

Alibaba Cloud Compute Services Guide

Introduction

Ansible contains several modules for controlling and managing Alibaba Cloud Compute Services (Alicloud). This guide explains how to use the Alicloud Ansible modules together.

All Alicloud modules require `footmark` - install it on your control machine with `pip install footmark`.

Cloud modules, including Alicloud modules, execute on your local machine (the control machine) with `connection: local`, rather than on remote machines defined in your hosts.

Normally, you'll use the following pattern for plays that provision Alicloud resources:

```
- hosts: localhost
  connection: local
  vars:
    - ...
  tasks:
    - ...
```

Authentication

You can specify your Alicloud authentication credentials (access key and secret key) by passing them as environment variables or by storing them in a vars file.

To pass authentication credentials as environment variables:

```
export ALICLOUD_ACCESS_KEY='Alicloud123'
export ALICLOUD_SECRET_KEY='AlicloudSecret123'
```

To store authentication credentials in a vars_file, encrypt them with `ref: Ansible Vault<vault>` to keep them secure, then list them:

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\ansible-devel\docs\docsite\rst\scenario_guides\[ansible-devel][docs][docsite][rst][scenario_guides]guide_alicloud.rst, line 38); [backlink](#)

Unknown interpreted text role "ref".

```
---
alicloud_access_key: "--REMOVED--"
alicloud_secret_key: "--REMOVED--"
```

Note that if you store your credentials in a vars_file, you need to refer to them in each Alicloud module. For example:

```
- ali_instance:
  alicloud_access_key: "{{alicloud_access_key}}"
  alicloud_secret_key: "{{alicloud_secret_key}}"
  image_id: "..."
```

Provisioning

Alicloud modules create Alicloud ECS instances, disks, virtual private clouds, virtual switches, security groups and other resources.

You can use the `count` parameter to control the number of resources you create or terminate. For example, if you want exactly 5 instances tagged `NewECS`, set the `count` of instances to 5 and the `count_tag` to `NewECS`, as shown in the last task of the example playbook below. If there are no instances with the tag `NewECS`, the task creates 5 new instances. If there are 2 instances with that tag, the task creates 3 more. If there are 8 instances with that tag, the task terminates 3 of those instances.

If you do not specify a `count_tag`, the task creates the number of instances you specify in `count` with the `instance_name` you provide.

```
# alicloud_setup.yml

- hosts: localhost
  connection: local

  tasks:

    - name: Create VPC
      ali_vpc:
        cidr_block: '{{ cidr_block }}'
        vpc_name: new_vpc
        register: created_vpc
```

```

- name: Create VSwitch
  ali_vswitch:
    alicloud_zone: '{{ alicloud_zone }}'
    cidr_block: '{{ vsw_cidr }}'
    vswitch_name: new_vswitch
    vpc_id: '{{ created_vpc.vpc.id }}'
    register: created_vsw

- name: Create security group
  ali_security_group:
    name: new_group
    vpc_id: '{{ created_vpc.vpc.id }}'
    rules:
      - proto: tcp
        port_range: 22/22
        cidr_ip: 0.0.0.0/0
        priority: 1
    rules_egress:
      - proto: tcp
        port_range: 80/80
        cidr_ip: 192.168.0.54/32
        priority: 1
    register: created_group

- name: Create a set of instances
  ali_instance:
    security_groups: '{{ created_group.group_id }}'
    instance_type: ecs.n4.small
    image_id: '{{ ami_id }}'
    instance_name: "My-new-instance"
    instance_tags:
      Name: NewECS
      Version: 0.0.1
    count: 5
    count_tag:
      Name: NewECS
    allocate_public_ip: true
    max_bandwidth_out: 50
    vswitch_id: '{{ created_vsw.vswitch.id }}'
    register: create_instance

```

In the example playbook above, data about the vpc, vswitch, group, and instances created by this playbook are saved in the variables defined by the "register" keyword in each task.

Each Alicloud module offers a variety of parameter options. Not all options are demonstrated in the above example. See each individual module for further details and examples.