicloud_log_machine_group

Log Service manages all the ECS instances whose logs need to be collected by using the Logtail client in the form of machine groups. Refer to details

» Example Usage

Basic Usage

```
resource "alicloud_log_project" "example" {
  name       = "tf-log"
  description = "created by terraform"
}
resource "alicloud_log_machine_group" "example" {
    project = "${alicloud_log_project.example.name}"
    name = "tf-machine-group"
    identify_type = "ip"
    topic = "terraform"
    identify_list = ["10.0.0.1", "10.0.0.2"]
}
```

» Argument Reference

The following arguments are supported:

- `project` - (Required, ForceNew) The project name to the machine group belongs.
- `name` - (Required, ForceNew) The machine group name, which is unique in the same project.
- `identify_type` - The machine identification type, including IP and user-defined identity. Valid values are "ip" and "userdefined". Default to "ip".
- `identify_list`- The specific machine identification, which can be an IP address or user-defined identity.
- `topic` - The topic of a machine group.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the log machine group. It formats of `<project>:<name>`.
- `project` - The project name.
- `name` - The machine group name.
- `identify_type` - The machine identification type.
- `identify_list` - The machine identification.
- `topic` - The machine group topic.

» Import

Log machine group can be imported using the id, e.g.

```
$ terraform import alicloud_log_machine_group.example tf-log:tf-machine-group
```

» alicloud_logtail_config

The Logtail access service is a log collection agent provided by Log Service. You can use Logtail to collect logs from servers such as Alibaba Cloud Elastic Compute Service (ECS) instances in real time in the Log Service console. Refer to details

» Example Usage

Basic Usage

```
resource "alicloud_log_project" "example"{
    name = "test-tf"
    description = "create by terraform"
}
resource "alicloud_log_store" "example"{
```

```
    project = "${alicloud_log_project.example.name}"
    name = "tf-test-logstore"
    retention_period = 3650
    shard_count = 3
    auto_split = true
    max_split_shard_count = 60
    append_meta = true
}
resource "alicloud_logtail_config" "example"{
    project = "${alicloud_log_project.example.name}"
    logstore = "${alicloud_log_store.example.name}"
    input_type = "file"
    log_sample = "test"
    config_name = "tf-log-config"
    output_type = "LogService"
    input_detail = "${file("config.json")}"
}
```

» Argument Reference

The following arguments are supported:

- `project` - (Required, ForceNew) The project name to the log store belongs.
- `logstore` - (Required, ForceNew) The log store name to the query index belongs.
- `input_type` - (Required) The input type. Currently only two types of files and plugin are supported.
- `log_sample` - Optional The log sample of the Logtail configuration. The log size cannot exceed 1,000 bytes.
- `config_name` - (Required, ForceNew) The Logtail configuration name, which is unique in the same project.
- `output_type` - (Required) The output type. Currently, only LogService is supported.
- `input_detail` - (Required) The logtail configure the required JSON files.(Refer to details)

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the log store index. It formats of `<project>:<logstore>:<config_name>`.

» Import

Logtial config can be imported using the id, e.g.

```
$ terraform import alicloud_logtail_config.example tf-log:tf-log-store:tf-log-config
```

» alicloud_logtail_attachment

The Logtail access service is a log collection agent provided by Log Service. You can use Logtail to collect logs from servers such as Alibaba Cloud Elastic Compute Service (ECS) instances in real time in the Log Service console. Refer to details

This resource amis to attach one logtail configure to a machine group.

NOTE: One logtail configure can be attached to multiple machine groups and one machine group can attach several logtail configures.

» Example Usage

Basic Usage

```
resource "alicloud_log_project" "test"{
    name = "test-tf2"
    description = "create by terraform"
}
resource "alicloud_log_store" "test"{
    project = "${alicloud_log_project.test.name}"
    name = "tf-test-logstore"
    retention_period = 3650
    shard_count = 3
    auto_split = true
    max_split_shard_count = 60
    append_meta = true
}
resource "alicloud_log_machine_group" "test" {
        project = "${alicloud_log_project.test.name}"
        name = "tf-log-machine-group"
        topic = "terraform"
        identify_list = ["10.0.0.1", "10.0.0.3", "10.0.0.2"]
}
resource "alicloud_logtail_config" "test"{
    project = "${alicloud_log_project.test.name}"
    logstore = "${alicloud_log_store.test.name}"
    input_type = "file"
```

```
    log_sample = "test"
    name = "tf-log-config"
    output_type = "LogService"
    input_detail = <<DEFINITION
    {
        "logPath": "/logPath",
        "filePattern": "access.log",
        "logType": "json_log",
        "topicFormat": "default",
        "discardUnmatch": false,
        "enableRawLog": true,
        "fileEncoding": "gbk",
        "maxDepth": 10
    }
    DEFINITION
}
resource "alicloud_logtail_attachment" "test" {
    project = "${alicloud_log_project.test.name}"
    logtail_config_name = "${alicloud_logtail_config.test.name}"
    machine_group_name = "${alicloud_log_machine_group.test.name}"
}
```

» Argument Reference

The following arguments are supported:

- `project` - (Required, ForceNew) The project name to the log store belongs.
- `logtail_config_name` - (Required, ForceNew) The Logtail configuration name, which is unique in the same project.
- `machine_group_name` - (Required, ForceNew) The machine group name, which is unique in the same project.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the logtail to machine group. It formats of `<project>:<logtail_config_name>:<machine_group_name>`.

» Import

Logtial to machine group can be imported using the id, e.g.

```
$ terraform import alicloud_logtail_to_machine_group.example tf-log:tf-log-config:tf-log-mac
```

» alicloud_ram_access_key

Provides a RAM User access key resource.

NOTE: You should set the `secret_file` if you want to get the access key.

» Example Usage

```
# Create a new RAM access key for user.
resource "alicloud_ram_user" "user" {
  name = "user_test"
  display_name = "user_display_name"
  mobile = "86-18688888888"
  email = "hello.uuu@aaa.com"
  comments = "yoyoyo"
  force = true
}

resource "alicloud_ram_access_key" "ak" {
  user_name = "${alicloud_ram_user.user.name}"
  secret_file = "/xxx/xxx/xxx.txt"
}
```

» Argument Reference

The following arguments are supported:

- `user_name` - (Required, Forces new resource) Name of the RAM user. This name can have a string of 1 to 64 characters, must contain only alphanumeric characters or hyphens, such as "-","","_", and must not begin with a hyphen.
- `secret_file` - (Optional, Forces new resource) The name of file that can save access key id and access key secret. Strongly suggest you to specified it when you creating access key, otherwise, you wouldn't get its secret ever.
- `status` - (Optional) Status of access key. It must be `Active` or `Inactive`. Default value is `Active`.

» Attributes Reference

The following attributes are exported:

- `id` - The access key ID.
- `status` - The access key status.

» alicloud_ram_account_alias

Provides a RAM cloud account alias.

» Example Usage

```
# Create a alias for cloud account.
resource "alicloud_ram_account_alias" "alias" {
  account_alias = "hallo"
}
```

» Argument Reference

The following arguments are supported:

- `account_alias` - (Required, Forces new resource) Alias of cloud account. This name can have a string of 3 to 32 characters, must contain only alphanumeric characters or hyphens, such as "-", and must not begin with a hyphen.

» Attributes Reference

The following attributes are exported:

- `account_alias` - The account alias.

» alicloud_ram_alias

NOTE: This resource has been deprecated from v1.3.2. New resource `alicloud_ram_account_alias` will replace.

» alicloud_ram_group

Provides a RAM Group resource.

NOTE: When you want to destroy this resource forcefully(means remove all the relationships associated with it automatically and then destroy it) without

set `force` with `true` at beginning, you need add `force = true` to configuration file and run `terraform plan`, then you can delete resource forcefully.

» Example Usage

```
# Create a new RAM Group.
resource "alicloud_ram_group" "group" {
  name = "test_group"
  comments = "this is a group comments."
  force = true
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Required) Name of the RAM group. This name can have a string of 1 to 64 characters, must contain only alphanumeric characters or hyphen "-", and must not begin with a hyphen.
- `comments` - (Optional) Comment of the RAM group. This parameter can have a string of 1 to 128 characters.
- `force` - (Optional) This parameter is used for resource destroy. Default value is `false`.

» Attributes Reference

The following attributes are exported:

- `id` - The group ID.
- `name` - The group name.
- `comments` - The group comments.

» Import

RAM group can be imported using the id or name, e.g.

```
$ terraform import alicloud_ram_group.example my-group
```

» alicloud_ram_group_membership

Provides a RAM Group membership resource.

» Example Usage

```
# Create a RAM Group membership.
resource "alicloud_ram_group" "group" {
  name = "test_group"
  comments = "this is a group comments."
  force = true
}

resource "alicloud_ram_user" "user" {
  name = "user_test"
  display_name = "user_display_name"
  mobile = "86-18688888888"
  email = "hello.uuu@aaa.com"
  comments = "yoyoyo"
  force = true
}

resource "alicloud_ram_user" "user1" {
  name = "user_test1"
  display_name = "user_display_name1"
  mobile = "86-18688888889"
  email = "hello.uuu@aaa.com"
  comments = "yoyoyo"
  force = true
}

resource "alicloud_ram_group_membership" "membership" {
  group_name = "${alicloud_ram_group.group.name}"
  user_names = ["${alicloud_ram_user.user.name}" "${alicloud_ram_user.user1.name}"]
}
```

» Argument Reference

The following arguments are supported:

- `group_name` - (Required, Forces new resource) Name of the RAM group. This name can have a string of 1 to 64 characters, must contain only alphanumeric characters or hyphen "-", and must not begin with a hyphen.
- `user_names` - (Required) Set of user name which will be added to group. Each name can have a string of 1 to 64 characters, must contain only alphanumeric characters or hyphens, such as "-","","_", and must not begin with a hyphen.

» Attributes Reference

The following attributes are exported:

- `id` - The membership ID.
- `group_name` - The group name.
- `user_names` - The list of names of users which in the group.

» alicloud_ram_group_policy_attachment

Provides a RAM Group Policy attachment resource.

» Example Usage

```
# Create a RAM Group Policy attachment.
resource "alicloud_ram_group" "group" {
  name = "test_group"
  comments = "this is a group comments."
  force = true
}

resource "alicloud_ram_policy" "policy" {
  name = "test_policy"
  statement = [
      {
        effect = "Allow"
        action = [
          "oss:ListObjects",
          "oss:GetObject"]
        resource = [
          "acs:oss:*:*:mybucket",
          "acs:oss:*:*:mybucket/*"]
      }]
  description = "this is a policy test"
  force = true
}

resource "alicloud_ram_group_policy_attachment" "attach" {
  policy_name = "${alicloud_ram_policy.policy.name}"
  policy_type = "${alicloud_ram_policy.policy.type}"
  group_name = "${alicloud_ram_group.group.name}"
}
```

» Argument Reference

The following arguments are supported:

- `group_name` - (Required, Forces new resource) Name of the RAM group. This name can have a string of 1 to 64 characters, must contain only alphanumeric characters or hyphen "-", and must not begin with a hyphen.
- `policy_name` - (Required, Forces new resource) Name of the RAM policy. This name can have a string of 1 to 128 characters, must contain only alphanumeric characters or hyphen "-", and must not begin with a hyphen.
- `policy_type` - (Required, Forces new resource) Type of the RAM policy. It must be `Custom` or `System`.

» Attributes Reference

The following attributes are exported:

- `id` - The attachment ID.
- `group_name` - The group name.
- `policy_name` - The policy name.
- `policy_type` - The policy type.

» alicloud_ram_login_profile

Provides a RAM User Login Profile resource.

» Example Usage

```
# Create a RAM login profile.
resource "alicloud_ram_user" "user" {
  name = "user_test"
  display_name = "user_display_name"
  mobile = "86-18688888888"
  email = "hello.uuu@aaa.com"
  comments = "yoyoyo"
  force = true
}

resource "alicloud_ram_login_profile" "profile" {
  user_name = "${alicloud_ram_user.user.name}"
  password = "Haha..1234"
}
```

» Argument Reference

The following arguments are supported:

- `user_name` - (Required, Forces new resource) Name of the RAM user. This name can have a string of 1 to 64 characters, must contain only alphanumeric characters or hyphens, such as "-","","_", and must not begin with a hyphen.
- `password` - (Required) Password of the RAM user.
- `mfa_bind_required` - (Optional) This parameter indicates whether the MFA needs to be bind when the user first logs in. Default value is `false`.
- `password_reset_required` - (Optional) This parameter indicates whether the password needs to be reset when the user first logs in. Default value is `false`.

» Attributes Reference

The following attributes are exported:

- `id` - The login profile ID.
- `user_name` - The user name.
- `mfa_bind_required` - The parameter which indicates whether the MFA needs to be bind when the user first logs in.
- `password_reset_required` - The parameter which indicates whether the password needs to be reset when the user first logs in.

» Import

RAM login profile can be imported using the id or user name, e.g.

```
$ terraform import alicloud_ram_login_profile.example my-login
```

» alicloud_ram_policy

Provides a RAM Policy resource.

NOTE: When you want to destroy this resource forcefully(means remove all the relationships associated with it automatically and then destroy it) without set `force` with `true` at beginning, you need add `force = true` to configuration file and run `terraform plan`, then you can delete resource forcefully.

» Example Usage

```
# Create a new RAM Policy.
resource "alicloud_ram_policy" "policy" {
  name = "test_policy"
  statement = [
    {
      effect = "Allow"
      action = [
        "oss:ListObjects",
        "oss:GetObject"
      ]
      resource = [
        "acs:oss:*:*:mybucket",
        "acs:oss:*:*:mybucket/*"
      ]
    }
  ]
  description = "this is a policy test"
  force = true
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Required, Forces new resource) Name of the RAM policy. This name can have a string of 1 to 128 characters, must contain only alphanumeric characters or hyphen "-", and must not begin with a hyphen.
- `statement` - (Optional, Type: list, Conflicts with `document`) Statements of the RAM policy document. It is required when the `document` is not specified.
  - `resource` - (Required, Type: list) List of specific objects which will be authorized. The format of each item in this list is `acs:${service}:${region}:${account_id}:${relative_id}`, such as `acs:ecs:*:*:instance/inst-002` and `acs:oss:*:1234567890000:mybucket`. The `${service}` can be `ecs`, `oss`, `ots` and so on, the `${region}` is the region info which can use `*` replace when it is not supplied, the `${account_id}` refers to someone's Alicloud account id or you can use `*` to replace, the `${relative_id}` is the resource description section which related to the `${service}`.
  - `action` - (Required, Type: list) List of operations for the `resource`. The format of each item in this list is `${service}:${action_name}`, such as `oss:ListBuckets` and `ecs:Describe*`. The `${service}` can be `ecs`, `oss`, `ots` and so on, the `${action_name}` refers to the name

of an api interface which related to the `${service}`.
  - `effect` - (Required) This parameter indicates whether or not the `action` is allowed. Valid values are `Allow` and `Deny`.
- `version` - (Optional, Conflicts with `document`) Version of the RAM policy document. Valid value is `1`. Default value is `1`.
- `document` - (Optional, Conflicts with `statement` and `version`) Document of the RAM policy. It is required when the `statement` is not specified.
- `description` - (Optional, Forces new resource) Description of the RAM policy. This name can have a string of 1 to 1024 characters.
- `force` - (Optional) This parameter is used for resource destroy. Default value is `false`.

» Attributes Reference

The following attributes are exported:

- `id` - The policy ID.
- `name` - The policy name.
- `type` - The policy type.
- `description` - The policy description.
- `statement` - List of statement of the policy document.
- `document` - The policy document.
- `version` - The policy document version.
- `attachment_count` - The policy attachment count.

» Import

RAM policy can be imported using the id or name, e.g.

```
$ terraform import alicloud_ram_policy.example my-policy
```

» alicloud_ram_role

Provides a RAM Role resource.

NOTE: When you want to destroy this resource forcefully(means remove all the relationships associated with it automatically and then destroy it) without set `force` with `true` at beginning, you need add `force = true` to configuration file and run `terraform plan`, then you can delete resource forcefully.

» Example Usage

```
# Create a new RAM Role.
```

```
resource "alicloud_ram_role" "role" {
  name = "test_role"
  ram_users = ["acs:ram::${your_account_id}:root", "acs:ram::${other_account_id}:user/userna
  services = ["apigateway.aliyuncs.com", "ecs.aliyuncs.com"]
  description = "this is a role test."
  force = true
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Required, Forces new resource) Name of the RAM role. This name can have a string of 1 to 64 characters, must contain only alphanumeric characters or hyphens, such as "-", "_", and must not begin with a hyphen.
- `services` - (Optional, Type: list, Conflicts with `document`) List of services which can assume the RAM role. The format of each item in this list is `${service}.aliyuncs.com` or `${account_id}@${service}.aliyuncs.com`, such as `ecs.aliyuncs.com` and `1234567890000@ots.aliyuncs.com`. The `${service}` can be `ecs`, `log`, `apigateway` and so on, the `${account_id}` refers to someone's Alicloud account id.
- `ram_users` - (Optional, Type: list, Conflicts with `document`) List of ram users who can assume the RAM role. The format of each item in this list is `acs:ram::${account_id}:root` or `acs:ram::${account_id}:user/${user_name}`, such as `acs:ram::1234567890000:root` and `acs:ram::1234567890001:user/Mary`. The `${user_name}` is the name of a RAM user which must exists in the Alicloud account indicated by the `${account_id}`.
- `version` - (Optional, Conflicts with `document`) Version of the RAM role policy document. Valid value is `1`. Default value is `1`.
- `document` - (Optional, Conflicts with `services`, `ram_users` and `version`) Authorization strategy of the RAM role. It is required when the `services` and `ram_users` are not specified.
- `description` - (Optional, Forces new resource) Description of the RAM role. This name can have a string of 1 to 1024 characters.
- `force` - (Optional) This parameter is used for resource destroy. Default value is `false`.

» Attributes Reference

The following attributes are exported:

- `id` - The role ID.
- `name` - The role name.
- `arn` - The role arn.
- `description` - The role description.

- `version` - The role policy document version.
- `document` - Authorization strategy of the role.
- `ram_users` - List of services which can assume the RAM role.
- `services` - List of services which can assume the RAM role.

» Import

RAM role can be imported using the id or name, e.g.

```
$ terraform import alicloud_ram_role.example my-role
```

» alicloud_ram_role_policy_attachment

Provides a RAM Role attachment resource.

» Example Usage

```
# Create a RAM Role Policy attachment.
resource "alicloud_ram_role" "role" {
  name = "test_role"
  ram_users = ["acs:ram::${your_account_id}:root", "acs:ram::${other_account_id}:user/userna
  services = ["apigateway.aliyuncs.com", "ecs.aliyuncs.com"]
  description = "this is a role test."
  force = true
}

resource "alicloud_ram_policy" "policy" {
  name = "test_policy"
  statement = [
          {
            effect = "Allow"
            action = [
              "oss:ListObjects",
              "oss:GetObject"]
            resource = [
              "acs:oss:*:*:mybucket",
              "acs:oss:*:*:mybucket/*"]
          }]
  description = "this is a policy test"
  force = true
}

resource "alicloud_ram_role_policy_attachment" "attach" {
```

```
  policy_name = "${alicloud_ram_policy.policy.name}"
  policy_type = "${alicloud_ram_policy.policy.type}"
  role_name = "${alicloud_ram_role.role.name}"
}
```

» Argument Reference

The following arguments are supported:

- `role_name` - (Required, Forces new resource) Name of the RAM Role. This name can have a string of 1 to 64 characters, must contain only alphanumeric characters or hyphens, such as "-", "_", and must not begin with a hyphen.
- `policy_name` - (Required, Forces new resource) Name of the RAM policy. This name can have a string of 1 to 128 characters, must contain only alphanumeric characters or hyphen "-", and must not begin with a hyphen.
- `policy_type` - (Required, Forces new resource) Type of the RAM policy. It must be `Custom` or `System`.

» Attributes Reference

The following attributes are exported:

- `id` - The attachment ID.
- `role_name` - The role name.
- `policy_name` - The policy name.
- `policy_type` - The policy type.

» alicloud_ram_user

Provides a RAM User resource.

NOTE: When you want to destroy this resource forcefully(means release all the relationships associated with it automatically and then destroy it) without set `force` with `true` at beginning, you need add `force = true` to configuration file and run `terraform plan`, then you can delete resource forcefully.

» Example Usage

```
# Create a new RAM user.
resource "alicloud_ram_user" "user" {
  name = "user_test"
  display_name = "user_display_name"
```

```
  mobile = "86-18688888888"
  email = "hello.uuu@aaa.com"
  comments = "yoyoyo"
  force = true
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Required) Name of the RAM user. This name can have a string of 1 to 64 characters, must contain only alphanumeric characters or hyphens, such as "-","."," _", and must not begin with a hyphen.
- `display_name` - (Optional) Name of the RAM user which for display. This name can have a string of 1 to 12 characters or Chinese characters, must contain only alphanumeric characters or Chinese characters or hyphens, such as "-","."., and must not end with a hyphen.
- `mobile` - (Optional) Phone number of the RAM user. This number must contain an international area code prefix, just look like this: 86-18600008888.
- `email` - (Optional) Email of the RAM user.
- `comments` - (Optional) Comment of the RAM user. This parameter can have a string of 1 to 128 characters.
- `force` - (Optional) This parameter is used for resource destroy. Default value is `false`.

» Attributes Reference

The following attributes are exported:

- `id` - The user ID.
- `name` - The user name.
- `display_name` - The user display name.
- `mobile` - The user phone number.
- `email` - The user email.
- `comments` - The user comments.

» Import

RAM user can be imported using the id or name, e.g.

```
$ terraform import alicloud_ram_user.example user
```

» alicloud_ram_user_policy_attachment

Provides a RAM User Policy attachment resource.

» Example Usage

```
# Create a RAM User Policy attachment.
resource "alicloud_ram_user" "user" {
  name = "user_test"
  display_name = "user_display_name"
  mobile = "86-18688888888"
  email = "hello.uuu@aaa.com"
  comments = "yoyoyo"
  force = true
}

resource "alicloud_ram_policy" "policy" {
  name = "test_policy"
  statement = [
          {
            effect = "Allow"
            action = [
              "oss:ListObjects",
              "oss:GetObject"]
            resource = [
              "acs:oss:*:*:mybucket",
              "acs:oss:*:*:mybucket/*"]
          }]
  description = "this is a policy test"
  force = true
}

resource "alicloud_ram_user_policy_attachment" "attach" {
  policy_name = "${alicloud_ram_policy.policy.name}"
  policy_type = "${alicloud_ram_policy.policy.type}"
  user_name = "${alicloud_ram_user.user.name}"
}
```

» Argument Reference

The following arguments are supported:

- `user_name` - (Required, Forces new resource) Name of the RAM user. This name can have a string of 1 to 64 characters, must contain only

alphanumeric characters or hyphens, such as "-","."," _", and must not begin with a hyphen.
- `policy_name` - (Required, Forces new resource) Name of the RAM policy. This name can have a string of 1 to 128 characters, must contain only alphanumeric characters or hyphen "-", and must not begin with a hyphen.
- `policy_type` - (Required, Forces new resource) Type of the RAM policy. It must be `Custom` or `System`.

» Attributes Reference

The following attributes are exported:

- `id` - The attachment ID.
- `user_name` - The user name.
- `policy_name` - The policy name.
- `policy_type` - The policy type.

» alicloud_ram_role_attachment

Provides a RAM role attachment resource to bind role for several ECS instances.

» Example Usage

```
resource "alicloud_ram_role" "role" {
  name = "test_role"
  services = ["apigateway.aliyuncs.com", "ecs.aliyuncs.com"]
  ram_users = ["acs:ram::${your_account_id}:root", "acs:ram::${other_account_id}:user/userna
  description = "this is a role test."
  force = true
}

resource "alicloud_instance" "instance" {
  instance_name = "test-keypair-${format(var.count_format, count.index+1)}"
  image_id = "ubuntu_140405_64_40G_cloudinit_20161115.vhd"
  instance_type = "ecs.n4.small"
  count = 2
  availability_zone = "${var.availability_zones}"
  ...
}

resource "alicloud_ram_role_attachment" "attach" {
  role_name = "${alicloud_ram_role.role.name}"
  instance_ids = ["${alicloud_instance.instance.*.id}"]
```

```
}
```

» Argument Reference

The following arguments are supported:

- `role_name` - (Required, Forces new resource) The name of role used to bind. This name can have a string of 1 to 64 characters, must contain only alphanumeric characters or hyphens, such as "-", "_", and must not begin with a hyphen.
- `instance_ids` - (Required, Forces new resource) The list of ECS instance's IDs.

» Attributes Reference

The following attributes are exported:

- `role_name` - The name of the role.
- `instance_ids` The list of ECS instance's IDs.

» alicloud_cdn_domain

DEPRECATED: This resource is based on CDN's old version OpenAPI and it has been deprecated from version `1.34.0`. Please use new resource alicloud_cdn_domain_new and its config alicloud_cdn_domain_config instead.

Provides a CDN Accelerated Domain resource.

» Example Usage

```
# Add a CDN Accelerated Domain with configs.
resource "alicloud_cdn_domain" "domain" {
  domain_name = "${your_cdn_domain_name}"
  cdn_type = "web"
  source_type = "domain"
  sources = ["${your_cdn_domain_source1}", "${your_cdn_domain_source2}"]

  // configs
  optimize_enable = "off"
  page_compress_enable = "off"
  range_enable = "off"
  video_seek_enable = "off"
  block_ips = ["1.2.3.4", "111.222.111.111"]
```

```
parameter_filter_config = [
  {
    enable = "on"
    hash_key_args = ["hello", "youyouyou"]
  }]
page_404_config = [
  {
    page_type = "other"
    custom_page_url = "http://${your_cdn_domain_name}/notfound/"
  }]
refer_config = [
  {
    refer_type = "block"
    refer_list = ["www.xxxx.com", "www.xxxx.cn"]
    allow_empty = "off"
  }]
auth_config = [
  {
    auth_type = "type_a"
    master_key = "helloworld1"
    slave_key = "helloworld2"
  }]
http_header_config = [
  {
    header_key = "Content-Type",
    header_value = "text/plain"
  },
  {
    header_key = "Access-Control-Allow-Origin",
    header_value = "*"
  }]
cache_config = [
  {
    cache_content = "/hello/world",
    ttl = 1000
    cache_type = "path"
  },
  {
    cache_content = "/hello/world/youyou",
    ttl = 1000
    cache_type = "path"
  },
  {
    cache_content = "txt,jpg,png",
    ttl = 2000
    cache_type = "suffix"
```

```
    }]
}
```

» Argument Reference

The following arguments are supported:

- `domain_name` - (Required) Name of the accelerated domain. This name without suffix can have a string of 1 to 63 characters, must contain only alphanumeric characters or "-", and must not begin or end with "-", and "-" must not in the 3th and 4th character positions at the same time. Suffix `.sh` and `.tel` are not supported.
- `cdn_type` - (Required) Cdn type of the accelerated domain. Valid values are `web`, `download`, `video`, `liveStream`.
- `source_type` - (Optional) Source type of the accelerated domain. Valid values are `ipaddr`, `domain`, `oss`. You must set this parameter when `cdn_type` value is not `liveStream`.
- `source_port` - (Optional) Source port of the accelerated domain. Valid values are `80` and `443`. Default value is `80`. You must use `80` when the `source_type` is `oss`.
- `sources` - (Optional, Type: list) Sources of the accelerated domain. It's a list of domain names or IP address and consists of at most 20 items. You must set this parameter when `cdn_type` value is not `liveStream`.
- `scope` - (Optional) Scope of the accelerated domain. Valid values are `domestic`, `overseas`, `global`. Default value is `domestic`. This parameter's setting is valid Only for the international users and domestic L3 and above users .

» Domain config

The config supports the following:

- `optimize_enable` - (Optional) Page Optimize config of the accelerated domain. Valid values are `on` and `off`. Default value is `off`. It can effectively remove the page redundant content, reduce the file size and improve the speed of distribution when this parameter value is `on`.
- `page_compress_enable` - (Optional) Page Compress config of the accelerated domain. Valid values are `on` and `off`. Default value is `off`.
- `range_enable` - (Optional) Range Source config of the accelerated domain. Valid values are `on` and `off`. Default value is `off`.
- `video_seek_enable` - (Optional) Video Seek config of the accelerated domain. Valid values are `on` and `off`. Default value is `off`.

» Block parameter_filter_config

parameter_filter_config - (Optional, Type: set) Parameter filter config of the accelerated domain. It's a set and consists of at most one item. * enable - (Optional) This parameter indicates whether or not the parameter_filter_config is enable. Valid values are on and off. Default value is off.
* hash_key_args - (Optional, Type: list) Reserved parameters of parameter_filter_config. It's a list of string and consists of at most 10 items.

» Block page_404_config

page_404_config - (Optional, Type: set) Error Page config of the accelerated domain. It's a set and consists of at most one item. * page_type - (Optional) Page type of the error page. Valid values are default, charity, other. Default value is default. * custom_page_url - (Optional) Custom page url of the error page. It must be the full path under the accelerated domain name. It's value must be http://promotion.alicdn.com/help/oss/error.html when page_type value is charity and It can not be set when page_type value is default.

» Block refer_config

refer_config - (Optional, Type: set) Refer anti-theft chain config of the accelerated domain. It's a set and consists of at most 1 item. * refer_type - (Optional) Refer type of the refer config. Valid values are block and allow. Default value is block. * refer_list - (Required, Type: list) A list of domain names of the refer config. * allow_empty - (Optional) This parameter indicates whether or not to allow empty refer access. Valid values are on and off. Default value is on.

» Block auth_config

auth_config - (Optional, Type: set) Auth config of the accelerated domain. It's a set and consist of at most 1 item. * auth_type - (Optional) Auth type of the auth config. Valid values are no_auth, type_a, type_b and type_c. Default value is no_auth. * master_key - (Optional) Master authentication key of the auth config. This parameter can have a string of 6 to 32 characters and must contain only alphanumeric characters. * slave_key - (Optional) Slave authentication key of the auth config. This parameter can have a string of 6 to 32 characters and must contain only alphanumeric characters. * timeout - (Optional, Type: int) Authentication cache time of the auth config. Default value is 1800. It's value is valid only when the auth_type is type_b or type_c.

» Block certificate_config

certificate_config - (Optional, Type: set) Certificate config of the accelerated domain. It's a set and consist of at most 1 item. * server_certificate_status - (Optional) This parameter indicates whether or not enable https. Valid values are on and off. Default value is on. * server_certificate - (Optional) The SSL server certificate string. This is required if server_certificate_status is on * private_key - (Optional) The SSL private key. This is required if server_certificate_status is on

» Block http_header_config

http_header_config - (Optional, Type: set) Http header config of the accelerated domain. It's a set and consist of at most 8 items. The header_key for each item can not be repeated. * header_key - (Required) Header key of the http header. Valid values are Content-Type, Cache-Control, Content-Disposition, Content-Language Expires, Access-Control-Allow-Origin, Access-Control-Allow-Methods and Access-Control-Max-Age. * header_value - (Required) Header value of the http header.

» Block cache_config

cache_config - (Optional, Type: set) Cache config of the accelerated domain. It's a set and each item's cache_content can not be repeated. * cache_type - (Required) Cache type of the cache config. Valid values are suffix and path. * cache_content - (Required) Cache content of the cache config. It's value is a path string when the cache_type is path. When the cache_type is suffix, it's value is a string which contains multiple file suffixes separated by commas. * ttl - (Required, Type: int) Cache time of the cache config. * weight - (Optional, Type: int) Weight of the cache config. This parameter's value is between 1 and 99. Default value is 1. The higher the value, the higher the priority.

» Attributes Reference

The following attributes are exported:

- domain_name - The accelerated domain name.
- sources - The accelerated domain sources.
- cdn_type - The cdn type of the accelerated domain.
- source_type - The source type ot the accelerated domain.
- scope - The accelerated domain scope.

- `optimize_enable` - The page optimize config of the accelerated domain.
- `page_compress_enable` - The page compress config of the accelerated domain.
- `range_enable` - The range source config of the accelerated domain.
- `video_seek_enable` - The video seek config of the accelerated domain.
- `parameter_filter_config` - The parameter filter config of the accelerated domain.
- `page_404_config` - The error page config of the accelerated domain.
- `refer_config` - The refer config of the accelerated domain.
- `auth_config` - The auth config of the accelerated domain.
- `http_header_config` - The http header configs of the accelerated domain.
- `cache_config` - The cache configs of the accelerated domain.

» alicloud_cdn_domain_new

Provides a CDN Accelerated Domain resource. This resource is based on CDN's new version OpenAPI.

For information about Cdn Domain New and how to use it, see Add a domain.

NOTE: Available in v1.34.0+.

» Example Usage

Basic Usage

```
# Create a new Domain.
resource "alicloud_cdn_domain_new" "domain" {
      domain_name = "terraform.test.com"
      cdn_type = "web"
      scope="overseas"
      sources {
         content = "1.1.1.1"
         type = "ipaddr"
         priority = 20
         port = 80
         weight = 10
      }
}
```

» Argument Reference

The following arguments are supported:

- `domain_name` - (Required) Name of the accelerated domain. This name without suffix can have a string of 1 to 63 characters, must contain only alphanumeric characters or "-", and must not begin or end with "-", and "-" must not in the 3th and 4th character positions at the same time. Suffix `.sh` and `.tel` are not supported.
- `cdn_type` - (Required) Cdn type of the accelerated domain. Valid values are `web`, `download`, `video`.
- `scope` - (Optional) Scope of the accelerated domain. Valid values are `domestic`, `overseas`, `global`. Default value is `domestic`. This parameter's setting is valid Only for the international users and domestic L3 and above users .
- `sources` - (Optional, Type: list) The source address list of the accelerated domain. Defaults to null. See Block Sources.

» Block sources

The `sources` block supports the following:

- `content` - (Required) The adress of source. Valid values can be ip or doaminName. Each item's `content` can not be repeated.
- `type` - (Required) The type of the source. Valid values are `ipaddr`, `domain` and `oss`.
- `port` - (Optional, Type: int) The port of source. Valid values are `443` and `80`. Default value is `80`.
- `priority` - (Optional, Type: int) Priority of the source. Valid values are `0` and `100`. Default value is `20`.
- `weight` - (Optional, Type: int) Weight of the source. Valid values are from `0` to `100`. Default value is `10`, but if type is `ipaddr`, the value can only be `10`.

» Attributes Reference

The following attributes are exported:

- `id` - The cdn domain id. The value is same as the domain name.

» Import

CDN domain can be imported using the id, e.g.

```
terraform import alicloud_cdn_domain_new.example cdn-abc123456
```

» alicloud_cdn_domain_config

Provides a CDN Accelerated Domain resource.

For information about domain config and how to use it, see Batch set config

NOTE: Available in v1.34.0+.

» Example Usage

Basic Usage

```
# Create a new Domain config.
resource "alicloud_cdn_domain_new" "domain" {
      domain_name = "tf-testacc%d.xiaozhu.com"
      cdn_type = "web"
      scope="overseas"
      sources {
         content = "1.1.1.1"
         type = "ipaddr"
         priority = "20"
         port = 80
         weight = "15"
      }
}
resource "alicloud_cdn_domain_config" "config" {
      domain_name = "${alicloud_cdn_domain_new.domain.domain_name}"
      function_name = "ip_allow_list_set"
      function_args {
            arg_name = "ip_list"
            arg_value = "110.110.110.110"
      }
}
```

» Argument Reference

The following arguments are supported:

- `domain_name` - (Required, ForceNew) Name of the accelerated domain. This name without suffix can have a string of 1 to 63 characters, must contain only alphanumeric characters or ”-”, and must not begin or end with ”-”, and ”-” must not in the 3th and 4th character positions at the same time. Suffix `.sh` and `.tel` are not supported.
- `function_name` - (Required, ForceNew) The name of the domain config.
- `function_args` - (Required, ForceNew, Type: list) The args of the domain config.

» Block function_args

The `function_args` block supports the following:

- `arg_name` - (Required) The name of arg.
- `arg_value` - (Required) The value of arg.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the domain config. The value is formate as `<domain_name>:<function_name>`.

» Import

CDN domain config can be imported using the id, e.g.

```
terraform import alicloud_cdn_domain_config.example cdn:config-abc123456
```

» alicloud_kms_key

A kms key can help user to protect data security in the transmission process.

» Example Usage

Basic Usage

```
resource "alicloud_kms_key" "key" {
  description = "Hello KMS"
  deletion_window_in_days = "7"
  is_enabled = true
}
```

» Argument Reference

The following arguments are supported:

- `description` - (Optional) The description of the key as viewed in Alicloud console. Default to "From Terraform".
- `key_usage` - (Optional) Specifies the usage of CMK. Currently, default to 'ENCRYPT/DECRYPT', indicating that CMK is used for encryption and decryption.

- `deletion_window_in_days` - (Optional) Duration in days after which the key is deleted after destruction of the resource, must be between 7 and 30 days. Defaults to 30 days.
- `is_enabled` - (Optional) Specifies whether the key is enabled. Defaults to true.

NOTE: At present, the resource only supports to modify `is_enabled`.

NOTE: When the pre-deletion days elapses, the key is permanently deleted and cannot be recovered.

» Attributes Reference

- `id` - The ID of the key.
- `arn` - The Alicloud Resource Name (ARN) of the key.
- `description` - The description of the key.
- `key_usage` - Specifies the usage of CMK.
- `deletion_window_in_days` - During pre-deletion days.
- `is_enabled` - Whether the key is enabled.

» Import

KMS key can be imported using the id, e.g.

```
$ terraform import alicloud_kms_key.example abc123456
```

» alicloud_ots_instance

This resource will help you to manager a Table Store Instance. It is foundation of creating data table.

» Example Usage

```
# Create an OTS instance
resource "alicloud_ots_instance" "foo" {
  name = "my-ots-instance"
  description = "for table"
  accessed_by = "Vpc"
  tags {
    Created = "TF"
    For = "Building table"
  }
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Required, ForceNew) The name of the instance.
- `accessed_by` - The network limitation of accessing instance. Valid values:
  - `Any` - Allow all network to access the instance.
  - `Vpc` - Only can the attached VPC allow to access the instance.
  - `ConsoleOrVpc` - Allow web console or the attached VPC to access the instance.

  Default to "Any".
- `instance_type` - (ForceNew) The type of instance. Valid values are "Capacity" and "HighPerformance". Default to "HighPerformance".
- `description` - (Optional, ForceNew) The description of the instance. Currently, it does not support modifying.
- `tags` - A mapping of tags to assign to the instance.

» Attributes Reference

The following attributes are exported:

- `id` - The resource ID. The value is same as the "name".
- `name` - The instance name.
- `description` - The instance description.
- `accessed_by` - TThe network limitation of accessing instance.
- `instance_type` - The instance type.
- `tags` - The instance tags.

» Import

OTS instance can be imported using instance id or name, e.g.

```
$ terraform import alicloud_ots_instance.foo "my-ots-instance"
```

» alicloud_ots_instance_attachment

This resource will help you to bind a VPC to an OTS instance.

» Example Usage

```
# Create an OTS instance
resource "alicloud_ots_instance" "foo" {
  name = "my-ots-instance"
  description = "for table"
  accessed_by = "Vpc"
  tags {
    Created = "TF"
    For = "Building table"
  }
}

data "alicloud_zones" "foo" {
  available_resource_creation = "VSwitch"
}
resource "alicloud_vpc" "foo" {
  cidr_block = "172.16.0.0/16"
  name = "for-ots-instance"
}

resource "alicloud_vswitch" "foo" {
  vpc_id = "${alicloud_vpc.foo.id}"
  name = "for-ots-instance"
  cidr_block = "172.16.1.0/24"
  availability_zone = "${data.alicloud_zones.foo.zones.0.id}"
}
resource "alicloud_ots_instance_attachment" "foo" {
  instance_name = "${alicloud_ots_instance.foo.name}"
  vpc_name = "attachment1"
  vswitch_id = "${alicloud_vswitch.foo.id}"
}
```

» Argument Reference

The following arguments are supported:

- `instance_name` - (Required, ForceNew) The name of the OTS instance.
- `vpc_name` - (Required, ForceNew) The name of attaching VPC to instance.
- `vswitch_id` - (Required, ForceNew) The ID of attaching VSwitch to instance.

» Attributes Reference

The following attributes are exported:

- `id` - The resource ID. The value is same as "instance_name".
- `instance_name` - The instance name.
- `vpc_name` - The name of attaching VPC to instance.
- `vswitch_id` - The ID of attaching VSwitch to instance.
- `vpc_id` - The ID of attaching VPC to instance.

» alicloud_ots_table

Provides an OTS table resource.

NOTE: From Provider version 1.10.0, the provider field 'ots_instance_name' has been deprecated and you should use resource alicloud_ots_table's new field 'instance_name' and 'table_name' to re-import this resource.

» Example Usage

```
# Create an OTS table

resource "alicloud_ots_instance" "foo" {
  name = "my-ots"
  description = "ots instance"
  accessed_by = "Any"
  tags {
    Created = "TF"
    For = "acceptance test"
  }
}

resource "alicloud_ots_table" "table" {
  instance_name = "${alicloud_ots_instance.foo.name}"
  table_name = "ots-table"
  primary_key = [
    {
      name = "${var.primary_key_1_name}"
      type = "${var.primary_key_integer_type}"
    },
    {
      name = "${var.primary_key_2_name}"
      type = "${var.primary_key_integer_type}"
    },
```

```
    {
      name = "${var.primary_key_3_name}"
      type = "${var.primary_key_integer_type}"
    },
    {
      name = "${var.primary_key_4_name}"
      type = "${var.primary_key_string_type}"
    },
  ]
  time_to_live = "${var.time_to_live}"
  max_version = "${var.max_version}"
}
```

» Argument Reference

The following arguments are supported:

- `instance_name` - (Required, ForceNew) The name of the OTS instance in which table will located.
- `table_name` - (Required, ForceNew) The table name of the OTS instance. If changed, a new table would be created.
- `primary_key` - (Required, Type: List) The property of `TableMeta` which indicates the structure information of a table. It describes the attribute value of primary key. The number of `primary_key` should not be less than one and not be more than four.
  - `name` - (Required) Name for primary key.
  - `type` - (Required, Type: list) Type for primary key. Only `Integer`, `String` or `Binary` is allowed.
- `time_to_live` - (Required) The retention time of data stored in this table (unit: second). The value maximum is 2147483647 and -1 means never expired.
- `max_version` - (Required) The maximum number of versions stored in this table. The valid value is 1-2147483647.

» Attributes Reference

The following attributes are exported:

- `id` - The resource ID. The value is `<instance_name>:<table_name>`.
- `instance_name` - The OTS instance name.
- `table_name` - The table name of the OTS which could not be changed.
- `primary_key` - The property of `TableMeta` which indicates the structure information of a table.
- `time_to_live` - The retention time of data stored in this table.
- `max_version` - The maximum number of versions stored in this table.

» Import

OTS table can be imported using id, e.g.

```
$ terraform import alicloud_ots_table.table "my-ots:ots_table"
```

» alicloud_pvtz_zone

Provides a Private Zone resource.

NOTE: Terraform will auto Create a Private Zone while it uses `alicloud_pvtz_zone` to build a Private Zone resource.

» Example Usage

Basic Usage

```
resource "alicloud_pvtz_zone" "foo" {
    name = "foo.test.com"
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Required, Forces new resource) The name of the Private Zone.
- `remark` - (Optional) The remark of the Private Zone.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the Private Zone.
- `record_count` - The count of the Private Zone Record.

» Import

Private Zone can be imported using the id, e.g.

```
$ terraform import alicloud_pvtz_zone.example abc123456
```

» alicloud_pvtz_zone_attachment

Provides vpcs bound to Alicloud Private Zone resource.

NOTE: Terraform will auto bind vpc to a Private Zone while it uses `alicloud_pvtz_zone_attachment` to build a Private Zone and VPC binding resource.

» Example Usage

Basic Usage

```
resource "alicloud_pvtz_zone" "zone" {
    name = "foo.test.com"
}

resource "alicloud_vpc" "vpc" {
    name = "tf_test_foo"
    cidr_block = "172.16.0.0/12"
}

resource "alicloud_pvtz_zone_attachment" "zone-attachment" {
    zone_id = "${alicloud_pvtz_zone.zone.id}"
    vpc_ids = ["${alicloud_vpc.vpc.id}"]
}
```

» Argument Reference

The following arguments are supported:

- `zone_id` - (Required, Forces new resource) The name of the Private Zone Record.
- `vpc_ids` - (Required) The id List of the VPC, for example:["vpc-1","vpc-2"].

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the Private Zone VPC Attachment.

» alicloud_pvtz_zone_record

Provides a Private Zone Record resource.

NOTE: Terraform will auto Create a Private Zone Record while it uses `alicloud_pvtz_zone_record` to build a Private Zone Record resource.

» Example Usage

Basic Usage

```
resource "alicloud_pvtz_zone" "zone" {
    name = "foo.test.com"
}

resource "alicloud_pvtz_zone_record" "foo" {
    zone_id = "${alicloud_pvtz_zone.zone.id}"
    resource_record = "www"
    type = "CNAME"
    value = "bbb.test.com"
    ttl="60
}
```

» Argument Reference

The following arguments are supported:

- `zone_id` - (Required, Forces new resource) The name of the Private Zone Record.
- `resource_record` - (Required, Forces new resource) The resource record of the Private Zone Record.
- `type` - (Required) The type of the Private Zone Record. Valid values: A, CNAME, TXT, MX, PTR.
- `value` - (Required) The value of the Private Zone Record.
- `ttl` - (Optional) The ttl of the Private Zone Record.
- `priority` - (Optional) The priority of the Private Zone Record. At present, only can "MX" record support it. Valid values: [1-50]. Default to 1.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the Private Zone Record.

» Import

Private Zone Record can be imported using the id, e.g.

```
$ terraform import alicloud_pvtz_zone_record.example abc123456
```

» alicloud_mns_queue

Provides a MNS queue resource.

NOTE: Terraform will auto build a mns queue while it uses `alicloud_mns_queue` to build a mns queue resource.

» Example Usage

Basic Usage

```
resource "alicloud_mns_queue" "queue"{
    name="tf-example-mnsqueue"
    delay_seconds=0
    maximum_message_size=65536
    message_retention_period=345600
    visibility_timeout=30
    polling_wait_seconds=0
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Required, Forces new resource)Two queues on a single account in the same region cannot have the same name. A queue name must start with an English letter or a digit, and can contain English letters, digits, and hyphens, with the length not exceeding 256 characters .
- `delay_seconds` - (Optional)This attribute defines the length of time, in seconds, after which every message sent to the queue is dequeued. Valid value range: 0-604800 seconds, i.e., 0 to 7 days. Default value to 0.
- `maximum_message_size` - (Optional)This indicates the maximum length, in bytes, of any message body sent to the queue. Valid value range: 1024-65536, i.e., 1K to 64K. Default value to 65536.
- `message_retention_period` - (Optional) Messages are deleted from the queue after a specified length of time, whether they have been activated or not. This attribute defines the viability period, in seconds, for every

message in the queue. Valid value range: 60-604800 seconds, i.e., 1 minutes to 7 days. Default value to 345600.
- `visibility_timeout` - (Optional) The VisibilityTimeout attribute of the queue. A dequeued messages will change from active (visible) status to inactive (invisible) status, and this attribute defines the length of time, in seconds, that messages remain invisible. Messages return to active status after the set period. Valid value range: 1-43200 seconds, i.e., 1 seconds to 12 hours. Default value to 30.
- `polling_wait_seconds` - (Optional) Long polling is measured in seconds. When this attribute is set to 0, long polling is disabled. When it is not set to 0, long polling is enabled and message dequeue requests will be processed only when valid messages are received or when long polling times out. Valid value range: 0-30 seconds. Default value to 0.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the queue is equal to name.

» Import

MNS QUEUE can be imported using the id or name, e.g.

```
$ terraform import alicloud_mns_queue.queue queuename
```

» alicloud_mns_topic

Provides a MNS topic resource.

NOTE: Terraform will auto build a mns topic while it uses `alicloud_mns_topic` to build a mns topic resource.

» Example Usage

Basic Usage

```
resource "alicloud_mns_topic" "topic"{
    name="tf-example-mnstopic"
    maximum_message_size=65536
    logging_enabled=false
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Required, Forces new resource)Two topics on a single account in the same region cannot have the same name. A topic name must start with an English letter or a digit, and can contain English letters, digits, and hyphens, with the length not exceeding 256 characters.
- `maximum_message_size` - (Optional)This indicates the maximum length, in bytes, of any message body sent to the topic. Valid value range: 1024-65536, i.e., 1K to 64K. Default value to 65536.
- `logging_enabled` - (Optional) Is logging enabled? true or false. Default value to false.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the topic is equal to name.

» Import

MNS Topic can be imported using the id or name, e.g.

```
$ terraform import alicloud_mns_topic.topic topicName
```

» alicloud_mns_topic_subscription

Provides a MNS topic subscription resource.

NOTE: Terraform will auto build a mns topic subscription while it uses `alicloud_mns_topic_subscription` to build a mns topic subscription resource.

» Example Usage

Basic Usage

```
resource "alicloud_mns_topic" "topic"{
    name="tf-example-mnstopic"
    maximum_message_size=65536
    logging_enabled=false
}
```

```
resource "alicloud_mns_topic_subscription" "subscription"{
    topic_name="tf-example-mnstopic"
    name="tf-example-mnstopic-sub"
    filter_tag="test"
    endpoint="http://www.xxx.com/xxx"
    notify_strategy="BACKOFF_RETRY"
    notify_content_format="XML"
}
```

» Argument Reference

The following arguments are supported:

- `topic_name`- (Required, ForceNew) The topic which The subscription belongs to was named with the name.A topic name must start with an English letter or a digit, and can contain English letters, digits, and hyphens, with the length not exceeding 256 characters.
- `name` - (Required, ForceNew) Two topics subscription on a single account in the same topic cannot have the same name. A topic subscription name must start with an English letter or a digit, and can contain English letters, digits, and hyphens, with the length not exceeding 256 characters.
- `notify_strategy` - (Optional) The NotifyStrategy attribute of Subscription. This attribute specifies the retry strategy when message sending fails. the attribute has two value EXPONENTIAL_DECAY_RETR or BACKOFF_RETRY. Default value to BACKOFF_RETRY .
- `notify_content_format` - (Optional, ForceNew) The NotifyContentFormat attribute of Subscription. This attribute specifies the content format of the messages pushed to users. the attribute has two value SIMPLIFIED or XML.Default value to SIMPLIFIED .
- `endpoint` - (Required, ForceNew) The endpoint has three format. Available values format:
  - HTTP Format: http://xxx.com/xxx
  - Queue Format: acs:mns:{REGION}:{AccountID}:queues/{QueueName}
  - Email Format: mail:directmail:{MailAddress}
- `filter_tag` - (Optional, ForceNew) The length should be shorter than 16.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the topic subscription.Format to topic_name:name

» Import

MNS Topic subscription can be imported using the id, e.g.

```
$ terraform import alicloud_mns_topic_subscription.subscription tf-example-mnstopic:tf-examp
```

» alicloud_api_gateway_api

Provides an api resource.When you create an API, you must enter the basic information about the API, and define the API request information, the API backend service and response information.

For information about Api Gateway Api and how to use it, see Create an API

NOTE: Terraform will auto build api while it uses `alicloud_api_gateway_api` to build api.

» Example Usage

Basic Usage

```
resource "alicloud_api_gateway_api" "apiGatewayApi" {
  name        = "terraformapi"
  group_id    = "${alicloud_api_gateway_group.apiGatewayGroup.id}"
  description = "description"
  auth_type   = "APP"

  request_config = {
    protocol = "HTTP"
    method   = "GET"
    path     = "/test/path1"
    mode     = "MAPPING"
  }

  service_type = "HTTP"

  http_service_config = {
    address   = "http://apigateway-backend.alicloudapi.com:8080"
    method    = "GET"
    path      = "/web/cloudapi"
    timeout   = 12
    aone_name = "cloudapi-openapi"
  }

  request_parameters = [
```

```
    {
      name         = "aaa"
      type         = "STRING"
      required     = "OPTIONAL"
      in           = "QUERY"
      in_service   = "QUERY"
      name_service = "testparams"
    },
  ]

  stage_names = [
    "RELEASE",
    "TEST",
  ]
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Required) The name of the api gateway api. Defaults to null.
- `group_id` - (Required, ForcesNew) The api gateway that the api belongs to. Defaults to null.
- `description` - (Required) The description of the api. Defaults to null.
- `auth_type` - (Required) The authorization Type including APP and ANONYMOUS. Defaults to null.
- `request_config` - (Required, Type: list) Request_config defines how users can send requests to your API.
- `service_type` - (Required) The type of backend service. Type including HTTP,VPC and MOCK. Defaults to null.
- `http_service_config` - (Optional, Type: list) http_service_config defines the config when service_type selected 'HTTP'.
- `http_vpc_service_config` - (Optional, Type: list) http_vpc_service_config defines the config when service_type selected 'HTTP-VPC'.
- `fc_service_config` - (Optional, Type: list) fc_service_config defines the config when service_type selected 'FunctionCompute'.
- `mock_service_config` - (Optional, Type: list) http_service_config defines the config when service_type selected 'MOCK'.
- `request_parameters` - (Required, Type: list) request_parameters defines the request parameters of the api.
- `constant_parameters` - (Required, Type: list) constant_parameters defines the constant parameters of the api.
- `system_parameters` - (Required, Type: list) system_parameters defines the system parameters of the api.
- `stage_names` - (Optional, Type: list) Stages that the api need to be de-

ployed. Valid value: RELEASE | PRE | TEST.

» Block request_config

The request_config mapping supports the following:

- `protocol` - (Required) The protocol of api which supports values of 'HTTP','HTTPS' or 'HTTP,HTTPS'
- `method` - (Required) The method of the api, including 'GET','POST','PUT' and etc..
- `path` - (Required) The request path of the api.
- `mode` - (Required) The mode of the parameters between request parameters and service parameters, which support the values of 'MAPPING' and 'PASSTHROUGH'
- `body_format` - (Optional) The body format of the api, which support the values of 'STREAM' and 'FORM'

» Block http_service_config

The http_service_config mapping supports the following:

- `address` - (Required) The address of backend service.
- `path` - (Required) The path of backend service.
- `method` - (Required) The http method of backend service.
- `timeout` - (Optional) Backend service time-out time; unit: millisecond.

» Block http_vpc_service_config

The http_vpc_service_config mapping supports the following:

- `name` - (Required) The name of vpc instance.
- `path` - (Required) The path of backend service.
- `method` - (Required) The http method of backend service.
- `timeout` - (Optional) Backend service time-out time; unit: millisecond.

» Block fc_vpc_service_config

The fc_service_config mapping supports the following:

- `region` - (Required) The region that the function compute service belongs to.
- `function_name` - (Required) The function name of function compute service.
- `service_name` - (Required) The service name of function compute service.

- `arn_role` - (Required) RAM role arn attached to the Function Compute service. This governs both who / what can invoke your Function, as well as what resources our Function has access to. See User Permissions for more details.
- `timeout` - (Required) Backend service time-out time; unit: millisecond.

» Block mock_service_config

The mock_service_config mapping supports the following:

- `result` - (Required) The result of the mock service.

» Block request_parameters

The request_parameters mapping supports the following:

- `name` - (Required) Request's parameter name.
- `type` - (Required) Parameter type which supports values of 'STRING','INT','BOOLEAN','LONG',"FLOA and "DOUBLE"
- `required` - (Required) Parameter required or not; values: REQUIRED and OPTIONAL.
- `in` - (Required) Request's parameter location; values: BODY, HEAD, QUERY, and PATH.
- `in_service` - (Required) Backend service's parameter location; values: BODY, HEAD, QUERY, and PATH.
- `name_service` - (Required) Backend service's parameter name.
- `description` - (Optional) The description of parameter.
- `default_value` - (Optional) The default value of the parameter.

» Block constant_parameters

The constant_parameters mapping supports the following:

- `name` - (Required) Constant parameter name.
- `in` - (Required) Constant parameter location; values: 'HEAD' and 'QUERY'.
- `value` - (Required) Constant parameter value.
- `description` - (Optional) The description of Constant parameter.

» Block system_parameters

The system_parameters mapping supports the following:

- `name` - (Required) System parameter name which supports values including in system parameter list

- `in` - (Required) System parameter location; values: 'HEAD' and 'QUERY'.
- `name_service` - (Required) Backend service's parameter name.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the api resource of api gateway.
- `api_id` - The ID of the api of api gateway.

» Import

Api gateway api can be imported using the id.Format to `<API Group Id>:<API Id>` e.g.

```
$ terraform import alicloud_api_gateway_api.example "ab2351f2ce904edaa8d92a0510832b91:e4f728
```

» alicloud_api_gateway_group

Provides an api group resource.To create an API, you must firstly create a group which is a basic attribute of the API.

For information about Api Gateway Group and how to use it, see Create An Api Group

NOTE: Terraform will auto build api group while it uses `alicloud_api_gateway_group` to build api group.

» Example Usage

Basic Usage

```
resource "alicloud_api_gateway_group" "apiGroup" {
  name = "ApiGatewayGroup"
  description = "description of the api group"
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Required, ForcesNew) The name of the api gateway group. Defaults to null.

- `description` - (Required, ForcesNew) The description of the api gateway group. Defaults to null.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the api group of api gateway.

» Import

Api gateway group can be imported using the id, e.g.

```
$ terraform import alicloud_api_gateway_group.example "ab2351f2ce904edaa8d92a0510832b91"
```

» alicloud_api_gateway_app

Provides an app resource.It must create an app before calling a third-party API because the app is the identity used to call the third-party API.

For information about Api Gateway App and how to use it, see Create An APP

NOTE: Terraform will auto build api app while it uses `alicloud_api_gateway_app` to build api app.

» Example Usage

Basic Usage

```
resource "alicloud_api_gateway_app" "apiTest" {
  name = "ApiGatewayAPp"
  description = "description of the app"
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Required) The name of the app. Defaults to null.
- `description` - (Required) The description of the app. Defaults to null.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the app of api gateway.

» Import

Api gateway app can be imported using the id, e.g.

```
$ terraform import alicloud_api_gateway_app.example "7379660"
```

» alicloud_api_gateway_app

Provides an vpc authorization resource.This authorizes the API gateway to access your VPC instances.

For information about Api Gateway vpc and how to use it, see Set Vpc Access

NOTE: Terraform will auto build vpc authorization while it uses `alicloud_api_gateway_vpc_access` to build vpc.

» Example Usage

Basic Usage

```
resource "alicloud_api_gateway_vpc_access" "foo" {
  name = "ApiGatewayVpc"
  vpc_id = "vpc-awkcj192ka9zalz"
  instance_id= "i-kai2ks92kzkw92ka"
  port = 8080
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Required ForceNew) The name of the vpc authorization.
- `vpc_id` - (Required ForceNew) The vpc id of the vpc authorization.
- `instance_id` - (Required ForceNew) ID of the instance in VPC (ECS/Server Load Balance).
- `port` - (Required ForceNew) ID of the port corresponding to the instance.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the vpc authorization of api gateway.

» Import

Api gateway app can be imported using the id, e.g.

```
$ terraform import alicloud_api_gateway_vpc_access.example "APiGatewayVpc:vpc-aswcj19ajsz:i-
```

» alicloud_api_gateway_app_attachment

Provides an app attachment resource.It is used for authorizing a specific api to an app accessing.

For information about Api Gateway App attachment and how to use it, see Add specified API access authorities

NOTE: Terraform will auto build app attachment while it uses `alicloud_api_gateway_app_attachment` to build.

» Example Usage

Basic Usage

```
resource "alicloud_api_gateway_app_attachment" "foo" {
  api_id = "d29d25b9cfdf4742b1a3f6537299a749"
  group_id = "aaef8cdbb404420f9398a74ed1db7fff"
  app_id = "20898181"
  stage_name = "PRE"
}
```

» Argument Reference

The following arguments are supported:

- `api_id` - (Required ForceNew) The api_id that app apply to access.
- `group_id` - (Required ForceNew) The group that the api belongs to.
- `app_id` - (Required ForceNew) The app that apply to the authorization.
- `stage_name` - (Required ForceNew) Stage that the app apply to access.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the app attachment of api gateway., formatted as `<group_id>:<api_id>:<app_id>:<stage_name>`.

» alicloud_datahub_project

The project is the basic unit of resource management in Datahub Service and is used to isolate and control resources. It contains a set of Topics. You can manage the datahub sources of an application by using projects. Refer to details.

NOTE: Currently Datahub service only can be supported in the regions: cn-beijing, cn-hangzhou, cn-shanghai, cn-shenzhen, ap-southeast-1.

» Example Usage

Basic Usage

```
resource "alicloud_datahub_project" "example" {
  name = "tf_datahub_project"
  comment = "created by terraform"
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Required, ForceNew) The name of the datahub project. Its length is limited to 3-32 and only characters such as letters, digits and '_' are allowed. It is case-insensitive.
- `comment` - (Optional) Comment of the datahub project. It cannot be longer than 255 characters.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the datahub project. It is the same as its name.
- `create_time` - Create time of the datahub project. It is a human-readable string rather than 64-bits UTC.

- `last_modify_time` - Last modify time of the datahub project. It is the same as *create_time* at the beginning. It is also a human-readable string rather than 64-bits UTC.

» Import

Datahub project can be imported using the *name* or ID, e.g.

```
$ terraform import alicloud_datahub_project.example tf_datahub_project
```

» alicloud_datahub_topic

The topic is the basic unit of Datahub data source and is used to define one kind of data or stream. It contains a set of subscriptions. You can manage the datahub source of an application by using topics. Refer to details.

» Example Usage

Basic Usage

- BLob Topic

```
resource "alicloud_datahub_topic" "example" {
  name = "tf_datahub_topic"
  project_name = "tf_datahub_project"
  record_type = "BLOB"
  shard_count = 3
  life_cycle = 7
  comment = "created by terraform"
}
```

- Tuple Topic

```
resource "alicloud_datahub_topic" "example" {
  name = "tf_datahub_topic"
  project_name = "tf_datahub_project"
  record_type = "TUPLE"
  record_schema = {
    bigint_field = "BIGINT"
    timestamp_field = "TIMESTAMP"
    string_field = "STRING"
    double_field = "DOUBLE"
    boolean_field = "BOOLEAN"
  }
  shard_count = 3
```

```
  life_cycle = 7
  comment = "created by terraform"
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Required, ForceNew) The name of the datahub topic. Its length is limited to 1-128 and only characters such as letters, digits and '_' are allowed. It is case-insensitive.
- `project_name` - (Required, ForceNew) The name of the datahub project that this topic belongs to. It is case-insensitive.
- `shard_count` - (Optional) The number of shards this topic contains. The permitted range of values is [1, 10]. The default value is 1.
- `life_cycle` - (Optional) How many days this topic lives. The permitted range of values is [1, 7]. The default value is 3.
- `record_type` - (Optional) The type of this topic. Its value must be one of {BLOB, TUPLE}. For BLOB topic, data will be organized as binary and encoded by BASE64. For TUPLE topic, data has fixed schema. The default value is "TUPLE" with a schema {STRING}.
- `record_schema` - (Optional) Schema of this topic, required only for TUPLE topic. Supported data types (case-insensitive) are:
  - BIGINT
  - STRING
  - BOOLEAN
  - DOUBLE
  - TIMESTAMP
- `comment` - (Optional) Comment of the datahub topic. It cannot be longer than 255 characters.

Notes: Currently `life_cycle` can not be modified and it will be supported in the next future.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the datahub topic. It was composed of project name and its name, and formats to `<project_name>:<name>`.
- `create_time` - Create time of the datahub topic. It is a human-readable string rather than 64-bits UTC.
- `last_modify_time` - Last modify time of the datahub topic. It is the same as *create_time* at the beginning. It is also a human-readable string rather than 64-bits UTC.

» Import

Datahub topic can be imported using the ID, e.g.

```
$ terraform import alicloud_datahub_topic.example tf_datahub_project:tf_datahub_topic
```

» alicloud_datahub_subscription

The subscription is the basic unit of resource usage in Datahub Service under Publish/Subscribe model. You can manage the relationships between user and topics by using subscriptions. Refer to details.

» Example Usage

Basic Usage

```
resource "alicloud_datahub_subscription" "example" {
  project_name = "tf_datahub_project"
  topic_name = "tf_datahub_topic"
  comment = "created by terraform"
}
```

» Argument Reference

The following arguments are supported:

- `project_name` - (Required, ForceNew) The name of the datahub project that the subscription belongs to. Its length is limited to 3-32 and only characters such as letters, digits and '_' are allowed. It is case-insensitive.
- `topic_name` - (Required, ForceNew) The name of the datahub topic that the subscription belongs to. Its length is limited to 1-128 and only characters such as letters, digits and '_' are allowed. It is case-insensitive.
- `comment` - (Optional) Comment of the datahub subscription. It cannot be longer than 255 characters.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the datahub subscritpion as terraform resource. It was composed of project name, topic name and practical subscription ID generated from server side. Format to `<project_name>:<topic_name>:<sub_id>`.
- `sub_id` - The identidy of the subscritpion, generate from server side.

- `create_time` - Create time of the datahub subscription. It is a human-readable string rather than 64-bits UTC.
- `last_modify_time` - Last modify time of the datahub subscription. It is the same as *create_time* at the beginning. It is also a human-readable string rather than 64-bits UTC.

» Import

Datahub subscription can be imported using the ID, e.g.

```
$ terraform import alicloud_datahub_subscription.example tf_datahub_project:tf_datahub_topic
```

» alicloud_elasticsearch_instance

Provides a Elasticsearch instance resource. It contains data nodes, dedicated master node(optional) and etc. It can be associated with private IP whitelists and kibana IP whitelist.

NOTE: Only one operation is supported in a request. So if `data_node_spec` and `data_node_disk_size` are both changed, system will respond error.

» Example Usage

Basic Usage

```
resource "alicloud_elasticsearch_instance" "instance" {
  instance_charge_type = "PostPaid"
  data_node_amount     = "2"
  data_node_spec       = "elasticsearch.sn2ne.large"
  data_node_disk_size  = "20"
  data_node_disk_type  = "cloud_ssd"
  vswitch_id           = "some vswitch id"
  password             = "Your password"
  version              = "5.5.3_with_X-Pack"
  description          = "description"
}
```

» Argument Reference

The following arguments are supported:

- `description` - (Optional) The description of instance. It a string of 0 to 30 characters.

- `instance_charge_type` - (Required) Valid values are `PrePaid`, `PostPaid`, Default to `PostPaid`.
- `period` - (Optional) The duration that you will buy Elasticsearch instance (in month). It is valid when instance_charge_type is `PrePaid`. Valid values: [1~9], 12, 24, 36. Default to 1.
- `data_node_amount` - (Required) The Elasticsearch cluster's data node quantity, between 2 and 50.
- `data_node_spec` - (Required) The data node specifications of the Elasticsearch instance.
- `data_node_disk_size` - (Required) The single data node storage space.
  - `cloud_ssd`: An SSD disk, supports a maximum of 2048 GiB (2 TB).
  - `cloud_efficiency` An ultra disk, supports a maximum of 5120 GiB (5 TB). If the data to be stored is larger than 2048 GiB, an ultra disk can only support the following data sizes (GiB): [`2560`, `3072`, `3584`, `4096`, `4608`, `5120`].
- `data_node_disk_type` - (Required) The data node disk type. Supported values: cloud_ssd, cloud_efficiency.
- `vswitch_id` - (Required) The ID of VSwitch.
- `password` - (Required) The password of the instance. The password can be 8 to 32 characters in length and must contain three of the following conditions: uppercase letters, lowercase letters, numbers, and special characters (!@#$%^&*()_+-=).
- `version` - (Required) Elasticsearch version. Supported values: 5.5.3_with_X-Pack and 6.3_with_X-Pack.
- `private_whitelist` - (Optional) Set the instance's IP whitelist in VPC network.
- `kibana_whitelist` - (Optional) Set the Kibana's IP whitelist in internet network.
- `master_node_spec` - (Optional) The dedicated master node spec. If specified, dedicated master node will be created.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the Elasticsearch instance.
- `domain` - Instance connection domain (only VPC network access supported).
- `port` - Instance connection port.
- `kibana_domain` - Kibana console domain (Internet access supported).
- `kibana_port` - Kibana console port.
- `status` - The Elasticsearch instance status. Includes `active`, `activating`, `inactive`. Some operations are denied when status is not `active`.

» Import

Elasticsearch can be imported using the id, e.g.

```
$ terraform import alicloud_elasticsearch.example es-cn-abcde123456
```

» alicloud_nas_file_system

Provides a Nas File System resource.

After activating NAS, you can create a file system and purchase a storage package for it in the NAS console. The NAS console also enables you to view the file system details and remove unnecessary file systems.

For information about NAS file system and how to use it, see Manage file systems

NOTE: Available in v1.33.0+.

» Example Usage

Basic Usage

```
resource "alicloud_nas_file_system" "foo" {
  protocol_type = "NFS"
  storage_type = "Performance"
  description = "tf-testAccNasConfig"

}
```

» Argument Reference

The following arguments are supported:

- `protocol_type` - (Required, ForceNew) The Protocol Type of a File System. Valid values: `NFS` and `SMB`.
- `storage_type` - (Required, ForceNew) The Storage Type of a File System. Valid values: `Capacity` and `Performance`.
- `description` - (Optional) The File System description.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the File System.

» Import

Nas File System can be imported using the id, e.g.

```
$ terraform import alicloud_nas_file_system.default 1337849c59
```

» alicloud_nas_access_group

Provides a Nas Access Group resource.

In NAS, the permission group acts as a whitelist that allows you to restrict file system access. You can allow specified IP addresses or CIDR blocks to access the file system, and assign different levels of access permission to different IP addresses or CIDR blocks by adding rules to the permission group.

NOTE: Available in v1.33.0+.

» Example Usage

Basic Usage

```
resource "alicloud_nas_access_group" "foo" {
    name = "CreateAccessGroup"
    type = "Classic"
    description = "test_AccessG"

}
```

» Argument Reference

The following arguments are supported:

- `name` - (Required, ForceNew) A Name of one Access Group.
- `type` - (Required, ForceNew) A Type of one Access Group. Valid values: `Vpc` and `Classic`.
- `description` - (Optional) The Access Group description.

» Attributes Reference

The following attributes are exported:

- `id` - The ID of the Access Group.

» Import

Nas Access Group can be imported using the id, e.g.

```
$ terraform import alicloud_nas_access_group.default tf_testAccNasConfig
```

» alicloud_nas_access_rule

Provides a Nas Access Rule resource.

When NAS is activated, the Default VPC Permission Group is automatically generated. It allows all IP addresses in a VPC to access the mount point with full permissions. Full permissions include Read/Write permission with no restriction on root users.

NOTE: Available in v1.34.0+.

» Example Usage

Basic Usage

```
resource "alicloud_nas_access_rule" "foo" {
    access_group_name = "CreateAccessGroup"
    source_cidr_ip = "168.1.1.0/16"
    rw_access_type = "RDWR"
    user_access_type = "no_squash"
    priority = "1"
}
```

» Argument Reference

The following arguments are supported:

- `access_group_name` - (Required, ForceNew) Permission group name.
- `source_cidr_ip` - (Required, ForceNew) Address or address segment.
- `rw_access_type` - (Optional) Read-write permission type: RDWR (default), RDONLY.
- `user_access_type` - (Optional) User permission type: no_squash (default), root_squash, all_squash.
- `priority` - (Optional) Priority level. Range: 1-100. Default value: 1.

» Attributes Reference

The following attributes are exported:

- `id` - This ID of this resource. The value is formate as `<access_group_name>:<access rule id>`.

» Import

Nas Access Rule can be imported using the id, e.g.

```
$ terraform import alicloud_nas_access_rule.example tf-testAccNasConfigName:1
```

» alicloud_nas_mount_target

Provides a Nas Mount Target resource.

NOTE: Available in v1.34.0+.

NOTE: Currently this resource support create a mount point in a classic network only when current region is China mainland regions.

NOTE: You must grant NAS with specific RAM permissions when creating a classic mount targets, and it only can be achieved by creating a classic mount target mannually. See Add a mount point and Why do I need RAM permissions to create a mount point in a classic network.

» Example Usage

Basic Usage

```
resource "alicloud_nas_mount_target" "foo" {
  file_system_id = "192094b415"
  access_group_name = "tf-testAccNasConfigName"
  vswitch_id = "vsw-13dee3331d"
}
```

» Argument Reference

The following arguments are supported:

- `file_system_id` - (Required, ForceNew) File system ID.
- `access_group_name` - (Required) Permission group name.
- `vswitch_id` - (Optional, ForceNew) VSwitch ID.
- `status` - (Optional) Whether the MountTarget is active. An inactive MountTarget is inusable. Valid values are Active(default) and Inactive.

» Attributes Reference

The following attributes are exported:

- `id` - This ID of this resource. The value is a mount target domain.

» Import

Nas MountTarget can be imported using the id, e.g.

```
$ terraform import alicloud_nas_mount_target.example 192094b415-luw38.cn-beijing.nas.aliyunc
```

» alicloud_actiontrail

Provides a new resource to manage Action Trail.

NOTE: Available in 1.35.0+

» Example Usage

```
# Create a new action trail.
resource "alicloud_actiontrail" "foo" {
    name = "action-trail"
    event_rw = "Write-test"
    oss_bucket_name = "${alicloud_oss_bucket.bucket.id}"
    role_name = "${alicloud_ram_role_policy_attachment.attach.role_name}"
    oss_key_prefix = "at-product-account-audit-B"
}
```

» Argument Reference

The following arguments are supported:

- `name` - (Required, ForceNew) The name of the trail to be created, which must be unique for an account.
- `event_rw` - (Optional) Indicates whether the event is a read or a write event. Valid values: Read, Write, and All. Default value: Write.
- `oss_bucket_name` - (Required) The OSS bucket to which the trail delivers logs. Ensure that this is an existing OSS bucket.
- `role_name` - (Required) The RAM role in ActionTrail permitted by the user.
- `oss_key_prefix` - (Optional) The prefix of the specified OSS bucket name. This parameter can be left empty.

- `sls_project_arn` - (Optional) The unique ARN of the Log Service project.
- `sls_write_role_arn` - (Optional) The unique ARN of the Log Service role.

» Attributes Reference

The following attributes are exported:

- `id` - The action trail id. The value is same as its name.

» Import

Action trail can be imported using the id, e.g.

```
$ terraform import alicloud_actiontrail.foo abc12345678
```