

TRACKIFY

AI-Driven Project Orchestration & Automated Roadmapping

INTRODUCTION

Traditional task management tools operate as passive systems that rely heavily on manual updates and offer limited intelligence. Trackify enhances project management by integrating AI with a cloud-native AWS microservices architecture to enable automation and predictive insights.

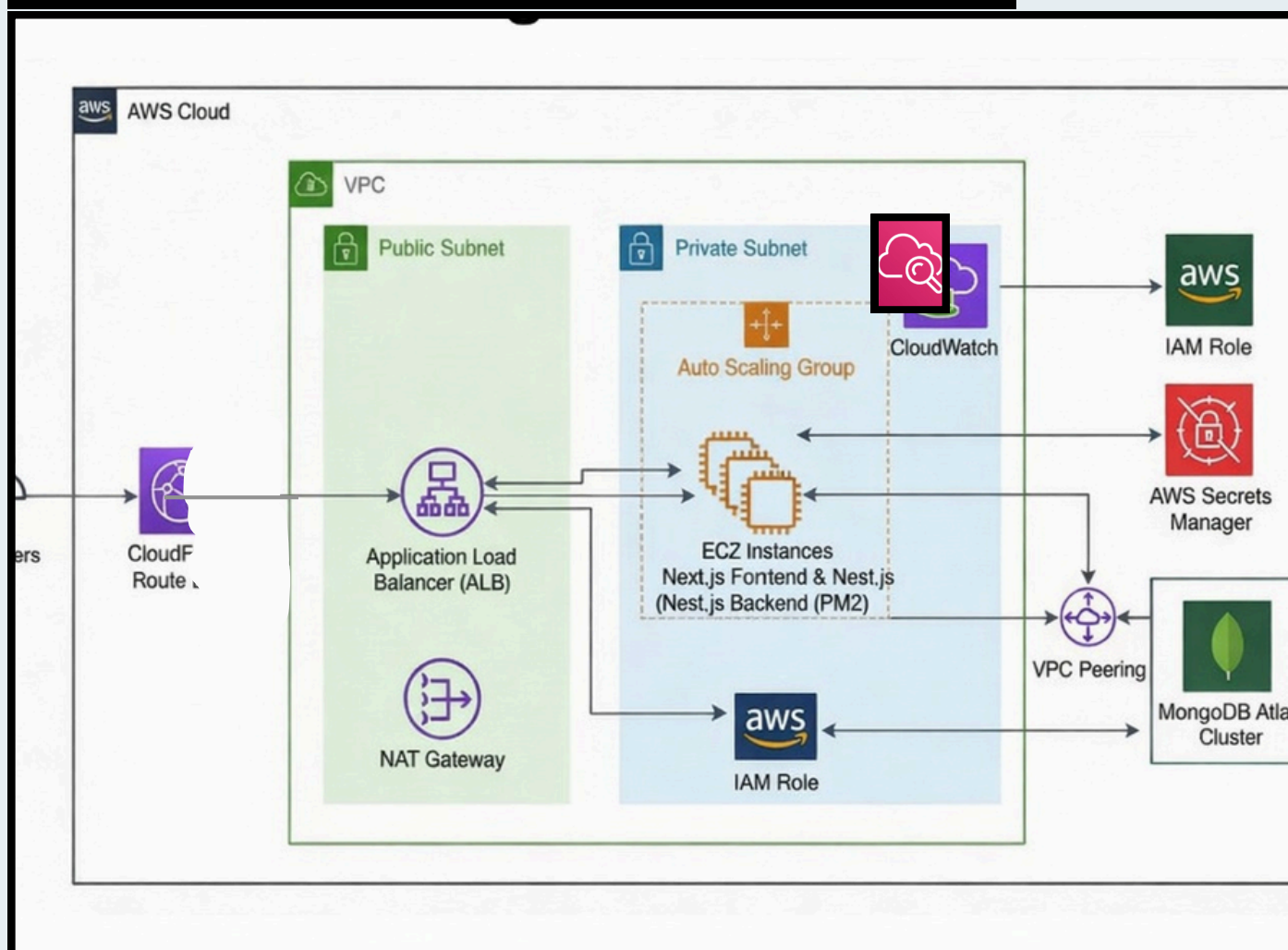
Problem Statement

Teams waste time maintaining tasks and reacting to issues due to a lack of predictive intelligence and workflow optimization in existing tools.

Solution:

Trackify uses AI-driven roadmaps and predictive task suggestions to automate planning, anticipate risks, and optimize workflows with minimal manual effort.

SYSTEM ARCHITECTURE



METHODOLOGY

- **Production Compute:** Scalable EC2 architecture managed via PM2 for process persistence of Next.js and Nest.js microservices.
- **Resilient Networking:** High availability via Multi-AZ Application Load Balancer (ALB) and Auto Scaling Groups (ASG).
- **Secure Persistence:** Private VPC Peering with MongoDB Atlas and centralized credential encryption using AWS Secrets Manager.

CONCLUSION

- **Architectural Resilience:** Deployed a high-availability EC2 stack with ALB and Auto Scaling for 100% service persistence and automated recovery.
- **Security & Data Integrity:** Implemented "Zero-Trust" networking via private VPC Peering with MongoDB Atlas and AWS Secrets Manager.
- **Production Stability:** Utilized PM2 for process management of Next.js and Nest.js, ensuring a scalable and secure collaboration foundation.

TOOLS & SERVICES



Reference:

Instructor: Dr. Zunnurain Hussain

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Shuja ud Din (35)

- 1)"Amazon EC2 Auto Scaling User Guide"
- 2)Process Management with PM2