AWS Bedrock Comprehensive Monitoring Architecture

Application Layer

- Web Applications
- Mobile Applications
- API Clients

Bedrock Services

- AWS Bedrock Runtime API
- Bedrock Foundation Models
- Technical Dashboard
- Management Dashboard

Monitoring Infrastructure

- AWS CloudTrail (API Logging)
- Amazon CloudWatch (Metrics & Logs)
- Lambda Functions (Custom Metrics)
- Security Dashboard
- Cost & Usage Dashboard

Storage Layer

- S3 Bucket (Log Storage)
- CloudWatch Log Groups
- S3 Bucket (Reports)
- Amazon SNS (Alerts)
- Amazon SES (Email Reports)

Analytics & Reporting

- CloudWatch Log Insights
- Custom Analytics (Python Scripts)
- Automated Reporting
- EventBridge (Scheduling)
- Stakeholders (Email Recipients)

Key Monitoring Metrics:
- API Invocations & Success Rate
- Token Usage & Cost Analysis
- Response Times & Performance
- User Behavior & Access Patterns
- Error Rates & Types
- Security Events & Anomalies

Data Flow Types:
- Real-time Metrics
- Log Aggregation
- Batch Analytics
- Alert Notifications
- Scheduled Reports
- On-demand Queries

Architecture follows AWS Well-Architected Framework principles for Security, Reliability, Performance, and Cost Optimization