# AWS re:Invent

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# Open-source observability

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Toshal Dudhwala
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Toshal Dudhwala leads the global Business Development and Go-To-Market for AWS observability services such as Amazon Managed Service for Prometheus and Amazon Managed Service for Grafana. In this role, he leads the incubation, scaling, and evolution of new and existing container monitoring and observability services, as well as field enablement and strategic customer advisement for the same. Toshal brings over 17 years of experience in product management and business development for both Enterprise and Service Provider.



Abhi Khanna
Sr. Product Manager
AWS Observability

Abhi Khanna is a Senior Product Manager at AWS on the Amazon Managed Service for Prometheus team. He has a passion for helping customers establish their observability best practices, and has worked in the monitoring space for more than years. Prior to AWS, Abhi worked at Sumo Logic and ran a startup in the ad-tech space.

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# Agenda

Open-source tools and challenges

AWS-managed open source

Common customer use case(s)

Q&A

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# Popularity of open-source tools

























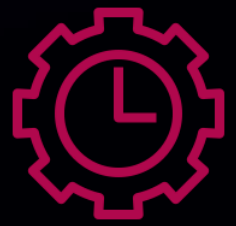



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# Challenges with open-source tools



Governance policies



Operational overhead



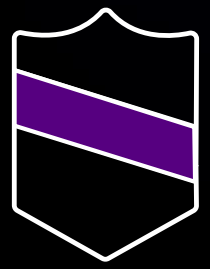
Rapid release cycle



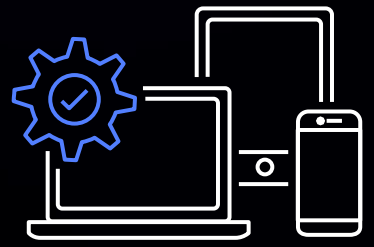
Limited support

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# Why AWS-managed open source

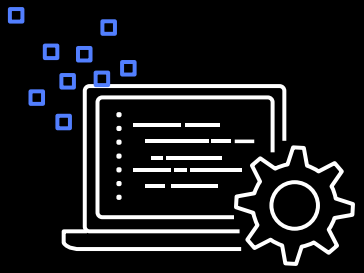


**Security first**



**Scale as you grow**

**Seamless integrations**



**Open-source contribution**

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# AWS OBSERVABILITY

## AWS NATIVE MONITORING SERVICE

CloudWatch ServiceLens

- Container insights
- Lambda insights
- Synthetics
- Contributor insights



CloudWatch logs



CloudWatch metrics



AWS X-Ray

## MANAGED OPEN-SOURCE SERVICES



Amazon Managed Grafana

Grafana



Amazon Managed Service for Prometheus



Amazon OpenSearch Service

## INSTRUMENTATION



CloudWatch agent



X-Ray agent



AWS Distro for OpenTelemetry (ADOT)

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# OpenTelemetry and AWS Distro for OpenTelemetry

INSTRUMENTATION AND COLLECTION

OpenTelemetry

- OpenTelemetry (OTel)
  - A Cloud Native Computing Foundation (CNCF) project
  - Provides open-source observability agents and libraries and a data protocol to unify monitoring, managing, and debugging of applications
  - Supports all 3 data signals in 11 languages



- 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

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# Amazon Managed Service for Prometheus



HIGHLY AVAILABLE, SECURE, AND MANAGED MONITORING

A serverless Prometheus-compatible monitoring service for metrics to securely monitor container environments at scale

Fully managed, secure, and highly available using multi-AZ deployments

Use the same open source Prometheus data model and query language as they do today to monitor the performance of their containerized workloads

No up-front investments required to use the service, and customers pay only for the number of metrics ingested

Improved scalability, availability, and security without having to manage the underlying infrastructure

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# Amazon Managed Grafana

SCALABLE, SECURE, AND HIGHLY AVAILABLE DATA VISUALIZATION



Scalable, secure and highly available fully-managed Grafana service

Automatic scaling, helps offloads operational management

Analyze, monitor, and alarm across multiple data sources – native AWS as well as third-party

Native integration with multiple AWS services for enterprise-ready security

Access to Grafana Enterprise data source via AWS marketplace directly from the console

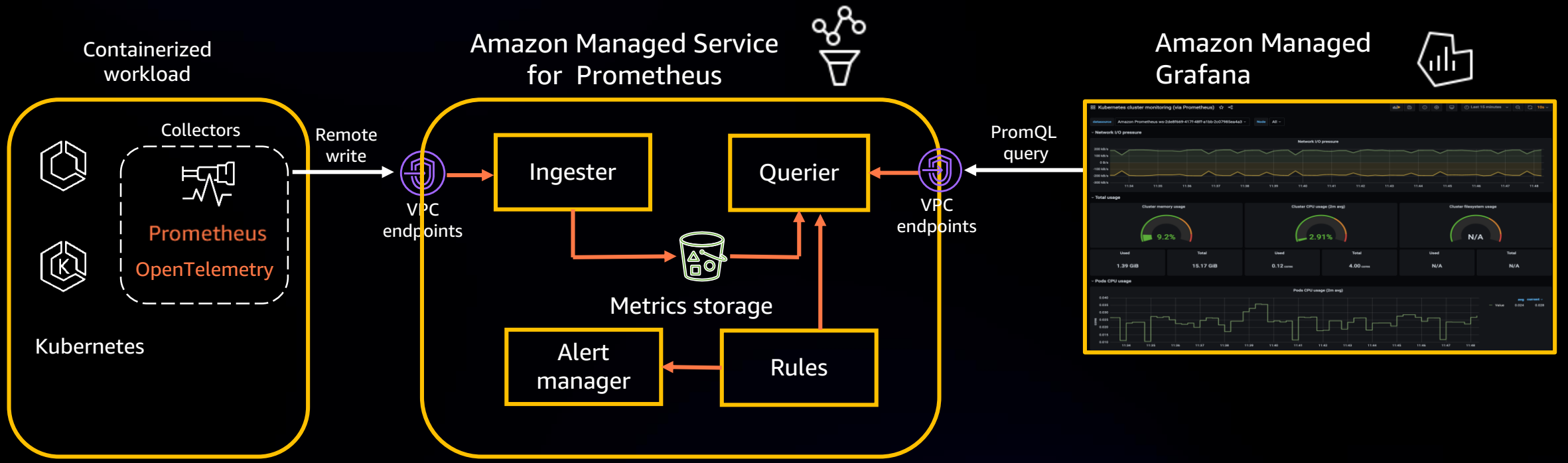
Simple pay-as-you-go AWS billing

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# Example use case

UNIFIED CONTAINER MONITORING




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# Additional use cases



Workload and application metrics monitoring



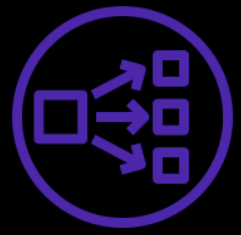
Database monitoring (e.g., Amazon Redshift)



AWS CUR and cost analysis (e.g., Amazon Athena)



IOT device monitoring



ALB and VPC logs analysis

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# Thank you!

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