HuaweiCloud Terraform Provider

Getting Started

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Contents

1 Getting Started

This topic walks you through the process of installing Terraform and using Terraform to create HUAWEI CLOUD resources, such as VPC.

Installing Terraform

Terraform is distributed as a single binary. Download a Terraform package and decompress it to a directory included in your system's **PATH**.

Step 1 Go to **Terraform** and download a Terraform package that matches your operating system.

Step 2 Decompress the package and add the directory where the package is located to the system's **PATH**.

Step 3 Run the following command in the command-line interface (CLI) to check whether the path is correctly configured:

terraform

If the following information is displayed, the configuration is correct and Terraform is ready to run.

```
Usage: terraform [-version] [-help] <command> [args]

....
```

----End

Authentication

You can use Terraform to orchestrate diverse cloud resources on HUAWEI CLOUD. Before using Terraform, obtain AK/SK and configure Terraform to complete authentication.

You can provide credentials by using either static credentials or environment variables.

- **Static credentials**

  Configure parameters **region**, **access_key**, and **secret_key** in the **provider** block. For example:

```
provider "huaweicloud" {
  region     = "cn-north-1"
```

```
    access_key = "my-access-key"
    secret_key = "my-secret-key"
}
```

- **region**: region where the resources are to be created and managed. For details on regions supported by HUAWEI CLOUD, see **Regions and Endpoints**.
- **access_key**: access secret ID (AK). For details, see **Access Keys**.
- **secret_key**: secret access key (SK). For details, see **Access Keys**.

- **Environment variables**

    Configure the region, AK, and SK as environment variables. For example:

```
$ export HW_REGION_NAME="cn-north-1"
$ export HW_ACCESS_KEY="my-access-key"
$ export HW_SECRET_KEY="my-secret-key"
```

- **HW_REGION_NAME**: region where the resources are to be created and managed. For details on regions supported by HUAWEI CLOUD, see **Regions and Endpoints**.
- **HW_ACCESS_KEY**: access secret ID (AK). For details, see **Access Keys**.
- **HW_SECRET_KEY**: secret access key (SK). For details, see **Access Keys**.

For details about more parameters, see **https://registry.terraform.io/providers/ huaweicloud/huaweicloud/latest/docs**.

Using Terraform to Create a HUAWEI CLOUD VPC

This example shows how to create a HUAWEI CLOUD VPC using Terraform. The Terraform version is 0.13, and the HUAWEI CLOUD provider version is 1.20.0.

Step 1 Create the **versions.tf** file in the working directory and specify the registry source and version of HUAWEI CLOUD provider.

```
terraform {
  required_providers {
    huaweicloud = {
      source = "huaweicloud/huaweicloud"
      version = ">= 1.20.0"
    }
  }
}
```

For details on how to use a local registry source, see **How Do I Accelerate the Download of a HUAWEI CLOUD Provider**.

Step 2 Create the **main.tf** file, configure the HUAWEI CLOUD provider, and create a VPC.

```
# Configure the HUAWEI CLOUD provider.
provider "huaweicloud" {
  region     = "cn-north-1"
  access_key = "my-access-key"
  secret_key = "my-secret-key"
}

# Create a VPC.
resource "huaweicloud_vpc" "example" {
  name = "terraform_vpc"
  cidr = "192.168.0.0/16"
}
```

The first part configures the HUAWEI CLOUD provider and provides AK/SK for authentication. For details on how to configure these parameters, see

Authentication. If you provide credentials using environment variables, omit this part.

The second part describes a VPC resource named **example**. The VPC name displayed on HUAWEI CLOUD is **terraform_vpc** and the CIDR block is **192.168.0.0/16**.

Step 3 Run the following command to perform initialization:

terraform init

The following command output is displayed. HUAWEI CLOUD Provider will be downloaded and installed when you run this command for the first time.

```
$ terraform init

Initializing the backend...

Initializing provider plugins...
- Finding latest version of huaweicloud/huaweicloud
- Installing huaweicloud/huaweicloud v1.20.0...
...
Terraform has been successfully initialized!
```

Step 4 Run the following command to view the resources to be created:

terraform plan

Terraform printouts the resources to be created as follows:

```
...
An execution plan has been generated and is shown below.
Resource actions are indicated with the following symbols:
  + create

Terraform will perform the following actions:

  # huaweicloud_vpc.example will be created
  + resource "huaweicloud_vpc" "example" {
      + cidr   = "192.168.0.0/16"
      + id     = (known after apply)
      + name   = "terraform_vpc"
      + region = (known after apply)
      + routes = (known after apply)
      + shared = (known after apply)
      + status = (known after apply)
    }

Plan: 1 to add, 0 to change, 0 to destroy.
...
```

Step 5 Run the following command to create the resources:

terraform apply

Enter **yes** as prompted. The following information is displayed, indicating that the VPC named **terraform_vpc** has been created. You can check the VPC on the HUAWEI CLOUD console.

```
An execution plan has been generated and is shown below.
Resource actions are indicated with the following symbols:
  + create

Terraform will perform the following actions:

  # huaweicloud_vpc.example will be created
  + resource "huaweicloud_vpc" "example" {
```

```
      + cidr   = "192.168.0.0/16"
      + id     = (known after apply)
      + name   = "terraform_vpc"
      + region = (known after apply)
      + routes = (known after apply)
      + shared = (known after apply)
      + status = (known after apply)
    }

Plan: 1 to add, 0 to change, 0 to destroy.

Do you want to perform these actions?
  Terraform will perform the actions described above.
  Only 'yes' will be accepted to approve.

  Enter a value: yes

huaweicloud_vpc.example: Creating...
huaweicloud_vpc.example: Creation complete after 7s [id=ceab8267-38e5-4a4c-8065-12967ad9eb31]

Apply complete! Resources: 1 added, 0 changed, 0 destroyed.
```

----End

Follow-up Operations

For details on how to create common HUAWEI CLOUD resources, see **User Guide**.