Tencent Infrastructure Automation for Terraform

Get Started

Product Documentation

Contents

Get Started
Use Terraform in Local PC

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Installing Terraform

Downloading the installation package

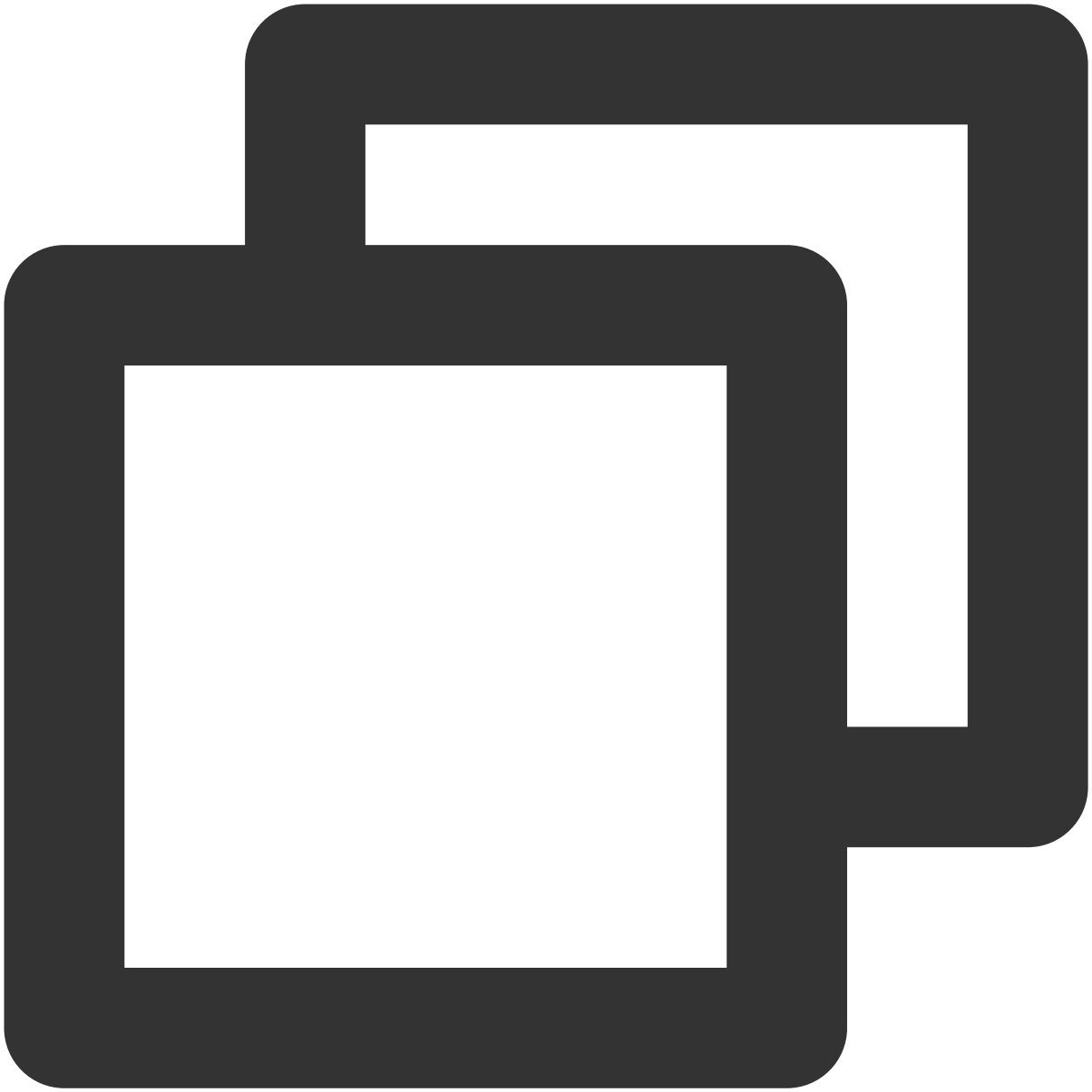
Go to Terraform official website and use the command line to install Terraform directly or download the binary installation package file.

Decompressing the package file and configuring the global path

Linux: See How to permanently set $PATH on Linux/Unix [closed].
Windows: See Where can I set path to make.exe on Windows?.
macOS: See How to permanently set $PATH on Linux/Unix [closed].

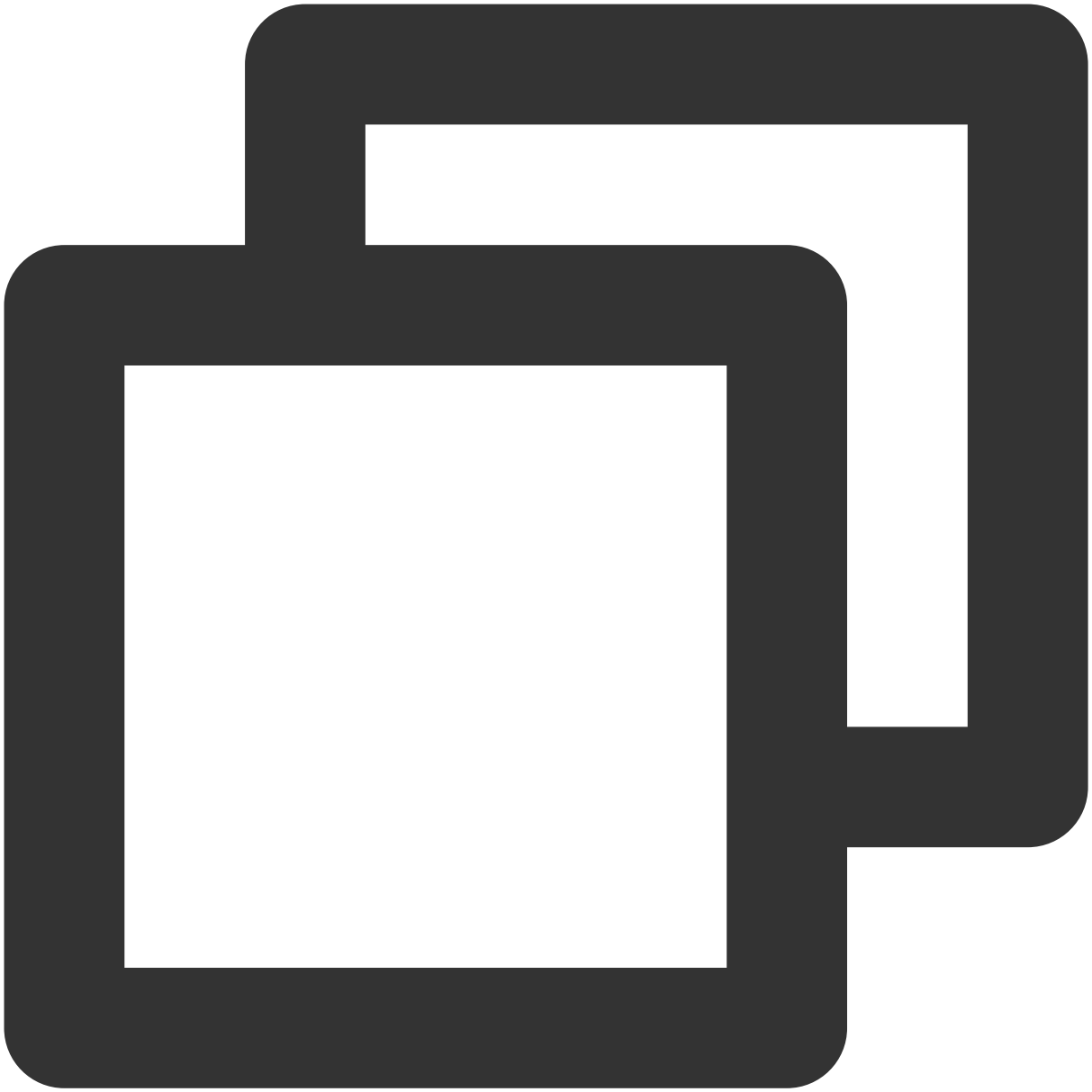
Verify the installation

Run the following command to check whether the installation worked.



```
terraform  -version
```

If the following information is returned (the version number may be different), the installation is successful:



```
Terraform v1.3.0
on darwin_amd64

Your version of Terraform is out of date! The latest version
is 1.3.2. You can update by downloading from https://www.terraform.io/downloads.htm
```

Authentication

Getting credentials

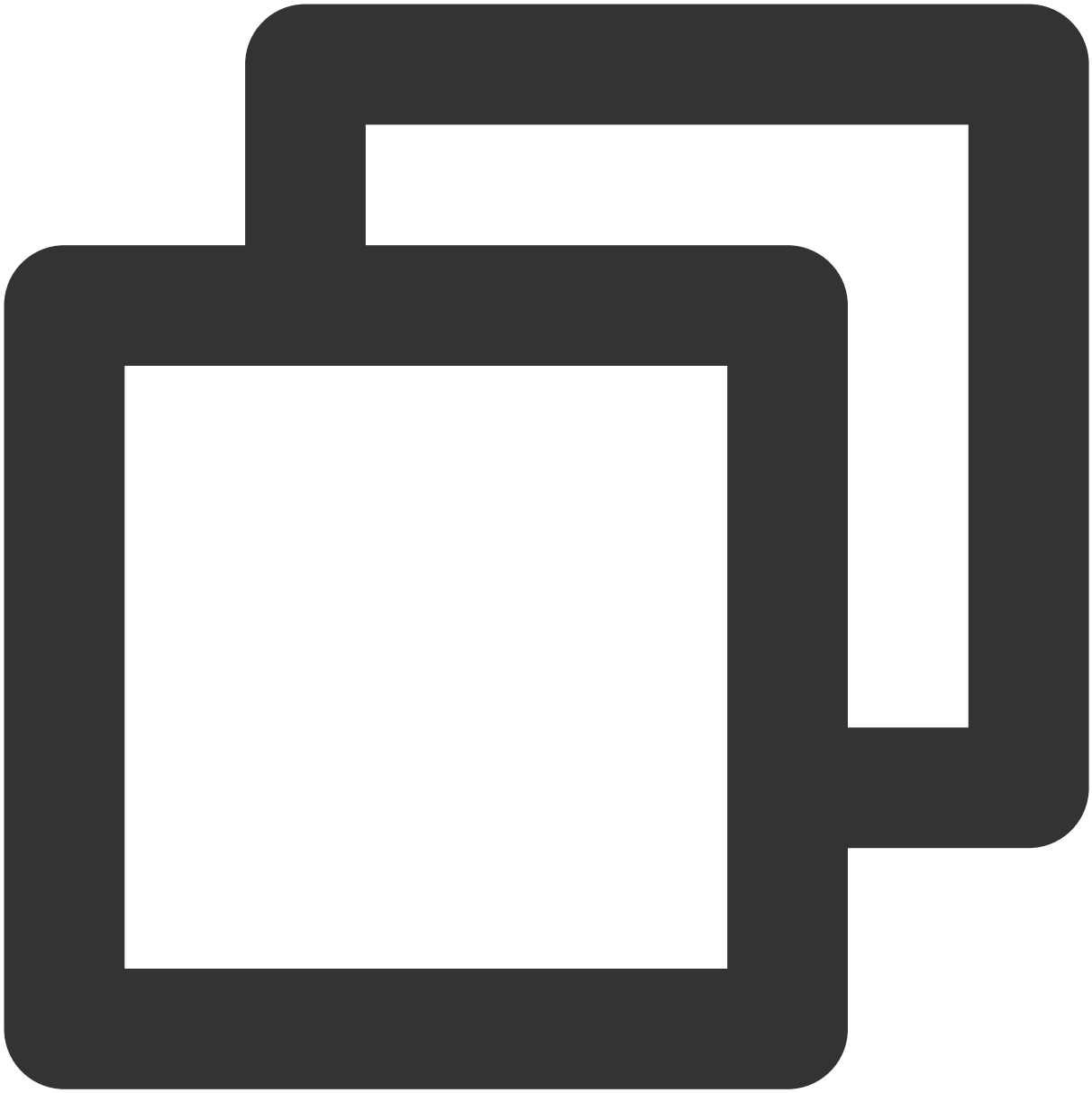
Before using Terraform for the first time, go to the TencentCloud API Key page to apply for `SecretId` and `SecretKey`. If you already have them, skip this step.

1. Log in to the CAM console and select **Access Key** > **Manage API Key** on the left sidebar.
2. On the **Manage API Key** page, click **Create Key** to create a pair of `SecretId/SecretKey`.

Authentication by static credential

Create a `provider.tf` file in the user directory and enter the following content:

Replace `my-secret-id` and `my-secret-key` with `SecretId` and `SecretKey` obtained in the Getting credentials step.

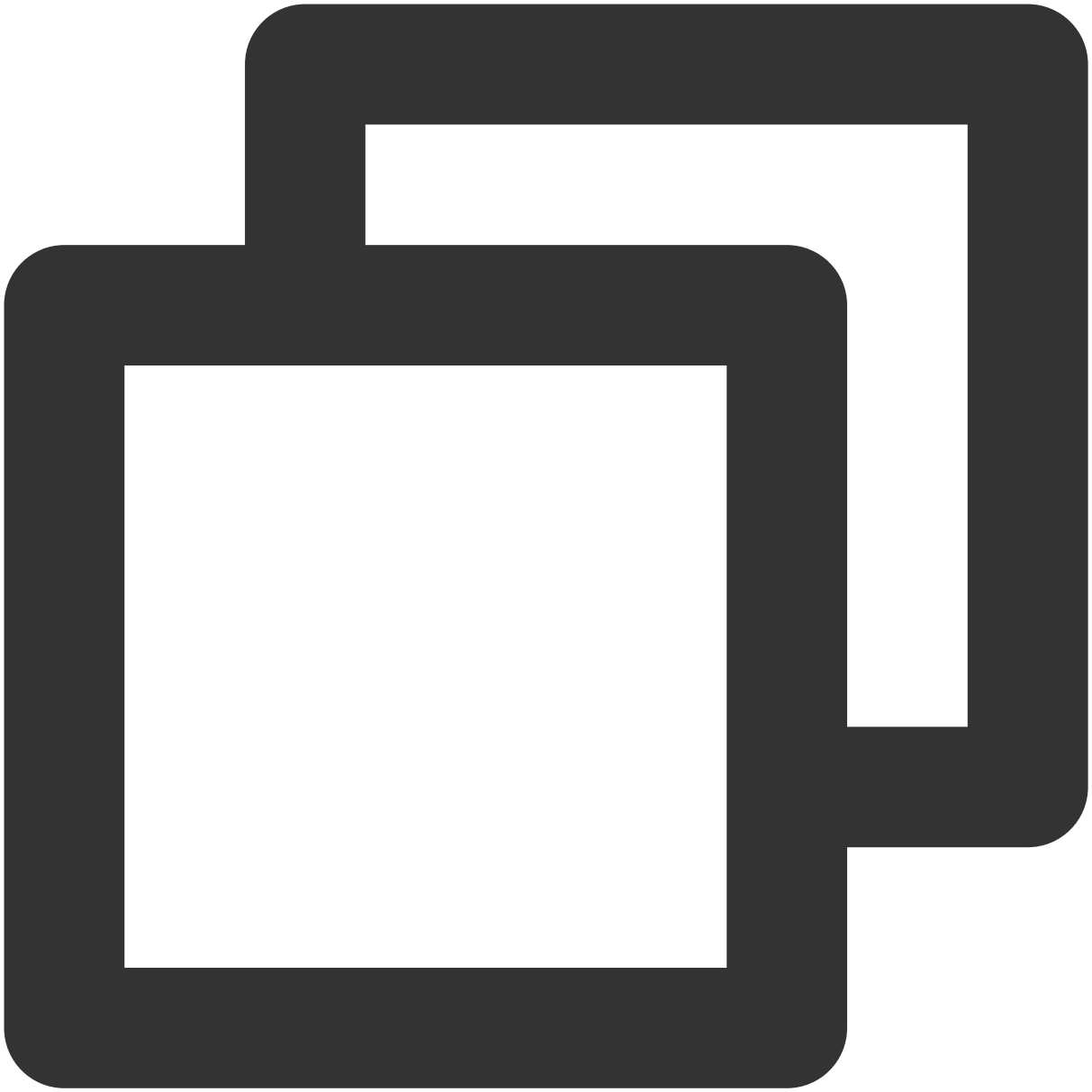


```
provider "tencentcloud" {
  secret_id = "my-secret-id"
  secret_key = "my-secret-key"
}
```

Authentication by environment variables

Add the following content to the environment variables:

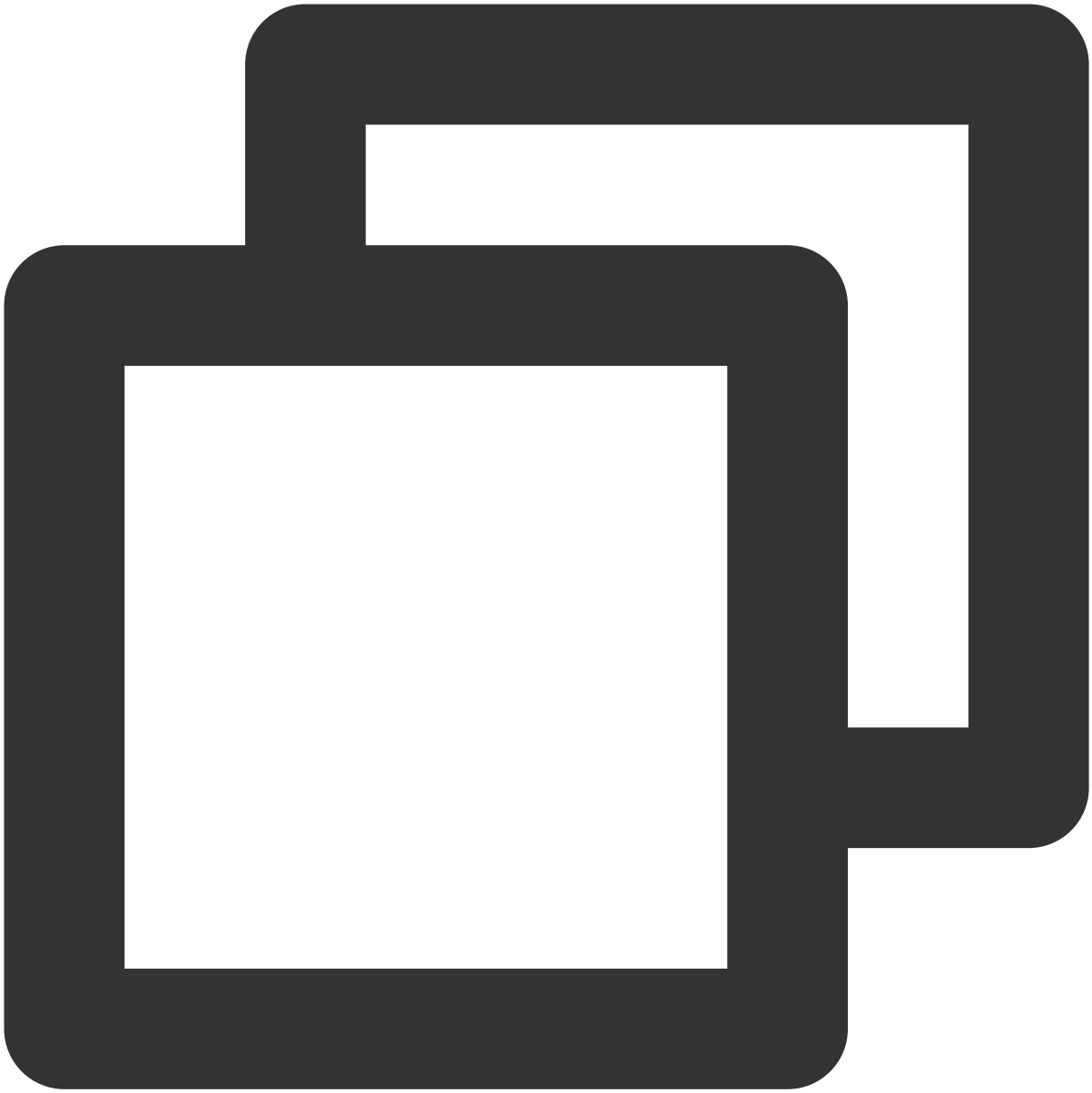
Replace `YOUR_SECRET_ID` and `YOUR_SECRET_KEY` with `SecretId` and `SecretKey` obtained in the Getting credentials step.



```
export TENCENTCLOUD_SECRET_ID=YOUR_SECRET_ID
export TENCENTCLOUD_SECRET_KEY=YOUR_SECRET_KEY
```

Creating a VPC via Terraform

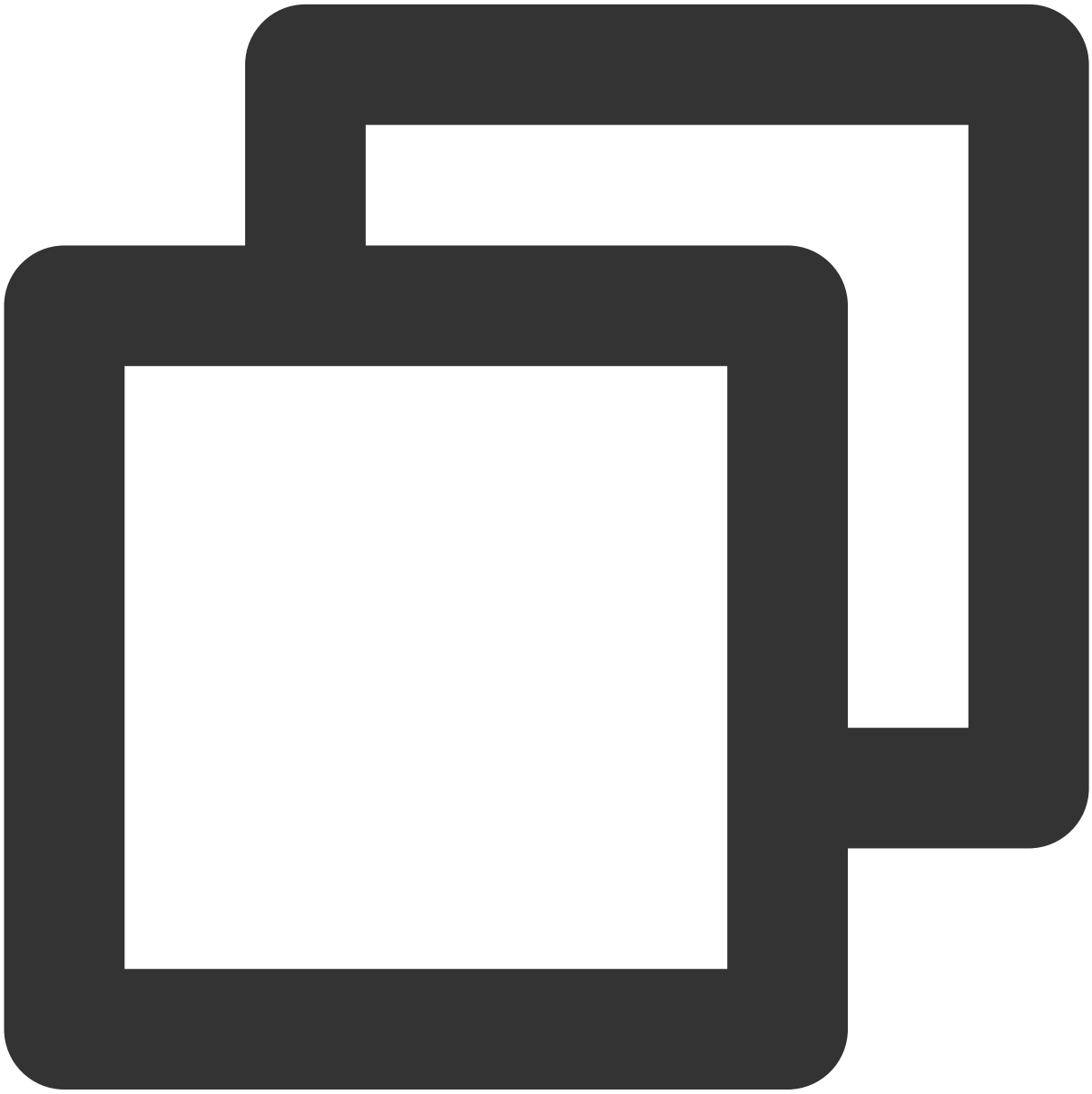
1. Create a `provider.tf` file, paste the following content to the file and specify the provider configuration information:



```
terraform {
  required_providers {
    tencentcloud = {
      source = "tencentcloudstack/tencentcloud"
      # Specify the version by `version`
      # version = ">=1.60.18"
    }
  }
}

provider "tencentcloud" {
```

```
  region = "ap-guangzhou"
  # secret_id = "my-secret-id"
  # secret_key = "my-secret-key"
}
```

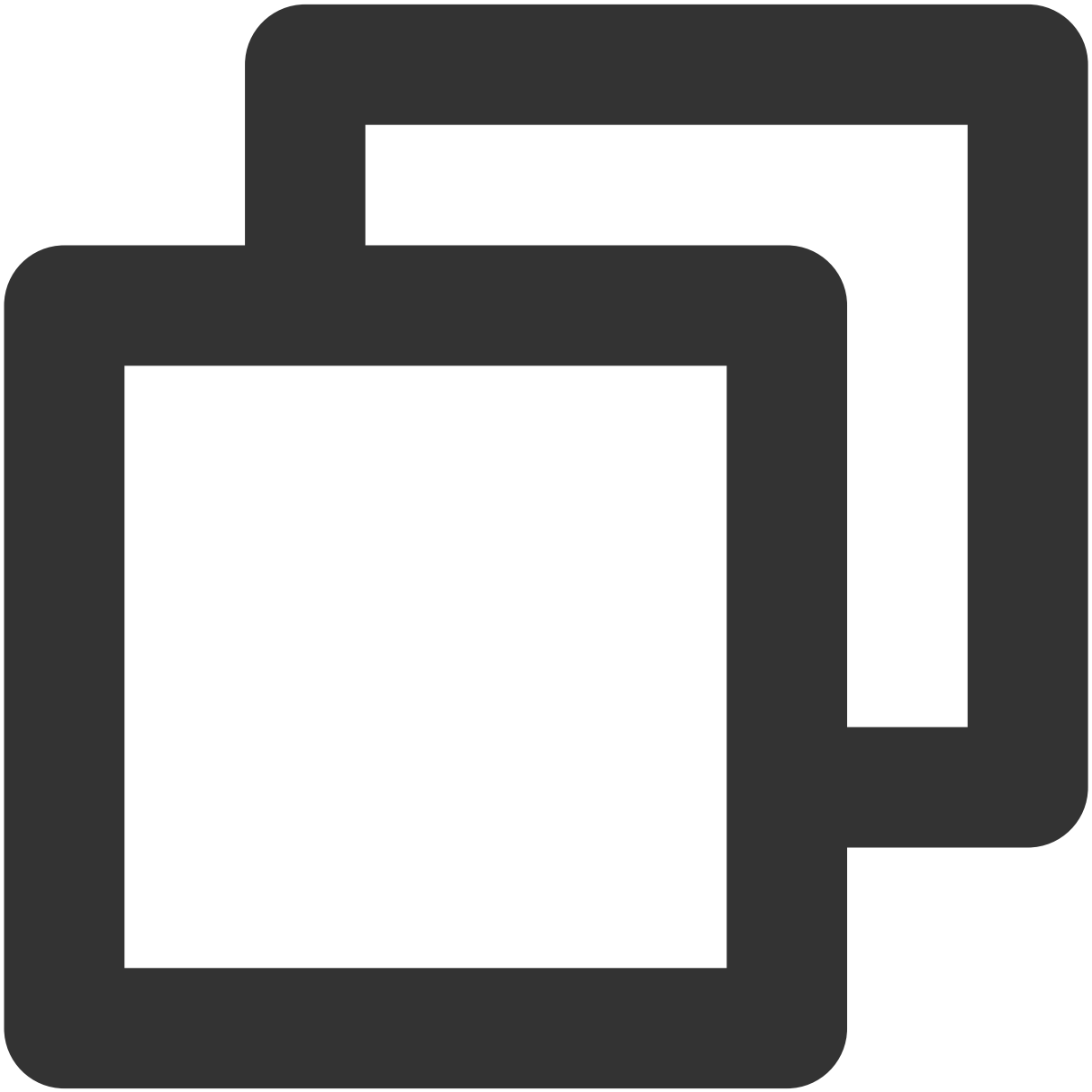
2. Create a `main.tf` file and paste the following content to the file to configure TencentCloud Provider and create a VPC.



```
resource "tencentcloud_vpc" "foo" {
    name         = "ci-temp-test-updated"
    cidr_block   = "10.0.0.0/16"
```

```
    dns_servers  = ["119.29.29.29", "8.8.8.8"]
    is_multicast = false

    tags = {
        "test" = "test"
    }
}
```

3. Run the following command to initialize the working directory and download the plugin.

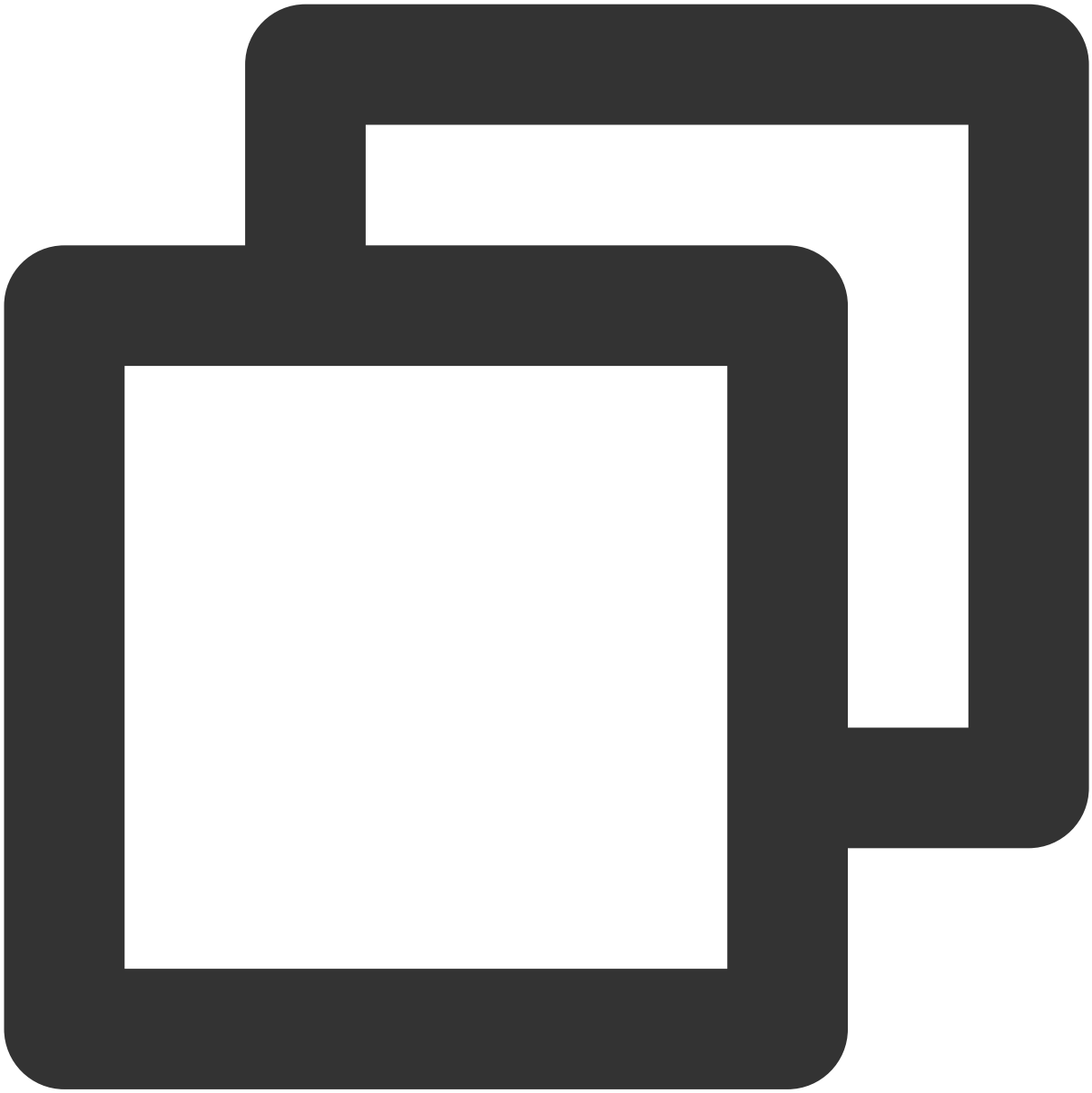


```
terraform init
```

The response is as follows:

Note：

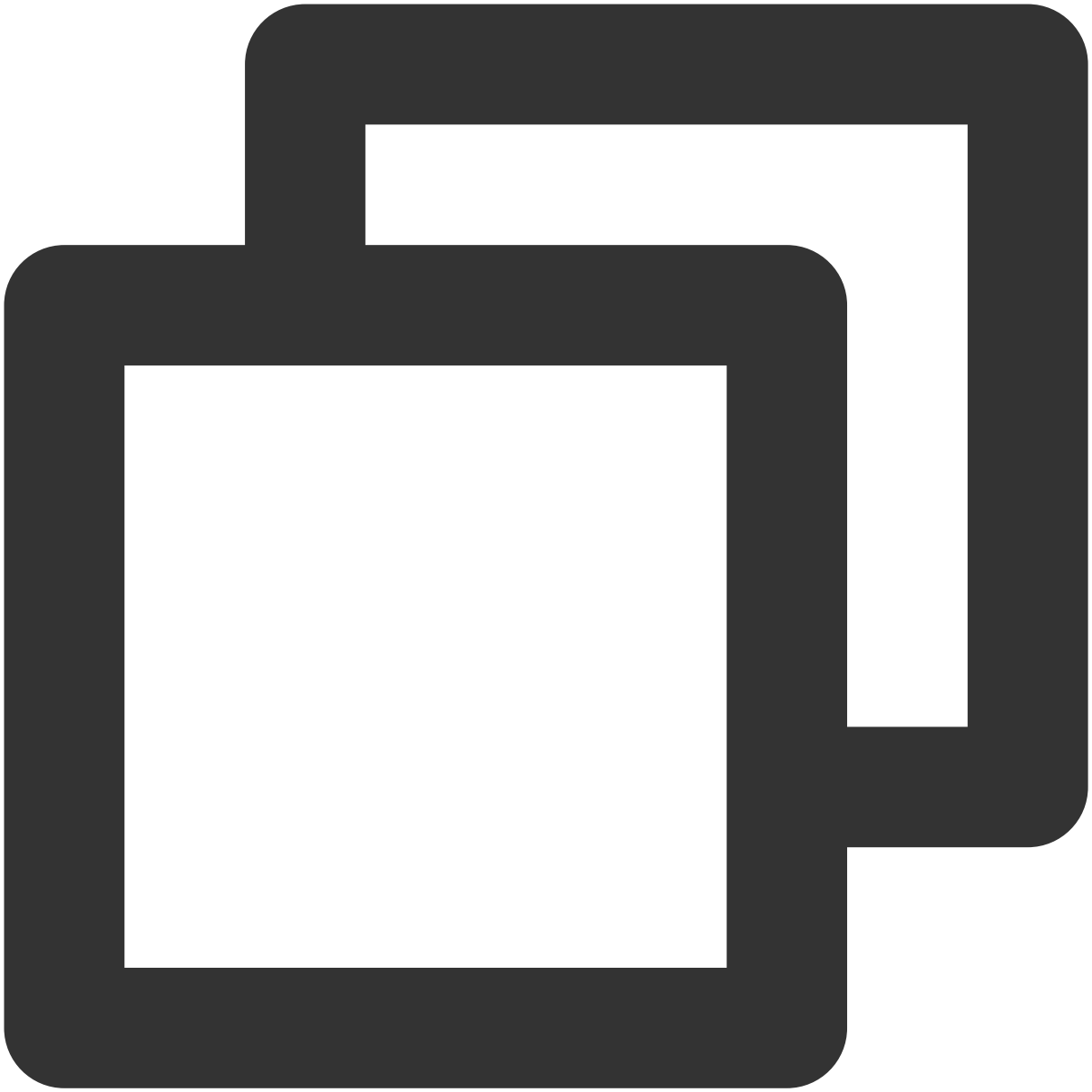
In case of a download failure, see Init Acceleration.



```
➜  terraform_workspace terraform init

Initializing the backend...

Initializing provider plugins...
- Finding latest version of tencentcloudstack/tencentcloud...
- Installing tencentcloudstack/tencentcloud v1.60.18...
```

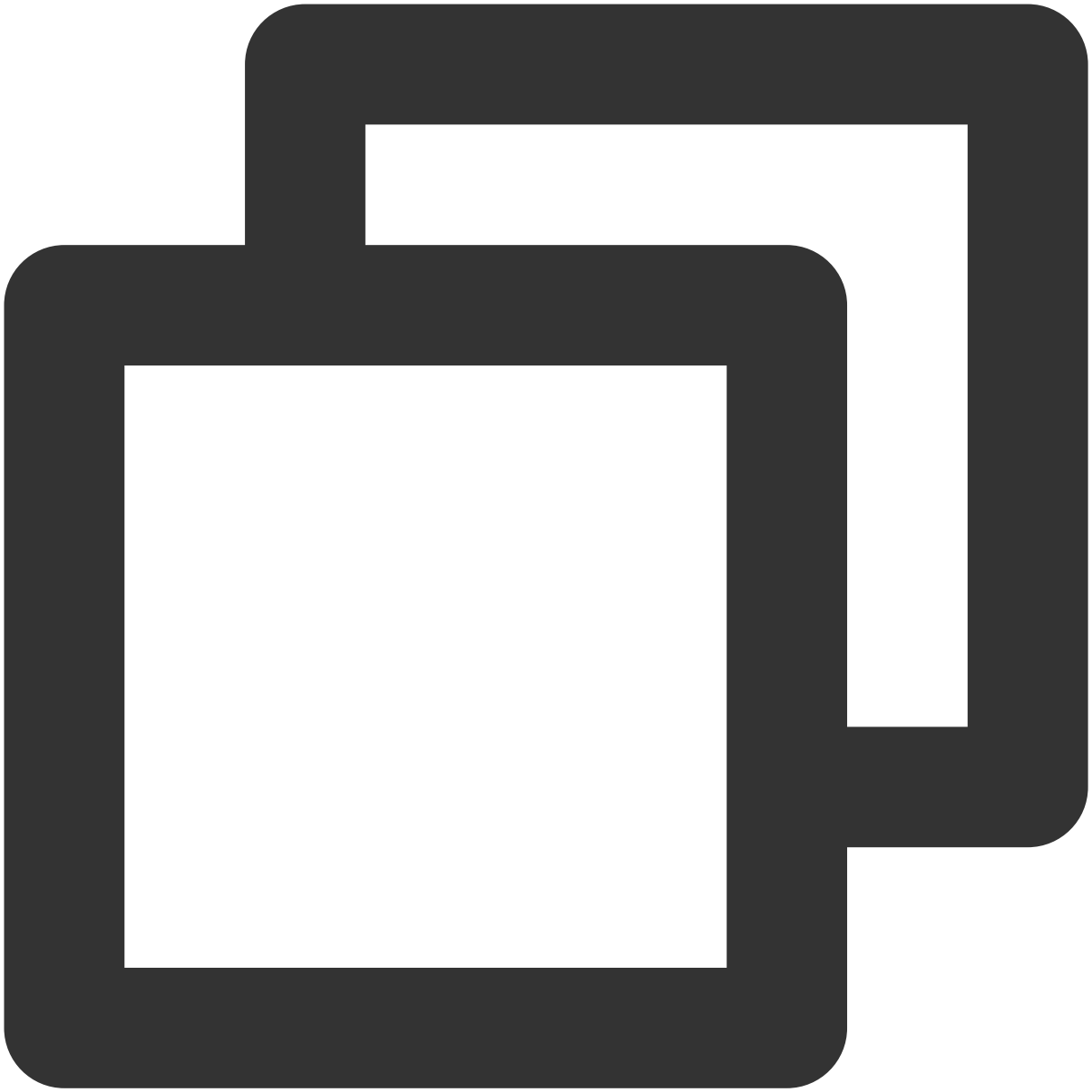
```
- Installed tencentcloudstack/tencentcloud v1.60.18 (signed by a HashiCorp partner,

Partner and community providers are signed by their developers.
If you'd like to know more about provider signing, you can read about it here:
https://www.terraform.io/docs/cli/plugins/signing.html

Terraform has created a lock file .terraform.lock.hcl to record the provider
selections it made above. Include this file in your version control repository
so that Terraform can guarantee to make the same selections by default when
you run "terraform init" in the future.

Terraform has been successfully initialized!

You may now begin working with Terraform. Try running "terraform plan" to see
any changes that are required for your infrastructure. All Terraform commands
should now work.

If you ever set or change modules or backend configuration for Terraform,
rerun this command to reinitialize your working directory. If you forget, other
commands will detect it and remind you to do so if necessary.
```

4. Run the following command to upgrade the provider version.



```
terraform init -upgrade
```

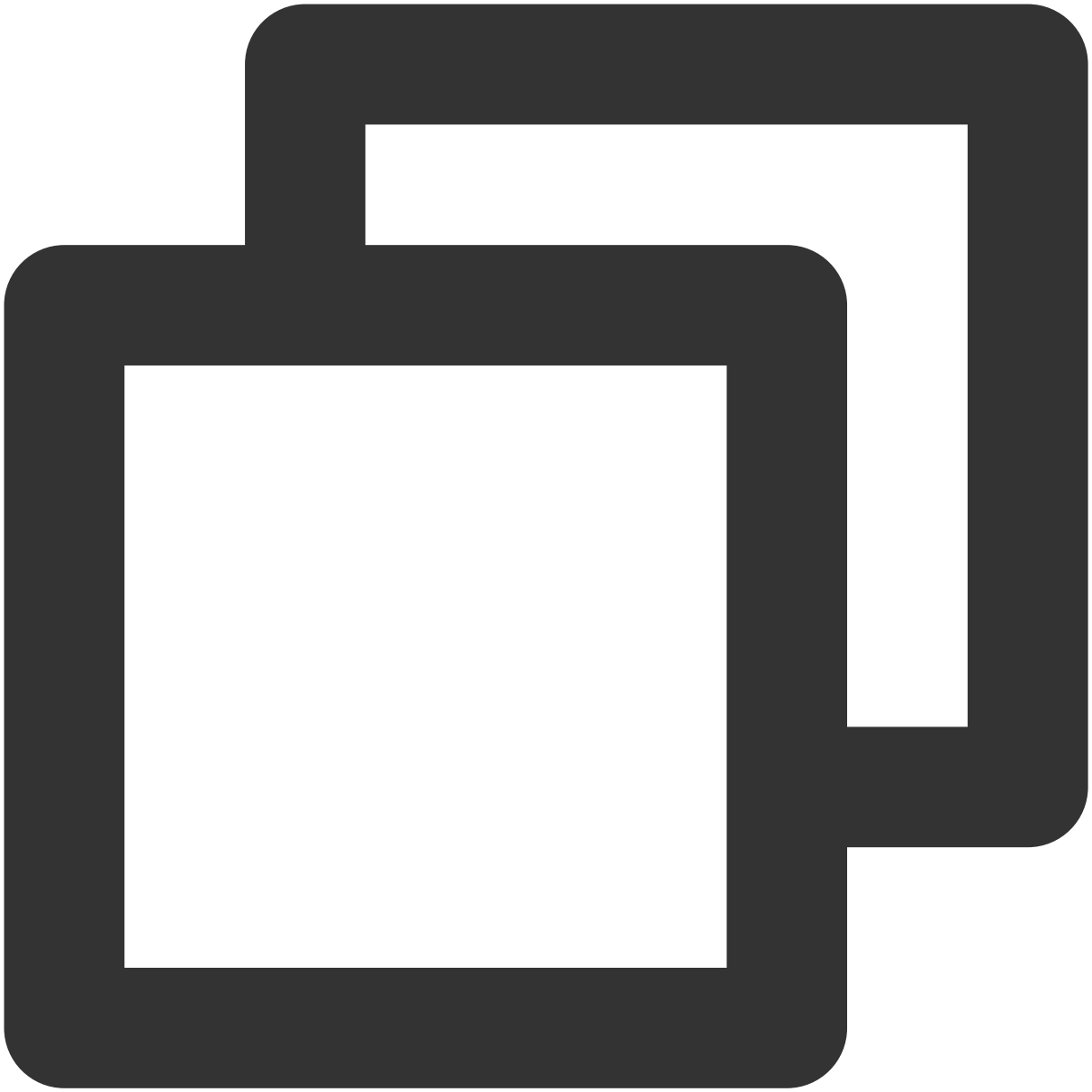
The response is as follows:



```
➜  terraform_workspace terraform init -upgrade

Initializing the backend...

Initializing provider plugins...
- Finding tencentcloudstack/tencentcloud versions matching ">= 1.60.18"...
- Installing tencentcloudstack/tencentcloud v1.60.19...
- Installed tencentcloudstack/tencentcloud v1.60.19 (signed by a HashiCorp partner,

Partner and community providers are signed by their developers.
If you'd like to know more about provider signing, you can read about it here:
```

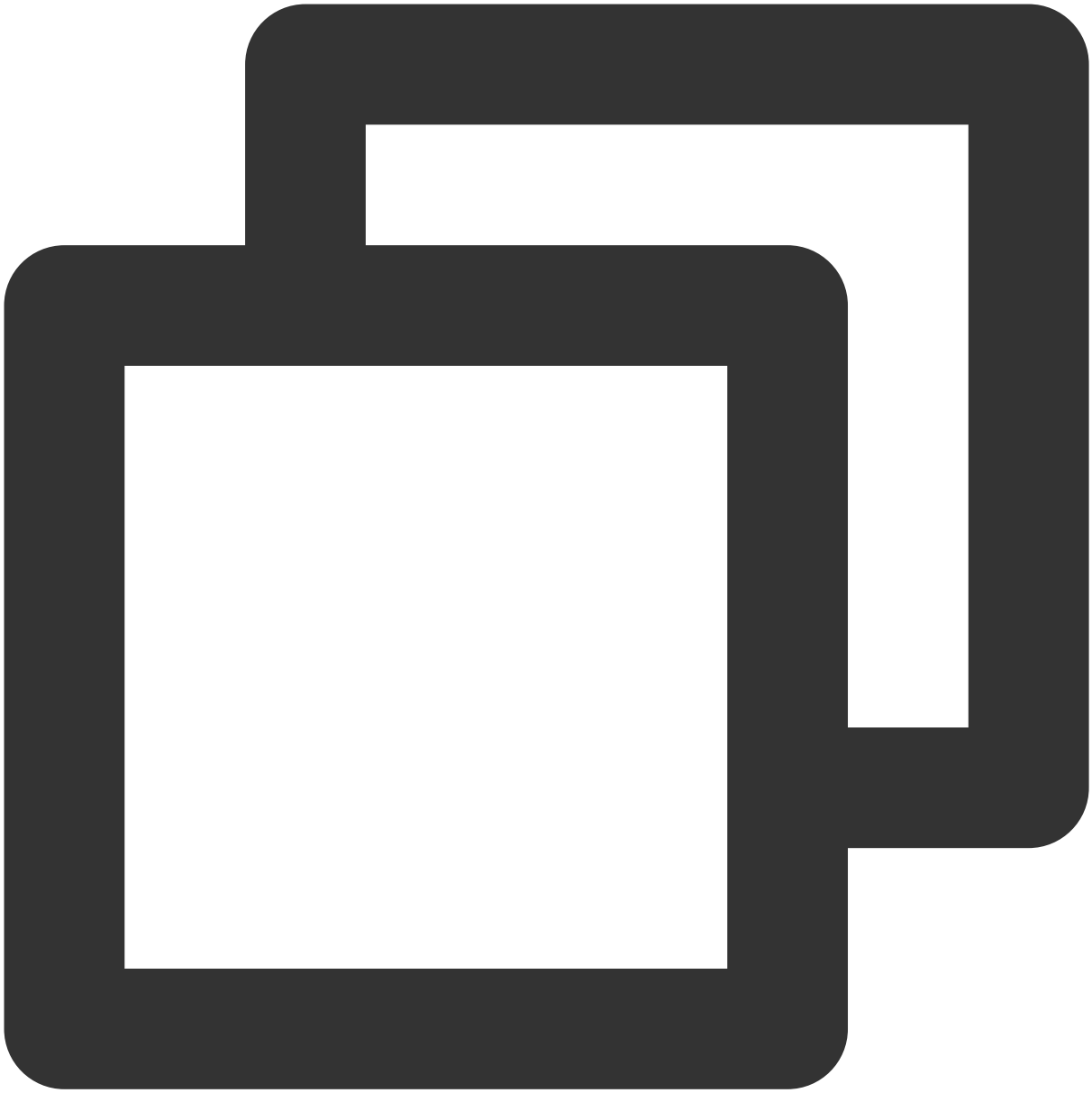
```
https://www.terraform.io/docs/cli/plugins/signing.html

Terraform has made some changes to the provider dependency selections recorded
in the .terraform.lock.hcl file. Review those changes and commit them to your
version control system if they represent changes you intended to make.

Terraform has been successfully initialized!

You may now begin working with Terraform. Try running "terraform plan" to see
any changes that are required for your infrastructure. All Terraform commands
should now work.

If you ever set or change modules or backend configuration for Terraform,
rerun this command to reinitialize your working directory. If you forget, other
commands will detect it and remind you to do so if necessary.
```

5. Run the following command to view the execution plan and display the details of the resource to be created.



```
terraform plan
```

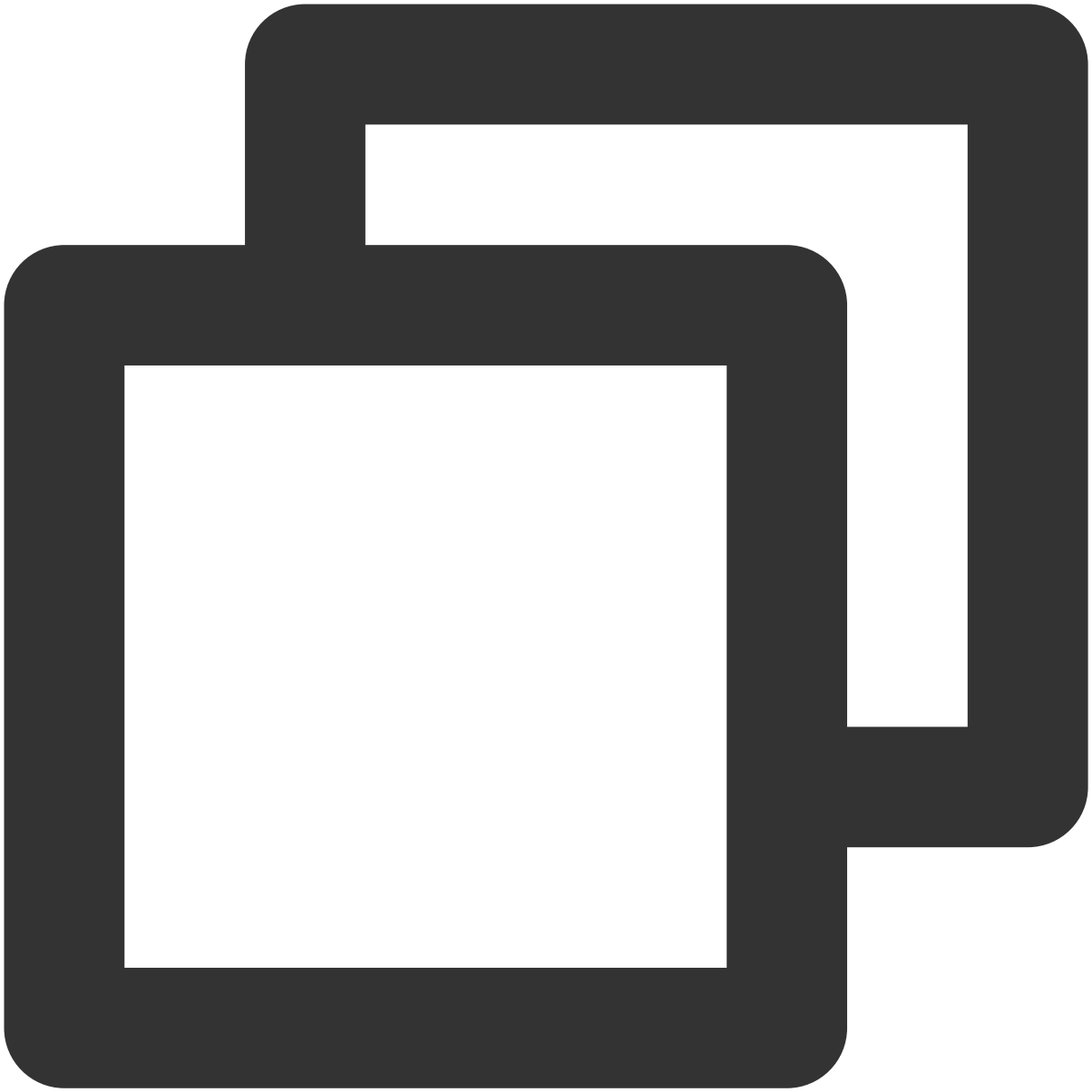
The response is as follows:



```
➜  terraform_workspace terraform plan

Terraform used the selected providers to generate the following execution plan. Res
indicated with the following symbols:
  + create

Terraform will perform the following actions:

  # tencentcloud_vpc.foo will be created
  + resource "tencentcloud_vpc" "foo" {
      + cidr_block             = "10.0.0.0/16"
```

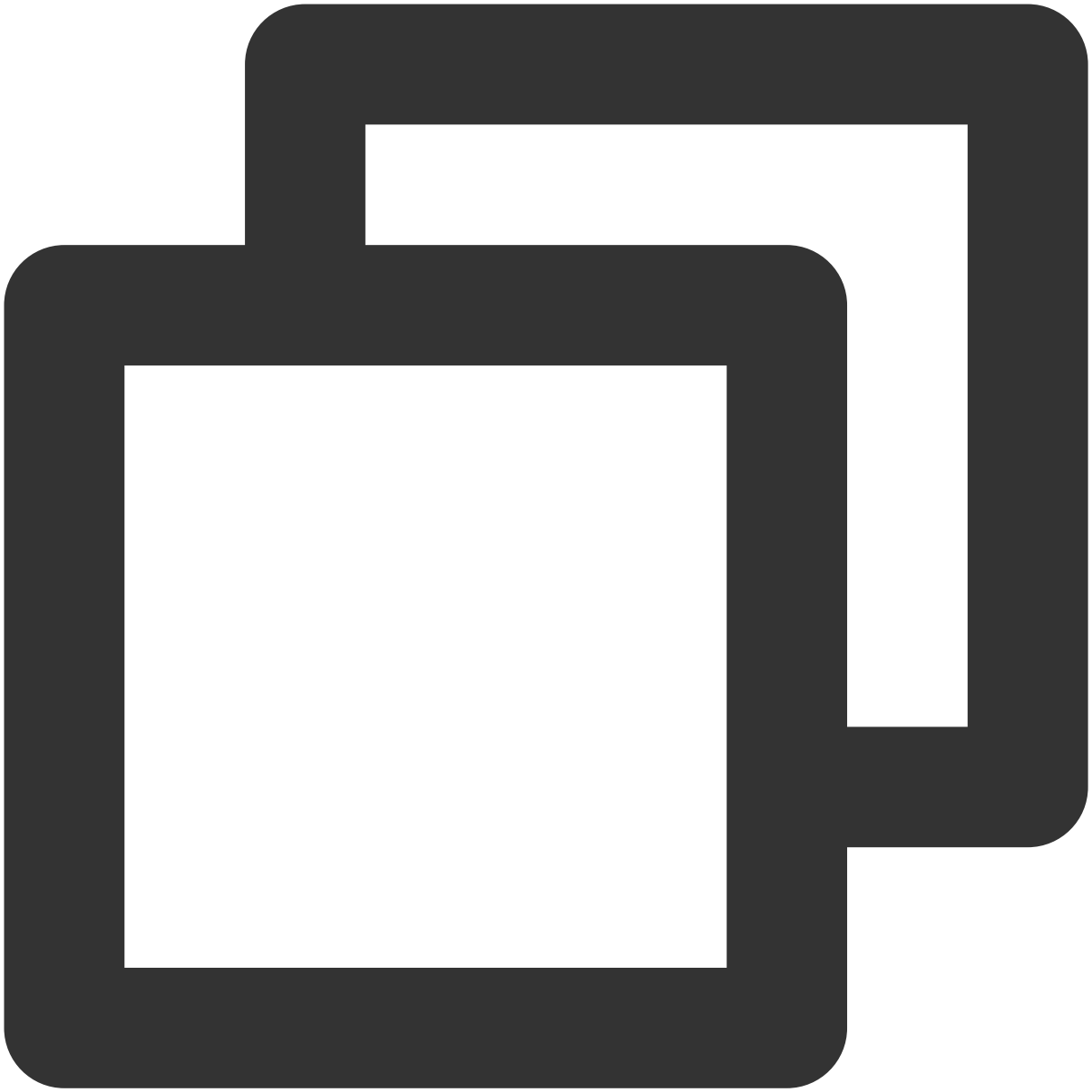
```
      + create_time            = (known after apply)
      + default_route_table_id = (known after apply)
      + dns_servers            = [
          + "119.29.29.29",
          + "8.8.8.8",
        ]
      + id                     = (known after apply)
      + is_default             = (known after apply)
      + is_multicast           = false
      + name                   = "ci-temp-test-updated"
      + tags                   = {
          + "test" = "test"
        }
    }

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

------------------------------------------------------------------------

Note: You didn't use the -out option to save this plan, so Terraform can't guarante
actions if you run "terraform apply" now.
```

6. Run the following command to create the resource.



```
terraform apply
```

Enter `yes` as prompted to create the resource. The response is as follows:



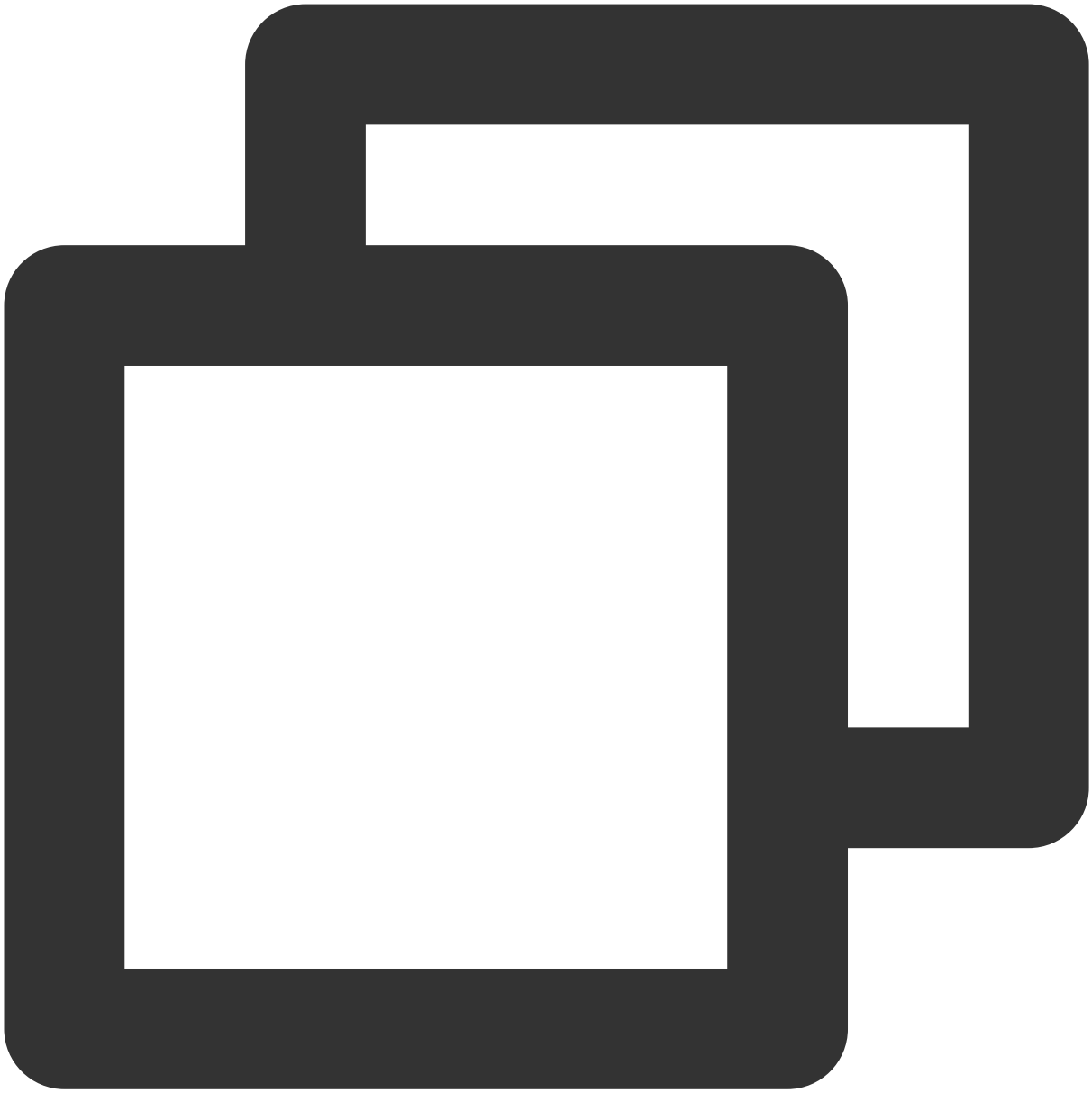
```
➜  terraform_workspace terraform apply

Terraform used the selected providers to generate the following execution plan. Res
indicated with the following symbols:
  + create

Terraform will perform the following actions:

  # tencentcloud_vpc.foo will be created
  + resource "tencentcloud_vpc" "foo" {
      + cidr_block             = "10.0.0.0/16"
```

```
      + create_time            = (known after apply)
      + default_route_table_id = (known after apply)
      + dns_servers            = [
          + "119.29.29.29",
          + "8.8.8.8",
        ]
      + id                     = (known after apply)
      + is_default             = (known after apply)
      + is_multicast           = false
      + name                   = "ci-temp-test-updated"
      + tags                   = {
          + "test" = "test"
        }
    }

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

tencentcloud_vpc.foo: Creating...
tencentcloud_vpc.foo: Still creating... [10s elapsed]
tencentcloud_vpc.foo: Creation complete after 13s [id=vpc-07mx4yfd]

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

After execution, you can view the created resource in the Tencent Cloud console.

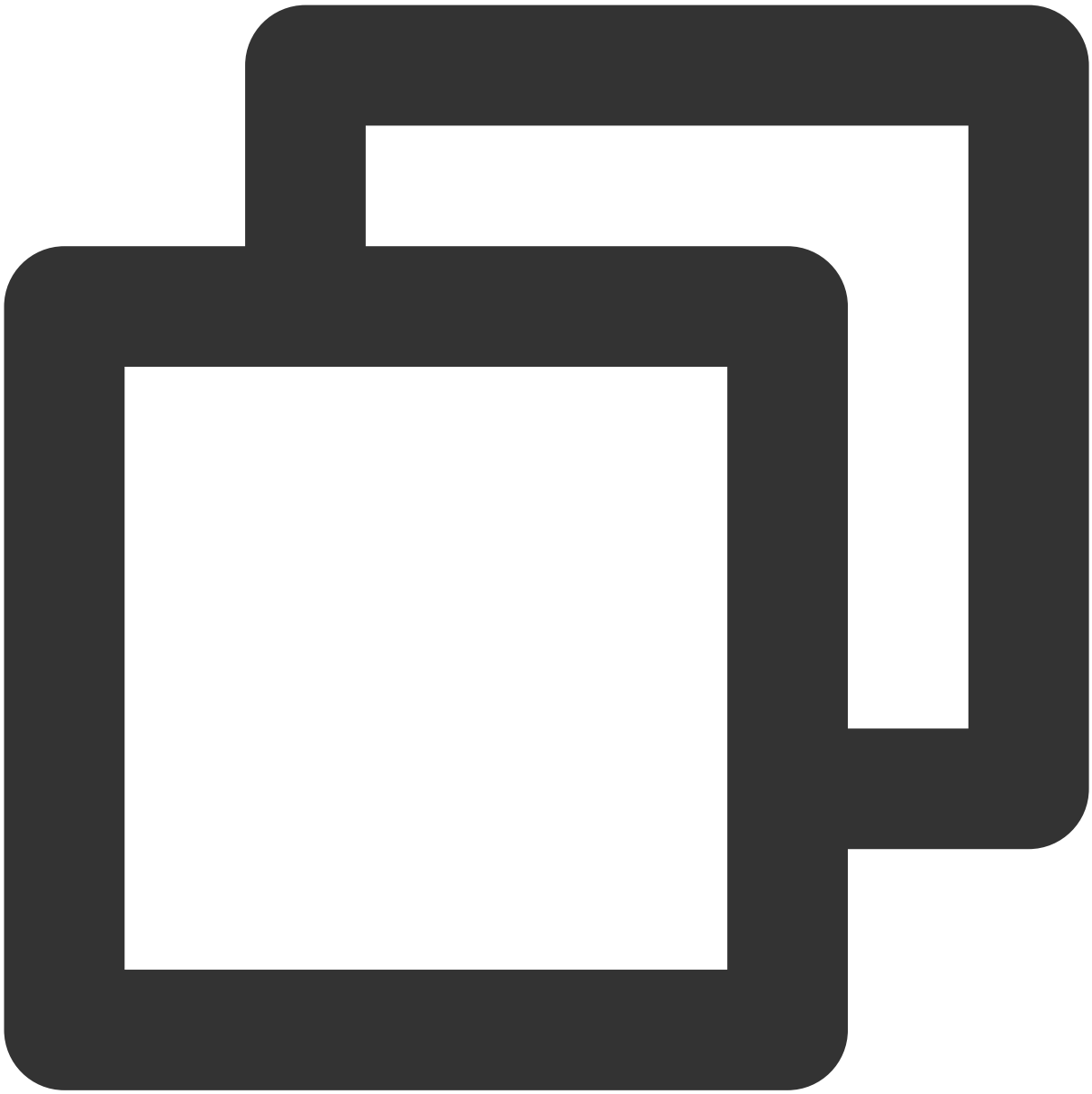
7. (Optional) Update the resource.

If you change the resource configuration to the following information:



```
resource "tencentcloud_vpc" "foo" {
    name         = "ci-temp-test-updated2"
    cidr_block   = "10.0.0.0/16"
    dns_servers  = ["119.29.29.29", "8.8.8.8"]
    is_multicast = false

    tags = {
        "test" = "test"
    }
}
```

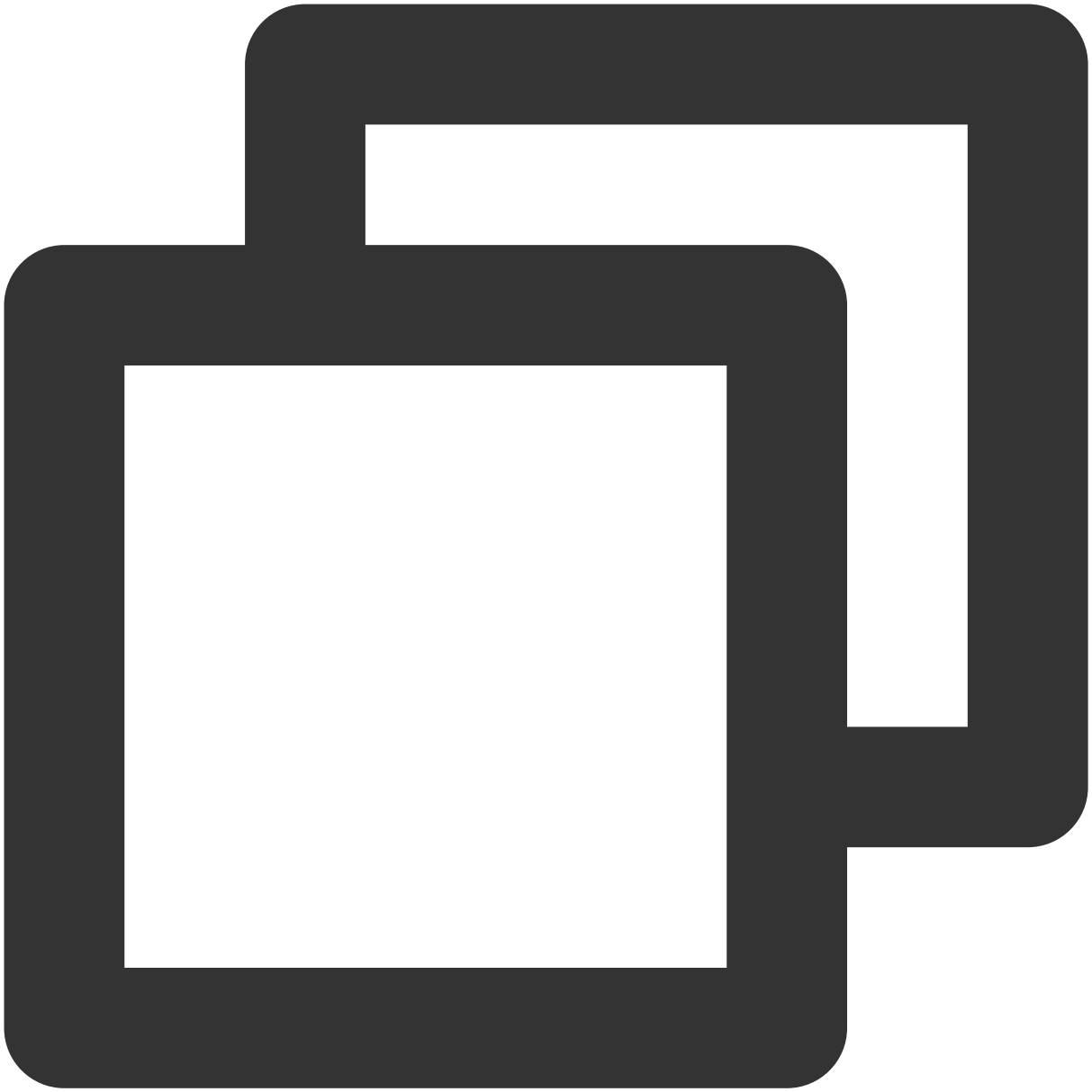
Run the `terraform plan` command to update the plan. The response is as follows:



```
➜  terraform_workspace terraform plan
tencentcloud_vpc.foo: Refreshing state... [id=vpc-jhmdf9q9]

Terraform used the selected providers to generate the following execution plan. Res
  ~ update in-place

Terraform will perform the following actions:

  # tencentcloud_vpc.foo will be updated in-place
```

```
  ~ resource "tencentcloud_vpc" "foo" {
        id                    = "vpc-jhmdf9q9"
      ~ name                  = "ci-temp-test-updated" -> "ci-temp-test-updated2"
        tags                  = {
            "test" = "test"
        }
        # (6 unchanged attributes hidden)
    }

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

------------------------------------------------------------------------

Note: You didn't use the -out option to save this plan, so Terraform can't guarante
now.
```

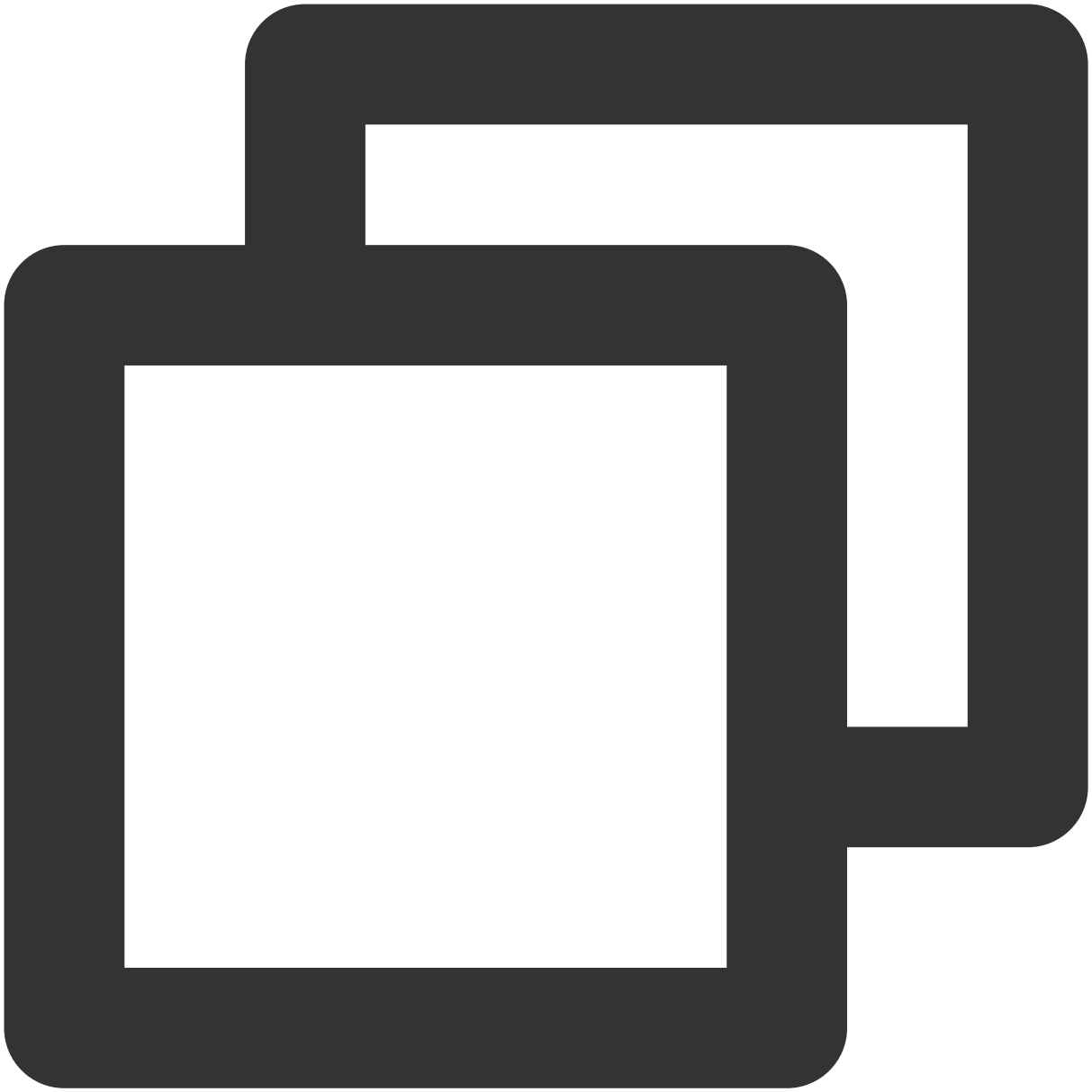
Run the `terraform apply` command to create the resource with the updated data. The following information is returned:



```
➜  terraform_workspace terraform apply
tencentcloud_vpc.foo: Refreshing state... [id=vpc-jhmdf9q9]

Terraform used the selected providers to generate the following execution plan. Res
  ~ update in-place

Terraform will perform the following actions:

  # tencentcloud_vpc.foo will be updated in-place
  ~ resource "tencentcloud_vpc" "foo" {
        id                    = "vpc-jhmdf9q9"
```

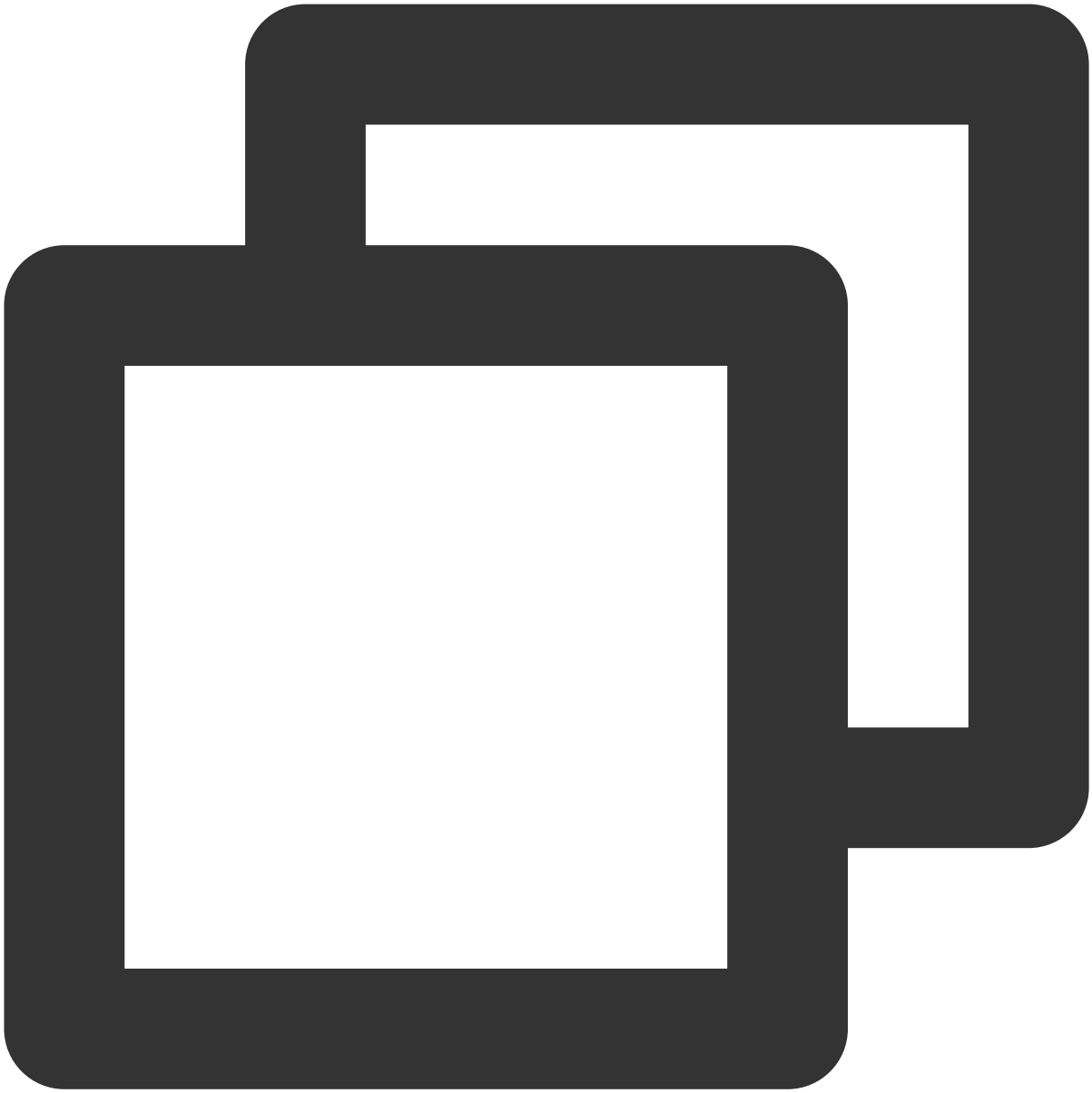
```
      ~ name                    = "ci-temp-test-updated" -> "ci-temp-test-updated2"
        tags                    = {
            "test" = "test"
        }
        # (6 unchanged attributes hidden)
    }

Plan: 0 to add, 1 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

tencentcloud_vpc.foo: Modifying... [id=vpc-jhmdf9q9]
tencentcloud_vpc.foo: Modifications complete after 1s [id=vpc-jhmdf9q9]

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

8. You can run the command below to terminate the resource as needed.



```
terraform destroy
```

The returned information is as follows:



```
➜  terraform_workspace terraform destroy
tencentcloud_vpc.foo: Refreshing state... [id=vpc-07mx4yfd]

Terraform used the selected providers to generate the following execution plan. Res
indicated with the following symbols:
  - destroy

Terraform will perform the following actions:

  # tencentcloud_vpc.foo will be destroyed
  - resource "tencentcloud_vpc" "foo" {
```

```
      - cidr_block              = "10.0.0.0/16" -> null
      - create_time             = "2021-12-15 16:20:32" -> null
      - default_route_table_id  = "rtb-4m1nmo0e" -> null
      - dns_servers             = [
          - "119.29.29.29",
          - "8.8.8.8",
        ] -> null
      - id                      = "vpc-07mx4yfd" -> null
      - is_default              = false -> null
      - is_multicast            = false -> null
      - name                    = "ci-temp-test-updated" -> null
      - tags                    = {
          - "test" = "test"
        } -> null
    }

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

Do you really want to destroy all resources?
  Terraform will destroy all your managed infrastructure, as shown above.
  There is no undo. Only 'yes' will be accepted to confirm.

  Enter a value: yes

tencentcloud_vpc.foo: Destroying... [id=vpc-07mx4yfd]
tencentcloud_vpc.foo: Destruction complete after 7s

Destroy complete! Resources: 1 destroyed.
```