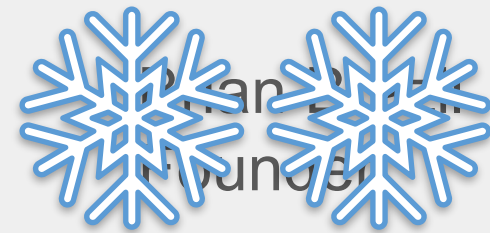


# What's new in Prometheus 2.0

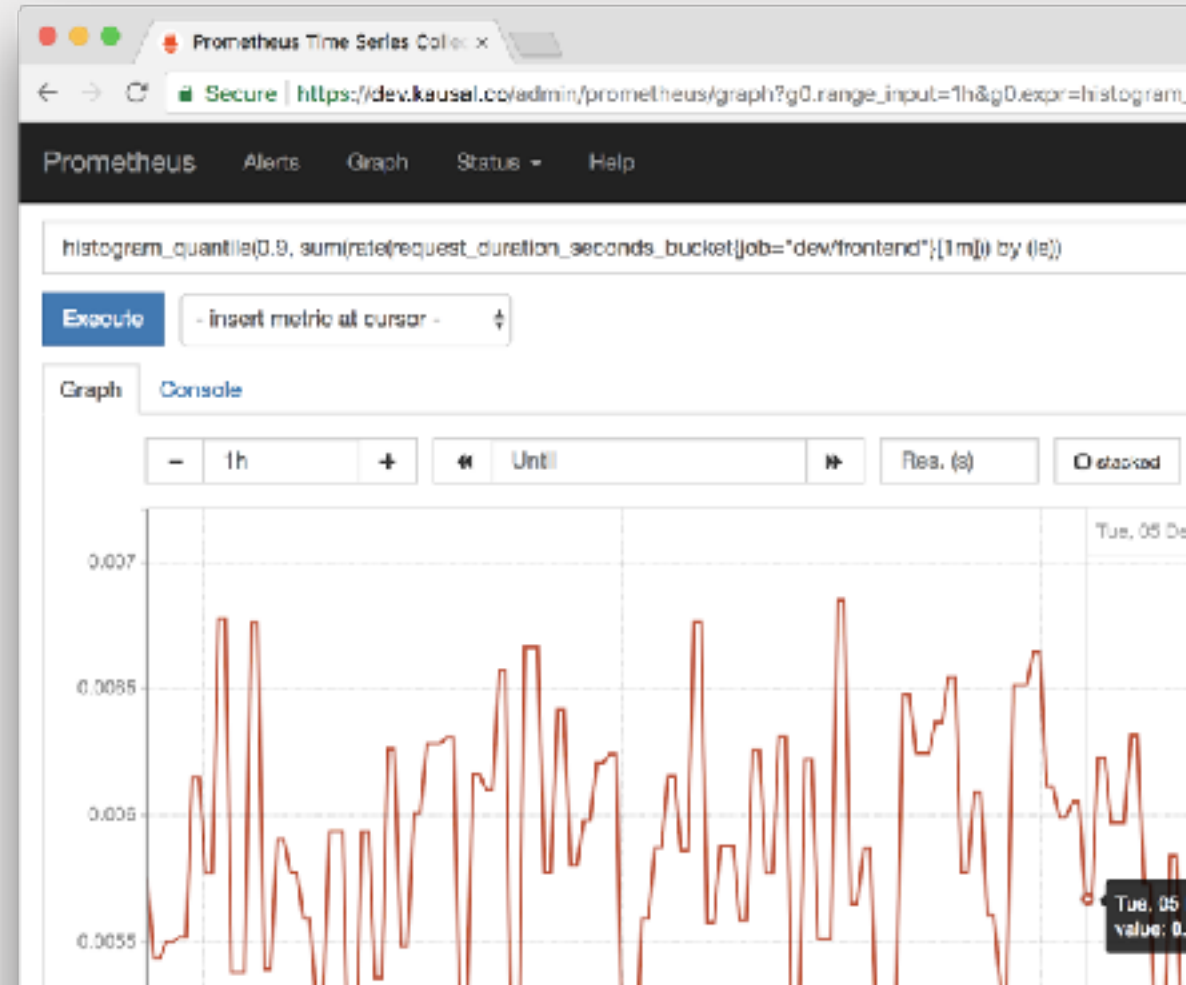
Tom Wilkie  
GrafanaLabs



# Prometheus

Open source monitoring system,  
for dynamic environments.

Powerful, concise query language.  
Simple operational model.  
Efficient local storage.



# Prometheus History

## **<0.9.0:**

- Basic TSDB, primitive PromQL
- 50k samples/s

## **0.9.0: TSDB v2 by Beorn:**

- 800k/s, Gorilla, 10M timeseries

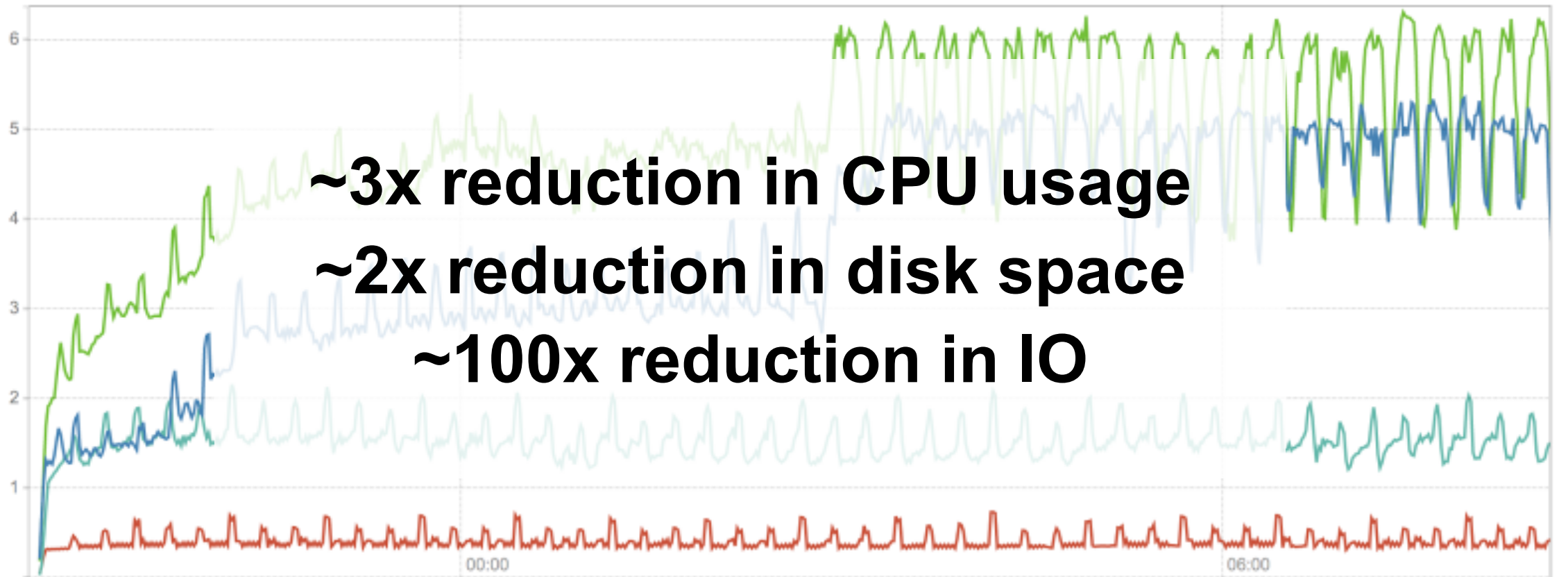
## **2.0.0: TSDB v3 by Fabian:**

- “millions” samples/s
- WAL, mmap

# Prometheus 2.0

- Optimized for Kubernetes
  - Brand new storage engine
  - Significantly improved performance
  - Aimed at highly dynamic environments, CI/CD.
- 
- Big thanks for Fabian Reinartz, Brian Brazil and Goutham Veeramachaneni for making this happen.

# Prometheus 2.0



**~3x reduction in CPU usage**

**~2x reduction in disk space**

**~100x reduction in IO**

■ Prometheus 1.5

■ Prometheus 2.0

■ Prometheus 1.5 (queried)

■ Prometheus 2.0 (queried)

# Staleness Handling

Previously if a target went down, last value would be returned for 5 minutes.

In Prometheus 2.0 the value will stop being returned after a scrape interval.

Simpler to understand, and no more double counting of fast restarting servers!

# Community



[grealish](#)  
[@grealish](#)

Follow

Impressive, from the [@grafana](#) uptime stats, 16k [@PrometheusIO](#) servers running in 2017 [#PromCon2017](#)



11:04 AM - 17 Aug 2017



**grealish**

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[#DevOps](#), [CI/CD](#), [#Terraform](#) [#Ansible](#)  
[@Docker](#) [@OpenShift](#). Wireless & Microwave  
IP nerd, worked w/ [#GoLano](#), [#Scala](#),

# Community

★ Unstar

14,989

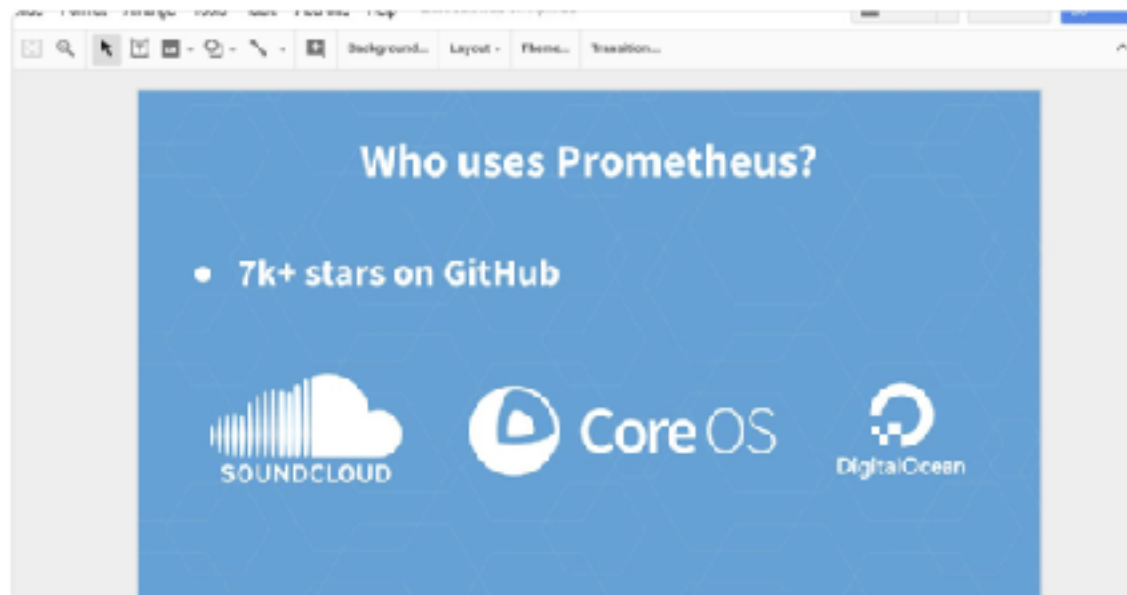


**Frederic Branczyk**

@fredbrancz

Following

Was going through some slides from a talk I gave last year December, and realized [@PrometheusIO](#) gained more than 6k stars over the last year 🙌



**Frederic Branczyk**

@fredbrancz Follows you

Engineer @CoreOS, @PrometheusIO & @KubernetesIO kube-state-metrics maintainer. Distributed systems, crypto &

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# Community



PromCon 2017

The Prometheus conference — August 17 - 18 in Munich

220 attendees - 2.7x bigger than 2016

PromCon 2017: Aug 9th & 10th

O'REILLY®



# Prometheus Up & Running

INFRASTRUCTURE AND APPLICATION PERFORMANCE MONITORING

Brian Brazil

# Prometheus: The Book

Coming in 2018!