

# OPEN TELEMETRY AND NEW RELIC IN AWS SERVERLESS

↪ AWS Lambda Application



API Gateway



Lambda  
Function



SQS Queue



Lambda Worker



OpenTelemetry



New Relic

CHALLENGE:  
INSTRUMENT MANAGED  
SERVICES

IN A MANAGED  
SERVICE, THE VENDOR  
DECIDES WHAT THEY  
ALLOW AND WHAT  
NOT.



# OPENTELEMETRY ON AWS OPTIONS

## ADOT – AWS DISTRIBUTION OF OTEL

- OPTIMIZED FOR KEEPING TELEMETRY IN AWS
- LAMBDA LAYER
- LEGACY LAMBDA LAYER INCLUDED COLLECTOR
- ADOT COLLECTORS HAVE LIMITED CAPABILITIES
- X-RAY INTEGRATION IN API GATEWAY AND SQS
- INSTRUMENTATION EXPORTS TO AWS

## OTEL NATIVE

- COMMUNITY LAMBDA LAYERS FOR AUTO INSTRUMENTATION AND COLLECTOR
- COLLECTOR LAYER BASED ON CONTRIB COLLECTOR
- VENDOR NEUTRAL DATA EXPORT



# THE CONTRIB COLLECTOR

- COMMUNITY COMPONENTS:
- X-RAY RECEIVER — RECEIVE SPANS FROM X-RAY SDK
- CLOUDWATCH RECEIVER — RECEIVE EVENTS FROM CLOUDWATCH
- ~~CLOUDWATCH METRICS RECEIVER — RECEIVE METRICS FROM CLOUDWATCH~~

# CONTEXT PROPAGATION

## Context Propagator

## OpenTelemetry

## AWS ADOT

**W3C Trace Context**

✓ Supported (default)

✓ Supported (default)

**B3 Propagation**

✓ Supported

✓ Supported

**Jaeger Propagation**

✓ Supported

✓ Supported

**AWS X-Amzn-Trace-Id**

✗ Not Supported

✓ Supported (AWS-specific)

**Custom Propagators**

✓ Supported

✓ Supported



# THE NEW RELIC AWS INTEGRATION

- TRACES, LOGS AND METRICS FROM
- SQS
- LAMBDA
- API GATEWAY

# SOURCES

- [HTTPS://AWS-OTEL.GITHUB.IO/DOCS/GETTING-STARTED/LAMBDA](https://aws-otel.github.io/docs/getting-started/lambda)
- [HTTPS://OPENTELEMETRY.IO/DOCS/PLATFORMS/FAAS/](https://opentelemetry.io/docs/platforms/faas/)
- [HTTPS://OPENTELEMETRY.IO/DOCS/SPECS/SEMCONV/NON-NORMATIVE/COMPATIBILITY/AWS/](https://opentelemetry.io/docs/specs/semconv/non-normative/compatibility/aws/)
- [HTTPS://OPENTELEMETRY.IO/DOCS/CONCEPTS/CONTEXT-PROPAGATION/](https://opentelemetry.io/docs/concepts/context-propagation/)