

CI/CD pipeline for infrastructure over AWS Cloud

DevOps Case Study

Executive Summary

Brightfield, through their Augmented Analytics Platform named Talent Data Exchange (TDX), provides a suite of analytical applications that help optimize both, extended workforce, and employee talent segments.

Due to the benefits that cloud services bring to the industry, Brightfield seeks to begin their migration to the cloud in an automated way for an efficient deployment.

The Challenge

Build a fully automated Continuous Integration/Continuous Delivery flow that creates the infrastructure in the cloud when there is a change in the code. The main points of this approach are the following:

- Fully automated
- Infrastructure as Code
- Fault tolerance
- High availability
- Security

Why AWS

AWS is a cloud platform that has all the necessary services to create a robust, fully automated, highly available and secure infrastructure.

About Costumer

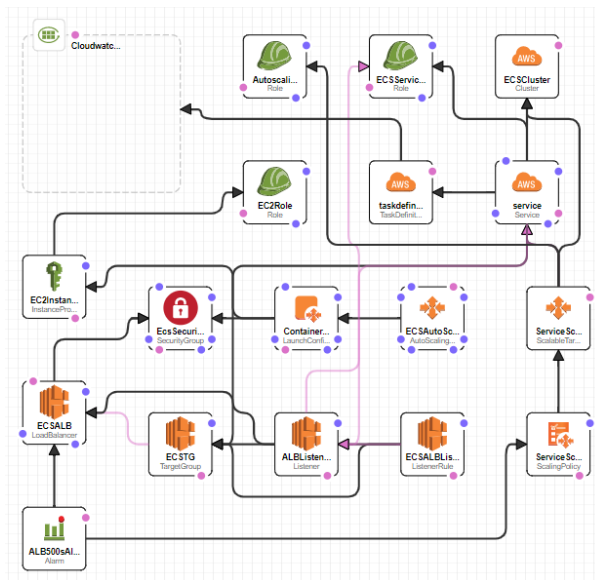


Brightfield is an Artificial Intelligence and Big Data Analytics company that optimizes contract labor and performance for employers and staffing firms.



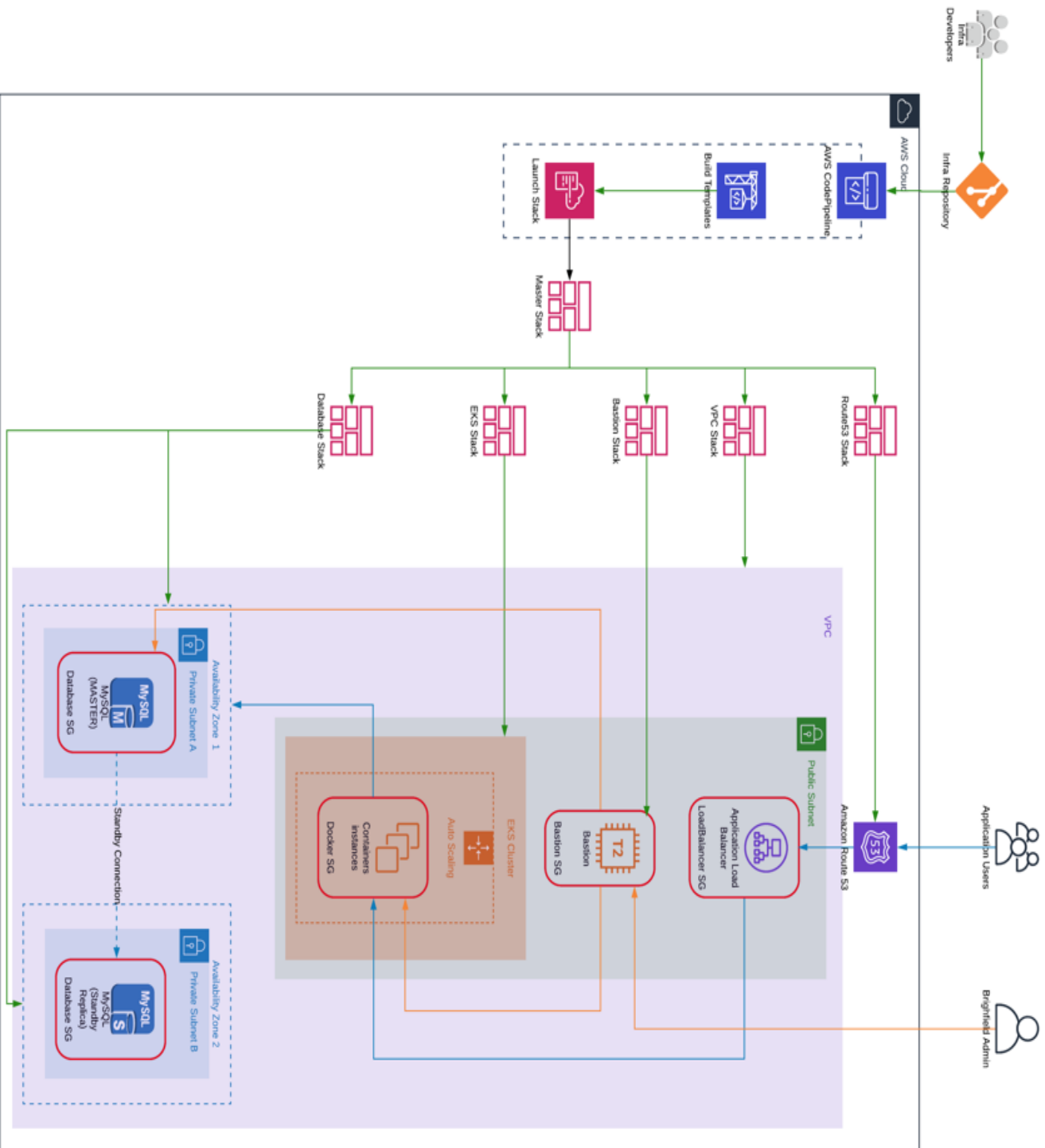
- 100% AWS based solution
- The required infrastructure for each environment is automatically generated using ***CloudFormation*** templates
- The CI/CD was implemented with **CodePipeline** and **CodeBuild**
- The solution follows security best practices

- 100% AWS based solution
- DevOps practices
- Fully automated
- Infrastructure as Code (IaC)



With this we successfully achieved to get a highly available, secure and fully automated architecture that AWS provides.

CI/CD CloudFormation Solution Diagram



Next Steps

Now that some microservices and databases were migrated to the cloud, the next steps are to replicate this work scheme on different aspects of the company.

AWS has five pillars of a well-architected framework: **security, reliability, performance efficiency, cost optimization, and operational excellence**. As part of the migration, the applications will have been properly configured and patterned after the reference implementation architectures, standards, and conventions following AWS best practices.

Benefits

Superior Performance

This infrastructure provides a fast, resilient and highly available environment for the application.

Fully Automated

The creation of the infrastructure is deployed automatically using **CloudFormation** anytime there are changes in the code of the templates.

Fully Managed

With fully managed resource provisioning, maintenance and backup, deployments are more efficient.

About IO Connect Services

IO Connect Services is a company specializing in Information Technology Consultancy Services. All our team members have one thing in common: our enthusiasm for technology and our passion for customer service excellence. We provide services in all North America, LATAM and Europe. Our headquarters in the NYC metropolitan area and we also have offices in Guadalajara, Mexico and Madrid, Spain.