Multi-Cloud Container Applications with CDK for Terraform

CDK x Terraform 跨雲演出

Stroy (1) ...

I have a dream.
I want my appication , run on azure appservice.

Okay !! No Problem .

SEVERAL DAYS LATER

Stroy (2)...

I have another dream.
I want my appication , run on azure appservice and AWS .

Okay … I try my best .

SEVERAL DAYS LATER

Stroy (3)...

I have another dream.
I want my application , run on azure Appservice ,
and other cloud like AWS and GCP etc… , and
easy to deploy .

I already run your application on AWS and Azure .

okay ...

SEVERAL DAYS LATER

Stroy (4) ...

Cloudformation

Deploy Manager

Resource Manager

Resource Orchestration

But every cloud has its own way of setting

How to let it easy to deploy ....

Stroy (5)...

Stroy (6)...

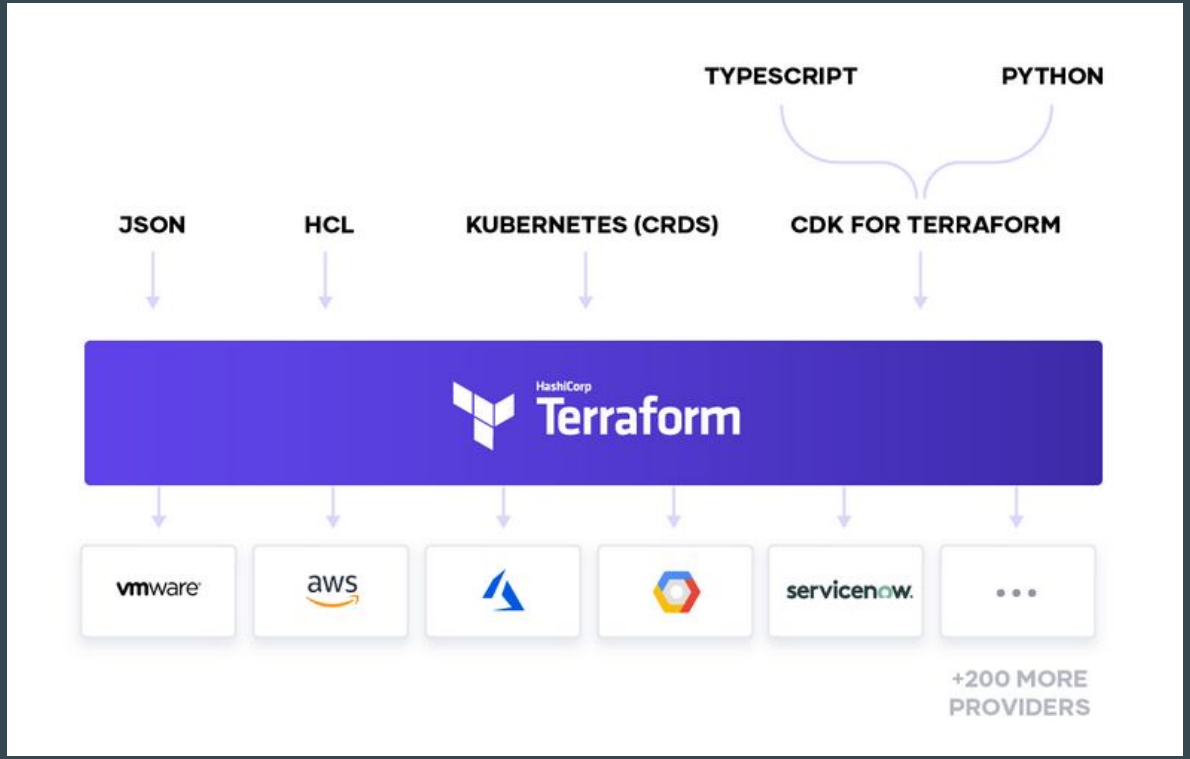
CDK for Terraform

CDK for Terraform is origin from open source porject Terrastack was built over the course of a few days in March 2020.

After four months, the successor of Terrastack - the Terraform CDK - got launched as a joint effort by Hashicorp, the AWS CDK team with @skorfmann.

source blog

CDK for Terraform



With the CDK for Terraform you can define infrastructure resources using the supported programming languages. The tool generates a Terraform configuration in JSON that can be applied with terraform apply or using the CDK for Terraform CLI with cdktf deploy.

so we can use like typescipt , python define your resource deploy to **Multi-Cloud**

Story

Now we know , can use CDK for Terraform define our Infrastructure

But how make it fast deploy

Contalner !!!

Google CLoud Run project > GCR image > Cloud Run

GCP Cloud Run is built from Knative, letting you choose to run your containers either fully managed with Cloud Run, in your Google Kubernetes Engine cluster, or in workloads on-premises with Cloud Run for Anthos

Fully Managed
Severless
Container

Build
From
Knative

Custom
Cpu
Memory

AWS ECS/EKS Fargate VPC > ECS Cluster > Fargate > Route53

AWS Fargate is a serverless compute engine for containers that works with both Amazon Elastic Container Service (ECS) and Amazon Elastic Kubernetes Service (EKS).

Custom
Cpu
Memory

Good
Friend
EKS / ECS

Severless
Container

Azure AppService for Containrs

Resource group > AppServicePlan > AppService

Azure App Service for Containers will deploy the containerized application to the production stage in a few seconds according to your preferred dependencies.

Easy
Deploy
Containerized
Appication

Full
Managed
infrastructure

automatically
handles OS
patching and
load balancing

Alibaba Docker Swrm

Alibaba Cloud Container Service is a scalable, high-performance, container management product that allows you to orchestrate and manage containerized application lifecycles with either Docker Swarm

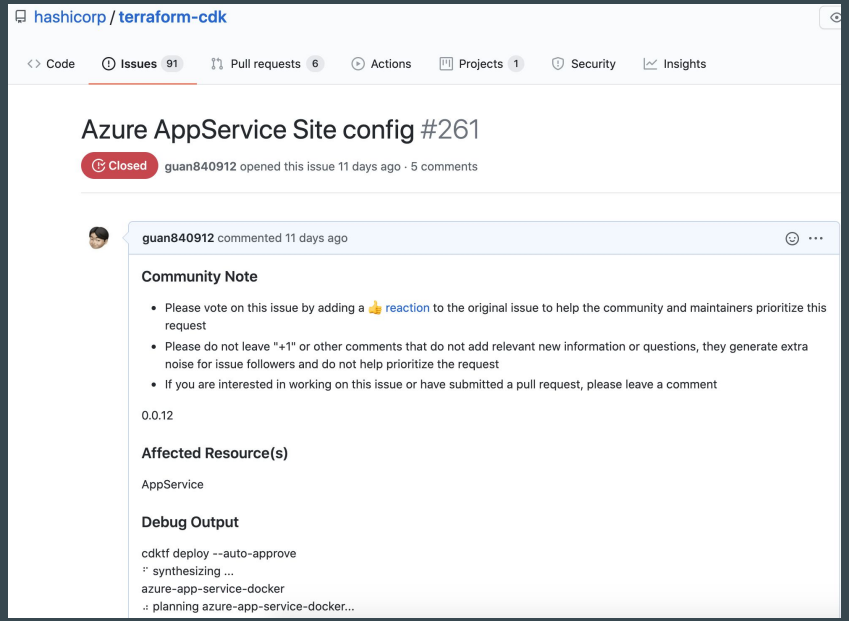
Full
Managed
infrastructure

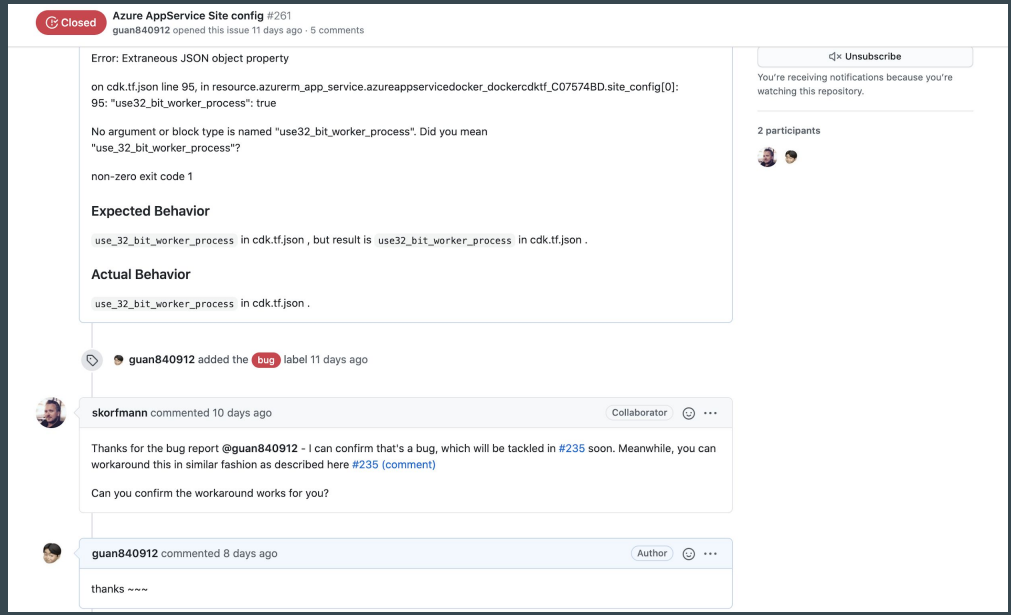
Deploy Service
Like
Dockercompose
Yaml

Easy
Deploy
Containerized
Appication

About CDK for Terraform a few week ...

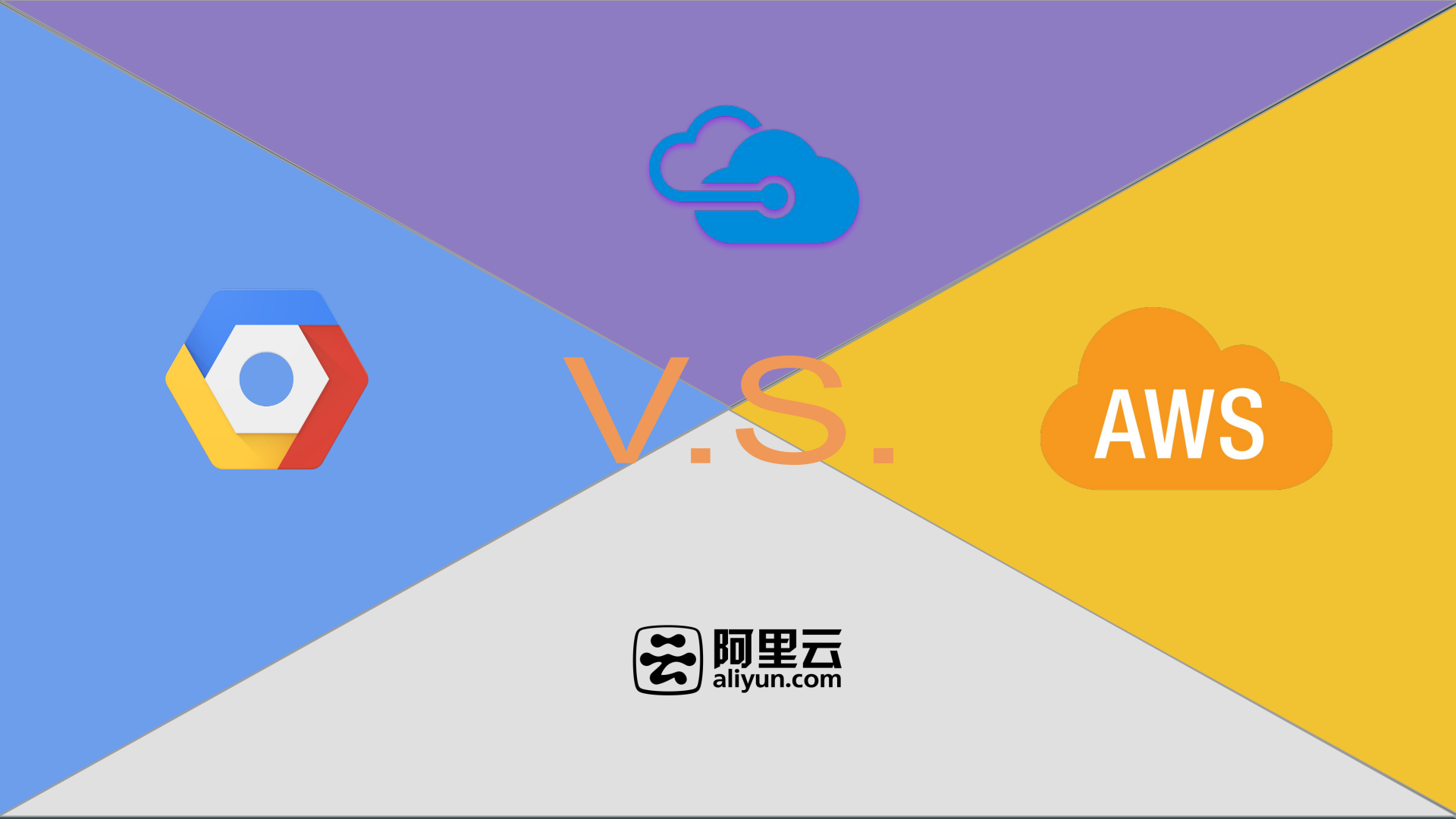
After using the CDK for Terraform up to now, I have felt its power. Because of the AWS CDK, it is very easy to get started, but because of the alpha version, I still encountered one or two issues in the process.





CDK for Terraform

Start to Demo ...


V.S.
AWS
阿里云
aliyun.com

Just for Fun ！ ！ ！

Which one application do you think can be used fastest ??