SMART MONITORING AND RESOLUTION TOOL

BY TECH MAHINDRA AND POWERED BY AWS CLOUD

Summary

Monitoring and observability on cloud is a major focus area for IT organizations around the world due to the complex nature of application architecture and implementation. Organizations rely heavily on several mission critical applications hosted on cloud that even a slight downtime or delay impacts negatively on the top line, customer experience, performance, brand and trust. Tech Mahindra's Smart Observability toolkit is built to cut through the clutter of products in the market by focusing on providing a single dashboard for all observability needs.

Introduction

Enterprise customers are facing the following challenges with their applications on cloud:
- Migrations and modernizations are conducted for **complex customer environments** where KPI's from large numbers of applications need to be captured and analyzed
- Requiring **multiple skillsets** and lengthens deployment schedules and overall cost
- Enterprises asking for better first party **experience** and tools to manage to SLAs.
- Commercial APM tools lack sufficient **intelligence or predictive capability** – requiring engineering rework and skills to enhance capabilities
- **Inflexible license terms** and increased costs with commercial tools

We categorized our approach into the following segments.

Platform Spotlight:
- Preconfigured auto detection and setup of dashboard with summary and detailed dashboards
- Full stack infrastructure observability through an integrated tool view

Application Spotlight:
- Single pane of glass for application segments with enriched tags and metrics
- Summary and detailed app metrics including DevOps metrics as well as SLAs/SLIs/SLOs
- Self -service and analysis of app performance

Error – Cause and Action Spotlight:
- Intelligent root cause analysis prompts, insights and recommended remediation via AI/ML
- Prescriptive guidance to issues
- Bottleneck detection

Our Solution

Built on top of AWS Observability and Telemetry tools, Tech Mahindra's **SMART Observability** solution facilitates faster and smarter services management and monitoring, thereby enabling improved SLA management.

One Click Setup
Pre- Configured Dashboards:
A unified view of the AWS environment
Pulls AWS service info from all accounts
Intuitive navigation- from overview dashboard into accounts, regions, AZs, and server specific views

Monitor & Diagnostics
Metrics & Data Explorer:
Built in custom searchable tags – enables rapid issue identification and diagnosis.

Data Driven Troubleshooting
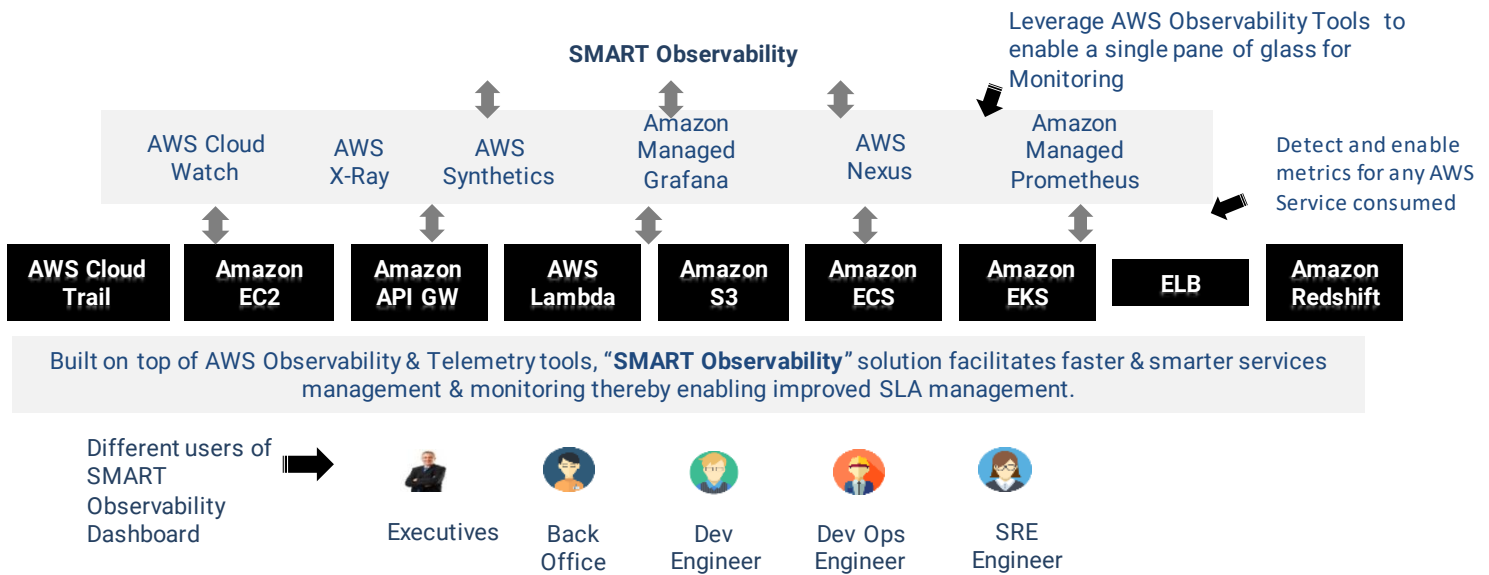**Insights & RCA Explorer**
Troubleshoot issues through Root cause analysis using enriched data insights, RCA explorer & Log searches

AI – Guided Resolution
Intelligent Issue Resolution
AI models developed on past issue resolutions logs, RCA data and operational data to arrive at intelligent guidance for issue resolutions

SMART Observability

Leverage AWS Observability Tools to enable a single pane of glass for Monitoring

AWS Cloud Watch	AWS X-Ray	AWS Synthetics	Amazon Managed Grafana	AWS Nexus	Amazon Managed Prometheus

Detect and enable metrics for any AWS Service consumed

AWS Cloud Trail	Amazon EC2	Amazon API GW	AWS Lambda	Amazon S3	Amazon ECS	Amazon EKS	ELB	Amazon Redshift

Built on top of AWS Observability & Telemetry tools, "SMART Observability" solution facilitates faster & smarter services management & monitoring thereby enabling improved SLA management.

Different users of SMART Observability Dashboard ➡

Executives   Back Office   Dev Engineer   Dev Ops Engineer   SRE Engineer

Benefits

Reduction in Cost (5% to 20%)
- Single click deployment
- Faster to setup and easier to manage
- Fewer L2 and L3 support staff requirement

Improves Operational Excellence
(Up to 20% faster issue resolution)
- Custom tags and enriched data logs help in faster RCA and debugging
- Predictive analysis using AI/ML on past issues, RCA and operational data
- Helps reduce MTTF and enables self healing capabilities in the system

Better Application Maintenance & Management
(Up to 20% better reliability)
- Tracking application health **(slowest transactions and common errors)**
- **Enable KPI dashboards**: Availability, errors, latency, traffic, saturation, utilization, deploy frequency, lead time for changes, MTTD, MTTR, MTBF, page load time
- Decreased change failure rates and MTTR
- Improved uptime reliability

Improved SLA Adherence
(10 to 20% higher commitment on SLA's)
- Cost of L2, L3 and organizing 24x7 support
- Productivity of developers increases – percentage of time spent in bug and defect fixes reduces
- Early detection of issues – helps avoid negative customer feedback

The TechM NXT.NOW™ Advantage

In addition to the deployable model from AWS Marketplace, TechM takes a consultative approach that customizes the solution for the enterprise.

- Due Diligence (1-2 weeks): A Tech Mahindra Observability expert will perform due diligence on the current observability and monitoring setup for the applications running on AWS

- Recommendation (1 week): We will provide you with the results of our due diligence and analysis in terms of:
  - Cost benefit
  - Application performance
  - SLA's alignment
  - Avenues for automation
  - Roadmap for performance optimization

- Pilot Implementation (1-2 weeks) We will configure the SMART Observability dashboard for a few critical applications with automated metrics suitable to your organization needs and guide on how to monitor through the dashboards and ensure SLA adherence.

- Deployment (Based on app Size): Deployment of the full-fledged solution into production with free application updates

Tech Mahindra