» 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 If you want to get outdated instance types, you should set <code>is_outdated</code> to true.

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

» Example Usage

```
# Declare the data source
data "alicloud_instance_types" "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...
}
```

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'.
- instance_charge_type (Optional) According to ECS instance charge type to filter all results. Valid values: PrePaid and PostPaid. Default to PostPaid.
- network_type (Optional) According to network type to filter all results. Valid values: Classic and Vpc.
- spot_strategy - (Optional) According to ECS spot type to filter all results. Valid values: NoSpot, SpotWithPriceLimit and SpotAsPriceGo. Default to NoSpot.
- is_outdated (Optional) Whether to export outdated instance types.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.

- availability_zones List of availability zones which support the instance types.
- gpu The GPU attribution of an instance type:
 - amount The amount of GPU of an instance type.
 - category The category of GPU of an instance type.
- burstable_instance The burstable instance's attribution:
 - initial_credit The initial CPU credit of a burstable instance
 - baseline_credit The compute performance benchmark CPU credit of a burstable instance
- eni_amount The maximum number of network interface that an instance type can be attached to.
- local_storage Local storage of an instance type:
 - capacity The capacity of a local storage
 - amount The number of local storages that an instance has been attached to
 - category The category of local storage that an instance has been attached to

» 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

- 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.

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.

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

» 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...
}
```

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.
- instance_charge_type (Optional) According to ECS instance charge type to filter all availability zones. Valid values: PrePaid and PostPaid. Default to PostPaid.
- network_type (Optional) According to network type to filter all availability zones. Valid values: Classic and Vpc.
- spot_strategy - (Optional) According to ECS spot type to filter all availability zones. Valid values: NoSpot, SpotWithPriceLimit and SpotAsPriceGo. Default to NoSpot.
- 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 according 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 instances.
- output_file (Optional) The name of file that can save instances data source after running terraform plan.

» Attributes Reference

 instances A list of instances. 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 instances.

» 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"
}
```

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.0.id}"
}
```

» Argument Reference

- 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.

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}"
}
```

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.

```
# 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" {
```

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_db_instances

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

» Example Usage

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

» Argument Reference

- name_regex (Optional) A regex string to apply to the instance name.
- engine (Optional) Database type. Options are MySQL, SQLServer, PostgreSQL and PPAS. If no value is specified, all types are returned.

- status (Optional) Status of the instance.
- db_type (Optional) Primary for primary instance, ReadOnly for readonly instance, Guard for disaster recovery instance, and Temp for temporary instance.
- vpc_id (Optional) Used to retrieve instances belong to specified VPC.
- vswitch_id (Optional) Used to retrieve instances belong to specified vswitch resources.
- connection_mode (Optional) Standard for standard access mode and Safe for high security access mode.
- tags (Optional) Query the instance bound to the tag. The format of the incoming value is json string, including TagKey and TagValue. TagKey cannot be null, and TagValue can be empty. Format example {"key1":"value1"}.
- output_file (Optional) The name of file that can save the collection of instances after running terraform plan.

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

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

- guard_instance_id If a disaster recovery instance is attached to the current instance, the ID of the disaster recovery instance applies.
- temp_instance_id If a temporary instance is attached to the current instance, the ID of the temporary instance applies.
- readonly_instance_ids A list of the ID's of read-only instances attached to the primary instance.
- vpc_id VPC ID the instance belongs to.
- vswitch_id VSwitch ID the instance belongs to.

» 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

- 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.

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

- 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.

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

- 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.

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

- 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 \sim 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_disk" "ecs_disk" {
 availability_zone = "cn-beijing-a"
                   = "50"
 size
 tags {
   Name = "TerraformTest-disk"
}
resource "alicloud_instance" "ecs_instance" {
                    = "ubuntu_140405_64_40G_cloudinit_20161115.vhd"
  image_id
                     = "ecs.n4.small"
 instance_type
 availability_zone = "cn-beijing-a"
 security_groups
                     = ["${alicloud_security_group.ecs_sg.id}"]
 instance name
                       = "Hello"
 instance_network_type = "classic"
 internet_charge_type = "PayByBandwidth"
   Name = "TerraformTest-instance"
}
resource "alicloud_disk_attachment" "ecs_disk_att" {
            = "${alicloud_disk.ecs_disk.id}"
 instance_id = "${alicloud_instance.ecs_instance.id}"
```

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" {
             = "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
                  = "ecs.n4.large"
  instance_type
  system_disk_category = "cloud_efficiency"
                     = "ubuntu_140405_64_40G_cloudinit_20161115.vhd"
  image_id
                      = "test_foo"
  instance_name
  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}"
}
```

- 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 "_". When it is changed, the instance will reboot to make the change take effect.
- password (Optional) Password to an instance is a string of 8 to 30 characters. It must contain uppercase/lowercase letters and numerals, but cannot contain special symbols. When it is changed, the instance will reboot to make the change take effect.
- vswitch_id (Optional) The virtual switch ID to launch in VPC. 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 PrePaid. Default to 1. Valid values:
 - [1-9, 12, 24, 36, 48, 60] when period_unit in "Month"
 - [1-3] when period_unit in "Week"
- renewal_status (Optional) Whether to renew an ECS instance automatically or not. It is valid when instance_charge_type is PrePaid.
 Default to "Normal". Valid values:
 - AutoRenewal: Enable auto renewal.
 - Normal: Disable auto renewal.
 - NotRenewal: No renewal any longer. After you specify this value,
 Alibaba Cloud stop sending notification of instance expiry, and only gives a brief reminder on the third day before the instance expiry.
- auto_renew_period (Optional) Auto renewal period of an instance, in the unit of month. It is valid when instance_charge_type is PrePaid. Default to 1. Valid value:
 - -[1, 2, 3, 6, 12] when period_unit in "Month"
 - [1, 2, 3] when period_unit in "Week"
- tags (Optional) A mapping of tags to assign to the resource.
- 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 instance, its public IP cannot be release once it allocated, even though its bandwidth out is 0). However, at present, 'PrePaid' instance cannot narrow its max bandwidth out when its 'internet_charge_type' is "PayByBandwidth".

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

» Attributes Reference

The following attributes are exported:

- id The instance ID.
- availability_zone The Zone to start the instance in.
- instance_name The instance name.
- host_name The instance host name.
- description The instance description.
- status The instance status.
- image id The instance Image Id.
- instance type The instance type.

- private_ip The instance private ip.
- public_ip The instance public ip.
- vswitch_id If the instance created in VPC, then this value is virtual switch ID.
- tags The instance tags, use jsonencode(item) to display the value.
- key_name The name of key pair that has been bound in ECS instance.
- role_name The name of RAM role that has been bound in ECS instance.
- user_data The hash value of the user data.
- period The ECS instance using duration.
- period_unit The ECS instance using duration unit.
- renewal_status The ECS instance automatically renew status.
- auto_renew_period Auto renewal period of an instance.
- $\bullet\,$ 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

```
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"
}
```

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" {
                    = "ingress"
                    = "tcp"
  ip protocol
 nic_type
                   = "internet"
                    = "accept"
 policy
                    = "1/65535"
 port_range
 priority
                    = 1
 security_group_id = "${alicloud_security_group.default.id}"
                   = "0.0.0.0/0"
  cidr_ip
}
```

» Argument Reference

- 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
- 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

- 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" {
                  = "${alicloud_vpc.vpc.id}"
 vpc_id
 cidr_block
                   = "10.1.1.0/24"
 availability_zone = "cn-beijing-a"
 depends_on = [
    "alicloud_vpc.vpc",
 ]
}
resource "alicloud_instance" "ecs_instance" {
                     = "ubuntu 140405 64 40G cloudinit 20161115.vhd"
                     = "ecs.n4.small"
 instance_type
                    = "cn-beijing-a"
 availability_zone
                       = ["${alicloud_security_group.group.id}"]
 security_groups
                      = "${alicloud_vswitch.vsw.id}"
 vswitch_id
                     = "hello"
  instance_name
 instance_network_type = "vpc"
 tags {
   Name = "TerraformTest-instance"
}
resource "alicloud_eip" "eip" {}
resource "alicloud_eip_association" "eip_asso" {
  allocation_id = "${alicloud_eip.eip.id}"
  instance_id = "${alicloud_instance.ecs_instance.id}"
}
resource "alicloud_security_group" "group" {
            = "terraform-test-group"
 description = "New security group"
 vpc_id
            = "${alicloud_vpc.vpc.id}"
}
```

- 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

- 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.

```
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.

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 specified and it valid values are: "slb.s1.small", "slb.s2.small", "slb.s2.medium", "slb.s3.small", "slb.s3.medium" and "slb.s3.large".

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.

```
# 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}"]
}
```

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.

```
}
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"
}
```

- 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 areon and off. TCP and UDP listener's HealthCheck is always on, so it will be ignore when launching TCP or UDP listener.
- health_check_type (Optinal) Type of health check. Valid values are:
 tcp and http. Default to tcp. TCP supports TCP and HTTP health check mode, you can select the particular mode depending on your application.
- health_check_domain (Optinal) Domain name used for health check.
 When it used to launch TCP listener, health_check_type must be "http".
 Its length is limited to 1-80 and only characters such as letters, digits, '-' and '.' are allowed. When it is not set or empty, Server Load Balancer uses the private network IP address of each backend server as Domain used for health check.
- health_check_uri (Optinal) URI used for health check. When it used to launch TCP listener, health_check_type must be "http". Its length is limited to 1-80 and it must start with /. Only characters such as letters, digits, '-', '/', ':', '\'', ':', #' and '\'' are allowed.
- health_check_connect_port (Optinal) Port used for health check. Valid value range: [1-65535]. Default to "None" means the backend server port is used.
- healthy_threshold (Optinal) Threshold determining the result of the health check is success. It is required when health_check is on. Valid value range: [1-10] in seconds. Default to 3.
- unhealthy_threshold (Optinal) Threshold determining the result of the health check is fail. It is required when health_check is on. Valid value range: [1-10] in seconds. Default to 3.
- health_check_timeout (Optinal) Maximum timeout of each health check response. It is required when health_check is on. Valid value range: [1-300] in seconds. Default to 5. Note: If health_check_timeout < health_check_interval, its will be replaced by health_check_interval.
- health_check_interval (Optinal) Time interval of health checks. It is required when health_check is on. Valid value range: [1-50] in seconds.

- Default to 2.
- health_check_http_code (Optinal) Regular health check HTTP status code. Multiple codes are segmented by ",". It is required when health_check is on. Default to http_2xx. Valid values are: http_2xx, http_3xx, http_4xx and http_5xx.
- ssl_certificate_id (Optinal) Security certificate ID. It is required when protocol is https.

» 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
$health_check_type$	tep	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 wild-card 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

- 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

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

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

» 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

spec = "Small"

name

= "test_foo"

Basic usage

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.

» 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

- 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.

```
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 = "${alicloud_nat_gateway.foo.forward_table_ids}"
                  = "${alicloud_nat_gateway.foo.bandwidth_packages.0.public_ip_addresses}"
  external_ip
                   = "80"
  external_port
                   = "tcp"
  ip protocol
                  = "172.16.0.3"
  internal_ip
                   = "8080"
  internal_port
}
```

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.

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

```
resource "alicloud_vswitch" "foo" {
resource "alicloud_nat_gateway" "foo" {
  vpc_id = "${alicloud_vpc.foo.id}"
  spec = "Small"
 name
       = "test_foo"
  bandwidth_packages = [
    {
      ip\_count = 2
     bandwidth = 5
     zone
    },
      ip_count = 1
      bandwidth = 6
      zone
               = "cn-beijing-b"
    }
 ]
 depends_on = [
    "alicloud_vswitch.foo"
}
resource "alicloud_snat_entry" "foo" {
                  = "${alicloud_nat_gateway.foo.snat_table_ids}"
  snat_table_id
 source_vswitch_id = "${alicloud_vswitch.foo.id}"
                  = "${alicloud_nat_gateway.foo.bandwidth_packages.0.public_ip_addresses}
 snat_ip
}
```

- 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.
- $\bullet\,$ 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

- 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

- 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 connection string automatically and its prifix is RDS instance ID. To avoid unnecessary conflict, please specified a internet connection prefix before applying the resource.

```
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.

```
resource "alicloud_db_database" "default" {
   instance_id = "rm-2eps..."
```

```
name = "tf_database"
character_set = "utf8"
}
```

The following arguments are supported:

- instance_id (Required) The Id of instance that can run database.
- name (Required) Name of the database requiring a uniqueness check. It may consist of lower case letters, numbers, and underlines, and must start with a letter and have no more than 64 characters.
- character_set (Required) Character set. The value range is limited to the following:
 - MySQL: [utf8, gbk, latin1, utf8mb4] (utf8mb4 only supports versions 5.5 and 5.6).
 - SQLServer: [Chinese_PRC_CI_AS, Chinese_PRC_CS_AS,
 SQL_Latin1_General_CP1_CI_AS, SQL_Latin1_General_CP1_CS_AS,
 Chinese_PRC_BIN]
- description (Optional) Database description. It cannot begin with https://. It must start with a Chinese character or English letter. It can include Chinese and English characters, underlines (_), hyphens (-), and numbers. The length may be 2-256 characters.

» Attributes Reference

The following attributes are exported:

- id The current database resource ID. Composed of instance ID and database name with format ":".
- instance_id 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

- 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 = "${alicloud_ess_scaling_group.scaling.id}"
                  = "ubuntu_140405_64_40G_cloudinit_20161115.vhd"
  image_id
                  = "ecs.n4.large"
 instance_type
 security_group_id = "${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
}
```

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

» Argument Reference

- 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" {
                    = 1
 min_size
 max size
                     = 2
 removal_policies = ["OldestInstance", "NewestInstance"]
}
resource "alicloud_ess_scaling_configuration" "config" {
  scaling_group_id = "${alicloud_ess_scaling_group.scaling.id}"
                    = "ubuntu_140405_64_40G_cloudinit_20161115.vhd"
  image_id
                    = "ecs.n4.large"
  instance_type
  security_group_id = "${alicloud_security_group.classic.id}"
}
```

» Argument Reference

- 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: Pay-ByBandwidth 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 <code>instance_ids</code> 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 instances 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

- 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.
- $\bullet\,$ 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"
    }
 }
}
```

- 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)

- 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 multicontainer 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

- 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 $1\sim50$, 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:
 - $\begin{array}{l} -\ 192.168.0.0/16 \\ -\ 172.19\text{-}30.0.0/16 \\ -\ 10.0.0.0/16 \end{array}$

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.

» 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.

NOTE: Creating kubernetes cluster need to install several packages and it will cost more than one hour. Please be patient.

NOTE: From version 1.9.4, the provider supports to download kube config, client certificate, client key and cluster ca certificate after creating cluster successfully, and you can put them into the specified location, like '~/.kube/config'.

» 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
}
```

- 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. Default to 3. It is limited up to 50 and if you want to enlarge it, please apply white list or contact with us.
- password (Required, Force new resource) The password of ssh login cluster node.
- 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.
- kube_config (Optional) The path of kube config, like ~/.kube/config.
- client_cert (Optional) The path of client certificate, like ~/.kube/client-cert.pem.
- client_key (Optional) The path of client key, like ~/.kube/client-key.pem.
- cluster_ca_cert (Optional) The path of cluster ca certificate, like
 ~/.kube/cluster-ca-cert.pem

» Attributes Reference

The following attributes are exported:

- id The ID of the container cluster.
- name The name of the container cluster.
- availability_zone The ID of availability zone.
- 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 (Deprecated from version 1.9.4) It has been deprecated from provider version 1.9.4. New field master_nodes and worker_nodes replace it.
- master_nodes List of cluster master nodes. It contains several attributes to Block Nodes.
- worker nodes List of cluster worker nodes. It contains several attributes

to Block Nodes.

connections - Map of kubernetes cluster connection information. It contains several attributes to Block Connections.

» Block Nodes

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

» Block Connections

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

» Import

Kubernetes cluster can be imported using the id, e.g.

\$ terraform import alicloud_cs_kubernetes.main ce4273f9156874b46bb

» alicloud_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
}</pre>
```

- 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 indi-

cates 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"
}
```

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"
}
```

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

- 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_log_project

The project is the resource management unit in Log Service and is used to isolate and control resources. You can manage all the logs and the related log sources of an application by using projects. Refer to details.

» Example Usage

Basic Usage

The following arguments are supported:

- name (Required, ForceNew) The name of the log project. It is the only in one Alicloud account.
- description (ForceNew) Description of the log project. At present, it is not modified by terraform.

» Attributes Reference

The following attributes are exported:

- id The ID of the log project. It sames as its name.
- name Log project name.
- description Log project description.

» Import

Log project can be imported using the id or name, e.g.

```
$ terraform import alicloud_log_project.example tf-log
```

» alicloud_log_store

The log store is a unit in Log Service to collect, store, and query the log data. Each log store belongs to a project, and each project can create multiple Log-stores. Refer to details

» Example Usage

```
project = "${alicloud_log_project.example.name}"
name = "tf-log-store"
description = "created by terraform"
}
```

The following arguments are supported:

- project (Required, ForceNew) The project name to the log store belongs.
- name (Required, ForceNew) The log store, which is unique in the same project.
- retention_period The data retention time (in days). Valid values: [1-3650]. Default to 30. Log store data will be stored permanently when the value is "3650".
- shard_count The number of shards in this log store. Default to 2. You can modify it by "Split" or "Merge" operations. Refer to details

» Attributes Reference

The following attributes are exported:

- id The ID of the log project. It formats of ":".
- project The project name.
- name Log store name.
- retention_period The data retention time.
- shard_count The number of shards.

» Import

Log store can be imported using the id, e.g.

 $\$\ terraform\ import\ alicloud_log_store.example\ tf-log:tf-log-store$

» alicloud_log_store_index

Log Service provides the LogSearch/Analytics function to query and analyze large amounts of logs in real time. You can use this function by enabling the index and field statistics. Refer to details

» Example Usage

```
Basic Usage
resource "alicloud_log_project" "example" {
             = "tf-log"
  description = "created by terraform"
}
resource "alicloud_log_store" "example" {
 project = "${alicloud_log_project.example.name}"
             = "tf-log-store"
  description = "created by terraform"
resource "alicloud_log_store_index" "example" {
 project = "${alicloud_log_project.example.name}"
  logstore = "${alicloud_log_store.example.name}"
  full_text {
    case_sensitive = true
    token = " \#%\^*\r\n\t"
 }
 field_search = [
      name = "terraform"
      enable_analytics = true
    }
 ]
}
```

» Argument Reference

- project (Required, ForceNew) The project name to the log store belongs.
- logstore (Required, ForceNew) The log store name to the query index belongs.
- full_text The configuration of full text index. Valid item as follows:
 - case_sensitive Whether the case sensitive. Default to false.
 - include_chinese Whether includes the chinese. Default to false.
 - token The string of several split words, like "\r", "#"
- field_search List configurations of field search index. Valid item as follows:

- name (Required) The field name, which is unique in the same log store.
- type The type of one field. Valid values: ["long", "text", "double", "json"]. Default to "long".
- alias The alias of one field
- case_sensitive Whether the case sensitive for the field. Default to false. It is valid when "type" is "text" or "json".
- include_chinese Whether includes the chinese for the field. Default to false. It is valid when "type" is "text" or "json".
- token The string of several split words, like "\r", "#". It is valid when "type" is "text" or "json".
- enable_analytics Whether to enable field analytics. Default to true.

Note: At least one of the "full_text" and "field_search" should be specified.

» Attributes Reference

The following attributes are exported:

- id The ID of the log store index. It formats of ":".
- project The project name.
- logstore Log store name.
- full_text The full text index config.
- field_search The field search index config.

» Import

Log store index can be imported using the id, e.g.

 $\verb§ terraform import alicloud_log_store_index.example tf-log:tf-log-store$

» alicloud_log_machine_group

Log Service manages all the ECS instances whose logs need to be collected by using the Logtail client in the form of machine groups. Refer to details

» Example Usage

```
Basic Usage
resource "alicloud_log_project" "example" {
  name = "tf-log"
```

```
description = "created by terraform"
}
resource "alicloud_log_machine_group" "example" {
    project = "${alicloud_log_project.example.name}"
    name = "tf-machine-group"
    identify_type = "ip"
    topic = "terraform"
    identify_list = ["10.0.0.1", "10.0.0.2"]
}
```

The following arguments are supported:

- project (Required, ForceNew) The project name to the machine group belongs.
- name (Required, ForceNew) The machine group name, which is unique in the same project.
- identify_type The machine identification type, including IP and user-defined identity. Valid values are "ip" and "userdefined". Default to "ip".
- identify_list- The specific machine identification, which can be an IP address or user-defined identity.
- topic The topic of a machine group.

» Attributes Reference

The following attributes are exported:

- id The ID of the log machine group. It formats of ":".
- project The project name.
- name The machine group name.
- identify_type The machine identification type.
- identify_list The machine identification.
- topic The machine group topic.

» Import

Log machine group can be imported using the id, e.g.

\$ terraform import alicloud_log_machine_group.example tf-log:tf-machine-group

» alicloud_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 = "86-1868888889"
  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.

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.

```
# 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}"
}
```

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.

```
# 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"
}
```

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 = \Gamma
        "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.

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/userns
  services = ["apigateway.aliyuncs.com", "ecs.aliyuncs.com"]
  description = "this is a role test."
  force = true
}
```

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::\faccount_id\}:root or acs:ram::\faccount_id\}:user/\facsument\, such as acs:ram::1234567890000:root and acs:ram::1234567890001:user/Mary. The \facsument\, account_id\}: user_name\, 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.

```
# 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/username
  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}"
}
```

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.

```
# Create a new RAM user.
resource "alicloud_ram_user" "user" {
  name = "user_test"
  display_name = "user_display_name"
```

```
mobile = "86-186888888888"
  email = "hello.uuu@aaa.com"
  comments = "yoyoyo"
  force = true
}
```

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.

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.

```
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/usernamers...
  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}"]
```

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.

ightarrow alicloud_cdn_domain

Provides a CDN Accelerated Domain resource.

```
# 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",
      tt1 = 1000
      cache_type = "path"
    },
      cache_content = "/hello/world/youyou",
      tt1 = 1000
      cache_type = "path"
    },
    {
      cache_content = "txt,jpg,png",
      tt1 = 2000
      cache_type = "suffix"
    }]
}
```

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,

- 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

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 of 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.
- ${\tt auth_config}$ 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

» alicloud ots table

Provides an OTS table resource.

NOTE: Before creating an OTS table, OTS_INSTANCE_NAME needs to be passed by Environment Variable, or by setting the argument ots_instance_name under provider alicloud.

```
# Create an OTS table
provider "alicloud" {
  ots_instance_name = "${var.ots_instance_name}"
resource "alicloud_ots_table" "table" {
 provider = "alicloud"
 table_name = "${var.table_name}"
 primary_key = [
    {
     name = "${var.primary_key_1_name}"
      type = "${var.primary_key_integer_type}"
   },
      name = "${var.primary_key_2_name}"
      type = "${var.primary_key_integer_type}"
   },
      name = "${var.primary_key_3_name}"
      type = "${var.primary_key_integer_type}"
      name = "${var.primary_key_4_name}"
      type = "${var.primary_key_string_type}"
    },
 time_to_live = "${var.time_to_live}"
 max_version = "${var.max_version}"
```

The following arguments are supported:

- table_name (Required, ForceNew) The table name of the OTS instance. If changed, a new table would be created.
- primary_key (Required, Type: List) The property of TableMeta which indicates the structure information of a table. It describes the attribute value of primary key. The number of primary_key should not be less than one and not be more than four.
 - name (Required) Name for primary key.
 - type (Required, Type: list) Type for primary key. Only Integer,
 String or Binary is allowed.
- time_to_live (Required) The retention time of data stored in this table (unit: second).
- max_version (Required) The maximum number of versions stored in this table.

» Attributes Reference

The following attributes are exported:

- table_name The table name of the OTS which could not be changed.
- primary_key The property of TableMeta which indicates the structure information of a table.
- time_to_live The retention time of data stored in this table.
- max_version The maximum number of versions stored in this table.

» Import

OTS table can be imported using table name, e.g.

\$ terraform import alicloud_ots_table.table "ots_table"