

# 微服务可观测性

Kratos Maintainer 包子



# 目录



什么是可观测性?



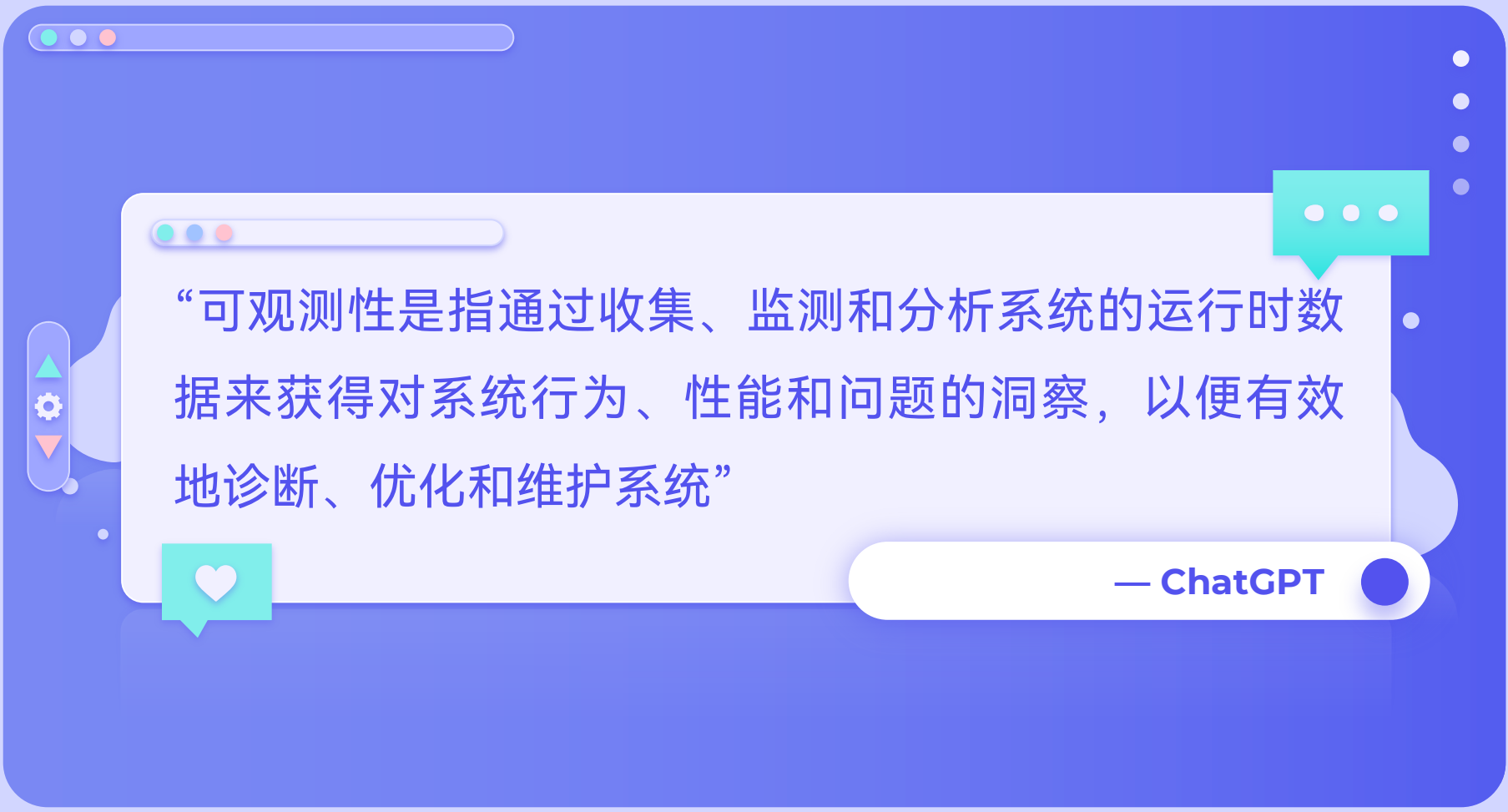
OpenTelemetry



Grafana LGTM

# 什么是 可观测性?

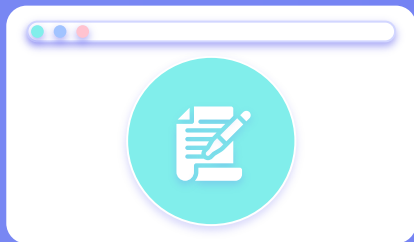




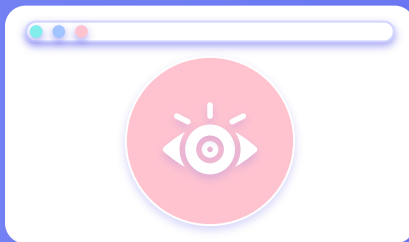
“可观测性是指通过收集、监测和分析系统的运行时数据来获得对系统行为、性能和问题的洞察，以便有效地诊断、优化和维护系统”

— ChatGPT

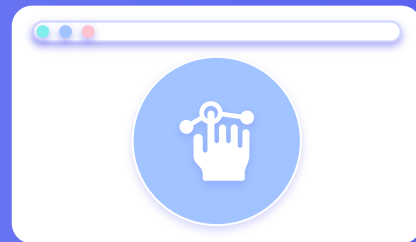
# 可观测性主要组成



log



metrics



traces

## 三者之间的关系

Low volume



High volume

Request-scoped metrics

**Metrics**  
Aggregatable

Request-scoped, aggregatable events

Request-scoped events

**Tracing**  
Request  
scoped

**Logging**  
Events

Aggregatable  
Events e.g. rollups



# 微服务中集成



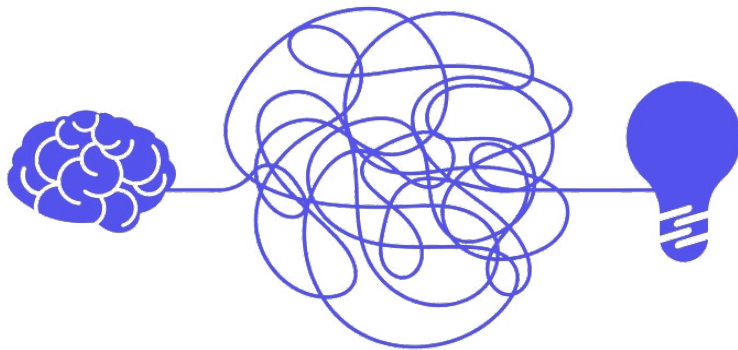
Promethe

Zap

Jaeger



# 混乱的数据规范





# 可观测 事实标准






+



=

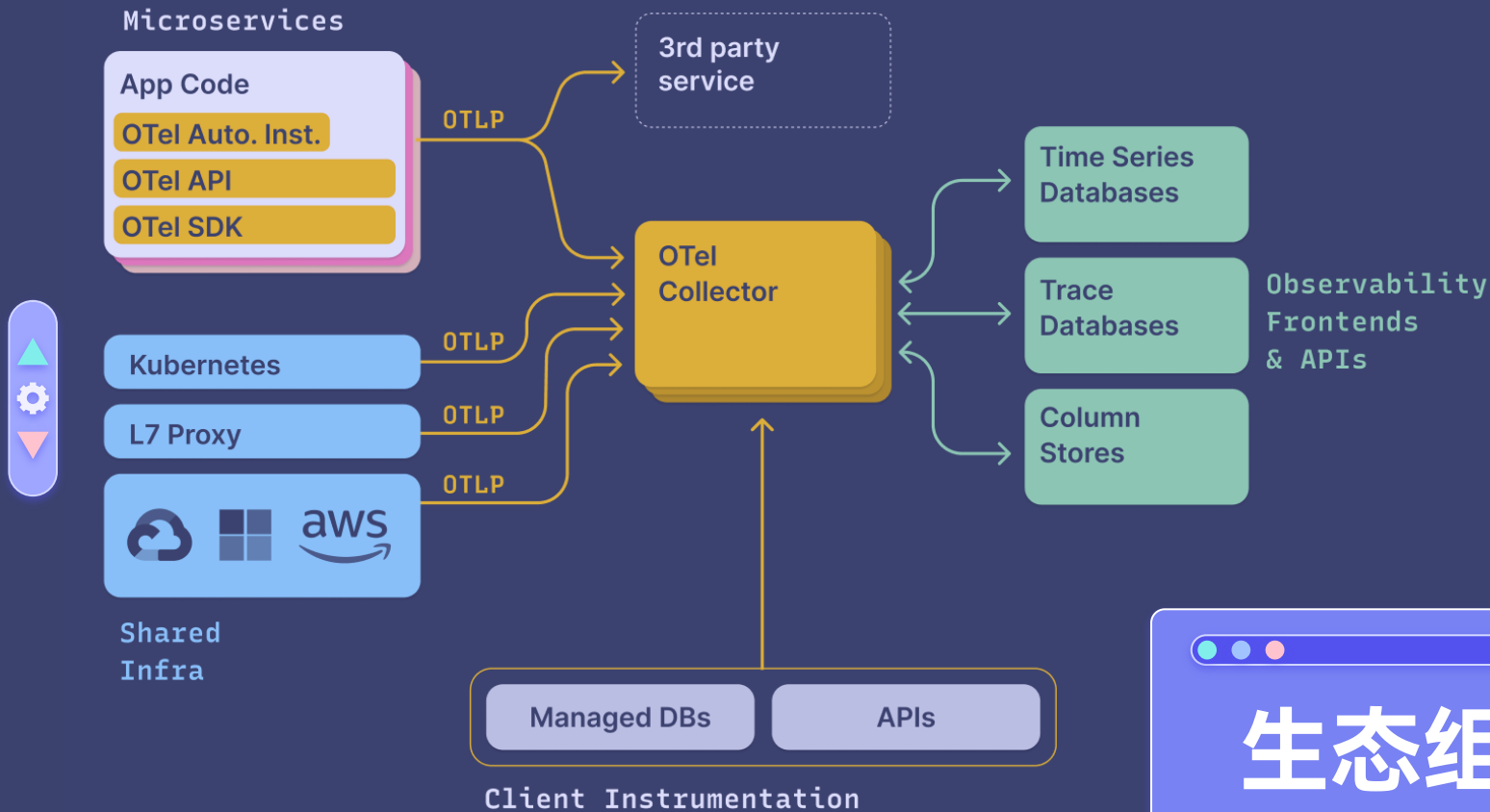


**OpenTelemetry**



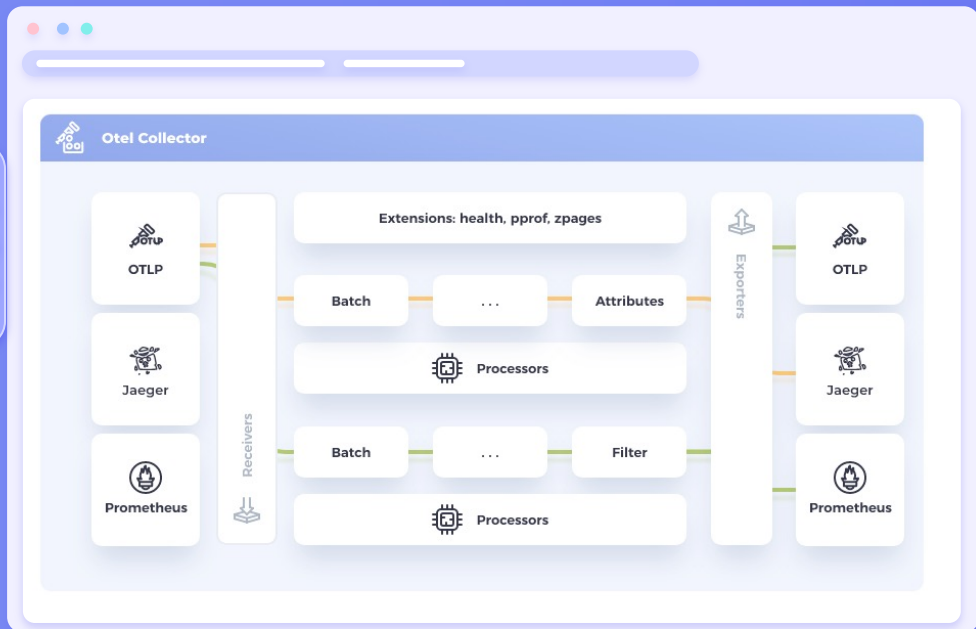
“高质量、无处不在的便携式遥测技术，实现有效的可观测性”

— OpenTelemetry



# 生态组成

# OTEL COLLECTOR



可用性



性能



可扩展性



可观察性



统一



# 一站式 解决方案



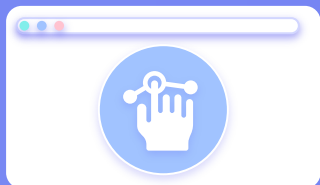
# Grafana LGTM



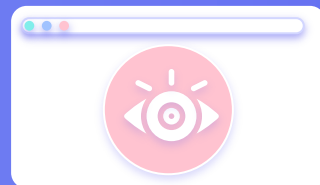
**Loki**



**Grafana**



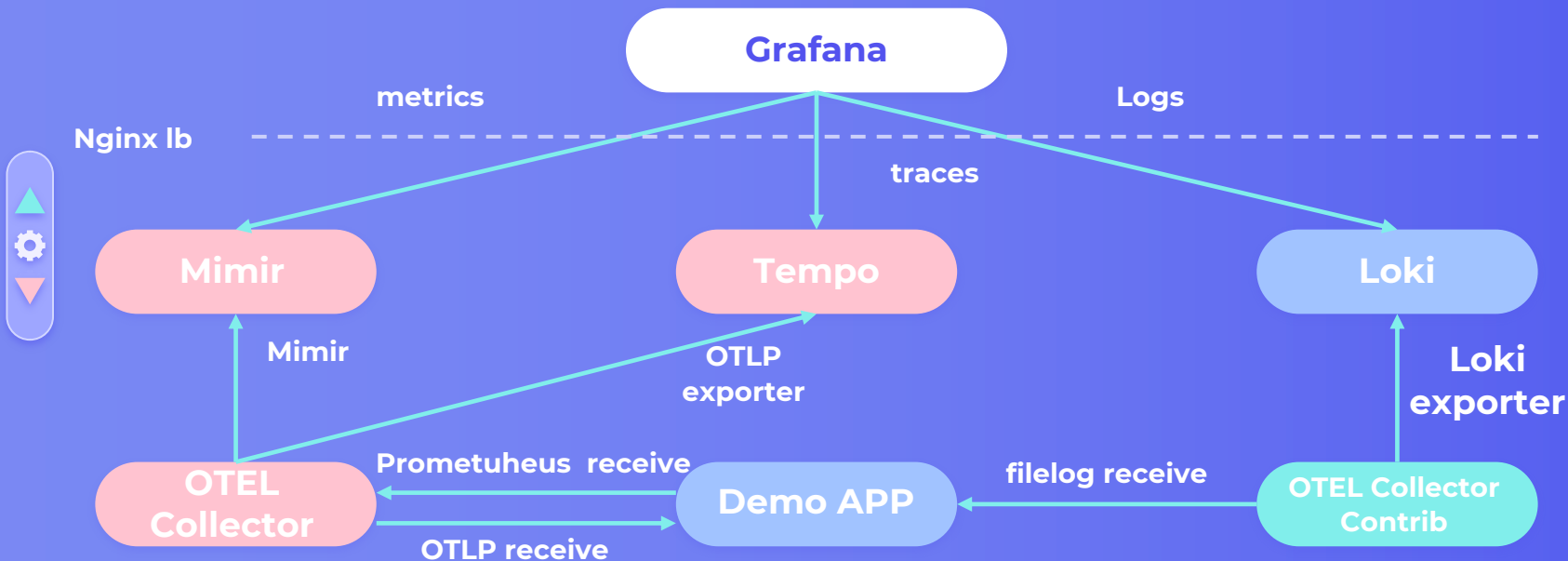
**Tempo**



**Mimir**



# Talk is cheap, **show me the code**





# Thanks!



**GitHub**



kratos