

# AWS re:Invent

NOV. 28 – DEC. 2, 2022 | LAS VEGAS, NV

COP309-R

# Accelerate AWS observability for your containers

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# What brings you to COP309?

## ❑ Challenges with self-hosted monitoring solutions

Delivery

Scaling and security

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## ❑ Challenges with container monitoring

Ephemerality

Shared resources

Event correlation  
and analysis

# Agenda

AWS observability tools

Goals of the workshop

Hands-on workshop

Call to action

# AWS services for observability

## AWS native

## Open source



**Infrastructure**  
VMs, containers, OS



Amazon  
CloudWatch



Amazon Managed Service  
for Prometheus



Amazon Managed  
Grafana

# AWS services for observability

AWS native

Open source



**AWS services**  
Vended monitoring

  
Amazon  
CloudWatch

  
AWS  
X-Ray

  
AWS Distro for Open  
Telemetry

# AWS services for observability

AWS native

Open source



**Application  
performance**  
Tracing and profiling



Amazon  
CloudWatch



AWS  
X-Ray



Amazon  
CodeGuru



AWS Distro for Open  
Telemetry

# AWS services for observability

AWS native

Open source






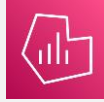











**End-user**  
Synthetic monitoring

  
Amazon  
CloudWatch

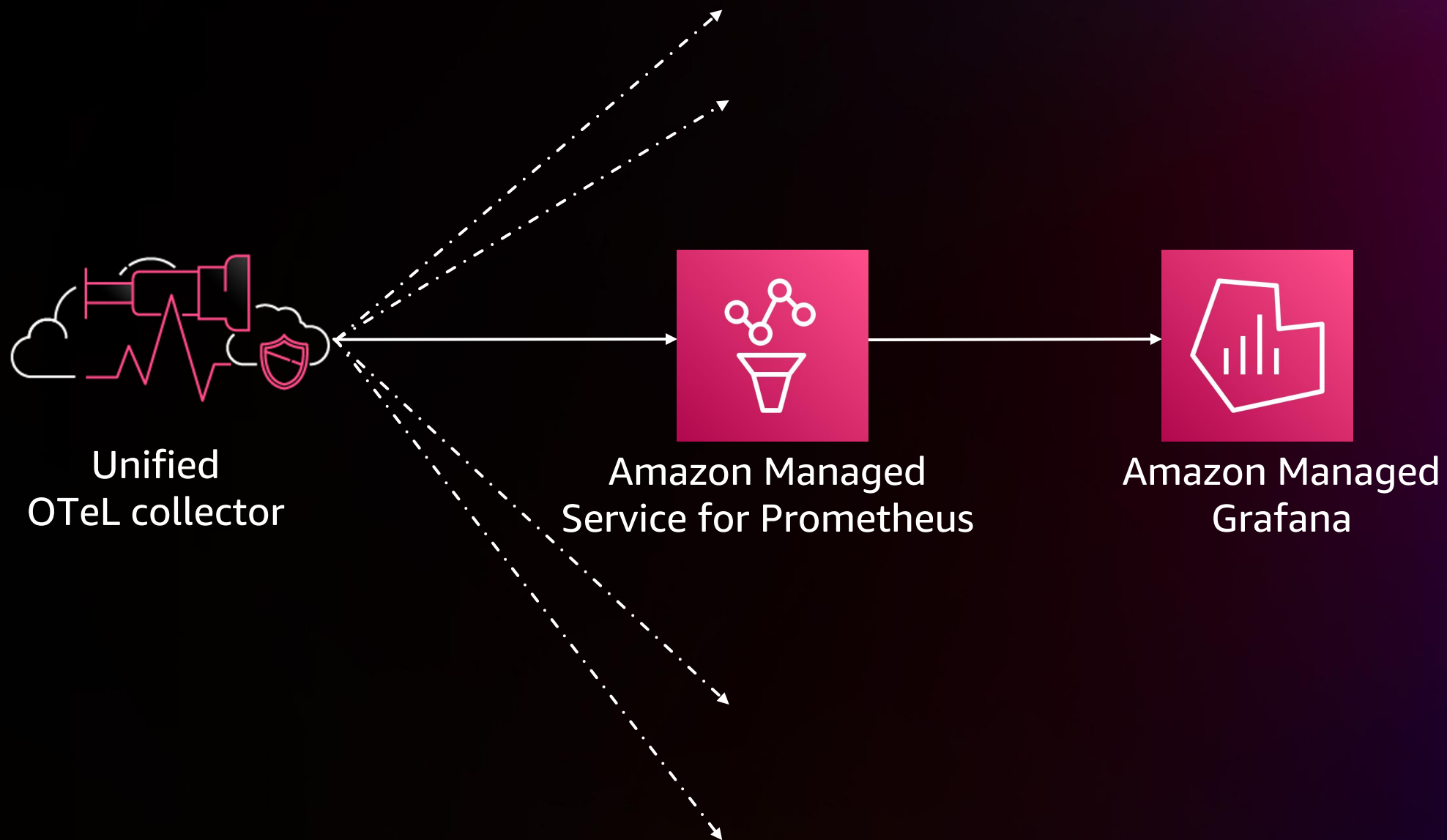




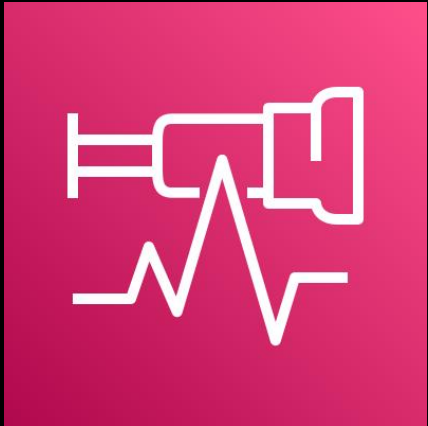
# AWS services for observability

	AWS native	Open source
 <b>Infrastructure</b> VMs, containers, OS	 Amazon CloudWatch	 Amazon Managed Service for Prometheus  Amazon Managed Grafana
 <b>AWS services</b> Vended monitoring	 Amazon CloudWatch  AWS X-Ray	 AWS Distro for Open Telemetry
 <b>Application performance</b> Tracing and Profiling	 Amazon CloudWatch  AWS X-Ray  Amazon CodeGuru	 AWS Distro for Open Telemetry
 <b>End-user</b> Synthetic monitoring	 Amazon CloudWatch	✗

# Observability – Open-source way!



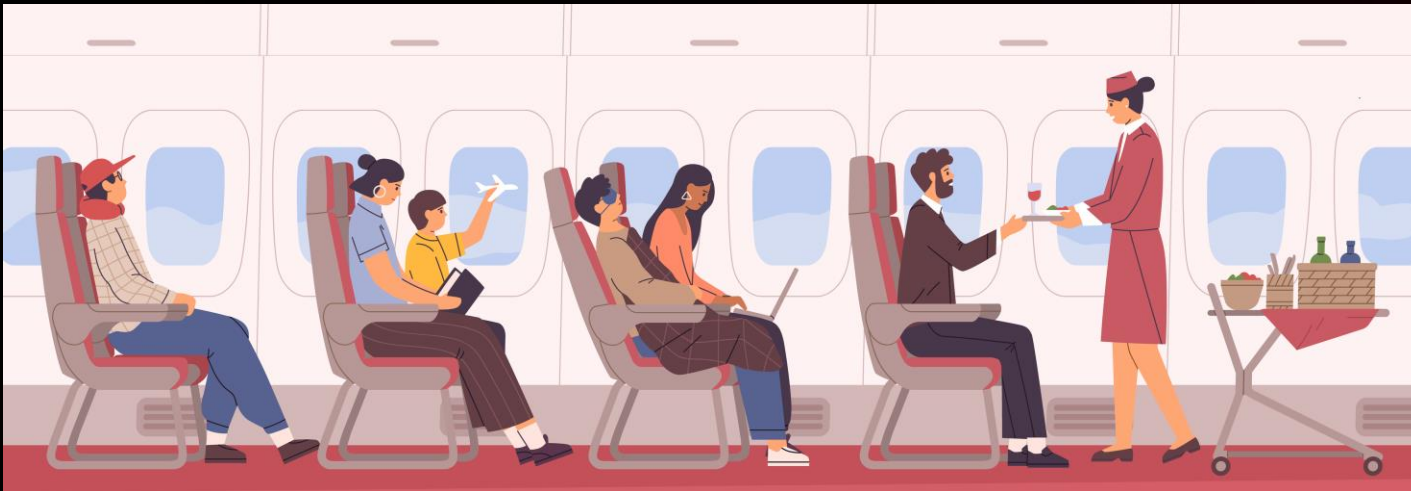
# AWS Distro for OpenTelemetry (ADOT)



- A **secure**, production-ready, **open-source** distribution supported by AWS
- Code contributions are **upstream** in OpenTelemetry
- **Certified by AWS** for security and predictability

# A pilot

# OR



# A passenger?

# Amazon Managed Service for Prometheus



- A **serverless** Prometheus-compatible monitoring service
- Fully **managed, secure, and highly available** using multi-AZ deployments
- Improved **scalability, availability, and security** without having to manage the underlying infrastructure

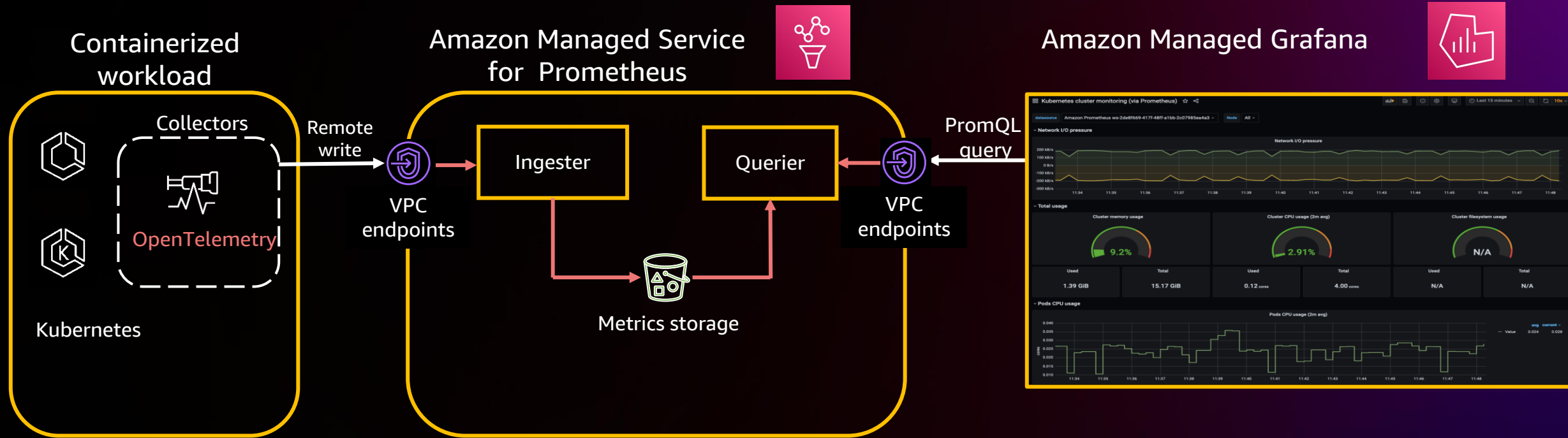
# Amazon Managed Grafana



- Scalable, secure, and highly available fully-managed Grafana service
- Analyze, monitor, and alarm across multiple data sources
- Native integration with multiple AWS services
- Access to Grafana Enterprise data source



# Workshop use case



# Goals of the workshop

## Open-source monitoring for your container environment

- Set up [Amazon Managed Service for Prometheus](#) and [Amazon Managed Grafana](#)
- Enable end-to-end monitoring for [Amazon ECS](#)
- Enable end-to-end monitoring for [Amazon EKS](#)

## Advanced topics in [Amazon Managed Grafana](#)

- Alerting
- Multi-tenancy
- Connect to data sources inside an Amazon VPC



# Goals of the workshop

## Native AWS monitoring for your container environment

- Use [Amazon CloudWatch Container Insights](#) on [Amazon ECS](#)
- Use [Amazon CloudWatch Container Insights](#) on [Amazon EKS](#)

# Hands-on time



# Into the workshop

- Access your AWS Account

<https://catalog.us-east-1.prod.workshops.aws/join>

Enter the access code **53fb-011244-a4**

# Call to action . . .



One Observability Workshop



AWS Observability Accelerator



Observability Best Practices



Skill Builder – AWS Observability

# Why AWS Cloud Ops?



**Return on  
Investment  
(ROI)**

**241% ROI**  
over 3 years\*



**Staff  
productivity**

**62%** more  
efficient IT  
infrastructure  
staff



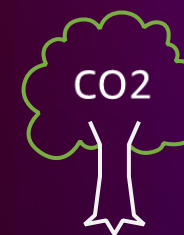
**Operational  
resilience**

**57%**  
decrease in  
downtime



**Business  
agility**

**37%**  
decrease in  
time  
to market



**Carbon  
savings**

**88%**  
reduction in  
carbon  
footprint of  
IT operations



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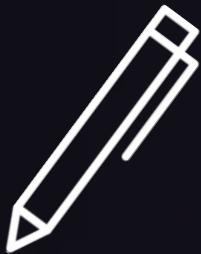
Based on independent research of 1,500 AWS enterprise customers

\*Source: "The Total Economic Impact of AWS Cloud Operations: Cost Savings And Business Benefits Enabled By Operation on AWS. May 2022. A commissioned study conducted by Forrester Consulting on behalf of Amazon Web Services."

# Your journey to operating at cloud scale

Get started with AWS Cloud Operations

1) Setup



Establish a secure foundation for governance and compliance

2) Build and migrate



Migrate applications to the cloud, or build new applications

3) Operate



Monitor application performance; detect and remediate noncompliance or operational risks quickly

# Want to see more AWS Cloud Operations?

Please complete the  
session survey  
in the mobile app



Ask us anything at our  
kiosks in the  
AWS Village Expo



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in our re:Invent blog



# Thank you!

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Please complete the session survey in the **mobile app**

