

1 Introduction to Terraform

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Issue 01
Date 2023-12-20



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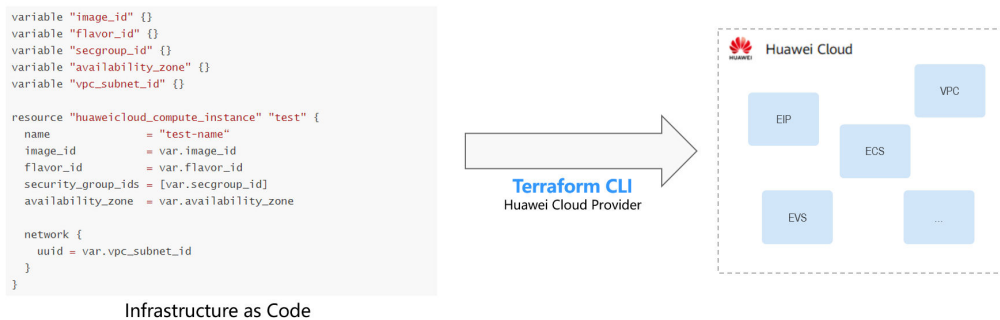
1 Introduction to Terraform

What Is Terraform?

Terraform is an open-source tool used to orchestrate and manage IT infrastructure. You can describe an application or even an entire data center in configuration files. Terraform will then create an execution plan according to the files, and build the described infrastructure by executing the plan.

You can use Terraform to easily create, manage, delete, and version cloud resources on HUAWEI CLOUD. [Click here](#) to view all the cloud resources that can be orchestrated using Terraform.

Figure 1-1 Using Terraform to manage cloud resources



Key Features of Terraform

- Infrastructure as code
You can use a high-level configuration syntax to describe infrastructure. This allows a blueprint of your data center to be versioned and infrastructure to be treated as code. Additionally, infrastructure can be easily shared and re-used.
- Execution plans
Terraform generates an execution plan according to the configuration files you write. The execution plan shows what Terraform will do when you call apply, which ensures that the infrastructure is built or modified as you expected.

- **Resource graphs**
Terraform builds a graph of all your resources. Non-dependent resources can be created or modified at the same time. In this way, Terraform builds infrastructure as efficiently as possible, and operators gain insight into dependencies in their infrastructure.
- **Change automation**
Complex changesets can be applied to your infrastructure with minimal human interaction. With execution plans and resource graphs, you know exactly what Terraform will do and in what order. They help you avoid many possible human errors.