

## 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.

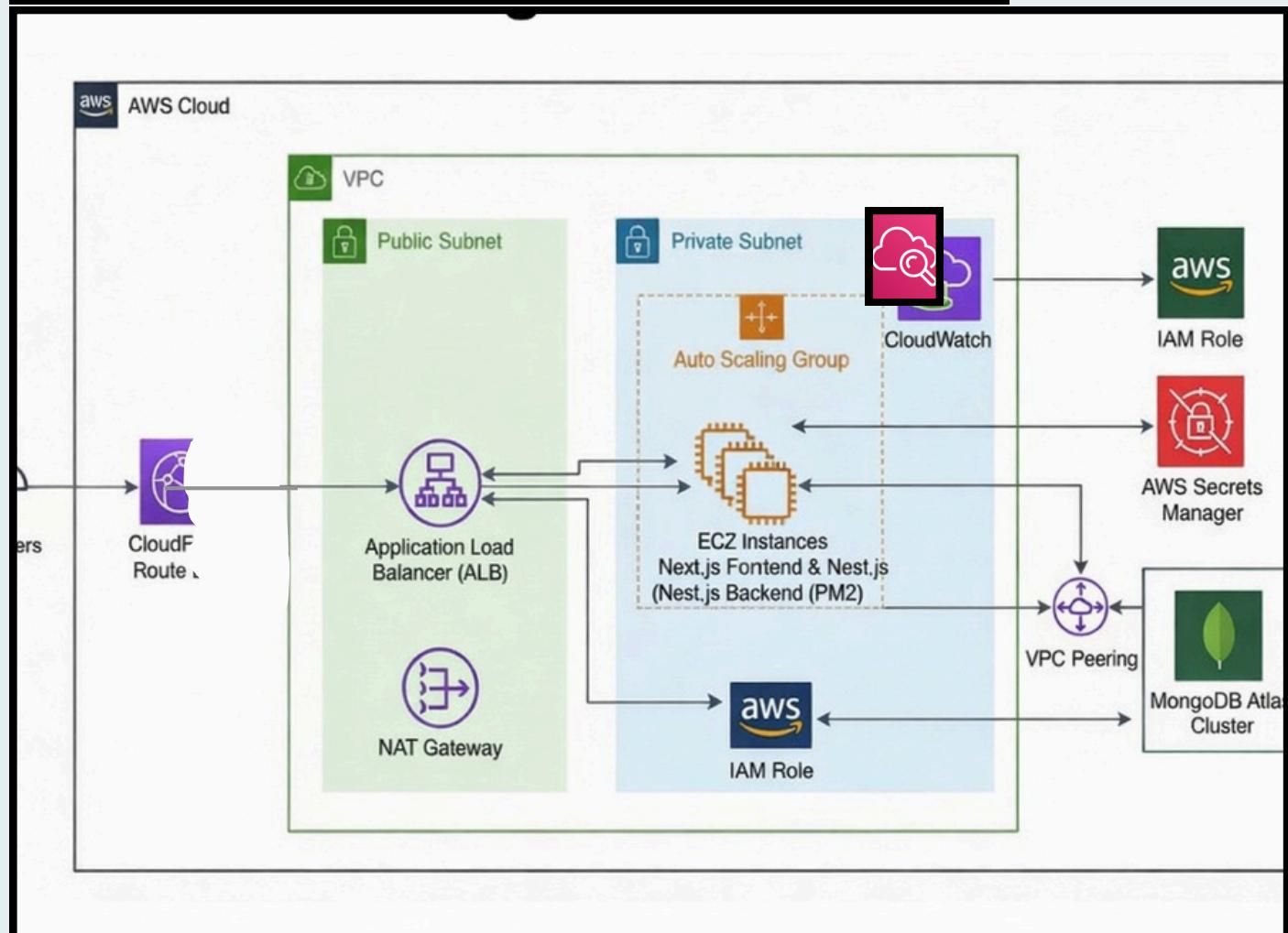
### Problem Statement

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

