

CISCO Engage

Tech Day

# Observability in the AI Era

*Building Resilient Operations  
with Splunk & Cisco*

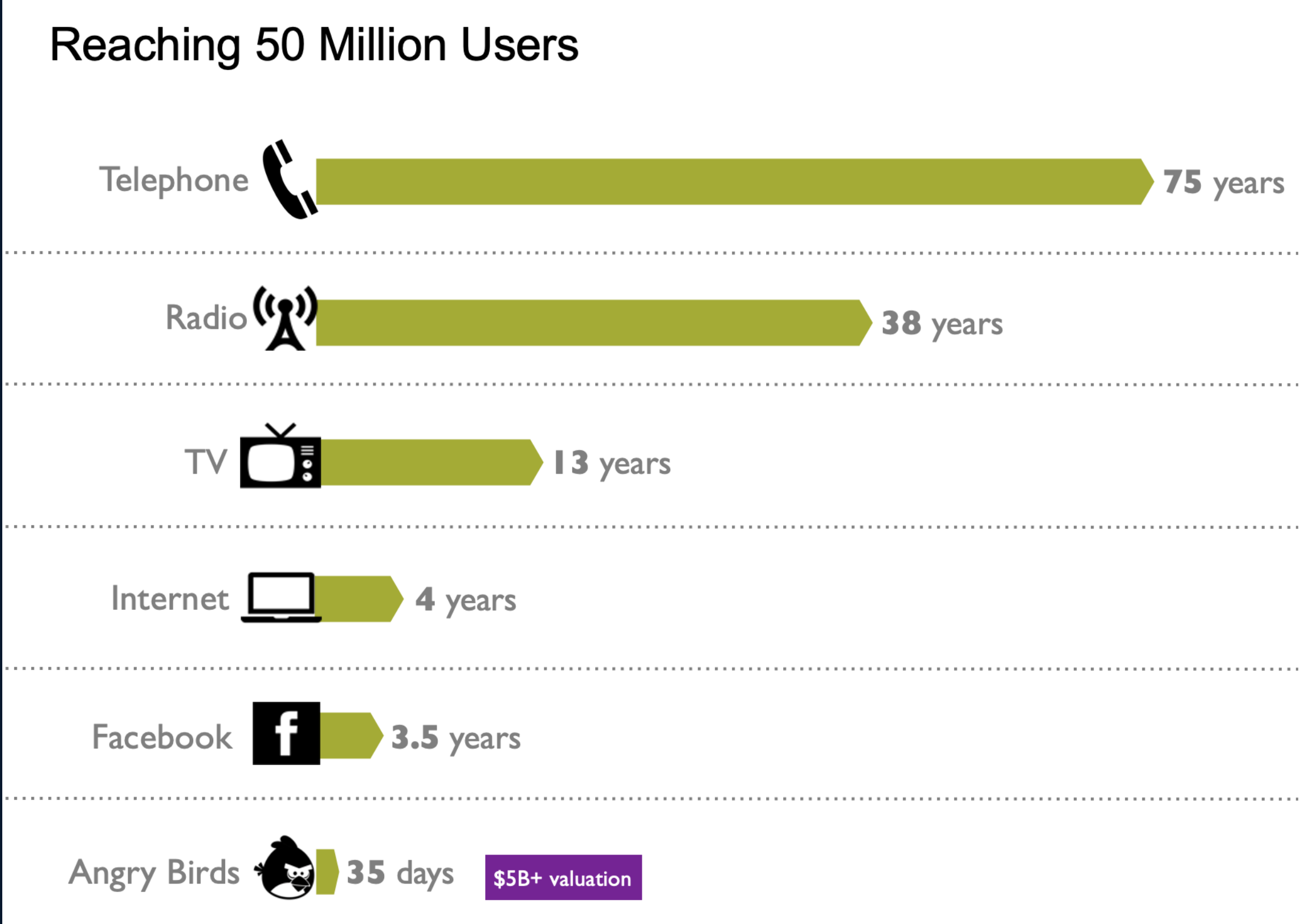
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18 March 2026  
Denver, CO



# Reaching 50 Million Users



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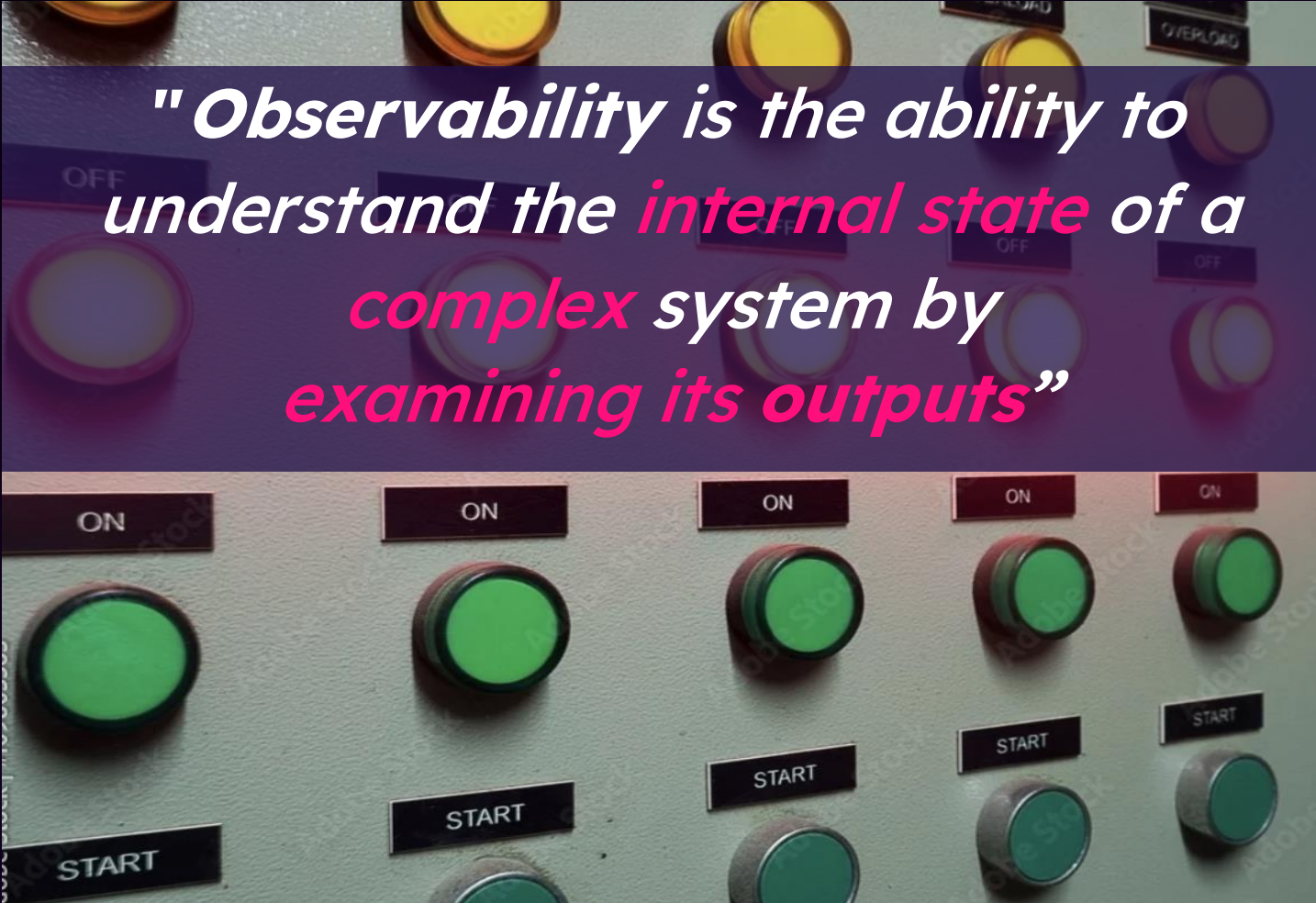
# AI-Driven Unified Observability

*Building Resilient Operations with Splunk & Cisco*

## Agenda

- 01 **Today's Observability Challenges**  
*Why traditional tools fall short ?*
- 02 **Unified Observability**  
*Troubleshoot and pinpoint root cause end to end visibility*
- 03 **AI as Force Multiplier**  
*AI in Observability & Observability for AI*
- 04 **Demo**  
*Walkthrough of Splunk Observability*
- 05 **Key Takeaways**  
*How these innovations impact your business*

# What is Observability?



*"Observability is the ability to understand the **internal state** of a **complex system** by **examining its outputs**"*

**Control Systems**



*"Ensures the **resilience** of digital systems and reduces the **human toil** of operating them by letting **software** do more of the **heavy lifting to identify problems, find root causes and take corrective action.**"*

Minimize or prevent **business impacting** problems

**Complex Digital Systems**

# Monitoring Vs Observability

**Tells You**

**Failures**

**Data Fidelity**

**Alerting**

**Cross System  
view**

**RCA**

## Monitoring

**IF** something is broken

Identifies **known** failures

**Aggregated / sampled** logs  
and metrics

**Reactive alerts** based on  
static thresholds

**Point tools** for each domain

**Manual correlation** of data  
slows down RCA

## Observability

**When, why, and how** something  
broke

Identifies and Investigates  
**unknown / novel** failures

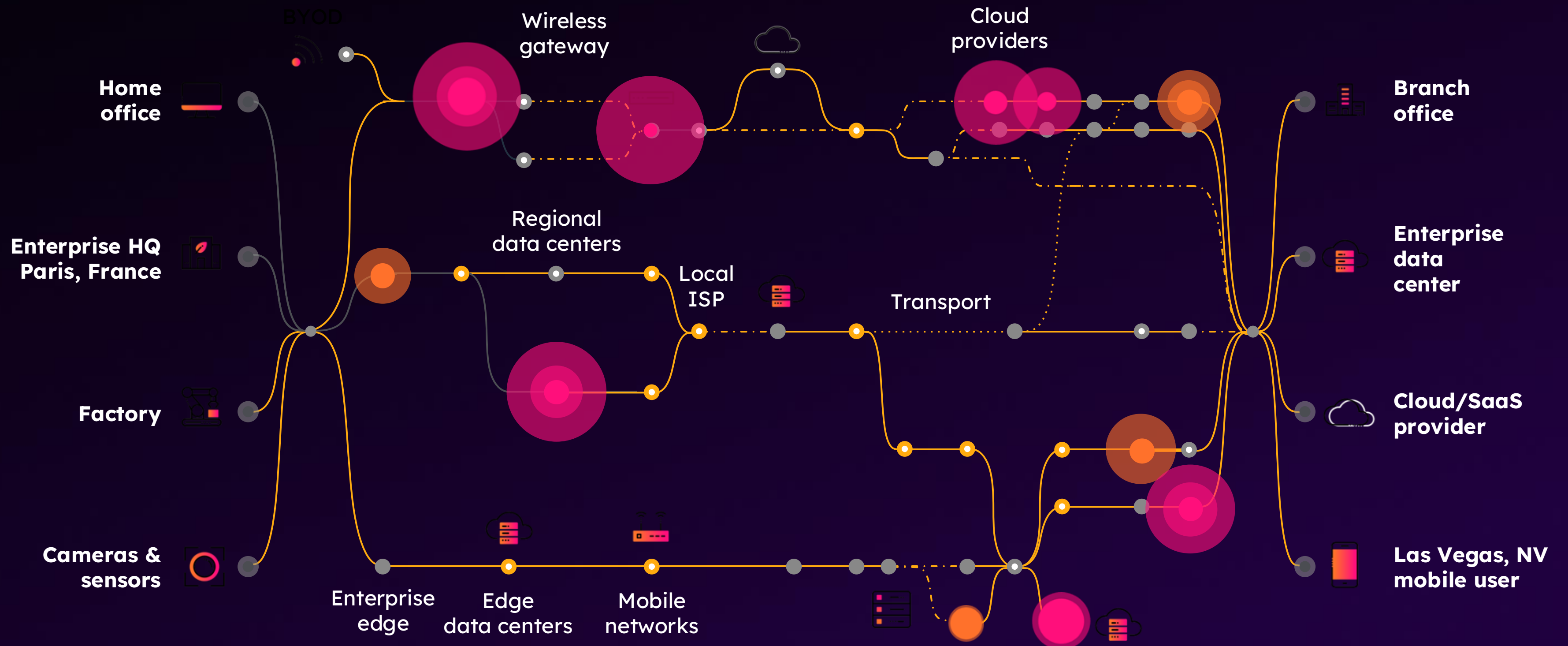
**Full-fidelity** logs, metrics and  
traces

**Proactive alerts** to prevent  
issues

**Unified** correlated solution

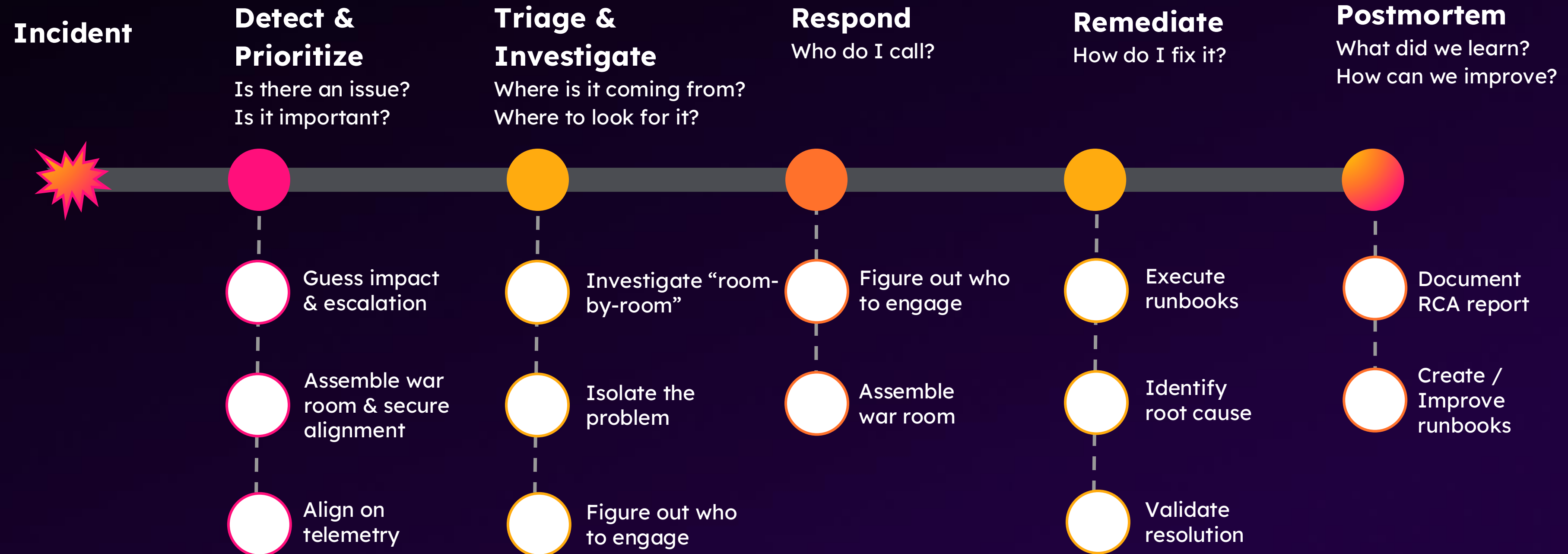
**Real-time automated**  
**correlation** to speed RCA

# Digital footprints are **complex**



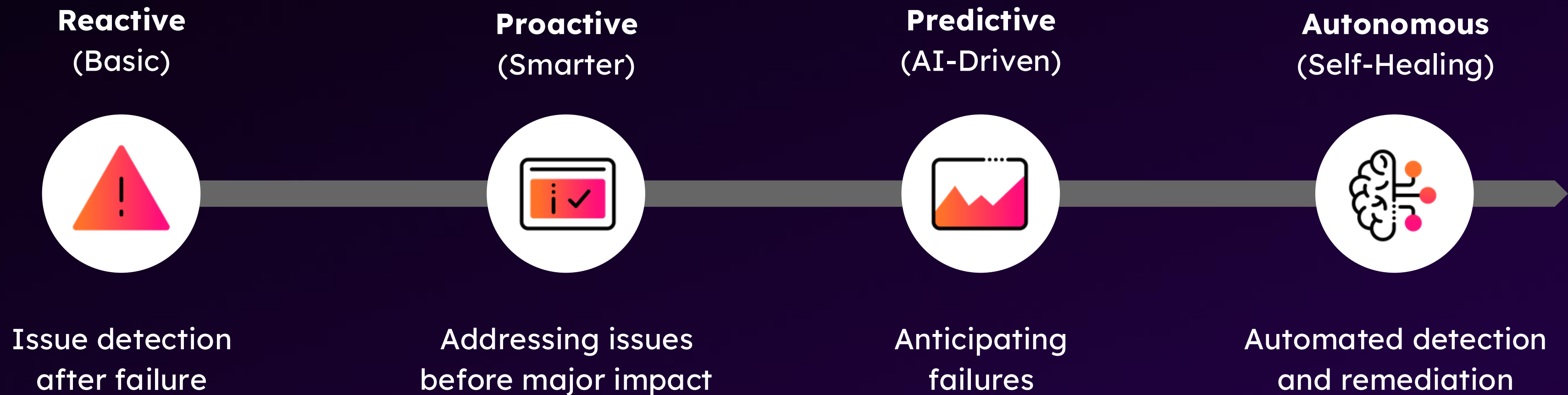
# Incident Management Workflow

The Workflow that AI is about to Transform



# The Evolution of Monitoring & Observability

From Reactive to Autonomous: Tracing the Journey to AI-Driven Observability



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It has to be the **“Network!”**

# Splunk Observability

Build a leading observability practice in the AI era

## Unified Observability Experience

APM

Infrastructure  
Monitoring

Digital  
Experience  
Monitoring

Business  
Insights

Application  
Security

Observability  
for AI

Network  
Observability

Traditional  
Environments

## Splunk Platform

Cloud native  
environments

Federation

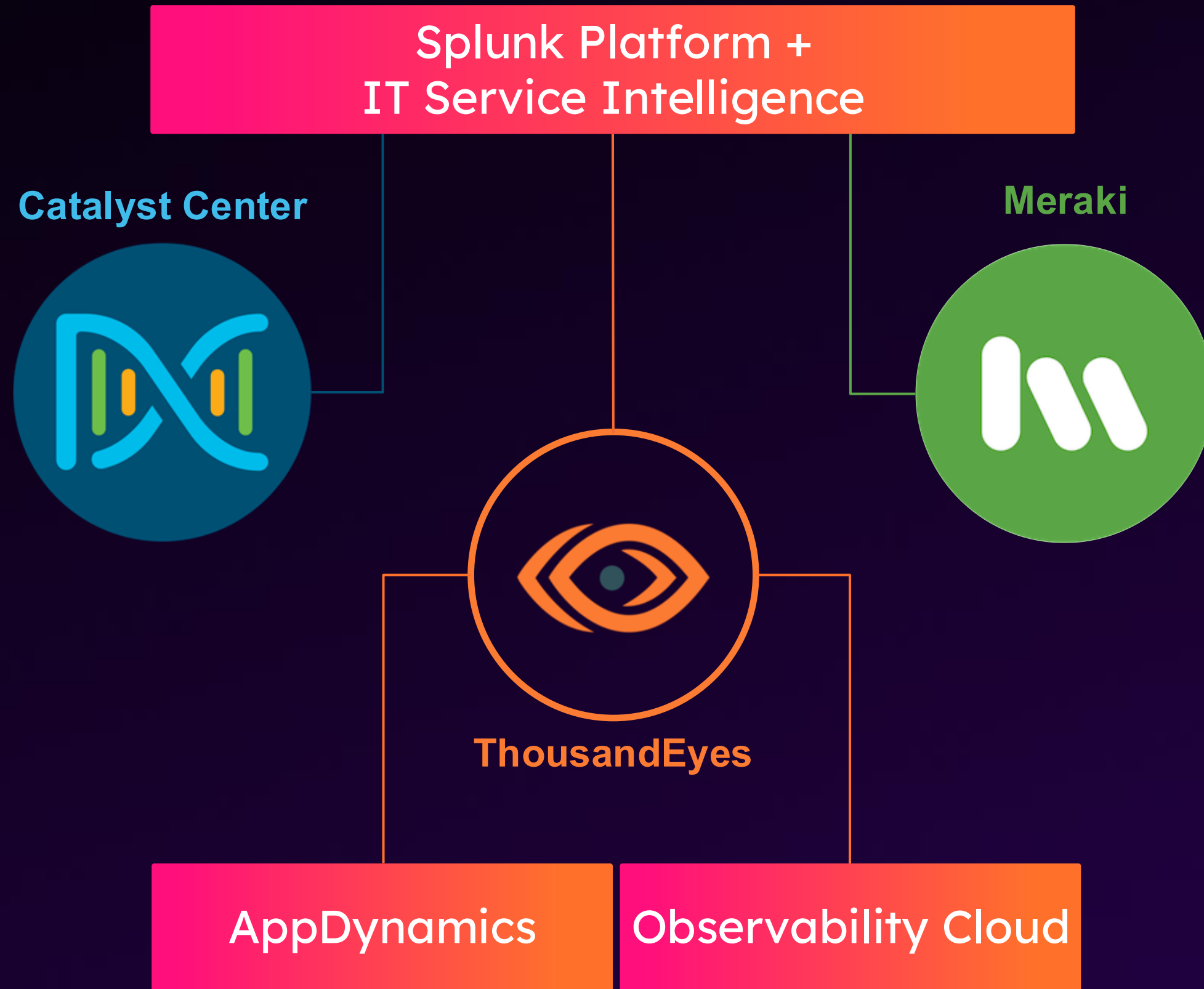
Log Analytics

Event Intelligence



OTEL Compliant

# Splunk Observability + Cisco Networking



# Use cases for integrated network observability

## Correlate Network Domains

Assure network service health by unifying visibility and reducing alert noise across network domains (ThousandEyes, Catalyst Center, Meraki).

- Splunk ITSI content packs for Cisco Enterprise Networking (Catalyst Center and Meraki)
- Splunk ITSI content pack for ThousandEyes

## Pinpoint Network Impact on App Performance

Troubleshoot app performance problems with dependencies on owned and unowned networks.

- ThousandEyes integration with Splunk Observability Cloud APM
- ThousandEyes integration with Splunk Observability Cloud RUM
- ThousandEyes integration with Splunk AppDynamics

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# Our approach toward ML and AI



**Generative AI**

**Make everyone  
an expert**

Reduce need for environment  
and tool expertise by  
simplifying analysis and  
investigations



**Machine and Deep Learning**



**Correlate  
and diagnose**

Aggregate and analyze  
all data to investigate  
and identify root cause

**Detect  
and predict**

Real-time,  
streaming analysis  
to detect anomalies  
and forecast trends

# AI is rewriting the rules

...for what it takes to build a leading observability practice



**Apps can now be written with little human involvement**



**AI agents will perform troubleshooting & fixes**



**AI apps require new forms of telemetry**

## Three key innovation areas in Splunk Observability

### 1. Unified Observability

Instrument and monitor three-tier and microservices environments in one solution, with deeper **business context**.

2. **Agentic AI** to assist setup, and detect, identify root causes and fix problems before they turn into business-impacting incidents.

3. Monitor the health, performance, quality, and cost of the entire **AI application stack**, including agents, LLMs, and AI infrastructure.

# AI Embedded across Incident Response

Minimize & prevent incidents

Readiness

Incident Detection

Prioritization

RCA & Response

Remediation

Analysis

## AI Agents for Ingest & Setup

## AI Detection Agents

- Zero-config automated detection
- **Predictive alerting**
- Smart alert correlation and summarization

## AI Troubleshooting Agents

AI-directed troubleshooting to find **Root Causes** and surface business and end user impact

## AI Remediation Agents

Automated / Human-in-loop **Remediation**

## AI-Native User Experience

- **Chat-based AI Assistant** for easy, interactive insights [Available Now]
- **Dynamic, collaborative** user interface with **AI Canvas**, and embedded in-product AI experiences
- **Observability MCP servers** and Slack / Teams AI agents to unlock observability in the developer / SRE workflows

# AI-Powered Observability

AI helping across your entire incident lifecycle

- **AI Assistant & Agents** help across the incident lifecycle
- **Faster, more accurate detection:** More accurate alerting, predictive analytics, and anomaly detection driven by AI
- **Intelligent investigation:** AI-directed troubleshooting and root cause analysis help speed remediation

The image shows a laptop displaying the Splunk APM interface. The main screen shows a service dependency map with nodes for 'frontend', 'checkoutservice', 'adservice', and 'recommendationservice'. Below the map are 'Service Metrics' and 'Intraservice Metrics' sections. Overlaid on the right is a chat window for the 'Observability Assistant'. The chat shows a user asking for more details on critical alerts for 'paymentservice', and the assistant responding with an explanation of upstream services and deployment history. The assistant offers two options: 'View service dependency map in apm' and 'Suggesting some metric names'. At the bottom of the chat is a prompt: 'Ask me anything about your environment'. In the top right corner of the interface, it says '358 days left in trial'.

358 days left in trial

Observability Assistant

AZ: I see 3 critical alerts triggered for paymentservice, can you explain more?

I can certainly help with that!

The upstream service from paymentservice is called checkoutservice, which had critical alerts triggered 30 minutes before alerts were triggered for paymentservice. Two deployments were made to checkoutservice today. This could be related. You can explore these services visually from the service dependency map in APM, or I can assist you with some metric names to further explore. Which of these next steps would you prefer?

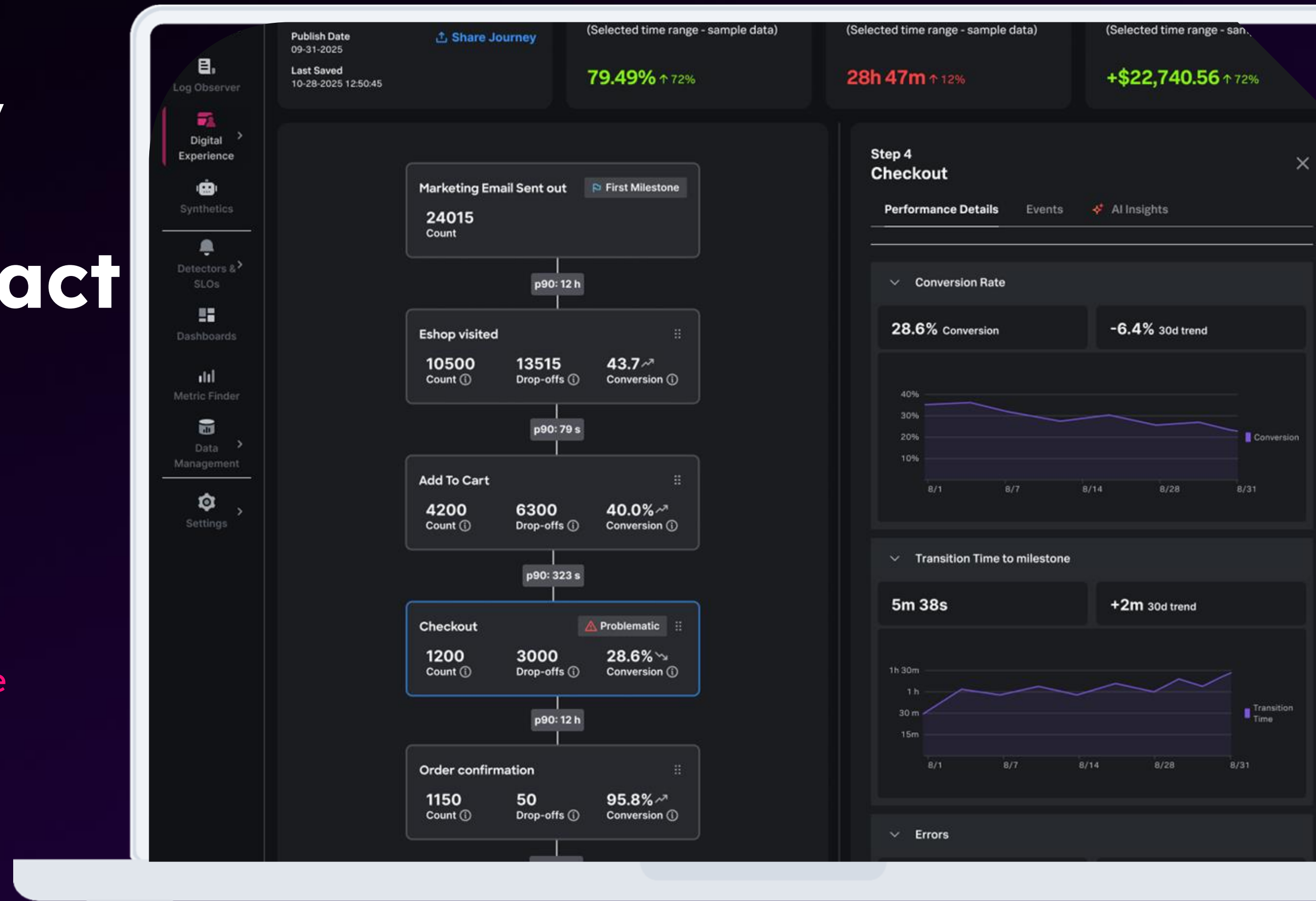
View service dependency map in apm

Suggesting some metric names

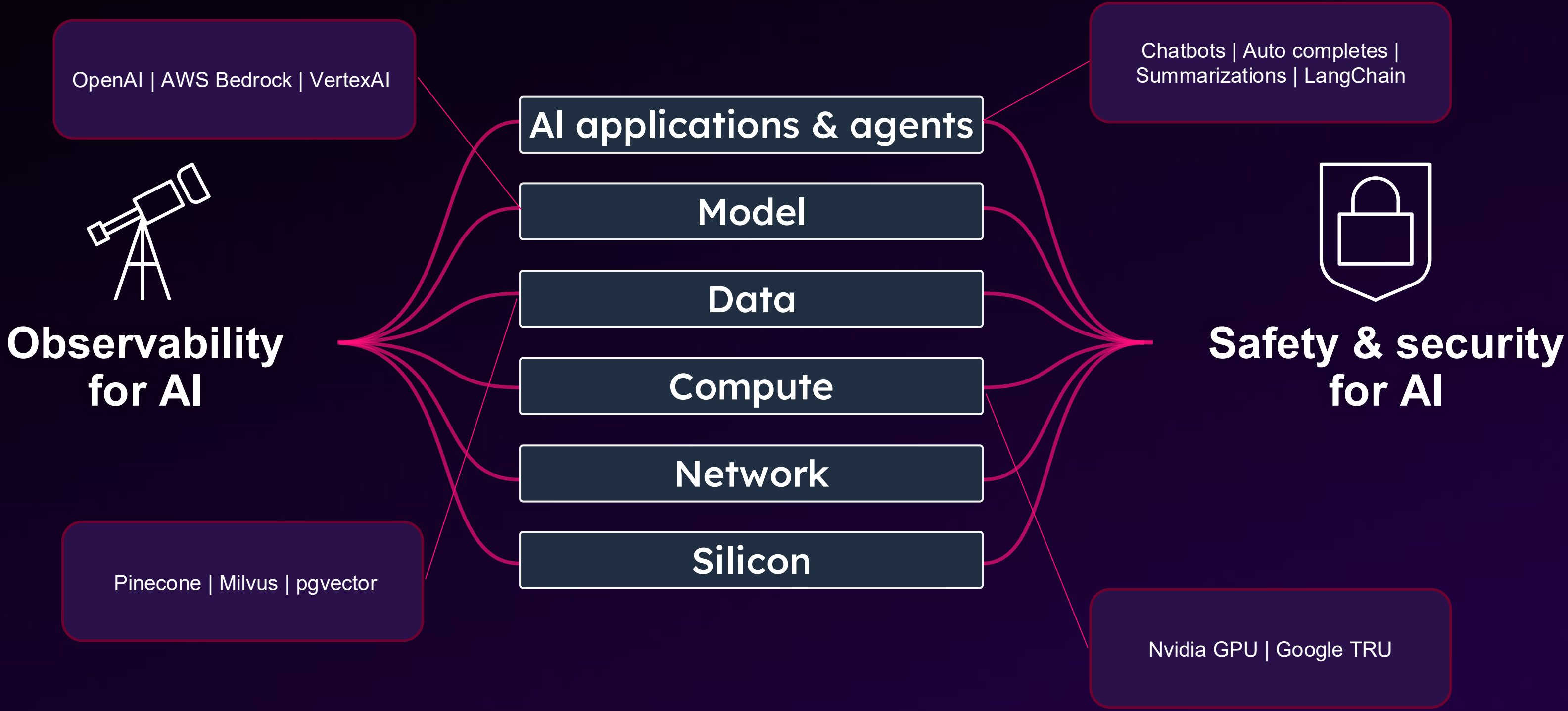
Ask me anything about your environment

# Unified observability that surfaces business impact

- Monitor and secure **three-tier & microservices** apps in one solution
- Deeper **business context** to prioritize what matters
- Understand and optimize user journeys with **digital experience analytics**

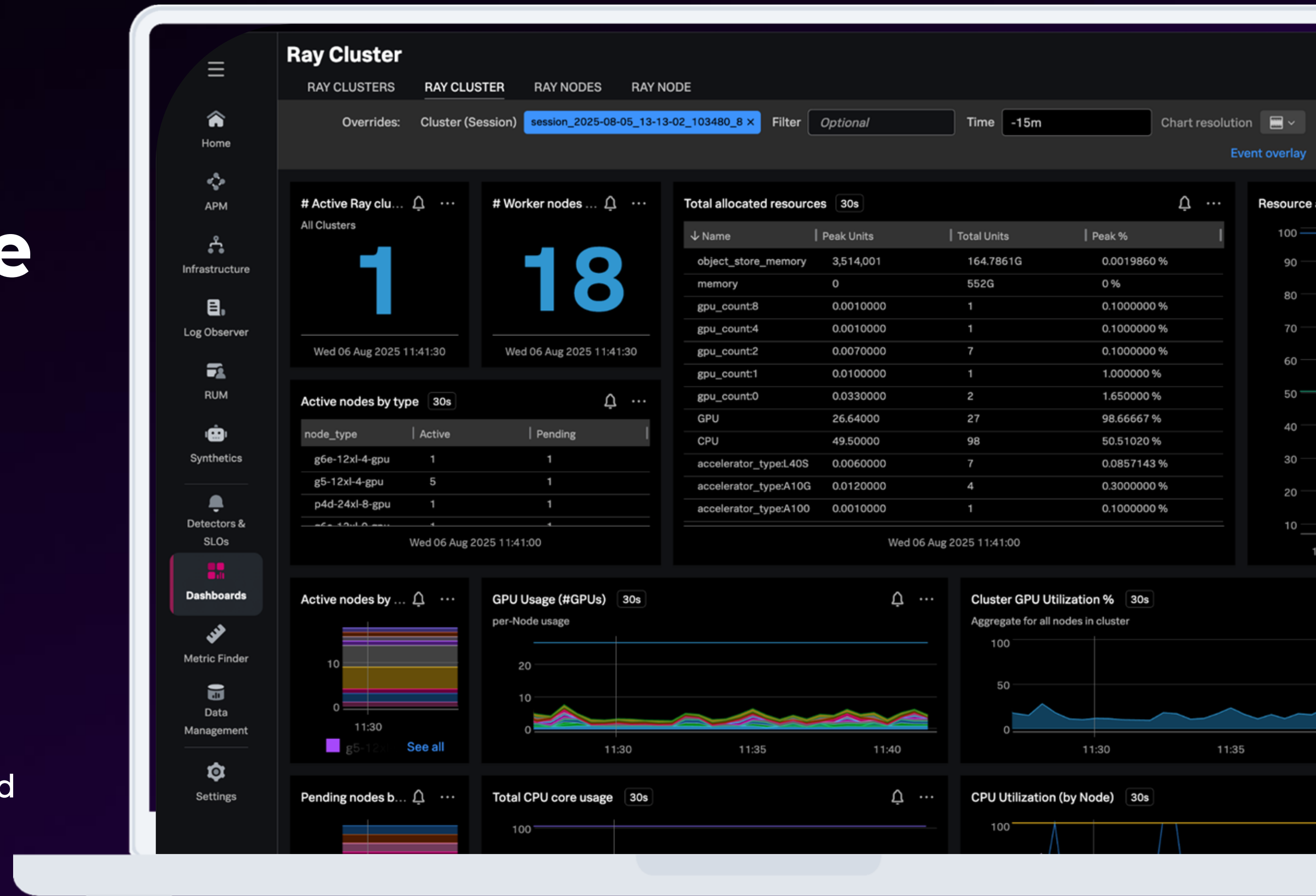


# Observe AI Stack (agents to Infrastructure)



# Observe AI agents & infrastructure

- Monitor the health and consumption of **GPUs, vector databases**, orchestration frameworks & agent platforms to **control costs** & ensure reliability
- Ensure the quality, accuracy, and security of **LLMs and agentic apps** to minimize **bias, inaccuracies, hallucinations**, and costs and performance risks



# AI-Driven Unified Observability

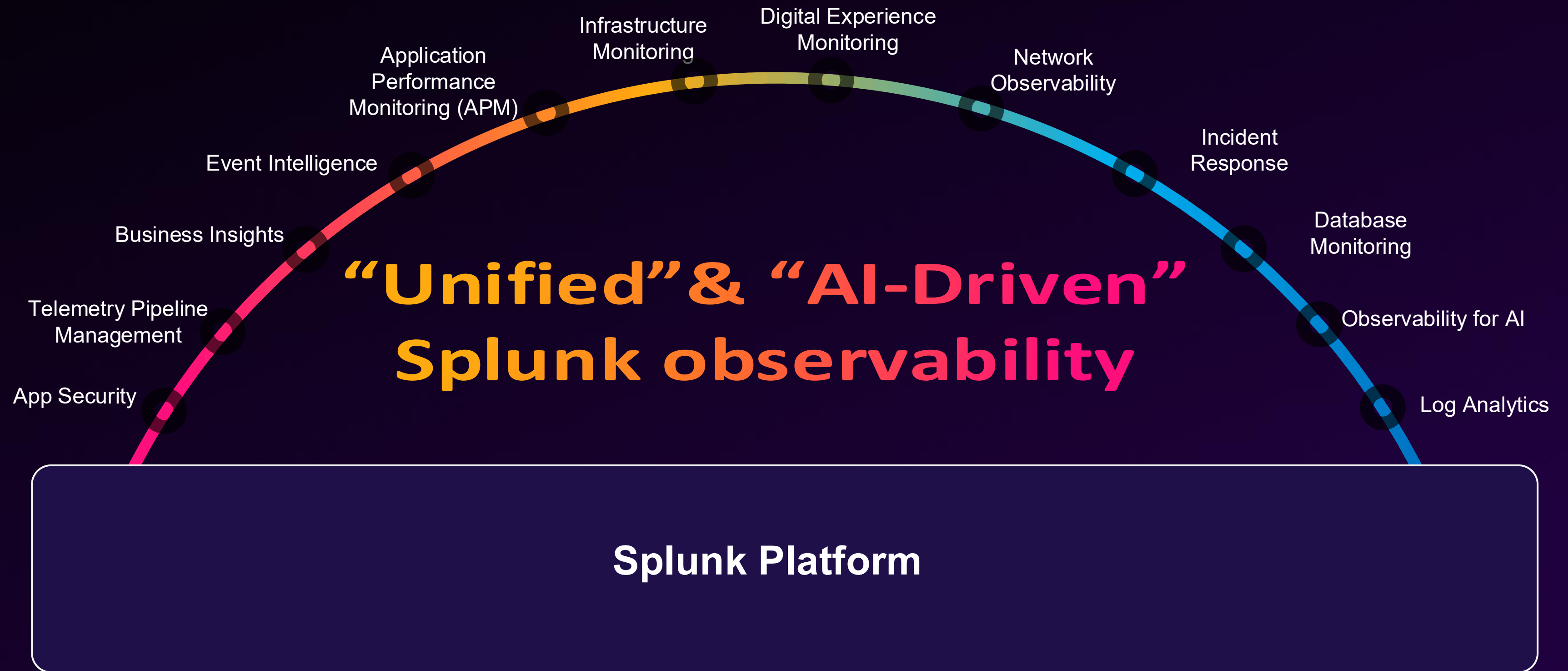
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# Key Takeaway

## Build and future-proof resilient operations with...



# Observability - Operational Maturity Model

