



# aws INNOVATE

MODERN APPLICATIONS EDITION

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# Increase availability with AWS Observability solutions

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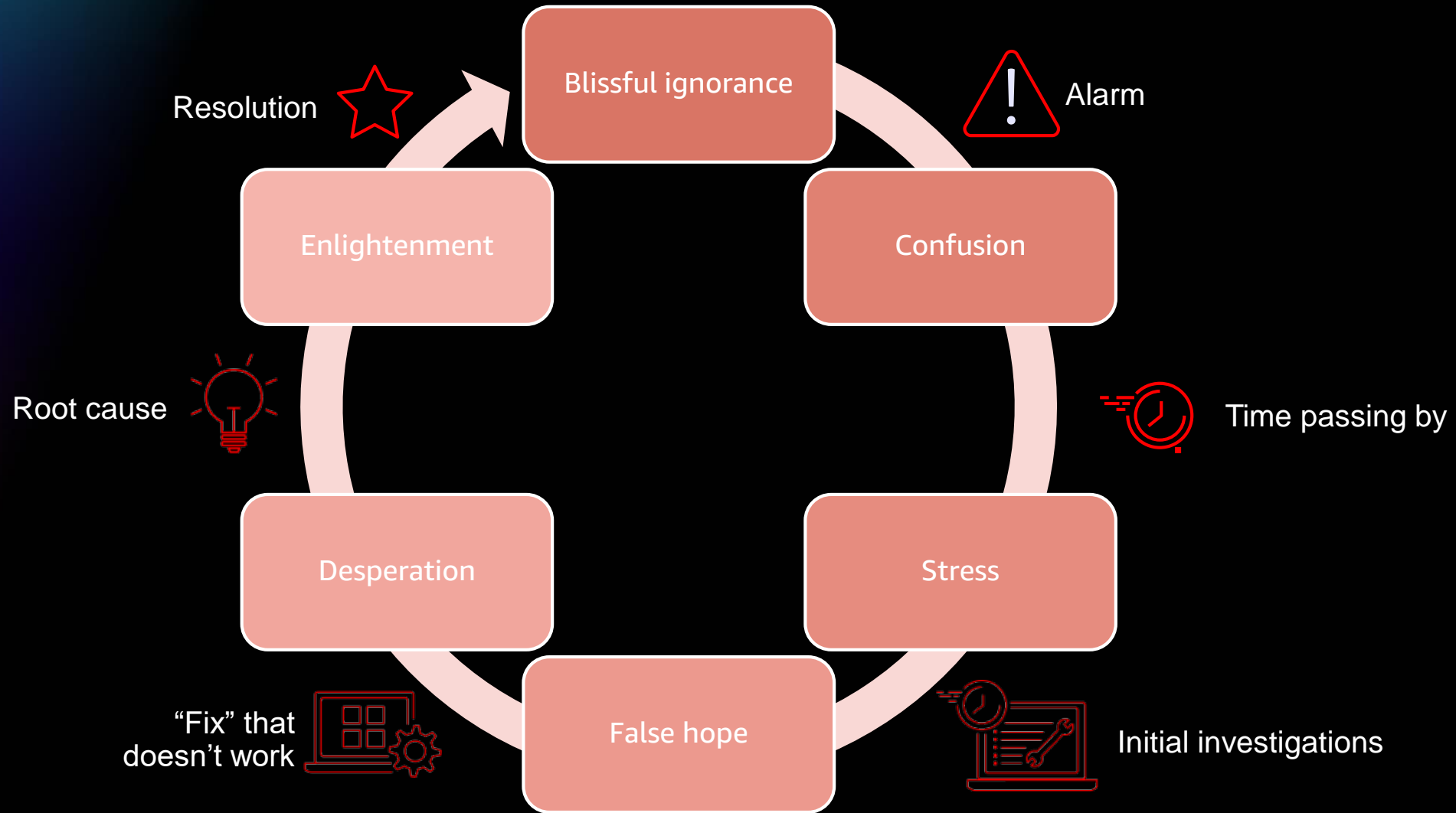
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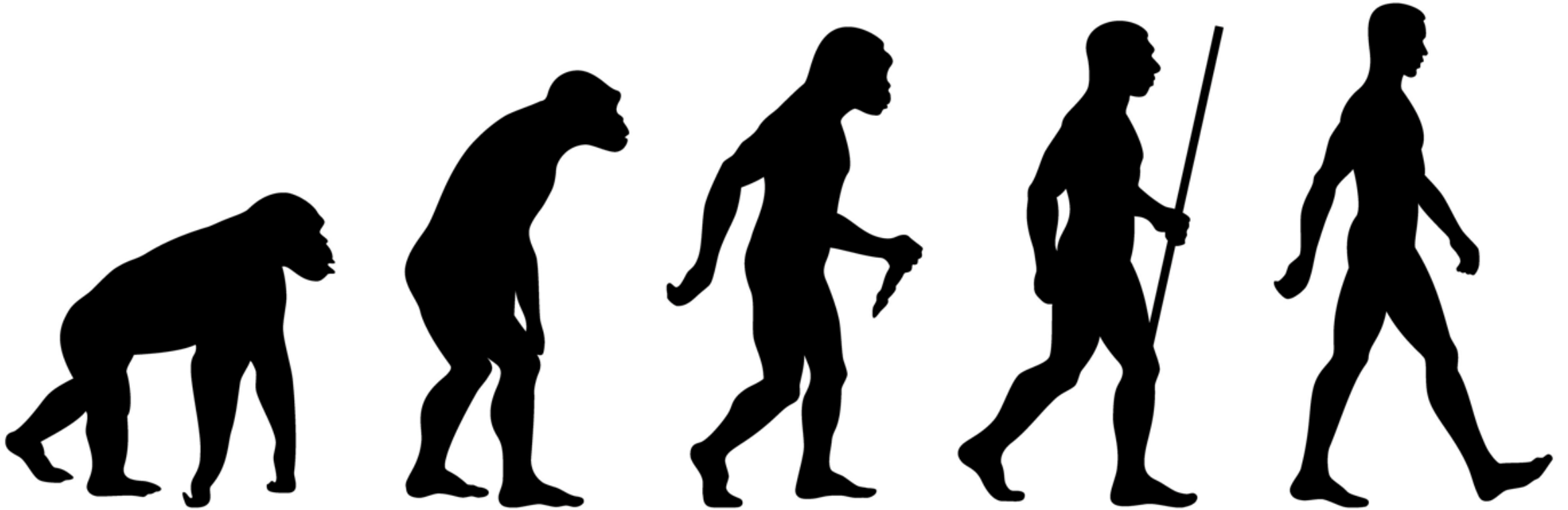
# Agenda

- What is and why Observability
- AWS Observability tools – overview
- Explore Amazon CloudWatch ServiceLens
- Demo – Microservices application
- More hands-on resources

# Reactive monitoring



# Monitoring must evolve



# Monitoring must evolve



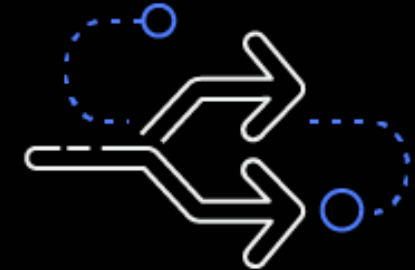
Monolithic to  
microservices



Short-lived  
resources



^Devices  
^Data



Faster release  
velocity

# Foundation for Observability



Logs

**What:** Immutable, timestamped record of discrete events that happened over time

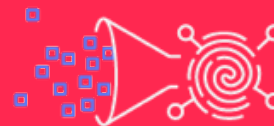
**Why:** Useful for uncovering emergent and unpredictable behavior



Metrics

**What:** Numeric representation of data measured over intervals of time

**Why:** Useful for identifying trends, mathematical modeling, and prediction



Traces

**What:** Representation of a series of related distributed events that encode the end-to-end request flow through a distributed system

**Why:** Provides visibility into both the path traversed by a request as well as the structure of a request

# AWS services for Observability



Amazon  
CloudWatch



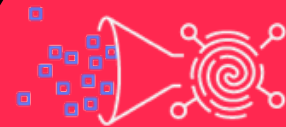
AWS X-  
Ray



Amazon CloudWatch  
Logs



Amazon CloudWatch  
Metrics



AWS X-Ray traces

These are the tools



# Amazon CloudWatch

- Observability of your AWS resources and applications



Amazon  
CloudWatch

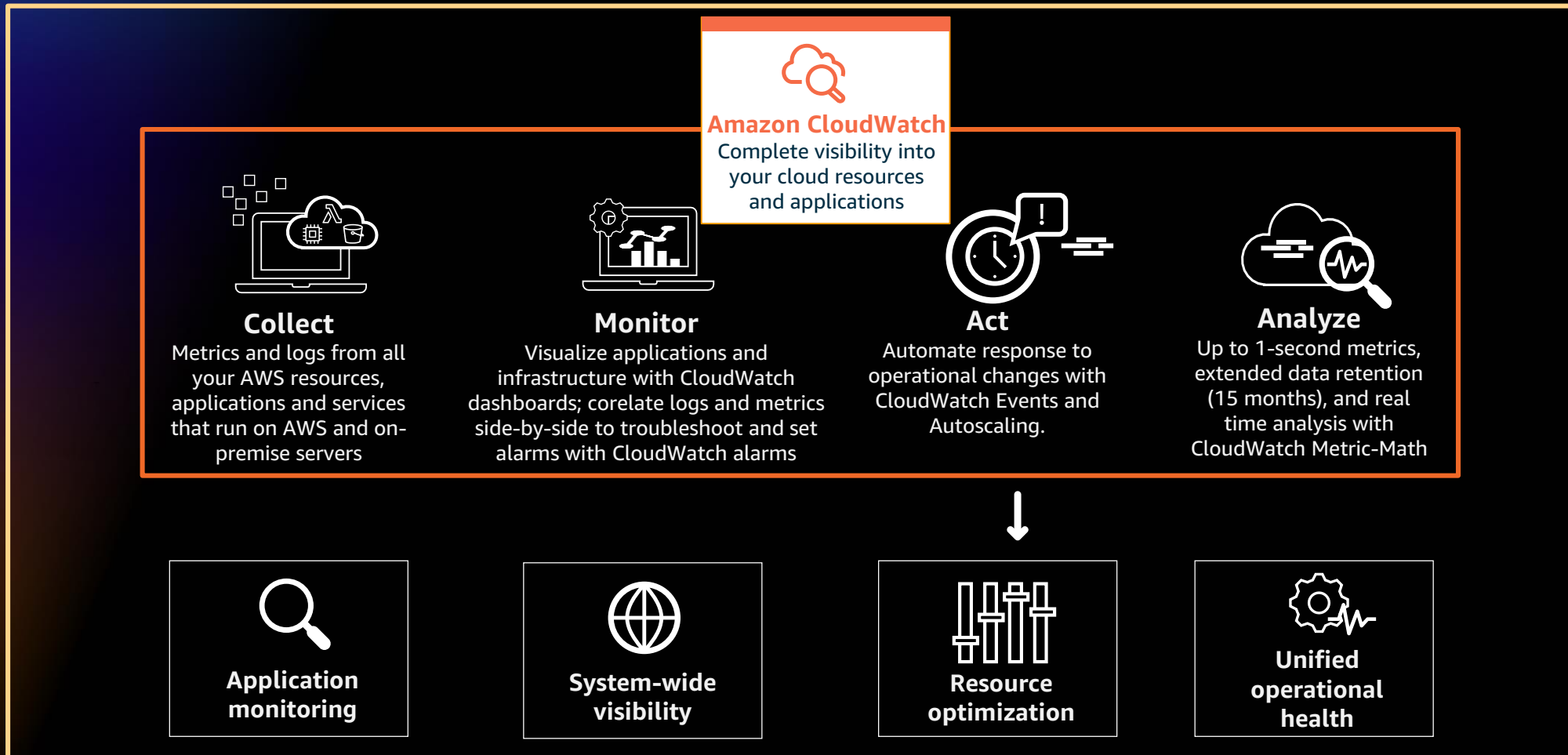
Dashboards

Logs

Metrics

Alarms

Events



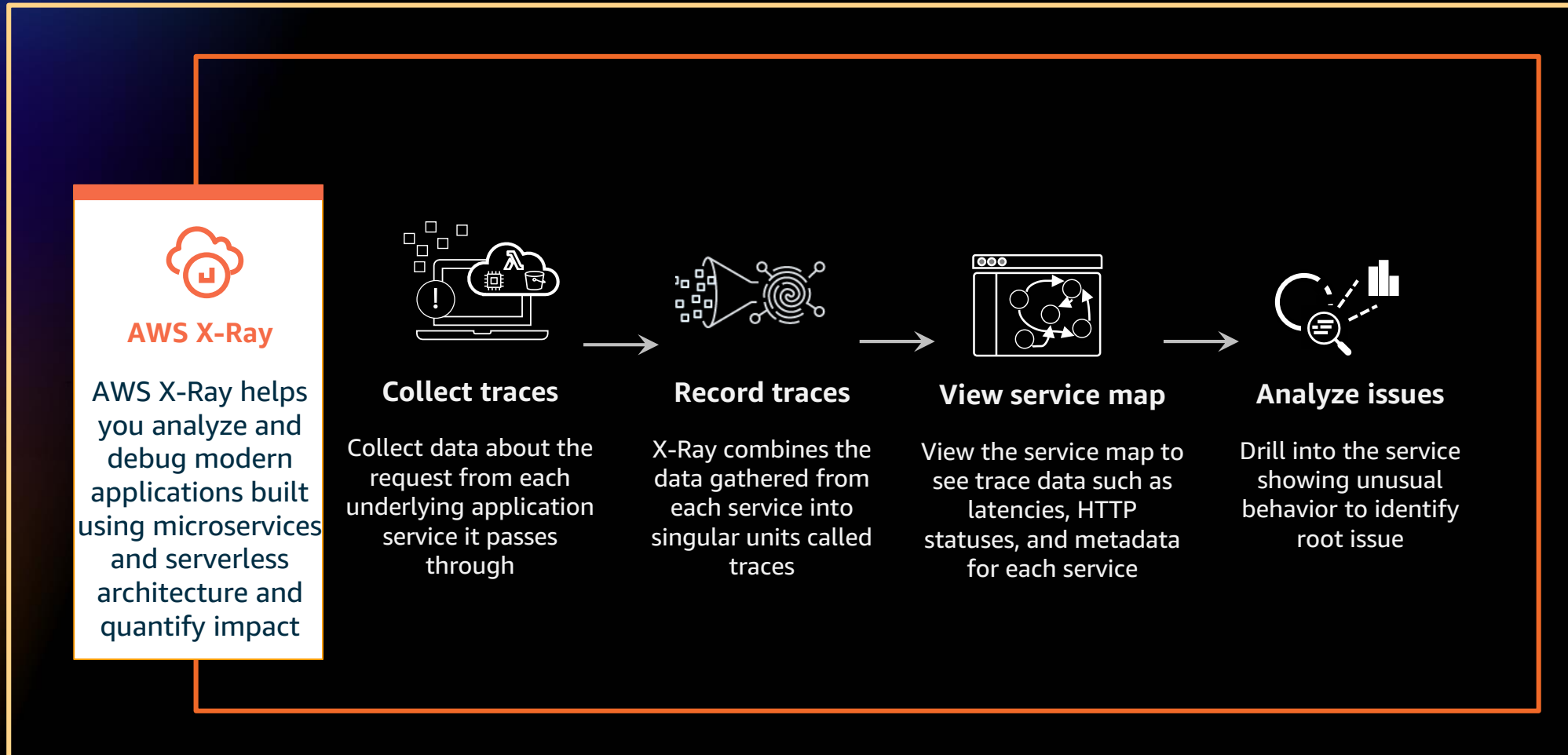
# AWS X-Ray

- Analyze and debug production, distributed applications



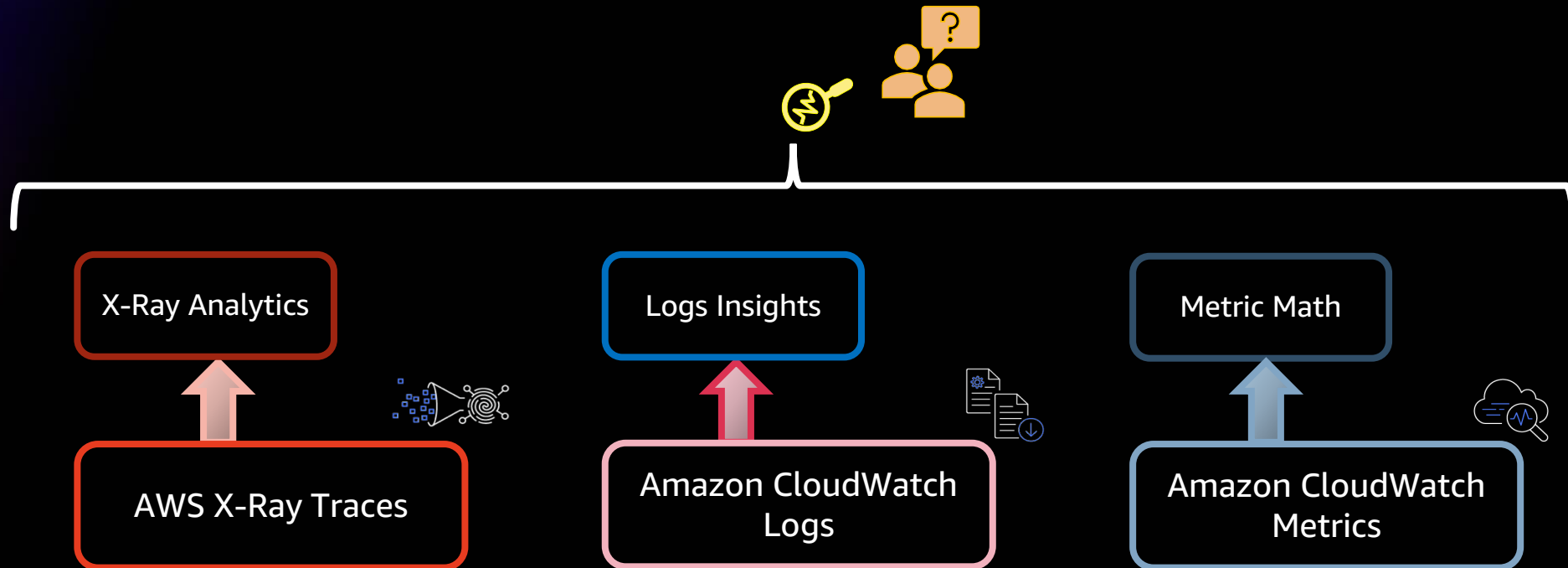
AWS X-Ray

Traces  
Analytics  
Service map

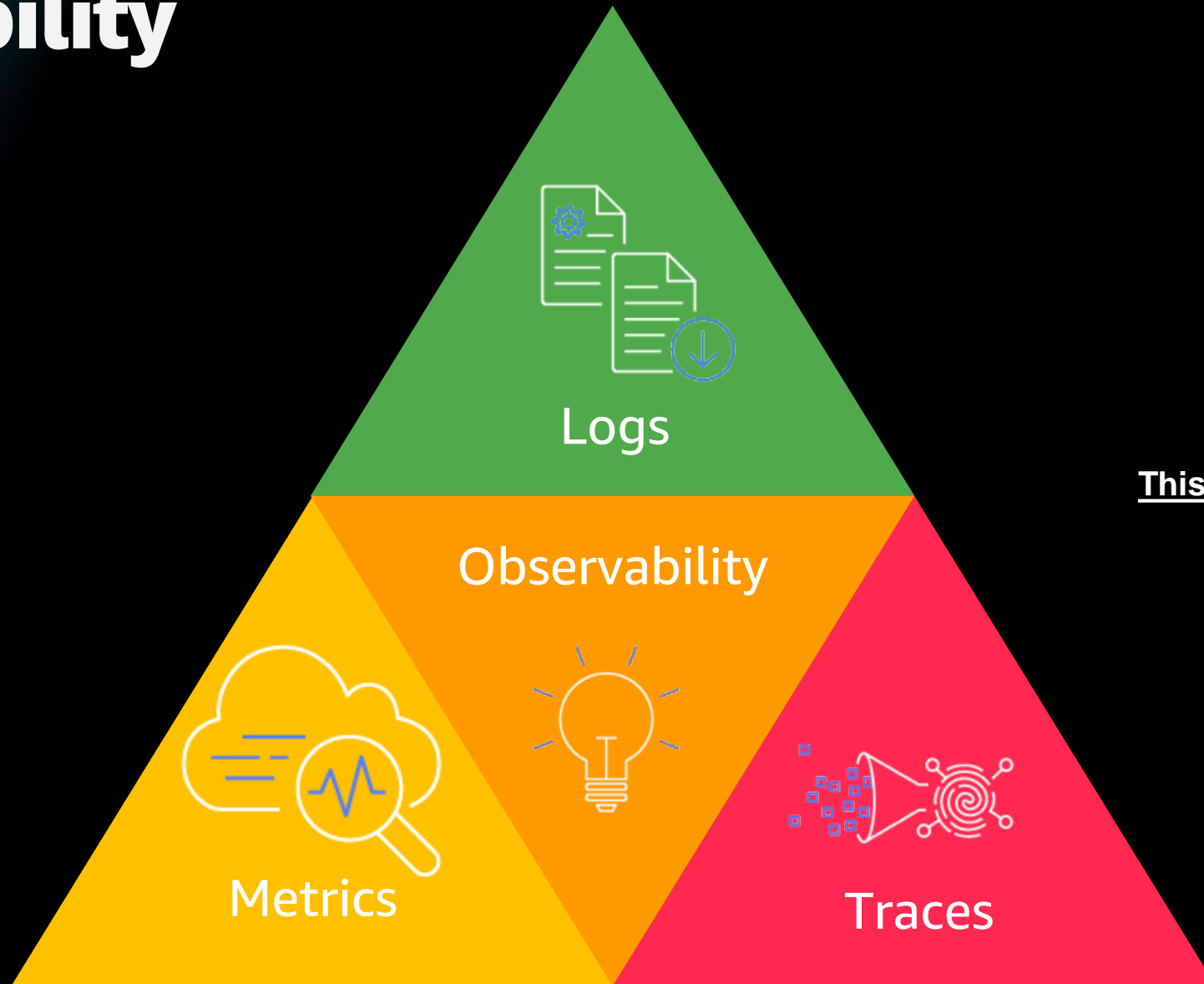


# Tools and challenges

- Want to be able to get a 360° view of a problem
- Need to correlate logs, metrics and traces to get deeper insights
- Repetitive troubleshooting process
- Data introspection

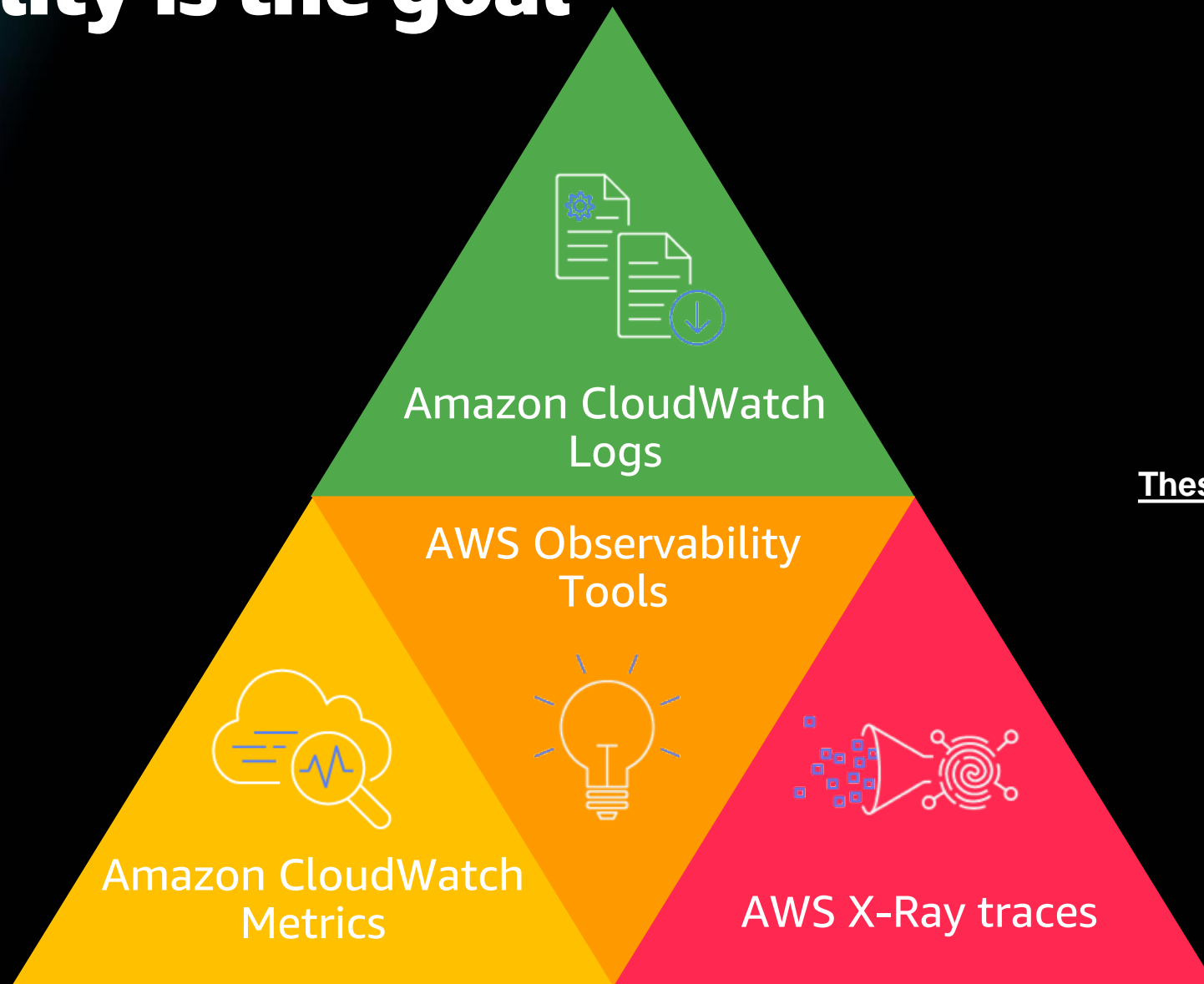


# Observability



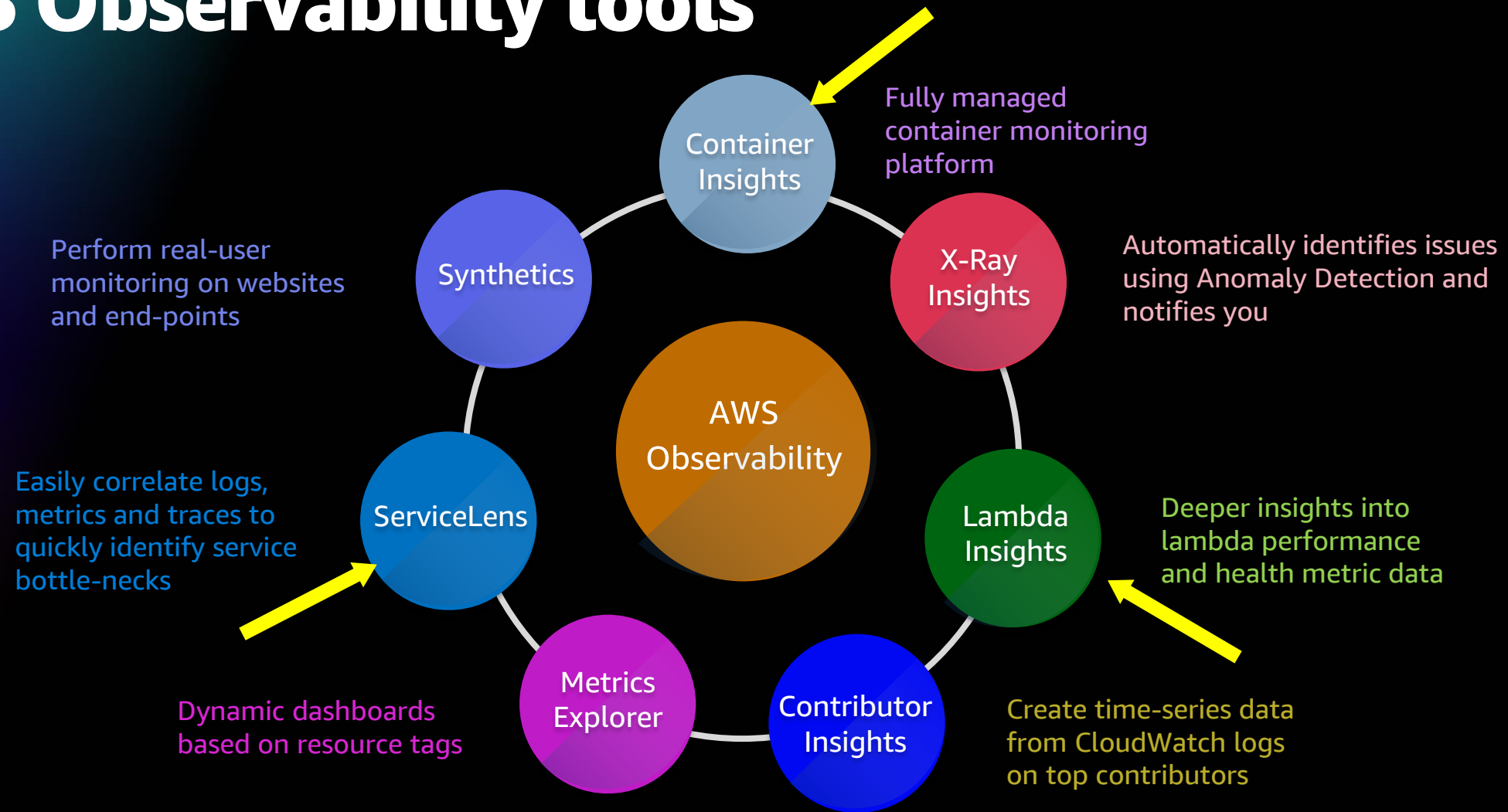
This is the goal

# Observability is the goal



These are the tools

# AWS Observability tools

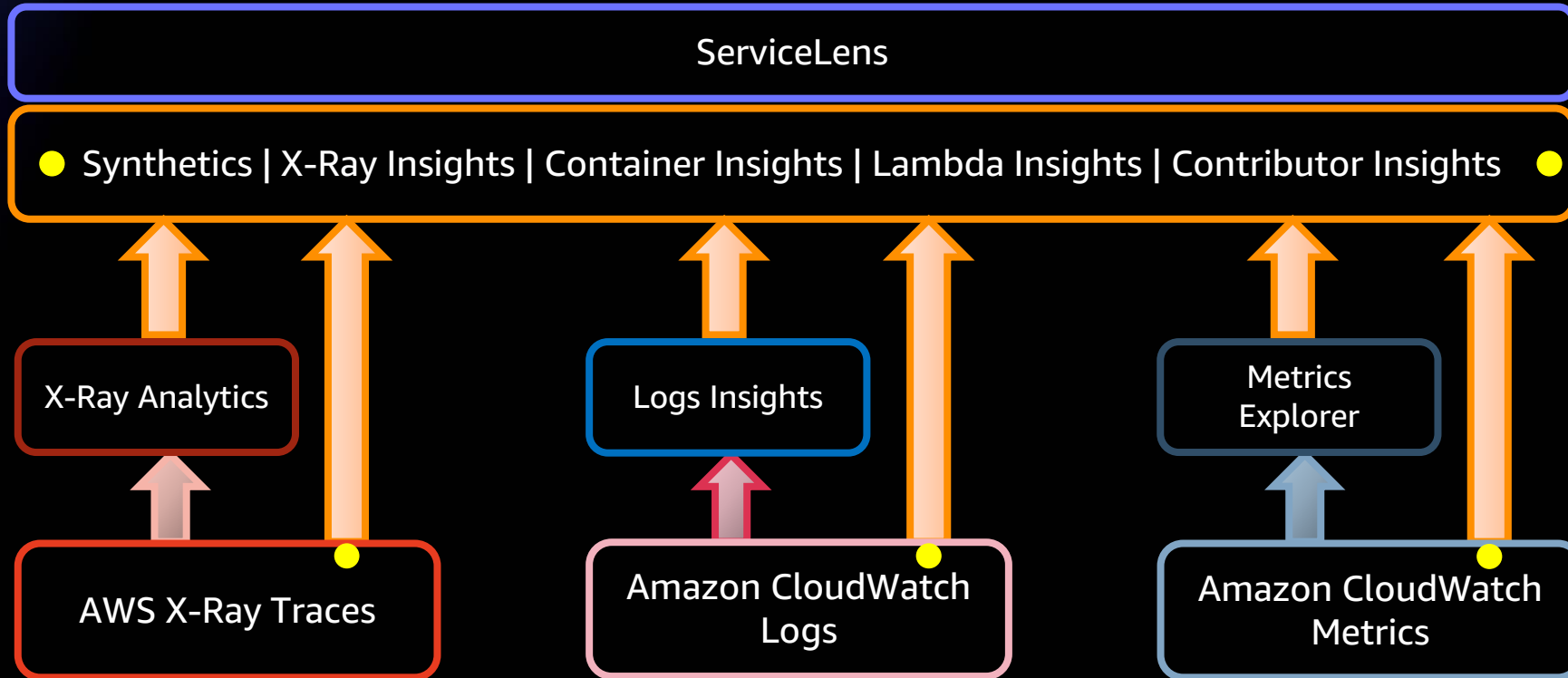


► Infrastructure monitoring

► Application monitoring

► Synthetic monitoring

# Insights into apps and infrastructure



# Demo

Amazon CloudWatch ServiceLens with Amazon CloudWatch  
and AWS X-ray in action for a serverless app



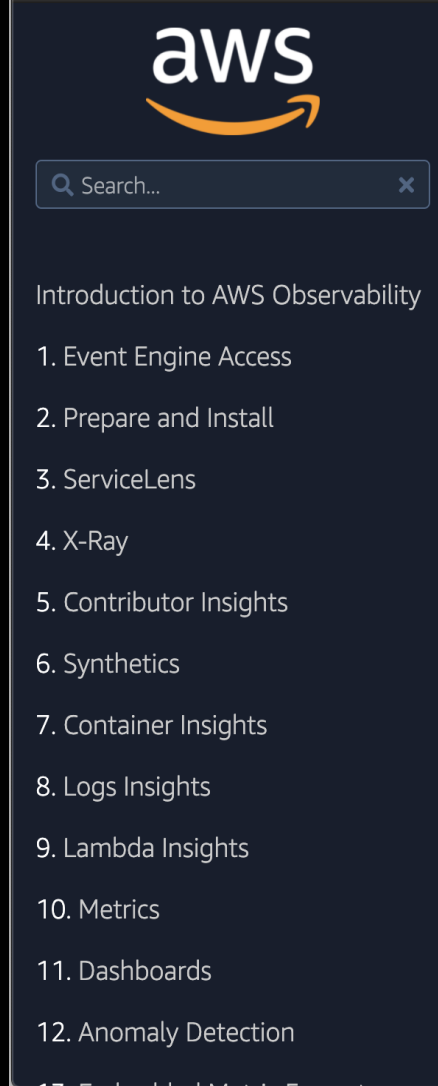
# Summary

- Purpose built features that allow you to easily identify issues quickly improving application availability
- Easy to setup and maintain
- Correlate logs, metrics, and traces for deeper insights
- Automatic potential root cause identification
- Deep integration with other AWS services

# Hands-on experience

- Get a hands-on experience on all AWS Observability features Available in English, Japanese, Spanish and Korean languages

<https://observability.workshop.aws/>



## HELLO 🖐️

Welcome to the **One Observability Demo** workshop. This workshop is aimed at providing an hands-on experience for you on the wide variety of toolsets AWS offers to setup monitoring and observability on your applications.

Whether your workload is on-prem or on AWS, or your application is a giant monolith or based on modern microservice based architecture, our observability tools can help you get deeper insights into your application performance and health.

Our cost effective and native solutions provide powerful capabilities that enable you to identify bottle necks, issues, and defects without you having to manually sift through various logs, metrics and trace data.

Go ahead and play around with the workshop and please feel free to provide your feedback.

# Visit the Modern Applications Resource Hub for more resources

Dive deeper with these resources to help you develop an effective plan for your modernization journey.

- Build modern applications on AWS e-book
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- Modernize today with containers on AWS e-book
- Adopting a modern Dev+Ops model e-book
- Modern apps need modern ops e-book
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- Continuous learning, continuous modernization e-book
- ... and more!



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# Thank you!