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Case study:

# Unleashing Streaming Startups' Potential with DevOps

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## Overview

Our customer is a seed A start-up that is building a multilingual web conferencing technology with live human interpretation. They were looking for a comprehensive solution for conducting conferences with the involvement of real-time translators. As a result, was created a multilingual SAAS interpretation platform.

For about **3 years**, the project has grown to a more than dozen clusters with exceptional workflows and technical solutions.

Our team:

**20+ people**

Period:

**2020 - present**

Client`s location:

**New York City, USA**

Industry:

**Streaming Services**

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## Key Challenges

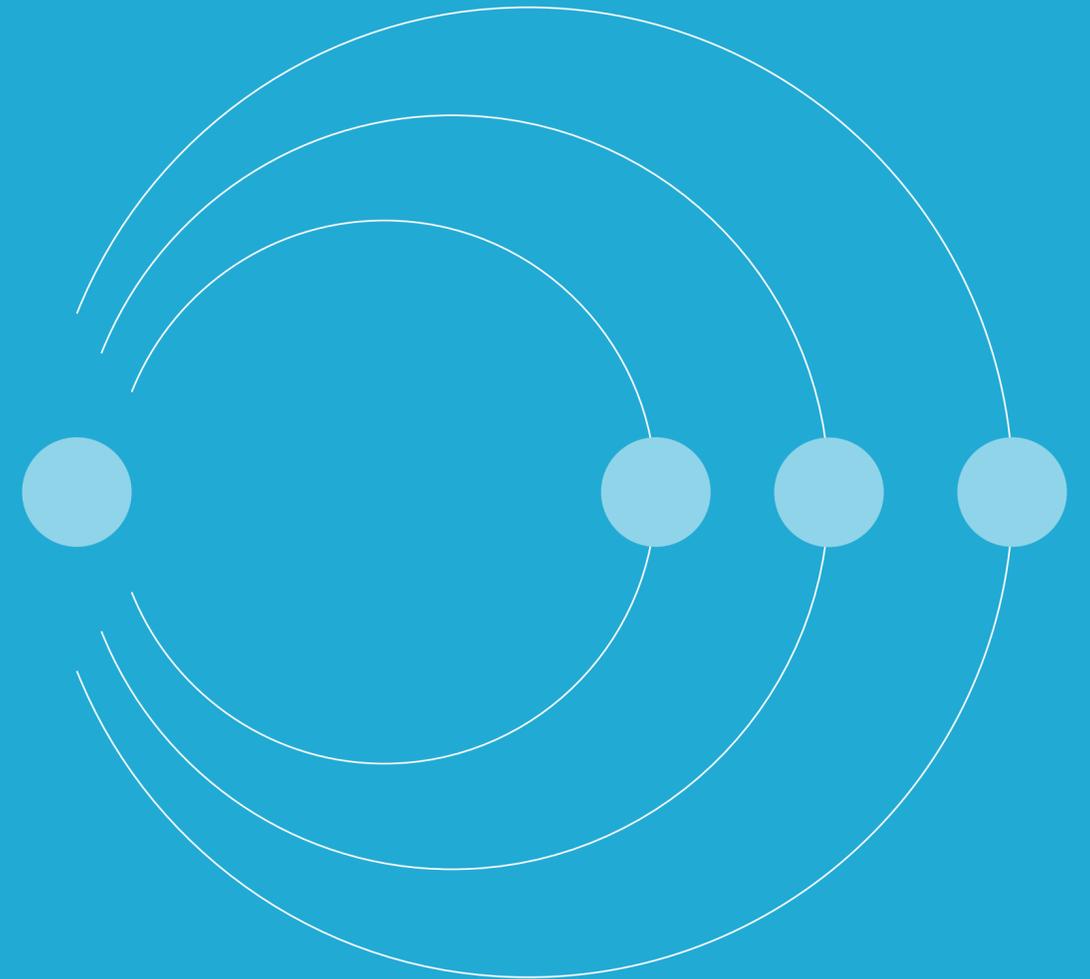
**Deficiencies Overview:** At the onset, we faced the challenge of having to create all infrastructure, K8s, and pipelines from scratch as the client only had a monolithic application hosted on EC2 instances.

**Amazon Application Deployment:** To satisfy the client's needs, the development team had to verify that the application was installed correctly on Amazon utilizing IaC.

**Rapid SaaS Solution:** The customer requested that the development team create a scalable infrastructure utilizing Ansible and EC2 instances within a month, posing difficulty in terms of the tight timeframe.

**Uptime Maintenance:** One major problem was to avoid downtime during the deployment of new updates, which would have a detrimental impact on the client's business operations

**Scope Expansion:** After the project began, the customer discovered that the scope of work was bigger than anticipated. As a result, they found experienced support to manage the project successfully.



# Solutions

- To maximize the benefits of infrastructure as code, we utilized a combination of cutting-edge tools like **Ansible**, **Terraform**, **Jenkins**, **Elastic**, **Kubernetes**, and **Lambda**.
- To ensure the project's success was taken a forward-thinking approach to cost optimization of work, reducing costs **by 60%**.
- The **laaC** framework was smoothly reinstalled, ensuring the system remained optimized, in top working condition, and environments faster **by 85%**.

Background technologies:



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## Results & benefits

- ✓ As a result, we used **Jenkins** and set up **CI/CD** for application deployment in order to make the application work smoothly.
- ✓ New environments now arise **85% faster**.
- ✓ For 3 years, the project has grown to a **20 clusters**, with exceptional workflows and technical solutions
- ✓ After reinstallation, our solution passed the **FedRAMP audit** — a compliance test for offering IaaS, PaaS, or SaaS solutions to US federal entities.
- ✓ Spending was optimized, reducing costs **by 60%**.
- ✓ Datadog monitoring technologies were implemented and set up, to decrease **10Tb of data** every month.

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# Roadmap of the project

The central development was done in 2-3 weeks. To build everything from scratch, we needed a month. The project lasted for 7-8 months.

**FIRST 6 MONTHS** → 6 – 11 months 11 – 16 months 16 – 24 months

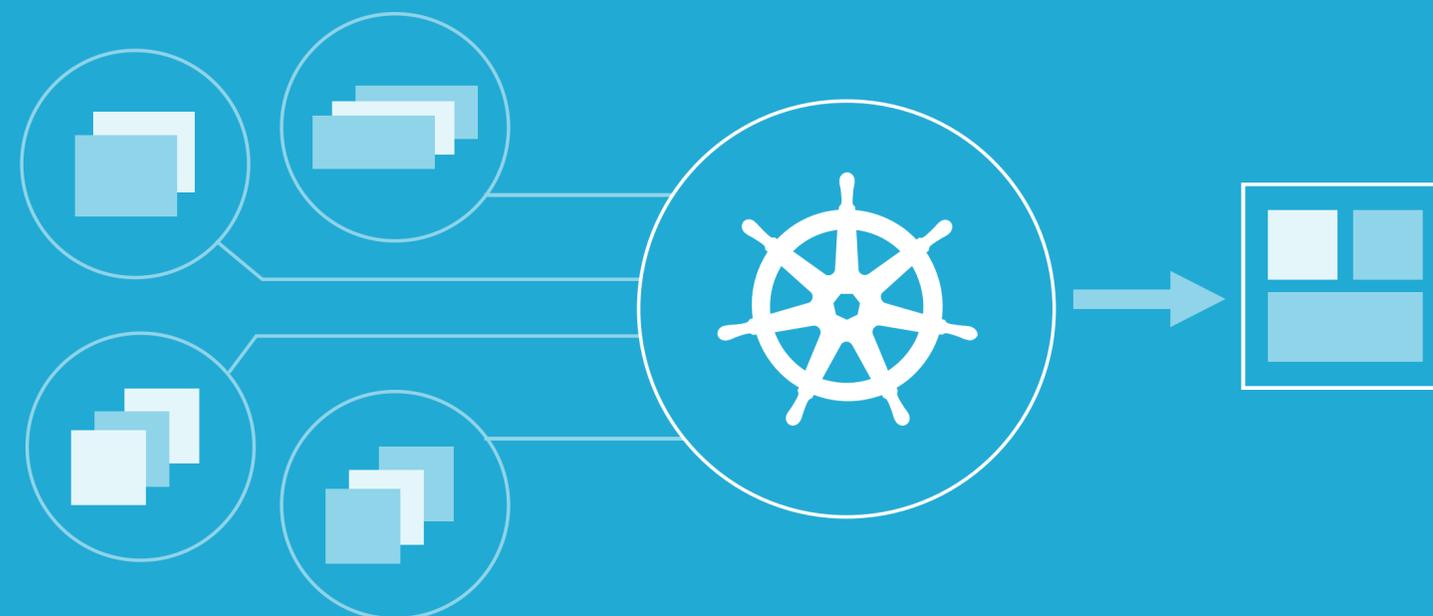
- Created IAC based on **Ansible** + **Terraform** for a legacy system in a multi-region setup.
- Migrated **2** current environments to the new infrastructure.
- Deployed **5** production environments.
- Set up self-hosted monitoring and logging using **ELK clusters**.

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- **Kubernetes adoption.**
- Zero-downtime deployments using **Kubernetes & Helm.**
- The first setup of CI / CD systems, currently including about **200 pipelines.**
- Passed **SOC2 Type II, FedRamp** security certifications.
- Deployed **new KUDO services.**



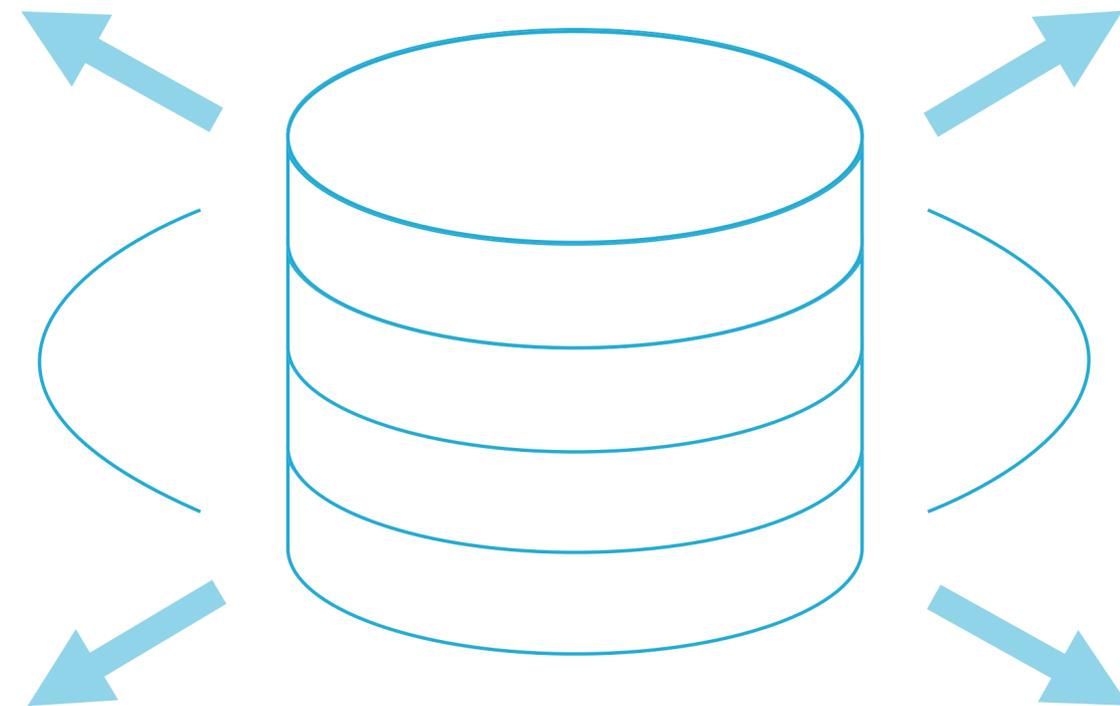
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First 6 months 6 – 11 months **11 – 16 MONTHS** → 16 – 24 months

- IaC refactoring improved infrastructure **modularity**, **compactness**, and **speed** of raising the environment.
- New environments now arise **85%** faster.
- **4 new** projects launched using Kubernetes and Serverless infrastructures.



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First 6 months 6 – 11 months 11 – 16 months **16 – 24 MONTHS**

- We moved monitoring from **10 TB** of data per month to Datadog.
- Also, our team has carried out cost optimization of work, reducing costs by **60%**.
- Now we are preparing for the new stage of **FedRamp**, including setting up a production cluster, according to CIS, NIST, and FedRamp requirements.

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## Clients Feedback



The company is happy with Alpacked's services. They're highly professional and have great communication skills. Their resources integrate well into the firm's internal staff, making engagement much easier. They're reliable and have great talented members. Another advantage, they also have low staff turnover rates.



5.0 ★★★★★ | Clutch



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## About us

Unlock unbeatable DevOps solutions with Alpacked - the go-to experts for fast, reliable results. Our top-notch team combines extensive expertise and cutting-edge technology to tackle any challenge with speed and precision. Trust in our established track record of providing great DevOps services and elevating your IT.

[Learn more](#) about Alpacked at our website, or [contact us](#) directly today!