



Tom Wilkie, VP Product, Grafana Labs
Prometheus Maintainer, Cortex and Loki Author

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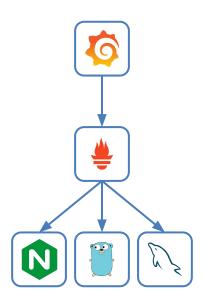
**Ken Haines,** Principal Software Engineer, Microsoft Cortex Maintainer

## - Why Cortex?

- Demo
- Q&A

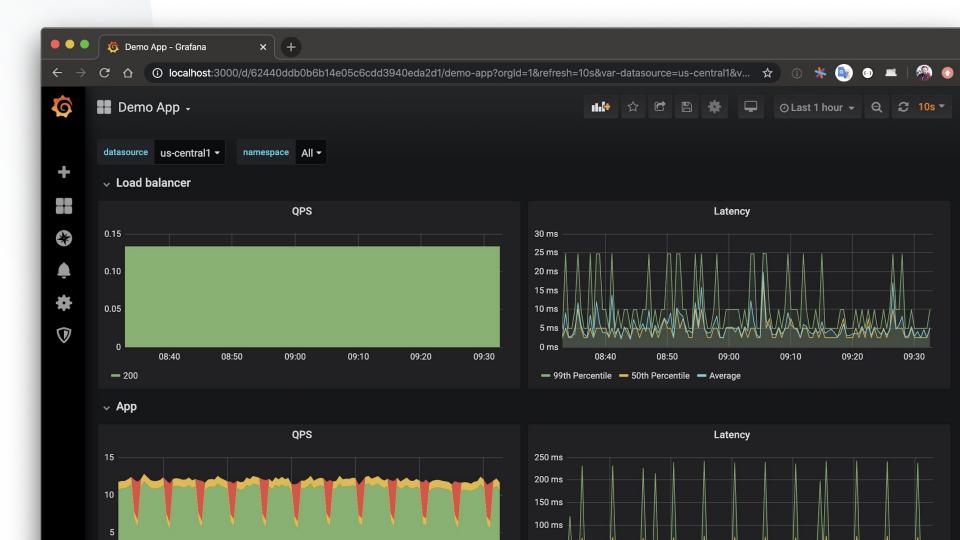


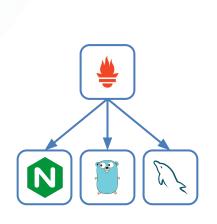




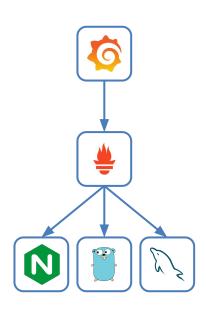
us-central-1



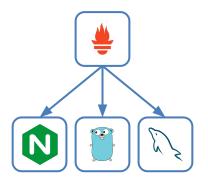






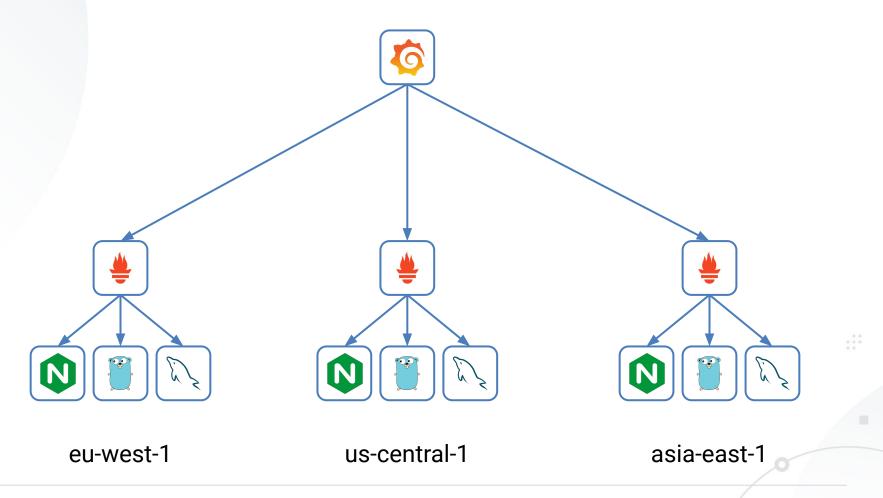


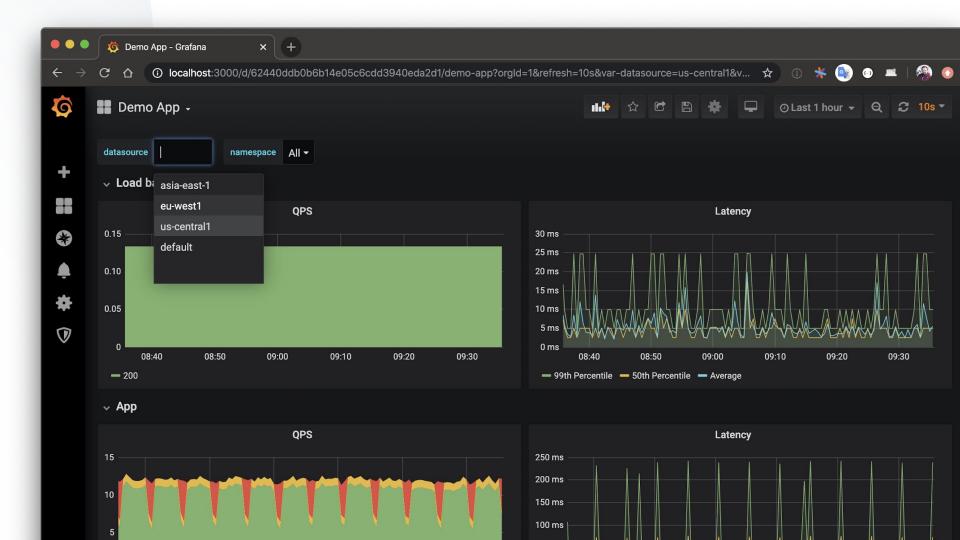
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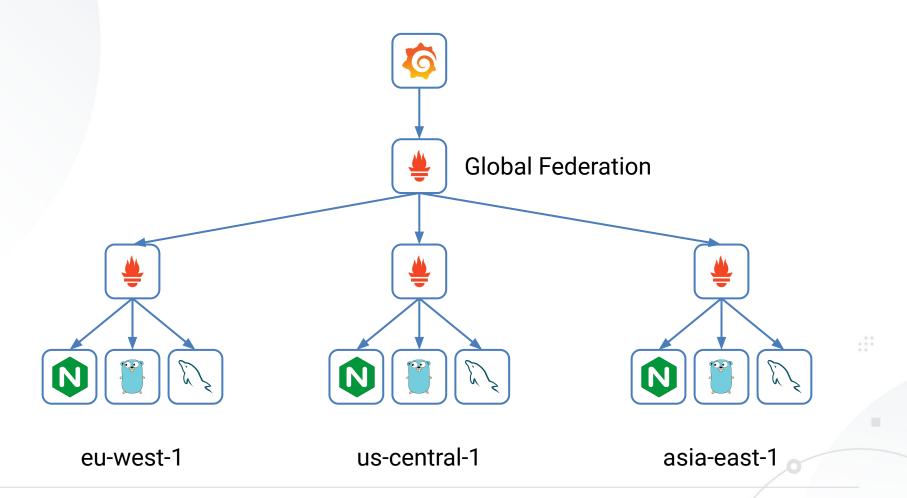


asia-east-1

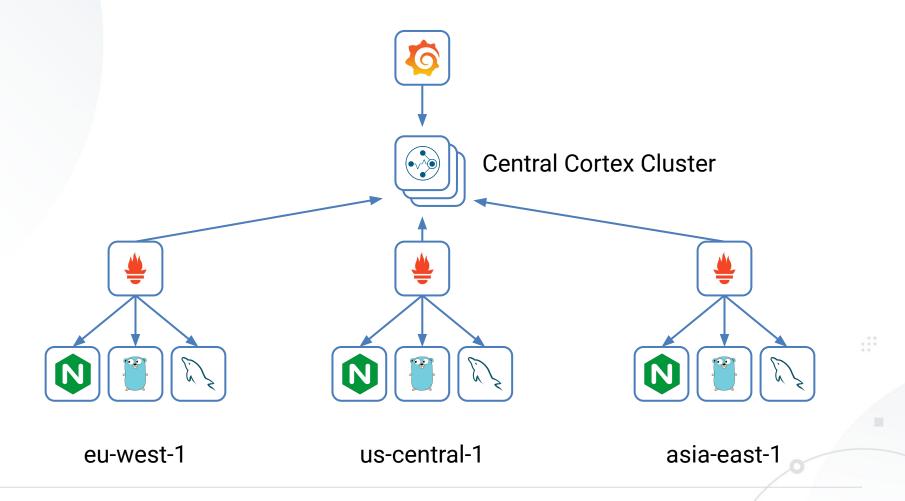


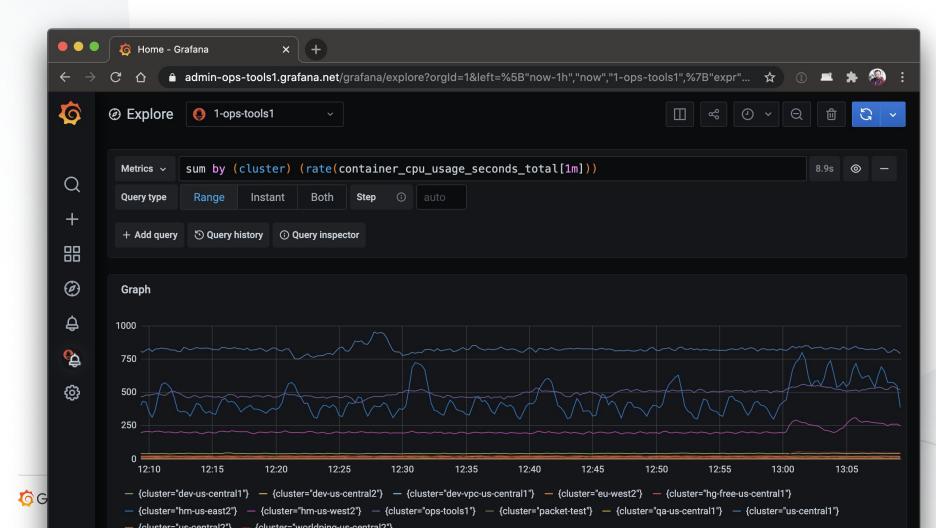














### **Cortex: horizontally scalable Prometheus**

Cortex is a time-series store built on Prometheus that is:

- Horizontally scalable
- Highly Available
- Durable Long-term storage
- Multi-tenant

Cortex gives you:

- A global view of as many metrics as you need
- With **no gaps** in the charts
- On durable, **long term storage**
- Across multiple tenants

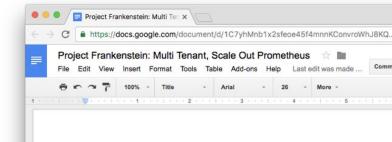
Cortex is an Apache-licensed CNCF Incubation project:

github.com/cortexproject/cortex



06/2016	Started by Tom Wilkie & Julius Volz, initially with <b>DynamoDB</b> storage.
07/2017 10/2017 02/2018	Added support for <b>Google BigTable</b> . Ken starts using Cortex at EA Added support for <b>Cassandra</b> storage.
07/2018 09/2018	Focus on <b>Query Performance</b> Joined CNCF sandbox
04/2019 11/2019 12/2019 04/2020	Focus on Ease of Use & Community Launch cortexmetrics.io Scalable rules and alerts Cortex v1.0 release
10/2020	Blocks-based storage engine GA





#### Project Frankenstein

A Multi Tenant, Scale Out Prometheus Tom Wilkie and Julius Volz, June 2016



#### Assumptions:

- It is a required capability of Weave Cloud to store timeseries metrics for our use
- We all like the Prometheus guery language.
- We do not want to operate a Prometheus instance per user.

This leads us to the conclusion that we want to build a multi tenant, scale out "Prometh Service", capable of storing data for up to 100k users with low cost - \$1/month/user-hos his project is superficially similar to the Multi Tenant Scope re-architecture, and a broad a proaction will be taken.

rethe query service is to be compatible with the existing Prometheus codebar metrics retrieval, in that one should be able to scrape existing instrumentures are way, and point a Grafana instance at it, for instance. The code with the open, and be open source, with the intention of upstreaming where

ing "anything" that shinttp://goo.gl/prdUYVsen AWS services for storing analysis and services for services for storing analysis and services for services f



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# Demo Time

- Why Cortex?
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