» alicloud_regions

The Regions data source allows access to the list of Alicloud Regions.

» Example Usage

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

» Argument Reference

The following arguments are supported:

- `name` - (Optional) The full name of the region to select.
- `current` - (Optional) Set to true to match only the region configured in the provider.
- `output_file` - (Optional) The name of file that can save regions data source after running `terraform plan`.

» Attributes Reference

A list of regions will be exported and its every element contains the following attributes:

- `id` - ID of the region.
- `local_name` - Name of the region in the local language.

» alicloud_instance_types

The Instance Types data source list the ecs_instance_types of Alicloud.

NOTE: Default to provide upgraded instance types. If you want to get outdated instance types, you should set `is_outdated` to true.

» Example Usage

```
# Declare the data source
data "alicloud_instance_types" "1c2g" {
  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.1c2g.instance_types.0.id}"

  # Other properties...
}
```

» Argument Reference

The following arguments are supported:

- `availability_zone` - (Optional) The Zone that supports available instance types.
- `cpu_core_count` - (Optional) Limit search to specific cpu core count.
- `memory_size` - (Optional) Limit search to specific memory size.
- `instance_type_family` - (Optional) Allows to filter list of Instance Types based on their family name, for example 'ecs.n4'.
- `is_outdated` - (Optional) Whether to export outdated instance types. Default to false.
- `output_file` - (Optional) The name of file that can save instance types data source after running `terraform plan`.

» Attributes Reference

A list of instance types will be exported and its every 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.

» alicloud_images

The Images data source list image resource list contains private images of the user and images of system resources provided by Alicloud, as well as other public images and those available on the image market.

» Example Usage

```
data "alicloud_images" "multi_image" {
```

```
    owners = "system"
    name_regex = "^centos_6"
}
```

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string to apply to the image list returned by Alicloud.
- `most_recent` - (Optional) If more than one result is returned, use the most recent image.
- `owners` - (Optional) Limit search to specific image owners. Valid items are `system`, `self`, `others`, `marketplace`.
- `output_file` - (Optional) The name of file that can save images data source after running `terraform plan`.

» Attributes Reference

A list of images will be exported and its every element contains the following attributes:

- `id` - ID of the image.
- `architecture` - Platform type of the image system:i386 | 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, with possible values: `UnAvailable`, `Available`, `Creating` or `CreateFailed`.
- `size` - Size of the image.
- `disk_device_mappings` - Description of the system with disks and snapshots under an 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

The Zones data source allows access to the list of Alicloud Zones which can be accessed by an Alicloud account within the region configured in the provider.

» Example Usage

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

# Create ecs instance with the first matched zone

resource "alicloud_instance" "instance" {
  availability_zone = "${data.alicloud_zones.default.zones.0.id}"

  # Other properties...
}
```

» Argument Reference

The following arguments are supported:

- `available_instance_type` - (Optional) Limit search to specific instance type.
- `available_resource_creation` - (Optional) Limit search to specific resource type. The following values are allowed `Instance`, `Disk`, `VSwitch` and `Rds`.
- `available_disk_category` - (Optional) Limit search to specific disk category. Can be either `cloud`, `cloud_efficiency`, `cloud_ssd`.
- `multi` - (Optional) Whether to retrieve multiple availability. Default to `false`. Multiple zone usually is used to launch RDS.
- `output_file` - (Optional) The name of file that can save zones data source after running `terraform plan`.

NOTE: Available disk category `cloud` has been outdated and it only can be used none I/O Optimized ECS instances. So many available zones haven't support it. Recommend `cloud_efficiency` and `cloud_ssd`.

» Attributes Reference

A list of zones will be exported and its every element contains the following attributes:

- `id` - ID of the zone.
- `local_name` - Name of the zone in the local language.
- `available_instance_types` - Instance types allowed.
- `available_resource_creation` - Type of resource that can be created.
- `available_disk_categories` - Set of supported disk categories.

» alicloud_key_pairs

The Key Pairs data source provides a list of Alicloud Key Pairs in an Alicloud account according to the specified filters.

» Example Usage

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

# Bind a key pair for several ecs instances using the first matched key pair

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

» Argument Reference

The following arguments are supported:

- `name_regex` - A regex string to apply to the key pair list returned by Alicloud.
- `finger_print` - A finger print used to retrieve specified key pair.
- `output_file` - (Optional) The name of file that can save key pairs data source after running `terraform plan`.

» Attributes Reference

A list of key pairs will be exported and its every 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 a specified key pair.
  - `availability_zone` - The ID of availability zone that ECS instance launched.
  - `instance_id` - The ID of ECS instance.
  - `instance_name` - The name of ECS instance.
  - `vswitch_id` - The ID of VSwitch that ECS instance launched.
  - `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

The KMS keys data source provides a list of Alicloud KMS keys in an Alicloud account according to the specified filters.

» Example Usage

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

» Argument Reference

The following arguments are supported:

- `ids` - (Optional) A list of KMS key ID.
- `description_regex` - (Optional) A regex string of the KMS key description.
- `status` - (Optional) The status of KMS key. Valid values: "Enabled", "Disabled", "PendingDeletion". Default to nil to get all keys.
- `output_file` - (Optional) The name of file that can save KMS keys data source after running `terraform plan`.

» Attributes Reference

A list of KMS keys will be exported and its every element contains the following attributes:

- `id` - ID of the key.
- `arn` - The Alicloud Resource Name (ARN) of the key.
- `description` - Description of the key.
- `status` - Status of the key, with possible values: "Enabled", "Disabled", "PendingDeletion".
- `creation_date` - Creation date of key.
- `delete_date` - Delete date of key.
- `creator` - The createor to key belongs.

» alicloud_instances

The Instances data source list ECS instance resource accoring to its ID, name regex, image id, status and other fields.

» Example Usage

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

» Argument Reference

The following arguments are supported:

- `ids` - (Optional) A list of ECS instance ID.
- `name_regex` - (Optional) A regex string to apply to the instance list returned by Alicloud.
- `image_id` - (Optional) The image ID of some ECS instance used.
- `status` - (Optional) List specified status instances. Valid values: "Creating", "Starting", "Running", "Stopping" and "Stopped". Default to list all status.
- `vpc_id` - (Optional) List several instances in the specified VPC.
- `vswitch_id` - (Optional) List several instances in the specified VSwitch.
- `availability_zone` - (Optional) List several instances in the specified availability zone.
- `tags` - (Optional) A mapping of tags marked ECS instanes.

- `output_file` - (Optional) The name of file that can save instances data source after running `terraform plan`.

» Attributes Reference

The following argument are exported:

- `instances` A list of instnaces. It contains several attributes to `Block Instances`.

» Block Instances

Attributes for instanes:

- `id` - ID of the instance.
- `region_id` - Region Id the instance belongs.
- `availability_zone` - Availability zone the instance belongs.
- `status` - Instance current status.
- `name` - Instance name.
- `description` - Instance description.
- `instance_type` - Instance type.
- `vpc_id` - VPC ID the instance belongs.
- `vswitch_id` - VSwitch ID the instance belongs.
- `image_id` - Image id the instance used.
- `private_ip` - Instance private IP address.
- `public_ip` - Instance public IP address.
- `eip` - EIP address the VPC instance used.
- `security_groups` - List security group ID the instance belongs.
- `key_name` - Key pair the instance used.
- `creation_time` - Instance creation time.
- `instance_charge_type` - Instance charge type.
- `internet_charge_type` - Instance network charge type.
- `internet_max_bandwidth_out` - Instance internet out max bandwidth
- `spot_strategy` - Spot strategy the instance used.
- `disk_device_mappings` - Description of the disk the instance attached.
  - `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 mapping of tags marked ECS instanes.

» alicloud_vpcs

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

» Example Usage

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

» Argument Reference

The following arguments are supported:

- `cidr_block` - (Optional) Limit search to specific cidr block,like "172.16.0.0/12".
- `status` - (Optional) Limit search to specific status - valid value is "Pending" or "Available".
- `name_regex` - (Optional) A regex string of VPC name.
- `is_default` - (Optional) Whether the VPC is the default VPC in the specified region - valid value is true or false.
- `vswitch_id` - (Optional) Retrieving VPC according to the specified VSwitch.
- `output_file` - (Optional) The name of file that can save vpcs data source after running `terraform plan`.

» Attributes Reference

The following attributes are exported:

- `id` - ID of the VPC.
- `region_id` - ID of the region where VPC belongs.
- `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 belonging region.

- `creation_time` - Time of creation.

» alicloud_vswitches

The Virtual sunbet data source lists a list of vswitches resource information owned by an Alicloud account, and each vswitch including its basic attribution, VPC ID and containing ECS instance IDs.

» Example Usage

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

resource "alicloud_instance" "foo" {
    ...
    instance_name =  "in-the-vpc"
    vswitch_id = "${data.alicloud_vswitches.subnets.vswitches.0.id}"
    ...
}
```

» Argument Reference

The following arguments are supported:

- `cidr_block` - (Optional) Limit search to specific cidr block,like "172.16.0.0/12".
- `zone_id` - (Optional) The availability zone for one vswitch.
- `name_regex` - (Optional) A regex string of VSwitch name.
- `is_default` - (Optional) Whether the Vswitch is created by system - valid value is true or false.
- `vpc_id` - (Optional) VPC ID in which vswitch belongs.
- `output_file` - (Optional) The name of file that can save vswitches data source after running `terraform plan`.

» Attributes Reference

The following attributes are exported:

- `vswitches` A list of vswitches. It contains several attributes to `Block VSwitches`.

» Block VSwitches

Attributes for vswitches:

- `id` - ID of the VSwitch.
- `zone_id` - ID of the availability zone where VSwitch belongs.
- `vpc_id` - ID of the VPC where VSwitch belongs.
- `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 VSwitch in the belonging region.
- `creation_time` - Time of creation.

» alicloud_eips

The elastic ip address data source lists a list of eips resource information owned by an Alicloud account, and each EIP including its basic attribution and association instance.

» Example Usage

```
data "alicloud_eips" "eips"{
    cidr_block="172.16.0.0/12"
    name_regex="^foo"
}

resource "alicloud_instance" "foo" {
    ...
    instance_name =  "in-the-eip"
    vswitch_id = "vsw-abc123456"
    ...
}

resource "alicloud_eip_association" "asso" {
    instance_id = "${alicloud_instance.foo.id}"
    allocation_id = "${data.alicloud_eips.eips.eips.0.id}"
}
```

» Argument Reference

The following arguments are supported:

- `ids` - (Optional) A list of EIP allocation ID.
- `ip_addresses` - (Optional) A list of EIP ip address ID.
- `in_use` - (Deprecated) It has been deprecated from provider version 1.8.0.
- `output_file` - (Optional) The name of file that can save eips data source after running `terraform plan`.

» Attributes Reference

The following attributes are exported:

- `eips` A list of eips. It contains several attributes to `Block EIPs`.

» Block EIPs

Attributes for eips:

- `id` - ID of the EIP.
- `status` - EIP status.
- `ip_address` - Address of the the EIP.
- `bandwidth` - EIP internat max bandwidth.
- `internet_charge_type` - EIP internet charge type.
- `instance_id` - ID of the instance with which EIP association.
- `instance_id` - Type of the instance with which EIP association.
- `creation_time` - Time of creation.

» alicloud_security_groups

The Security Groups data source provides a list of Security Groups in an Alicloud account according to the specified filters.

» Example Usage

```
# Filter security groups and output to a file

data "alicloud_security_groups" "web" {
  name_regex  = "^web-"
  output_file = "web_access.json"
}

# in conjunction with vpc

resource "alicloud_vpc" "primary" {
  ...
```

```
}

data "alicloud_security_groups" "primary_groups" {
  vpc_id = "${alicloud_vpc.primary.id}"
}
```

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string to apply to the security groups list returned by Alicloud.
- `vpc_id` - (Optional) Used to retrieve security groups belong to specified VPC ID.
- `output_file` - (Optional) The name of file that can save security groups data source after running `terraform plan`.

» Attributes Reference

A list of security groups will be exported and its every 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.
- `inner_access` - Whether to allow inner network access.
- `creation_time` - Creation time of the security group.

» 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 variable or filtered by another data source `alicloud_security_groups`.

» Example Usage

The following example shows how to obtain details of the security group rule and passing the data to the instance at launch. “‘hcl

» accept a security group id as a variable

variable ”security_group_id” {}

» or filter using data source

» note the filter must select only one specific group

data ”alicloud_security_groups” ”api” { name_regex = ”api” }

» filter the rule

data ”alicloud_security_group_rules” ”ingress” { id = ”${alicloud_security_groups.api.0.id}” # or ${var.security_group_id} 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.0.port_range}” } “‘

» Argument Reference

The following arguments are supported:

- `group_id` - (Required) The id of security group wich 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, `ingress` or `egress`.
- `ip_protocol` - (Optional) The protocol. Can be `tcp`, `udp`, `icmp`, `gre` or `all`.
- `policy` - (Optional) Authorization policy. Can be either `accept` or `drop`. The default value is `accept`.
- `output_file` - (Optional) The name of file that can save security group rules after running `terraform plan`.

» Attributes Reference

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

- `group_name` - The name of the security group which owns the rules.
- `group_desc` - The description of the security group which owns the rules.
- `rules` - A list of security group rules. Its every 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_dns_domain_groups

NOTE: This datasource has been deprecated from v1.3.2. New datasource `alicloud_dns_groups` will replace.

» alicloud_dns_domain_records

NOTE: This resource has been deprecated from v1.3.2. New datasource `alicloud_dns_records` will replace.

» alicloud_dns_groups

The Dns Domain Groups data source provides a list of Alicloud Dns Domain Groups in an Alicloud account according to the specified filters.

» Example Usage

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

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string to apply to the group list returned by Alicloud.
- `output_file` - (Optional) The name of file that can save groups data source after running `terraform plan`.

» Attributes Reference

A list of groups will be exported and its every element contains the following attributes:

- `group_id` - Id of the group .
- `group_name` - Name of the group .

» alicloud_dns_records

The Dns Domain Records data source provides a list of Alicloud Dns Domain Records in an Alicloud account according to the specified filters.

» Example Usage

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

» Argument Reference

The following arguments are supported:

- `domain_name` - (Required) A domain name which is the necessary parameter for the records query.
- `host_record_regex` - (Optional) Limit search to provide host record regex.
- `value_regex` - (Optional) Limit search to provide host record value regex.
- `type` - (Optional) Limit search to specific record type. Valid items are `A`, `NS`, `MX`, `TXT`, `CNAME`, `SRV`, `AAAA`, `REDIRECT_URL`, `FORWORD_URL` .
- `line` - (Optional) Limit search to specific parsing line. Valid items are `default`, `telecom`, `unicom`, `mobile`, `oversea`, `edu`.
- `status` - (Optional) Limit search to specific record status. Valid items are `ENABLE` and `DISABLE`.
- `is_locked` - (Optional, type: bool) Limit search to specific record lock status.
- `output_file` - (Optional) The name of file that can save records data source after running `terraform plan`.

» Attributes Reference

A list of records will be exported and its every element contains the following attributes:

- `record_id` - ID of the record.
- `domain_name` - Name of the domain which the record belong to.
- `host_record` - Host record of the record.
- `value` - Host record value of the record.
- `type` - Type of the record.
- `ttl` - TTL of the record.
- `priority` - Priority of the `MX` record.
- `line` - Parsing line of the record.
- `status` - Status of the record.
- `locked` - Indicates whether the record is locked.

» alicloud_dns_domains

The Dns Domains data source provides a list of Alicloud Dns Domains in an Alicloud account according to the specified filters.

» Example Usage

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

» Argument Reference

The following arguments are supported:

- `domain_name_regex` - (Optional) A regex string to apply to the domain list returned by Alicloud.
- `group_name_regex` - (Optional) Limit search to provide group name regex.
- `ali_domain` - (Optional, type: bool) Limit search to specific whether it is Alicloud domain.
- `instance_id` - (Optional) Limit search to specific cloud analysis product ID.
- `version_code` - (Optional) Limit search to specific cloud analysis version code.
- `output_file` - (Optional) The name of file that can save domains data source after running `terraform plan`.

» Attributes Reference

A list of domains will be exported and its every element contains the following attributes:

- `domain_id` - ID of the domain.
- `domain_name` - Name of the domain.
- `ali_domain` - Indicates whether the domain is Alicloud domain.
- `group_id` - Id of group which the domain in.
- `group_name` - Name of group which the domain in.
- `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

The Ram Account Alias data source provides an alias for the Alicloud account.

» Example Usage

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

» Argument Reference

The following arguments are supported:

- `output_file` - (Optional) The name of file that can save alias data source after running `terraform plan`.

» Attributes Reference

- `account_alias` - Alias of the account.

» alicloud_ram_account_alias

NOTE: This datasource has been deprecated from v1.3.2. New datasource `alicloud_ram_account_aliases` will replace.

» alicloud_ram_groups

The Ram Groups data source provides a list of Alicloud Ram Groups in an Alicloud account according to the specified filters.

» Example Usage

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

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string to apply to the group list returned by Alicloud.
- `user_name` - (Optional) Limit search to specific the user name. Found the groups for the specified user.
- `policy_type` - (Optional) Limit search to specific the policy type. Valid items are `Custom` and `System`. If you set this parameter, you must set `policy_name` at one time.
- `policy_name` - (Optional) Limit search to specific the policy name. If you set this parameter without set `policy_type`, we will specified it as `System`. Found the groups which attached with the specified policy.
- `output_file` - (Optional) The name of file that can save groups data source after running `terraform plan`.

» Attributes Reference

A list of groups will be exported and its every element contains the following attributes:

- `name` - Name of the group.
- `comments` - Comments of the group.

» alicloud_ram_policies

The Ram Policies data source provides a list of Alicloud Ram Policies in an Alicloud account according to the specified filters.

» Example Usage

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

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string to apply to the policy list returned by Alicloud.

- `type` - (Optional) Limit search to specific the policy type. Valid items are `Custom` and `System`.
- `user_name` - (Optional) Limit search to specific the user name. Found the policies which attached with the specified user.
- `group_name` - (Optional) Limit search to specific the group name. Found the policies which attached with the specified group.
- `role_name` - (Optional) Limit search to specific the role name. Found the policies which attached with the specified role.
- `output_file` - (Optional) The name of file that can save policies data source after running `terraform plan`.

» Attributes Reference

A list of policies will be exported and its every 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` - Create 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

The Ram Roles data source provides a list of Alicloud Ram Roles in an Alicloud account according to the specified filters.

» Example Usage

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

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string to apply to the role list returned by Alicloud.
- `policy_type` - (Optional) Limit search to specific the policy type. Valid items are `Custom` and `System`. If you set this parameter, you must set `policy_name` at one time.
- `policy_name` - (Optional) Limit search to specific the policy name. If you set this parameter without set `policy_type`, we will specified it as `System`. Found the roles which attached with the specified policy.
- `output_file` - (Optional) The name of file that can save roles data source after running `terraform plan`.

» Attributes Reference

A list of roles will be exported and its every 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` - Create date of the role.
- `update_date` - Update date of the role.

» alicloud_ram_users

The Ram Users data source provides a list of Alicloud Ram Users in an Alicloud account according to the specified filters.

» Example Usage

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

» Argument Reference

The following arguments are supported:

- `name_regex` - (Optional) A regex string to apply to the user list returned by Alicloud.
- `group_name` - (Optional) Limit search to specific the group name. Found the users which in the specified group.
- `policy_type` - (Optional) Limit search to specific the policy type. Valid items are `Custom` and `System`. If you set this parameter, you must set `policy_name` at one time.
- `policy_name` - (Optional) Limit search to specific the policy name. If you set this parameter without set `policy_type`, we will specified it as `System`. Found the users which attached with the specified policy.
- `output_file` - (Optional) The name of file that can save users data source after running `terraform plan`.

» Attributes Reference

A list of users will be exported and its every element contains the following attributes:

- `id` - Id of the user.
- `name` - Name of the user.
- `create_date` - Create date of the user.
- `last_login_date` - Last login date of the user.

» 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, and it value range: 20 ~ 32768.
- `snapshot_id` - (Optional) A snapshot to base the disk off of. If it is specified, `size` will be invalid and the disk size is equals to the snapshot size.
- `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 Spot Instance from version 1.5.4.

» 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, value range: 40GB ~ 500GB. Default is 40GB. 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 "_".
- `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. If you want to create instances in VPC network, this parameter must be set.
- `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 set as `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"
- `tags` - (Optional) A mapping of tags to assign to the resource.
- `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.
- `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.

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.
- `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. 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.

» 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.

» Example Usage

```
# Create a new EIP.
resource "alicloud_eip" "example" {
```

```
  bandwidth            = "10"
  internet_charge_type = "PayByBandwidth"
}
```

» Argument Reference

The following arguments are supported:

- `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, Forces new resource) Internet charge type of the EIP, Valid values are `PayByBandwidth`, `PayByTraffic`. Default is `PayByBandwidth`. From version `1.7.1`, default to `PayByTraffic`.

» 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` - (Optional, Forces new resource) The allocation EIP ID.
- `instance_id` - (Optional, Forces new resource) 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.

» 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.

» Attributes Reference

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

» 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 ":", like "lb-hr2fwnf32t:8080".

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

» 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".
- `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 speci-

fied and it valid values are: ”slb.s1.small”, ”slb.s2.small”, ”slb.s2.medium”, ”slb.s3.small”, ”slb.s3.medium” and ”slb.s3.large”.

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    = "${alicloud_slb.default.id}"
  instances = ["${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.

» 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_listener" "http" {
  load_balancer_id = "${alicloud_slb.instance.id}"
  backend_port = 80
  frontend_port = 80
  bandwidth = 10
  protocol = "http"
  sticky_session = "on"
  sticky_session_type = "insert"
  cookie = "testslblistenercookie"
  cookie_timeout = 86400
}
resource "alicloud_slb_listener" "tcp" {
  load_balancer_id = "${alicloud_slb.instance.id}"
  backend_port = "22"
  frontend_port = "22"
  protocol = "tcp"
  bandwidth = "10"
  health_check_type = "tcp"
}
```

» 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.

» 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	
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	

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` - 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_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 value is `Instance` and `RouterInterface`. `Instance` points to ECS Instance.
- `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_nat_gateway

Provides a resource to create a VPC NAT Gateway.

NOTE: From version 1.7.1, the resource deprecates bandwidth packages. And if you want to add public IP, you can use resource 'alicloud_eip_association' to bind several elastic IPs for one 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.

» 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` - (Deprecated) It has been deprecated from provider version 1.7.1. Resource 'alicloud_eip_association' can bind several elastic IPs for one Nat Gateway.

» 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 to connect two VPCs by connecting the router interfaces .

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.

» 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. At present, optional value: `cn-beijing`, `cn-hangzhou`, `cn-shanghai`, `cn-shenzhen`, `cn-hongkong`, `ap-southeast-1`, `us-east-1`, `us-west-1`.
- `router_type` - (Required, Forces New) Router Type. Optional value: VRouter, VBR.
- `opposite_router_type` - (Optional, Force New) Peer router type. Optional value: `VRouter`, `VBR`. Default to `VRouter`.
- `router_id` - (Required, Force New) Router ID. When `router_type` is VBR, the VBR specified by the `router_id` must be in the access point specified by `access_point_id`.

- `opposite_router_id` - (Optional) Peer router ID. When `opposite_router_type` is VBR, the `opposite_router_id` must be in the access point specified by `opposite_access_point_id`.
- `role` - (Required, Force New) The role the router interface plays. Optional value: `InitiatingSide`, `AcceptingSide`.
- `specification` - (Optional) Specification of router interfaces. If `role` is `AcceptingSide`, the value can be ignore or must be `Negative`. For more about the specification, refer to Router interface specification.
- `access_point_id` - (Optional, Force New) Access point ID. Required when `router_type` is `VBR`. Prohibited when `router_type` is `VRouter`.
- `opposite_access_point_id` - (Optional, Force New) Access point ID of peer side. Required when `opposite_router_type` is `VBR`. Prohibited when `opposite_router_type` is `VRouter`.
- `opposite_interface_id` - (Optional) Peer router interface ID.
- `opposite_interface_owner_id` - (Optional) Peer account ID. Log on to the Alibaba Cloud console, select User Info > Account Management to check your account ID.
- `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 `VRouter` and `opposite_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 `VRouter` and `opposite_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.

NOTE: * If `router_type` is `VBR`, the `role` must be `InitiatingSide` and `opposite_router_type` must be `VRouter`. * If `opposite_router_type` is `VBR`, the `role` must be `AcceptingSide` and `router_type` must be `VRouter`.

» 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` - Access point of the opposite router interface.
- `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.

» 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_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.

» Attributes Reference

The following attributes are exported:

- `id` - The current account resource ID. Composed of instance ID and account name with format ":".
- `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` - 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 ":".
- `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_database

Provides an RDS database resource. A DB database deployed in a DB instance. A DB instance can own multiple databases.

NOTE: At present, it does not support creating 'PostgreSQL' and '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] (included in 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` - 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

```
resource "alicloud_db_instance" "default" {
    engine = "MySQL"
    engine_version = "5.6"
    db_instance_class = "rds.mysql.t1.small"
    db_instance_storage = "10"
}
```

» 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:
  - 5.5/5.6/5.7 for MySQL
  - 2008r2/2012 for SQLServer
  - 9.4 for PostgreSQL
  - 9.3 for PPAS
- `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.
- `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.

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.
- `instance_charge_type` - The instance charge type.
- `period` - The DB instance using duration.
- `engine` - Database type.
- `engine_version` - The database engine version.
- `db_instance_class` - (Deprecated from version 1.5.0)
- `instance_type` - The RDS instance type.
- `db_instance_storage` - (Deprecated from version 1.5.0)
- `instance_storage` - The RDS instance storage space.
- `instance_name` - The name of DB instance.
- `port` - RDS database connection port.
- `connection_string` - RDS database connection string.
- `zone_id` - The zone ID of the RDS instance.
- `db_instance_net_type` - (Deprecated from version 1.5.0).
- `instance_network_type` - (Deprecated from version 1.5.0).
- `db_mappings` - - (Deprecated from version 1.5.0).
- `preferred_backup_period` - (Deprecated from version 1.5.0).
- `preferred_backup_time` - (Deprecated from version 1.5.0).
- `backup_retention_period` - (Deprecated from version 1.5.0).
- `security_ips` - Security ips of instance whitelist.
- `connections` - (Deprecated from version 1.5.0).
- `vswitch_id` - If the rds instance created in VPC, then this value is virtual switch ID.
- `master_user_name` - (Deprecated from version 1.5.0).
- `preferred_backup_period` - (Deprecated from version 1.5.0).
- `preferred_backup_time` - (Deprecated from version 1.5.0).
- `backup_retention_period` - (Deprecated from version 1.5.0).

» Import

RDS instance can be imported using the id, e.g.

```
$ terraform import alicloud_db_instance.example rm-abc12345678
```

» 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, 100].
- `max_size` - (Required) Maximum number of ECS instances in the scaling group. Value range: [0, 100].
- `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 failed.
  - 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.

» 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`.
- `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.

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.

» 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_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".
- `core_rule` - (Optional) A rule of Cross-Origin Resource Sharing (documented below). The items of core rule are no more than 10 for every OSS bucket.
- `website` - (Optional) A website object(documented below).
- `logging` - (Optional) A Settings of bucket logging (documented below).
- `logging_isenable` - (Optional) The flag of using logging enable container. Defaults true.
- `referer_config` - (Optional) The configuration of referer (documented below).
- `lifecycle_rule` - (Optional) A configuration of object lifecycle management (documented below).

» Block core_rule

The core_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` - 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.

» 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_id`, 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.

» Example Usage

Basic Usage

```
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_type = "ecs.n4.small"
  worker_instance_type = "ecs.n4.small"
  worker_number = 3
  password = "Test12345"
  pod_cidr = "192.168.1.0/24"
  service_cidr = "192.168.2.0/24"
  enable_ssh = true
  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` - (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.
- `new_nat_gateway` - (Force new resource) Whether to create a new nat gateway while creating kubernetes cluster. Default to true.
- `master_instance_type` - (Required, Force new resource) The instance type of master node.
- `worker_instance_type` - (Required, Force new resource) The instance type of worker node.
- `worker_number` - The worker node number of the kubernetes cluster. Its valid value range [1~50]. Default to 3.
- `password` - (Required, Force new resource) The password of ssh login cluster node.
- `pod_cidr` - (Required, Force new resource) The CIDR block for the pod 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. 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.
- `enable_ssh` - (Force new resource) Whether to allow to SSH login kubernetes. Default to false.
- `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.
- `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.

» 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.
- `worker_number` The ECS instance node number in the current container cluster.
- `vswitch_id` - The ID of VSwitch 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` - 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` - The instance type of master node.
- `worker_instance_type` - 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.
- `nodes` - List of cluster nodes. It contains several attributes to `Block Nodes`.
- `connections` - Map of kubernetes cluster connection information. It contains several attributes to `Block Connections`.

» Block Nodes

- `id` - ID of the node.
- `name` - Node name.
- `private_ip` - The private IP address of node.
- `role` - Node role. ”Master” or ”Worker”

» 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_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`,`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_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

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`.
- `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.
- `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`.
- `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`.

- `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`.

- `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.

- `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_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
```