

Cloud-Native Observability: Grafana Alloy vs. OpenTelemetry Collector

A brief discussion and comparison of the leading
open-source Observability agents



\$ whoami

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**RELAX,
WE CARE**

So, what about observability?

- Crucial in cloud-native environments
- Metrics, logs, and traces
- Insight into microservices and distributed systems
- Real-Time monitoring is expensive
- Auto discovery
- Change driven infrastructure
 - dynamic scaling
 - service mesh interactions
 - and ephemeral workloads

OTel Collector vs. Grafana Alloy



OpenTelemetry Collector



- Open-telemetry/opentelemetry-collector & Open-telemetry/opentelemetry-collector-contrib
- Successor of Open-Tracing + Open Census
- Open-source observability framework
- Unified set of APIs, libraries, and agents
- Observability pipelines
 - Receiver
 - Processor
 - Exporter

OpenTelemetry Observability Pipeline

- Receivers
- Processors
- Exporters
- Connectors

Allow building of complex pipelines

Pull AND Push based

```
---
receivers:
  otlp:
    protocols:
      http:
        endpoint: <SERVICE_NAME>:4318
exporters:
  otlp:
    endpoint: "otel-collector.default:4317"
processors:
  batch:
extensions:
  zpages: {}
service:
  extensions: [zpages]
  pipelines:
    traces:
      receivers: [otlp]
      processors: [batch]
      exporters: [otlp]
```

Grafana Alloy

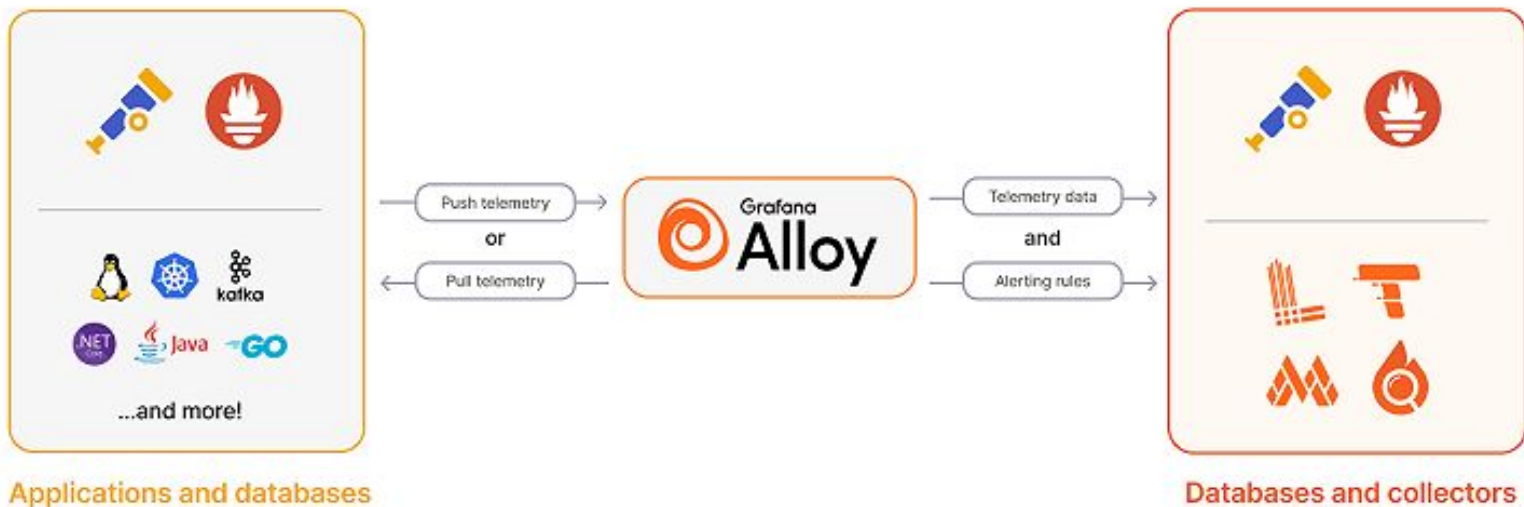


- Successor of Grafana Agent
- Vendor-Neutral OpenTelemetry Collector Distribution
- Fully compatible with Prometheus, OTel
- Supports metrics, logs, traces and more
- Custom Configuration syntax

Grafana Agent configuration

Custom block-based configuration syntax

See examples



Comparison

OpenTelemetry Collector

- Central agent management via ObservIQ's Bindplane
- Yaml config syntax
- Community support for many systems

Grafana Alloy

- No central agent management yet
- Custom config syntax
- Native integration with Prometheus
- Built-in exporters



Thank you!



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