



Team Name: Multi-Agent Governance System | Avisikta Pal | Solo Developer



Hackathon: AWS GenAI Hackathon 2025

GEN AI MULTI-AGENT GOVERNANCE SYSTEM

Project Category: Multi-Agent Governance System



THE PROBLEM: SCALING AI GOVERNANCE & COMPLIANCE

- The burden of compliance: GDPR, HIPAA, SOX, etc.
- Manual, reactive processes aren't scalable
- Increasing risk of ethical violations in GenAI

OUR SOLUTION

Our Solution: Multi-Agent Governance System

- AI-powered, real-time governance
- 6 intelligent agents
- Live risk scoring, policy enforcement, and auditing

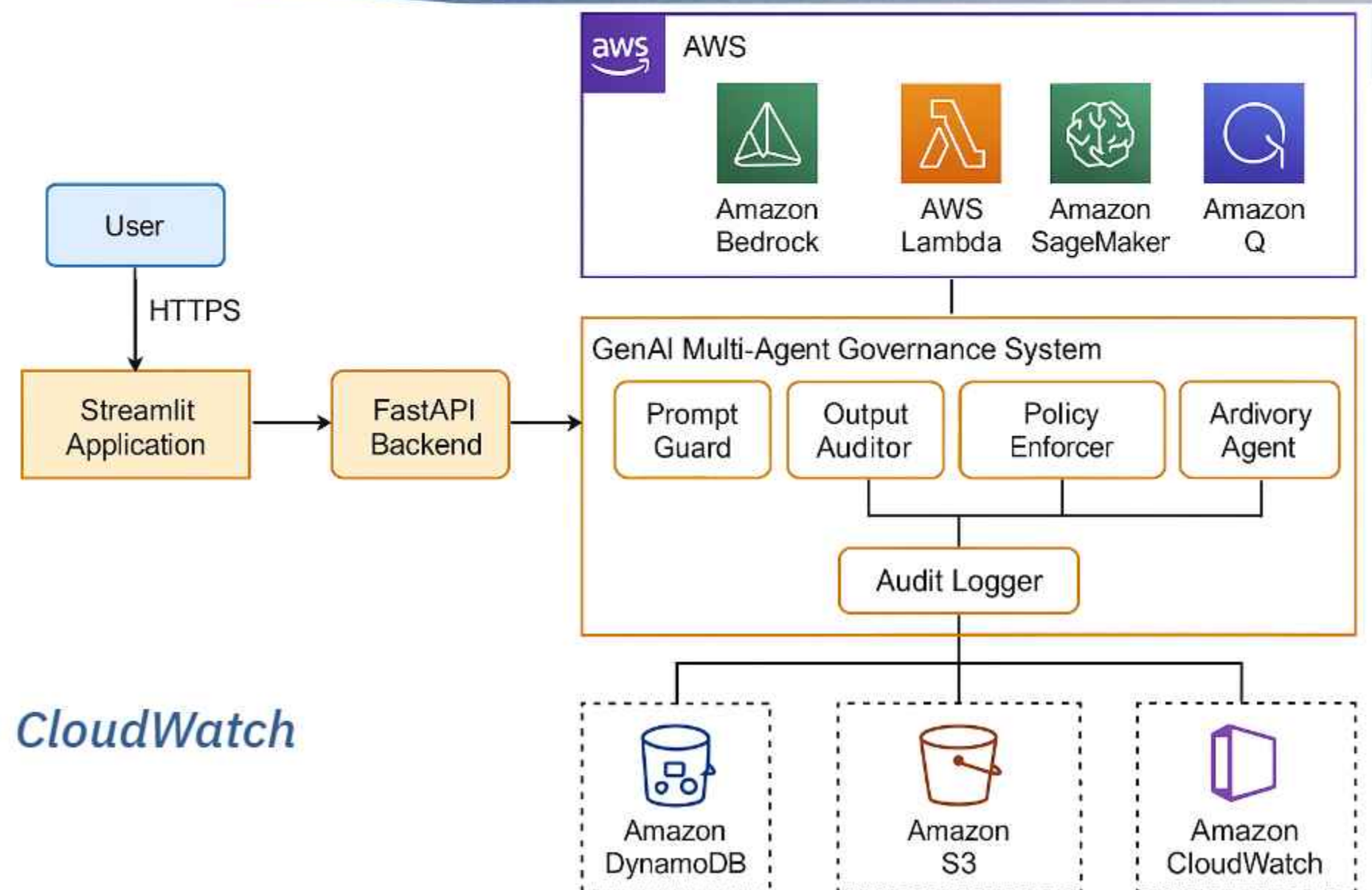


ARCHITECTURE DIAGRAM

Multi-Agent System + AWS Services

Shows:

- Frontend (Streamlit)
- Backend (FastAPI)
- Agents
- AWS services: Bedrock, Comprehend, KMS, IAM, S3, CloudWatch



AGENTS OVERVIEW

✓ Meet the Agents – Core Components

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List the 6 Agents with a short purpose:

1. Prompt Guard
2. Output Auditor
3. Policy Enforcer
4. Audit Logger
5. Advisory Agent
6. Feedback Agent



KEY FEATURES & INNOVATIONS



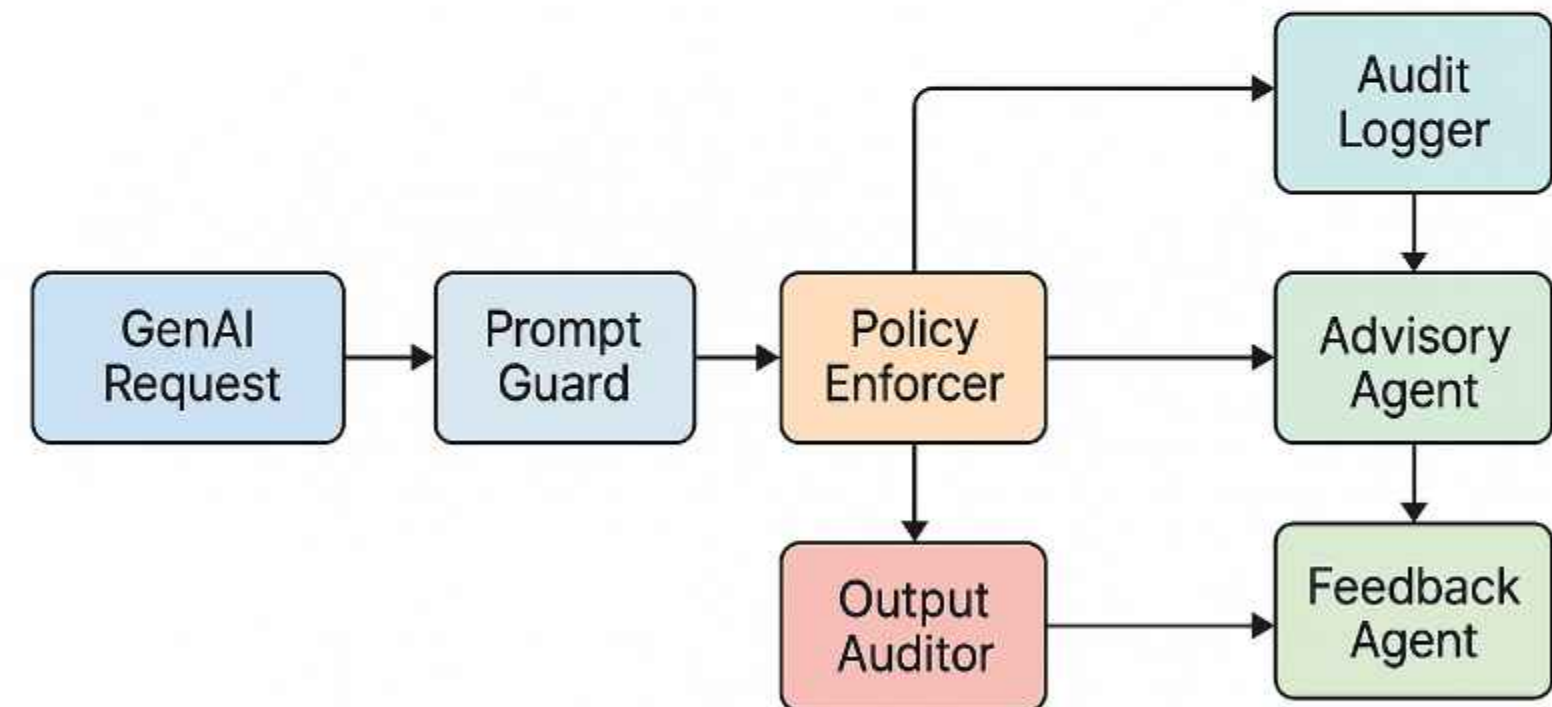
What Makes It Unique?

- Real AWS Integration (Bedrock, Comprehend, KMS, etc.)
- Dynamic policy enforcement
- RBAC (4 roles) + JWT auth
- Real-time audit logging
- Compliance scoring system



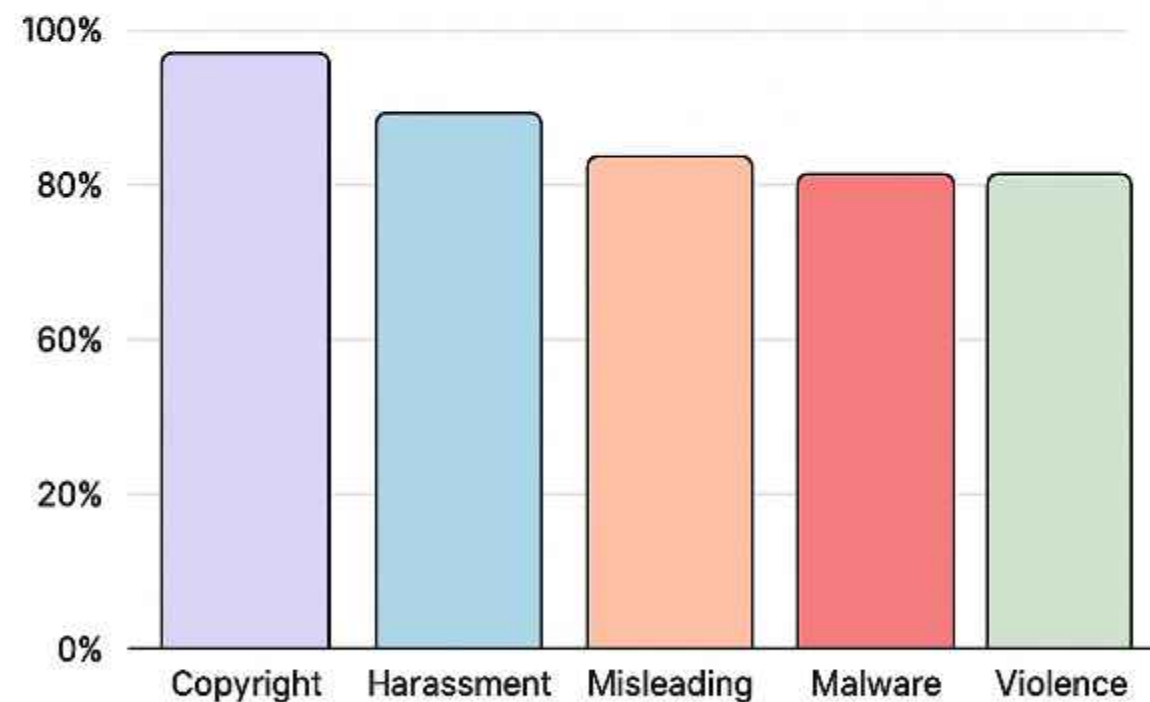
DEMO FLOW

Multi-Agent Workflow



BUSINESS IMPACT

Error Rate Reduction



Business Value & ROI

- Risk Reduction: 95%
 - Compliance Accuracy: 98%
 - Cost savings: 60% reduction in governance overhead
 - Adaptable across industries
- Visual: Bar chart or 4-quadrant infographic (risk, cost, scale, trust)

SECURITY & COMPLIANCE

☎ Security + Compliance Framework

- AWS IAM + KMS + TLS 1.3
- GDPR, HIPAA, SOX, ISO/IEC 42001
- Audit logs + user-level RBAC



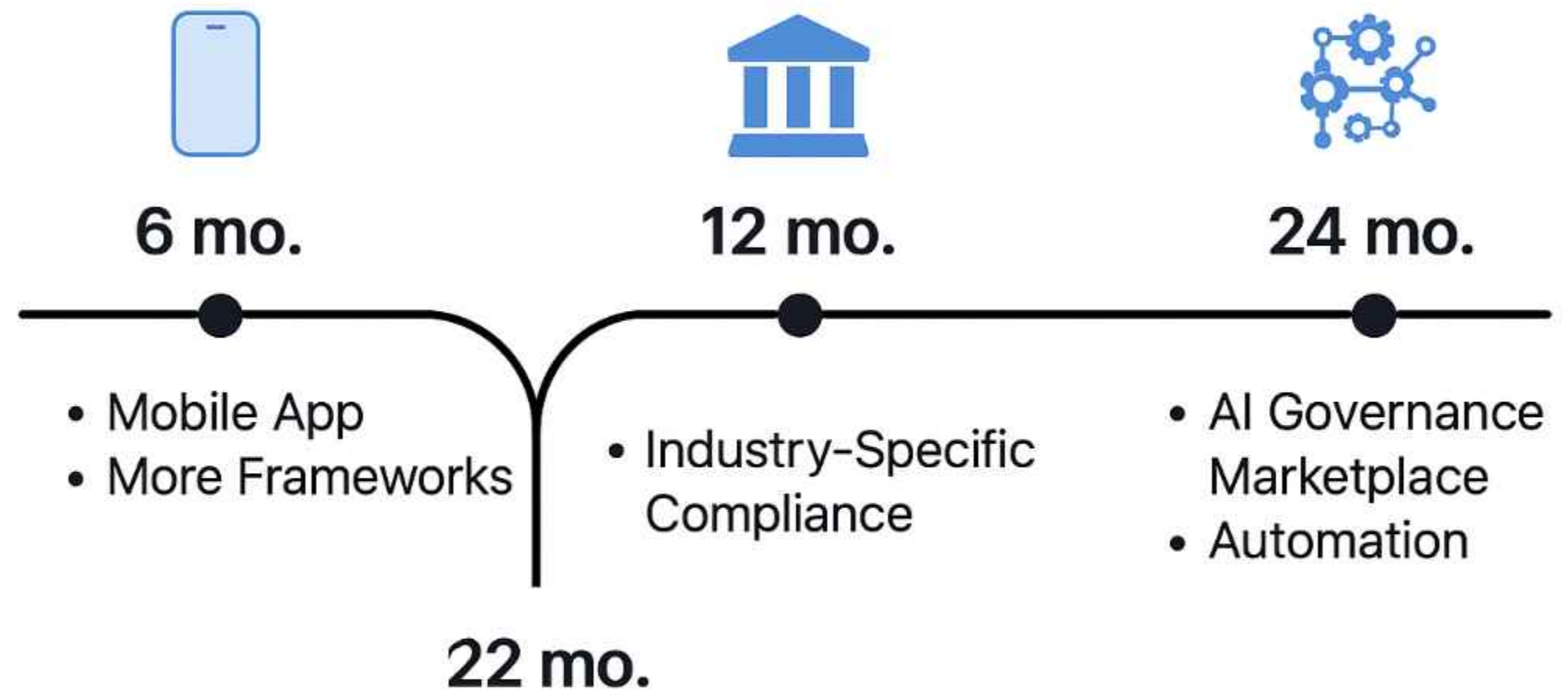
DEPLOYMENT & SCALABILITY

☎ Built for Scale – Cloud Native

- Docker + AWS Lambda / EC2 / ECS
- Auto-scaling via CloudFormation
- Monitoring with CloudWatch
- 99.9% Uptime



FUTURE ROADMAP

Roadmap Ahead







WHY WE SHOULD WIN


✓ Innovation

-  First-of-its-kind Multi-Agent AI Governance System
-  Real-time policy enforcement, output auditing & advisory agents
-  Dynamic compliance with GDPR, HIPAA, SOX, ISO 42001, and more

✓ Execution Excellence

-  6 coordinated agents with <200ms response time
-  Fully AWS-integrated: Bedrock, Comprehend, S3, KMS, Lambda, IAM
-  Solo-built full-stack app: Streamlit + FastAPI + Docker + AWS deployment
-  98%+ compliance accuracy, 95% reduction in violations, 1000+ concurrent users supported

✓ Responsible AI & Trust

-  Content moderation, RBAC (5 levels), consent tracking, anonymized feedback
-  Full audit logging + explainable policy engine
-  Governance scoring and transparent advisory responses

✓ Presentation & Deliverables

-  Concise 3-minute demo showing agent flow, real use case, and audit log
-  Clean architecture diagram, analytics, and visuals
-  Fully documented repo, setup guide, PPT, metrics, and test credentials
-  Solo developer handling full-stack, AI, and infra — demonstrating end-to-end mastery

THANK
YOU

