



## High-Availability Amazon EKS Clusters with Terraform

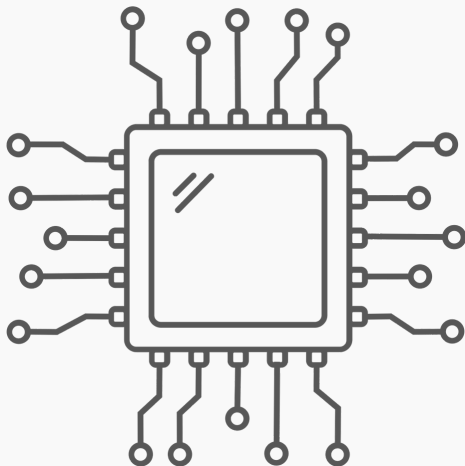
### ABOUT THE CLIENT

Our client is a mid-size company located in the US and working on hardware development and provisioning.

The client was striving to ensure the high quality of their product and needed an infrastructure to help support it. Our engineers were asked to apply an infrastructure-as-code tool to codify the client's AWS infrastructure and implement automatic pipelines to speed up the updates of the environments and improve code quality. In addition to providing DevOps support, Greg Solutions also consulted the client on improving the components in multiple projects.

### GOALS

1. Codify the AWS infrastructure with an infrastructure-as-code tool.
2. Develop automatic pipelines for infrastructure updates.
3. Improve code quality and speed up the updates of the environments.
4. Migrate the applications from Amazon ECS to the Amazon EKS clusters.
5. Improve the components in multiple projects and provide DevOps support.



# Hardware

NAME UNDER NDA

### RESULTS

#### Migrated the client's infrastructure

From AWS Elastic Container Service (ECS) clusters to AWS Elastic Kubernetes Service (EKS) clusters.

#### Developed CI/CD processes

To enable infrastructure modifications with pipelines using Terraform and CircleCI.

#### Improved code quality and accelerated the evolution of the infrastructure

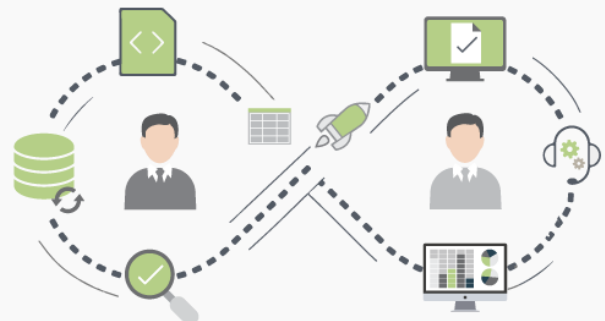
Using code quality checks, nightly builds and custom notifications.

#### Improved security

With Amazon IAM features, multi-factor authentication and regular security checks.

#### Provided daily DevOps support

Troubleshooting, user access management, updating infrastructure by request.





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### TECHNOLOGY STACK



AWS



DOCKER

node NODE.JS



GOLANG



KUBERNETES



TERRAFORM



NGINX



LET'S ENCRYPT



AMAZON EKS



AMAZON ECS



GIT HUB



CLOUD FLARE



AMAZON SQS



AMAZON SNS



PACKER



DOCKER



AMAZON LAMBDA



AMAZON CLOUDFRONT



AMAZON ECR



AMAZON DYNAMODB



AMAZON CLOUDTRAIL



AMAZON ACM



AMAZON ROUTE53



MONGO DB



CIRCLE CI



JENKINS

