

SMARTASSIST

TECH CONSULTING

AWS

**Backend
Services**

Data & ML

<https://smartassist.tech>

Expertise

Web & Mobile Backends



Scalable APIs

Architecture

Rapid Development

AWS



Cost Reduction

Containerizing

Automation

Data & ML



Data Wrangling

ETL

Business Intelligence

About us

Architecture Experts

10+ years developing web apps & backends

Mission-critical and production ready skills

Effective Development

Practical and cost-effective solutions

Quality Complete

Attention to detail and best practices in all
our deliverables

Skills

Cloud Native Architecture

System Design (*Microservices, 12 Factor, Tiering*)

Service Deployment (*Containerizing, Orchestration, Observability*)

Infrastructure Management (*IaaS, CD Pipelines*)

Technologies

Frameworks (*Flask, FastAPI, gRPC*)

Infrastructure Services (*PostgreSQL, MySQL, MongoDB, Redis, RabbitMQ, Elasticsearch*)

Tooling (*Docker, Terraform, Packer, Grafana, k6, Jenkins, SonarQube*)

Sample Projects

Sample Project

Our process for revamping a backend with several endpoints and an estimated capacity of 1M

- Architect for feature-completeness, scalability, etc.
 - ↳ Write APIs
 - ↳ Complete security and other requirements
 - ↳ Containerize
 - ↳ Provision + Host
 - ↳ Create deployment pipeline
 - ↳ Setup load-tests and monitoring
 - ↳ Setup backup, logging mechanisms
 - ↳ Hand-over + Knowledge transfer

Sample Project

Production Readiness Audit

Development Process Improvements

Continuous Deployment/Delivery

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deploy th
keep an
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(APIs, da

Making Infrastructure Launch Ready

Production Environment Isolation

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Error Trac

Downtime

API Load

Check whic

API Monit

Setting up

Compress

Making sur
Nginx) and
delivery.

Vulnerability Checks

SSL-ize Endpoints

Move all endpoint to HTTPS. We noticed that some endpoints were unsecured.

Check for Authentication & Access Control Vulnerabilities

Check for underprotected APIs. Also, we noticed an API what looked like it allowed to takeover phone numbers, will get that fixed from Opcto.

Misconfigurations Review

Check for misconfigurations in AWS that leak data.

API Throttling

Setup rate-limiting with WAF/API Gateway

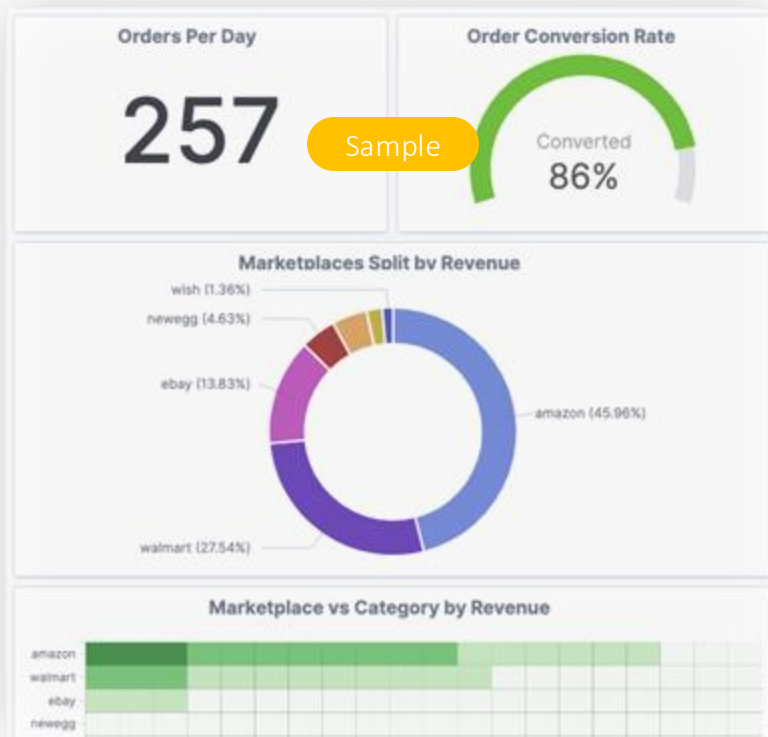
Securing Accounts

Ensuring VCS, AWS accounts are secured with 2FA. Separate IAM accounts with appropriate privileges

Thorough review of services and infrastructure to ensure production readiness

Sample Project

Business Intelligence Setup



Interactive reports, ETL service hosted on AWS

Sample Code

GitHub

github.com/smartassistco

We'd love to work with you

contact@smartassist.tech