

Senior DevOps Engineer

Product

DISCLAIMER: *This task is a voluntary unpaid exercise used solely to evaluate your skills and qualifications for the position. Your participation is optional and shall not constitute employment, contract work, or compensated labor under applicable law.*

DISCLAIMER: *This presentation is confidential and to be used solely for discussion during interview with Storyblok. The presentation is not to be passed on to any third party without the permission of the author.*

Welcome 🖐️

We would like to get to know you and your work approach a bit better. The following task is meant to both familiarize you with the work you would potentially be doing at Storyblok and give us a chance to better understand your skills.

Good to know 💡

Transparency:

You get an accurate snapshot of your role at Storyblok so that you can make an informed decision about potentially joining us.

Fair Assessment:

CVs and unstructured interview processes allow cognitive bias to creep in. This task and scoring rubric is designed to focus on only the important things.

Task Presentation:

The meeting will last one hour:

- Your slides presentation should last no more than the 20 minutes.
- Your interviewer will have specific follow up questions for an additional 20 minutes.
- The rest of the time will be spent focusing on a company values assessment by Storyblok.

We will save time for your questions about us at the end of the hour.

Context:

You have been brought in as a DevOps Engineer to help a fictional company, CloudNova, design and implement a scalable, secure, and automated deployment infrastructure for their cloud-native applications. CloudNova is expanding rapidly and needs a robust system that aligns with modern DevOps best practices and AWS architectural standards.

Your task is to build a fully functional infrastructure using Terraform, configure a container orchestration platform using Amazon EKS or Amazon ECS, and implement secure CI/CD pipelines using GitHub Actions. The deployment system must support two strategies: Blue/Green and Canary Releases.

Requirements:

Infrastructure

- Use **Terraform** to provision infrastructure on AWS.
- Choose and configure either **Amazon EKS** (Kubernetes) or **Amazon ECS** (Fargate or EC2).
- Follow **AWS Well-Architected Framework** principles, with a strong focus on:
 - Identity and Access Management (IAM), Network segmentation (VPC, private/public subnets, Security Groups, NACLs), High availability and fault tolerance

CI/CD Pipeline

- Create a deployment pipeline using **GitHub Actions**.
- Implement secure handling of secrets (e.g., via GitHub Actions secrets or AWS Secrets Manager).
The pipeline must support:
 - **Blue/Green deployment** with automated traffic shifting and rollback.
 - **Canary release** with gradual traffic increase and health checks.
- Include automated tests and rollbacks in case of failure.

Security and Observability

- Implement security best practices in both the infrastructure and CI/CD pipeline.
- Ensure proper logging, monitoring, and alerting.
- Apply least privilege principles for IAM roles and policies.

Deliverables:

Terraform Codebase

Infrastructure-as-Code for the chosen architecture.

GitHub Actions Pipeline

YAML workflows showcasing Blue/Green and Canary deployment strategies.

Documentation

- Explanation of architectural decisions and security implementations.
- How to deploy and test the environment.
- Diagrams and step-by-step instructions.

Presentation:

Objective: Present your solution as if to a team of DevOps Engineers and stakeholders.

- Highlight key decisions, challenges, and trade-offs.
- Discuss how security and high availability were addressed.

Tasks completion

Please submit your completed tasks on the Greenhouse link provided previously via email.

Thank You

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