How Gathering Metrics can Save Your Bacon

Brian Hawkins - Staff Engineer at Proofpoint Inc.

Thanks

GrafanaLabs

Kairos Community

Who is Proofpoint

Advanced Threat Protection

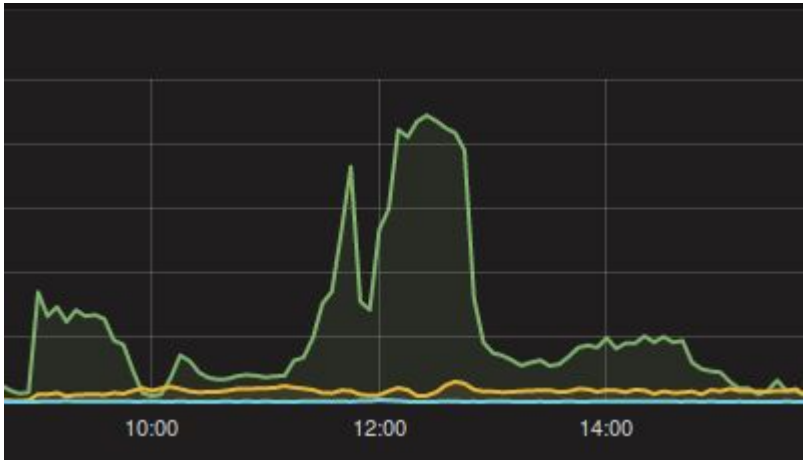
- Email
- Social media
- Network
- ...

Big names use Proofpoint to protect their data

Who is Brian Hawkins

- Staff Engineer at Proofpoint
  - Big Data
  - Cassandra
  - Kafka
  - Storm
- Co created KairosDB (with Jeff Sabin)
- A guy who now stares at graphs a lot

What is it?



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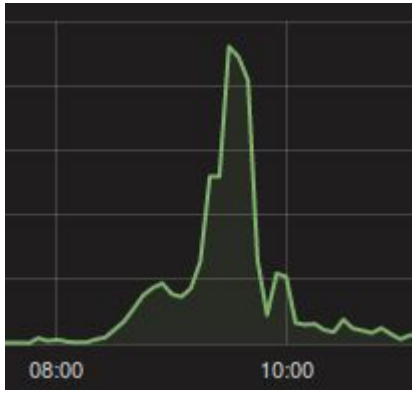


What is KairosDB

- Inspired by the features of OpenTSDB
- Uses Cassandra as the backend
- Needed to consume both system and application metrics for Proofpoint
- Consumes ~20 billion data points a month
- System scales really well

KairosDB Features

- 20+ Aggregators
- Easy to create plugins
- Flexible storage types (int, float, string, custom)
- Integrations with CollectD, Solr, Graphite, Grafana, …
- Easy to setup and administer
- Fast to ingest data

“Write once, read never” - author of TSCacheD

Store a lot of metrics

Just be careful how often you store them

Metrics Are Everywhere

Super Store X

Your Boss

MORE DASHBOARDS!!!

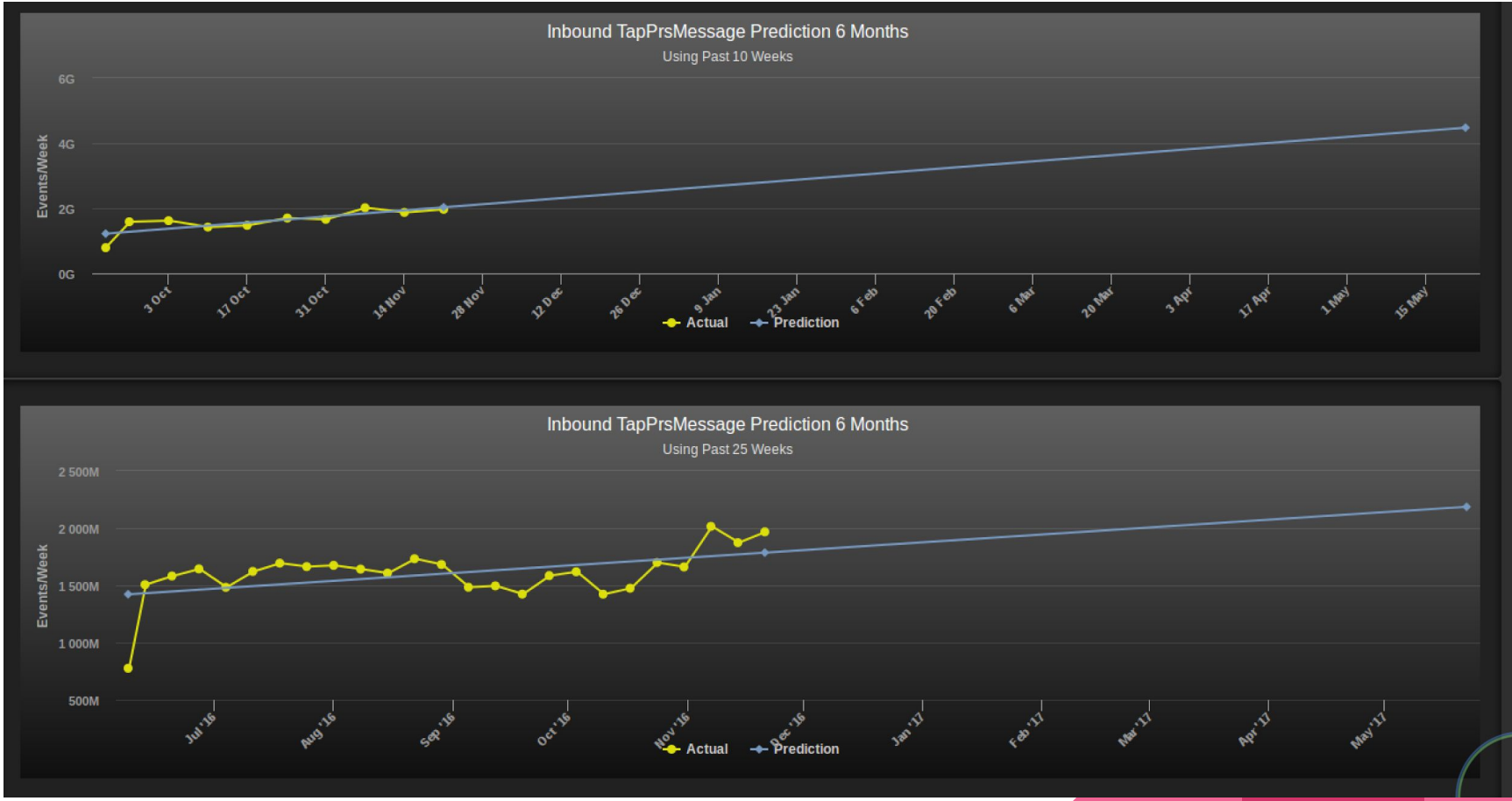
Saving Bacon

Web Service Doing Dual Duty

Java Off Heap Memory

Save the Middle Man

Predicting the Future


Inbound TapPrsMessage Prediction 6 Months
Using Past 10 Weeks
Events/Week
6G
4G
2G
0G
3 Oct
17 Oct
31 Oct
14 Nov
28 Nov
12 Dec
26 Dec
9 Jan
23 Jan
6 Feb
20 Feb
6 Mar
20 Mar
3 Apr
17 Apr
1 May
15 May
Actual
Prediction
Inbound TapPrsMessage Prediction 6 Months
Using Past 25 Weeks
Events/Week
2 500M
2 000M
1 500M
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500M
Jul '16
Aug '16
Sep '16
Oct '16
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Feb '17
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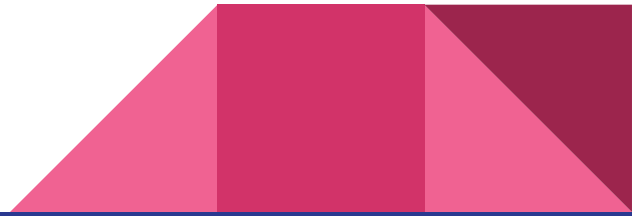
May '17
Actual
Prediction

Questions?