

Multi-Cloud Container Applications with CDK for Terraform



CDK x Terraform 跨雲演出

Stroy (1) ...

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

Okay !! No Problem .



**SEVERAL
DAYS
LATER**

**3 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**

**3 DAYS
LATER...**

Stroy (3)...

I already run your application on **AWS** and **Azure** .

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

okay ...



**SEVERAL
DAYS
LATER**

**3 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)...



HashiCorp

Terraform



CDK for Terraform

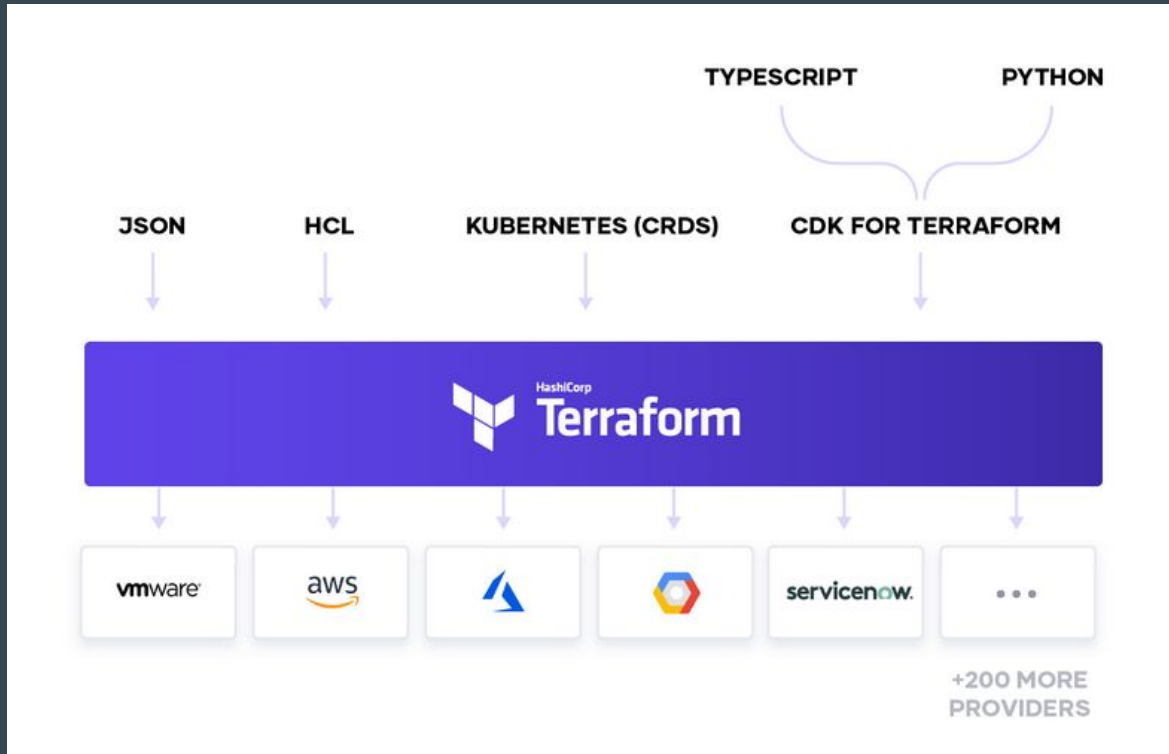
CDK for Terraform is origin from open source project [Terrastack](#) was built over the course of a few days in March 2020.

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 typescript , 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



Container !!!

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
Serverless
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 Containers

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
Application**

**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.

hashicorp / terraform-cdk

<> Code ① Issues 91 Pull requests 6 Actions Projects 1 Security Insights

Azure AppService Site config #261

Closed guan840912 opened this issue 11 days ago · 5 comments

guan840912 commented 11 days ago

Community Note

- Please vote on this issue by adding a 🙌 [reaction](#) to the original issue to help the community and maintainers prioritize this request
- Please do not leave "+1" or other comments that do not add relevant new information or questions, they generate extra noise for issue followers and do not help prioritize the request
- If you are interested in working on this issue or have submitted a pull request, please leave a comment

0.0.12

Affected Resource(s)

AppService

Debug Output

```
cdktf deploy --auto-approve
" synthesizing ...
azure-app-service-docker
∴ planning azure-app-service-docker...
```

Azure AppService Site config #261

Closed guan840912 opened this issue 11 days ago · 5 comments

Error: Extraneous JSON object property

on cdk.tf.json line 95, in resource.azure_rm_app_service.azureappservice_docker_dockercdktf_C07574BD.site_config[0]:
95: "use32_bit_worker_process": true

No argument or block type is named "use32_bit_worker_process". Did you mean "use_32_bit_worker_process"?

non-zero exit code 1

Expected Behavior

use_32_bit_worker_process in cdk.tf.json, but result is use32_bit_worker_process in cdk.tf.json.

Actual Behavior

use_32_bit_worker_process in cdk.tf.json.

guan840912 added the bug label 11 days ago

skorfmann commented 10 days ago Collaborator

Thanks for the bug report @guan840912 - I can confirm that's a bug, which will be tackled in #235 soon. Meanwhile, you can workaround this in similar fashion as described here #235 ([comment](#))

Can you confirm the workaround works for you?

guan840912 commented 8 days ago Author

thanks ~~~

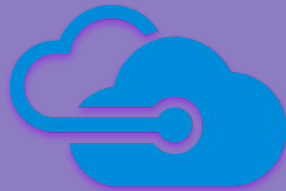
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2 participants

CDK for Terraform

Start to Demo ...



V.S.



Just for Fun ! ! !

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