



SmartSOS

AWS-Based Location-Aware Emergency Assistance System

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Software Engineering – F2025

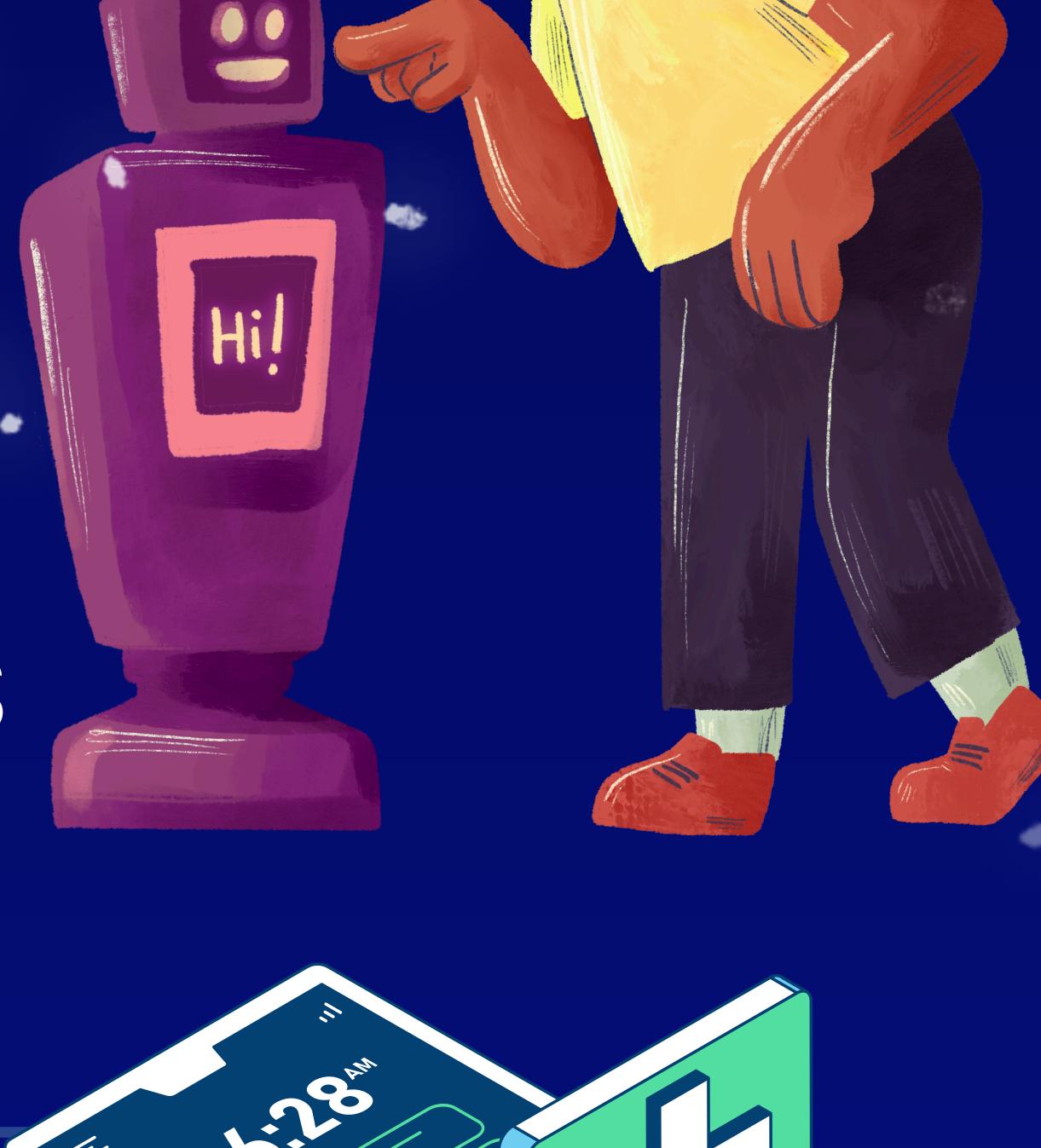
Areesha Hameed Khan | Saleh bint e Bilal

PROBLEM STATEMENT

During emergencies, individuals often struggle to communicate precise locations and incident severity over traditional voice calls, while most existing solutions still lack a secure, unified platform that combines GPS, photos, workflow, and first-aid guidance.

SOLUTION

- One-tap SOS with GPS and photo upload.
- Auto alerts via email/SMS to responders (Amazon SNS + AWS backend).
- Built-in first-aid guidance for injuries, fires, and crimes.
- React SPA · Node.js/Express · AWS EC2 · RDS · S3 · SNS · VPC · CloudWatch



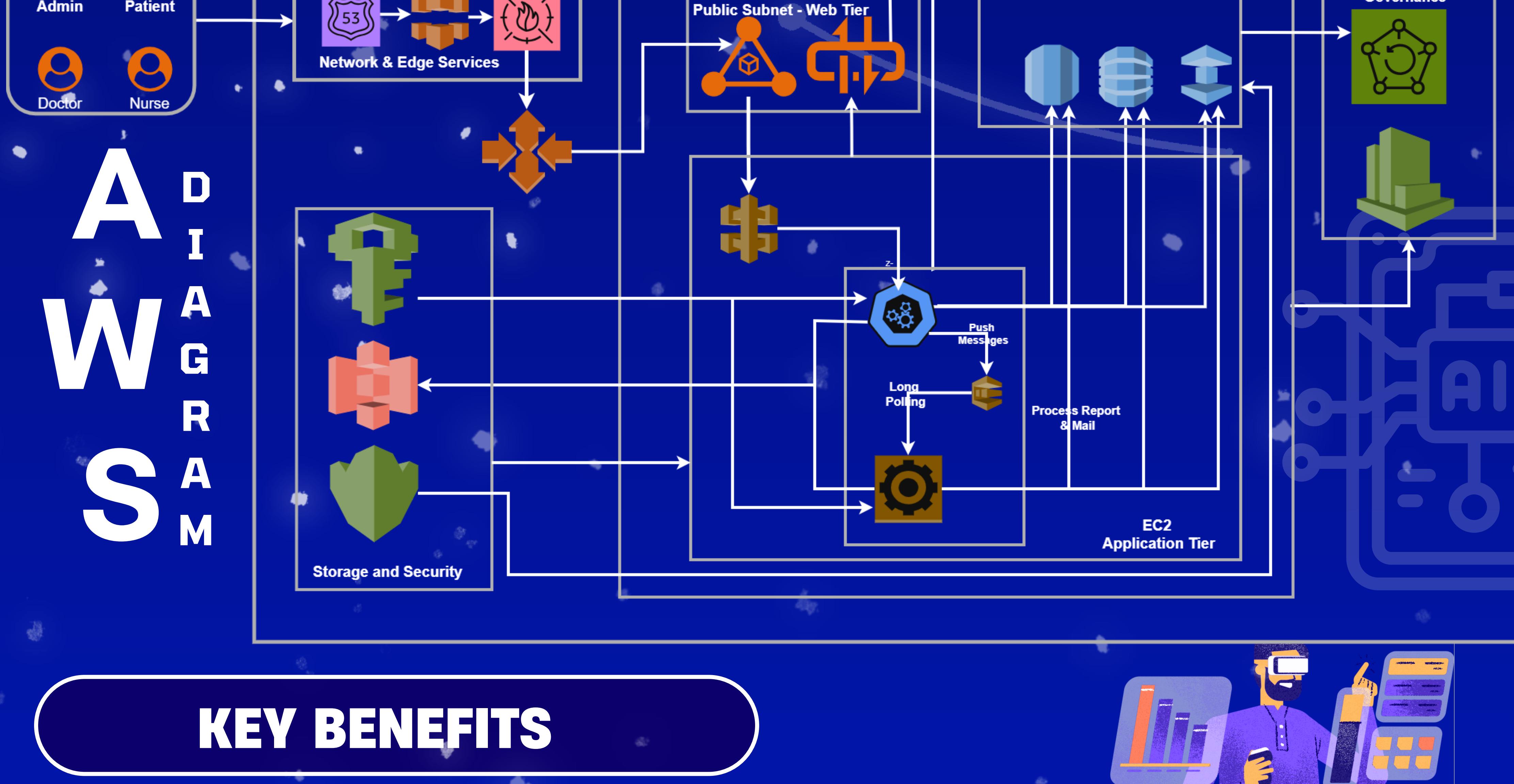
GPS Location



Photo Evidence

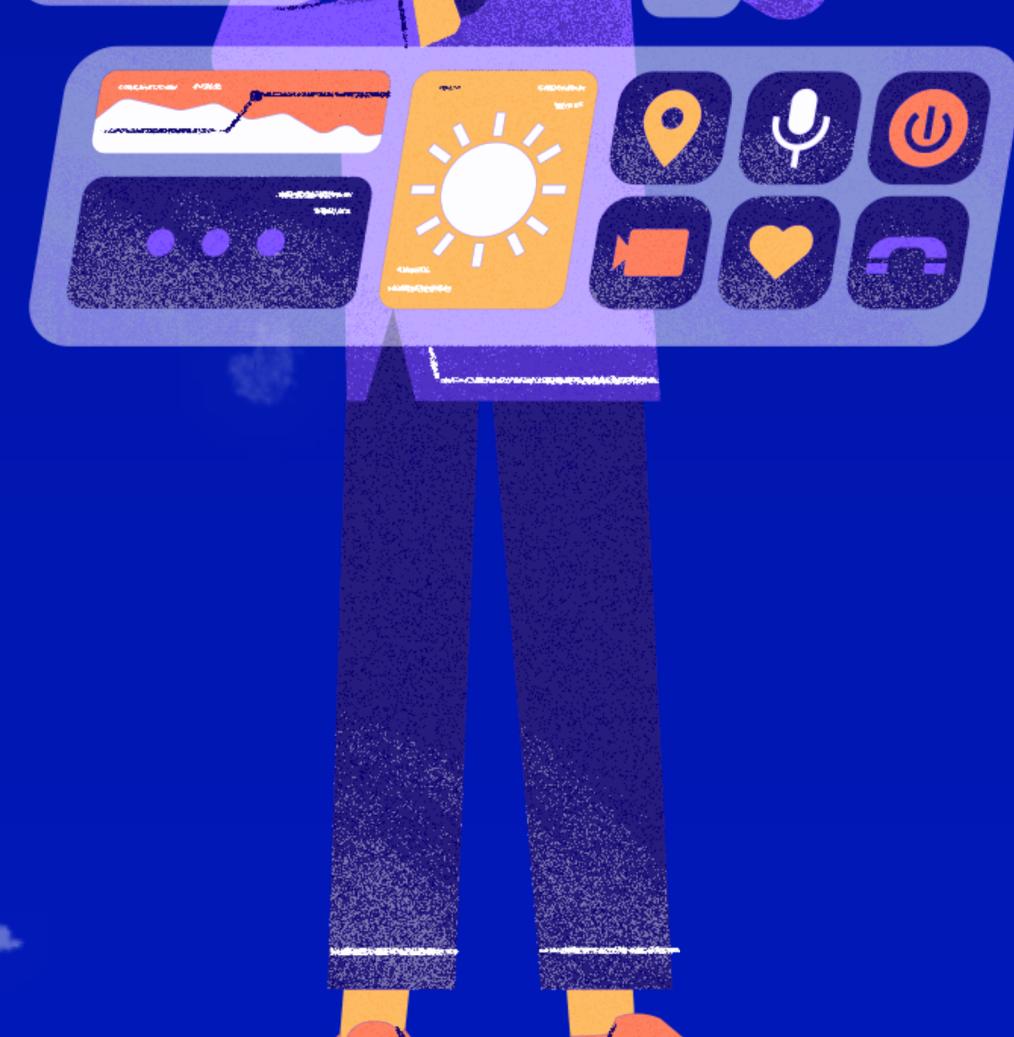


Alert Messages



KEY BENEFITS

- Faster, more accurate emergency response.
- Evidence trail for post-incident analysis.
- Scalable, production-like AWS deployment
- for real-world use.



FUTURE SCOPE

Future enhancements include native mobile apps with push notifications for timely, context-aware alerts, along with real-time location tracking and machine-learning-based incident prioritization to allocate resources more effectively.

APPS

