



*Project Update*

*What's New In v5*

~1 year ago

v4.0



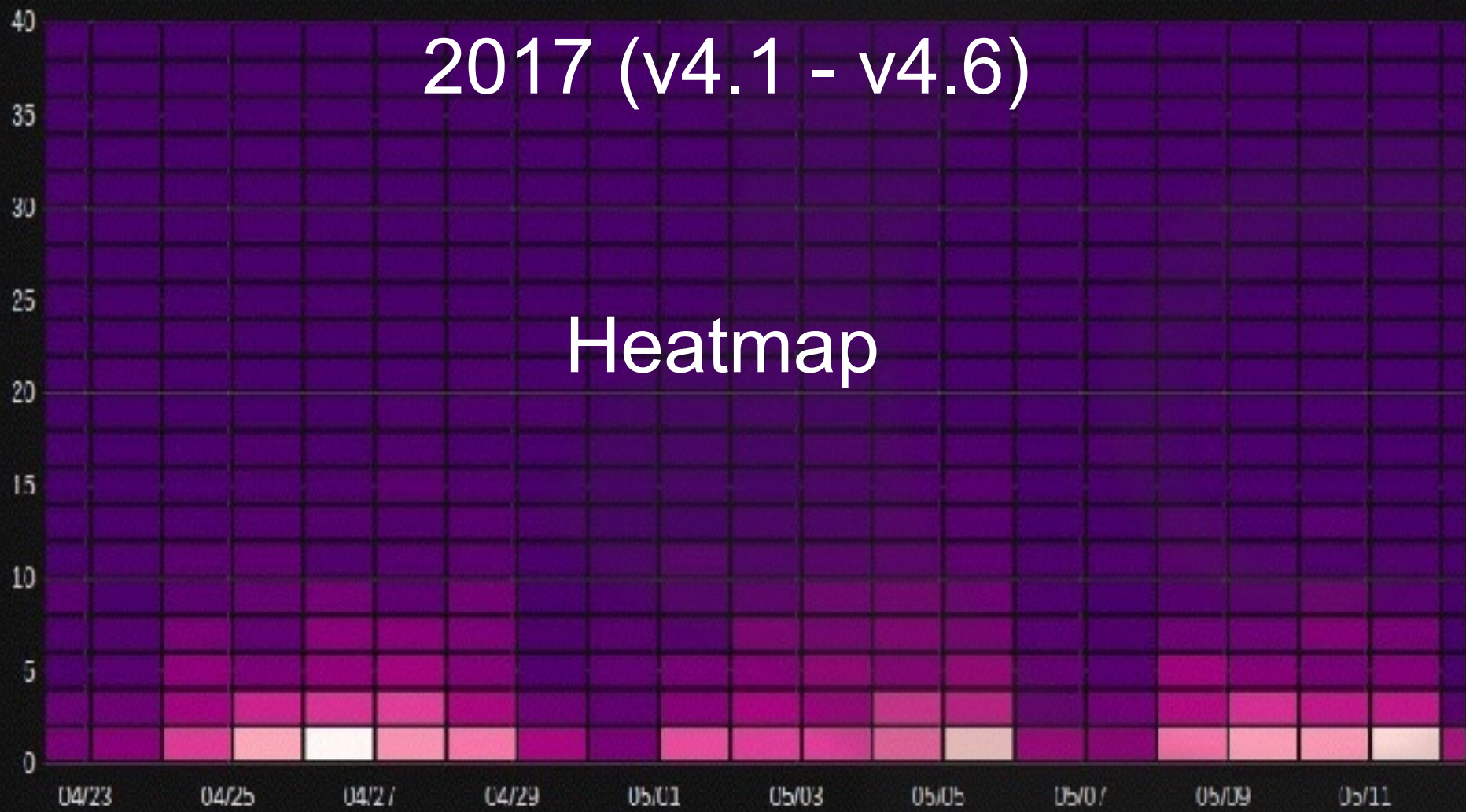
2017

v4.1 - v4.6

Alerting

2017 (v4.1 - v4.6)

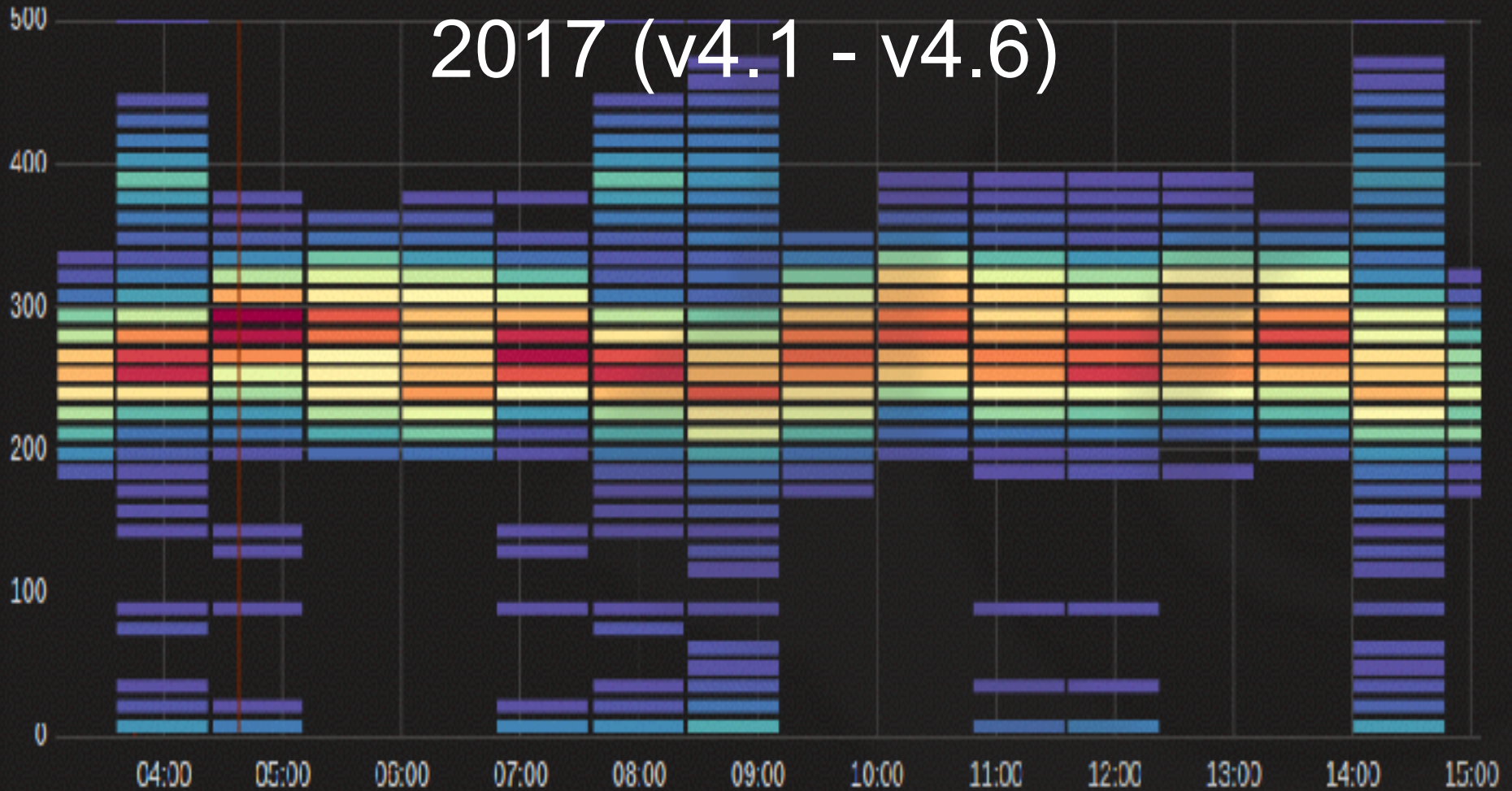
Heatmap





Histogram over time

2017 (v4.1 - v4.6)







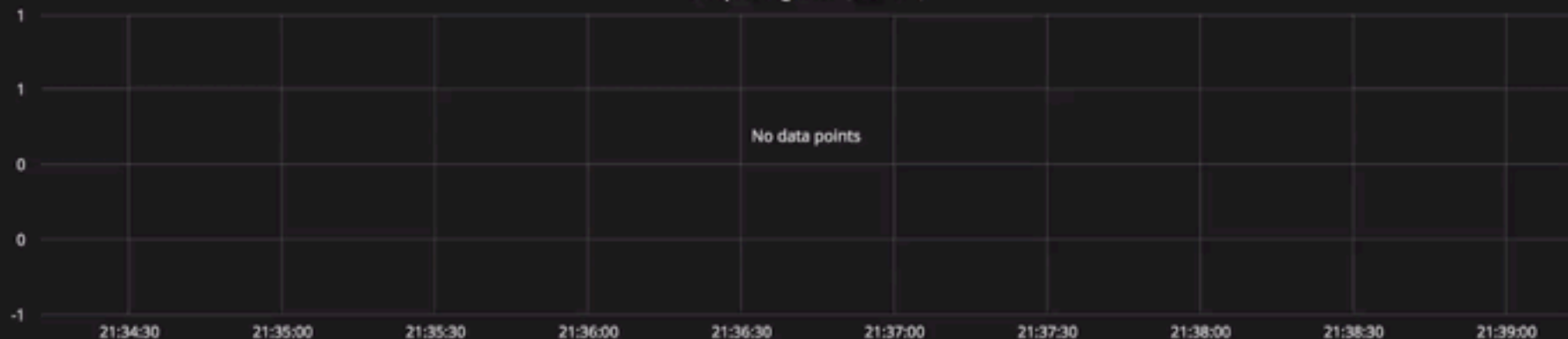
Prometheus

HOST: demo.robustperception.io:9090 -

[Grafana Docs](#)

[Prometheus Docs](#)

### Samples Ingested (rate-5m)



## Graph

General

Metrics

Axes

Legend

Display

Alert

Time range

✕

▼ A

abs

abs() function  
absent() function  
drop\_common\_labels() function

▼ B

go\_memstats\_buck\_hash\_sys\_bytes me\_...  
node\_vmstat\_slabs\_scanned metric  
go\_memstats\_sys\_bytes metric  
go\_memstats\_alloc\_bytes metric  
Panel C go\_memstats\_alloc\_bytes\_total metr...

abs(v instant-vector)

Returns the input vector with all sample values converted to their absolute value.

# Annotations



logins



Google hits



Sign outs

274

Logins



Logins

184

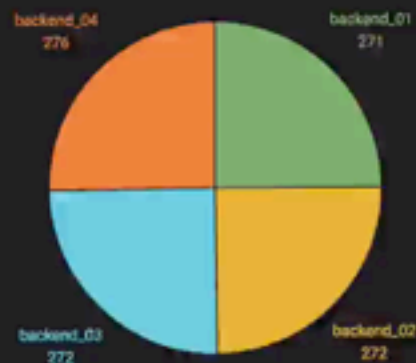
Memory



Support calls

84

Distribution



# Dashboard version history

## Versions > Comparing 15 ↔ 16 (Latest)

Version 16 updated by admin 13 days ago - asd

[↺ Restore to version 15](#)

Version 15 updated by admin a month ago - asd

### ● panels changed

- changed web\_server\_03 #0a437c → #0a50a1
- changed web\_server\_04 #052b51 → #0a437c

[Line 105 - 106](#)[Line 107 - 108](#)

### ● version changed 15 → 16

[Line 697 - 698](#)[View JSON Diff](#)



**@WalmartLabs**

# Data sources



PostgreSQL

Open-Falcon

Heroic

OpenHistorian

Google Calendar DeviceHive

NetXMS PNP4Nagios Druid

SideWinder ClickHouse OSIssoft-PI

DalmatinerDB Hawkular PRTG

IBM APM Monasca

Oracle  
AppDynamics  
New Relic  
Splunk  
DataDog

2017

v5

# Goals



Improve the core

UX

# New sidenav & page design



## Configuration

Organization: Main Org.

Data Sources

Users

Teams

Plugins

Preferences

API Keys

Filter by name or type



+ Add data source



A-Primery

http://localhost:8080

GRAPHITE



Azure

https://management.azure.com

GRAFANA-AZURE-MONITOR-DATASOURCE



Broken DB

http://localhost:4242

OPENTSDB



cloudwatch

CLOUDWATCH



elastic5

http://localhost:10200

ELASTICSEARCH



github

http://localhost:10200

ELASTICSEARCH



Grafana TestData

GRAFANA-TESTDATA-DATASOURCE

Updated light theme



## Alerting

Alert rules & notifications

Alert Rules

Notification channels

Search alerts

States

All

How to add an alert



Other alert

PAUSED for 2 months



Panel Title alert

OK for 2 months



TestData - Always Alerting

ALERTING for 2 months



TestData - Always OK

OK for 2 months



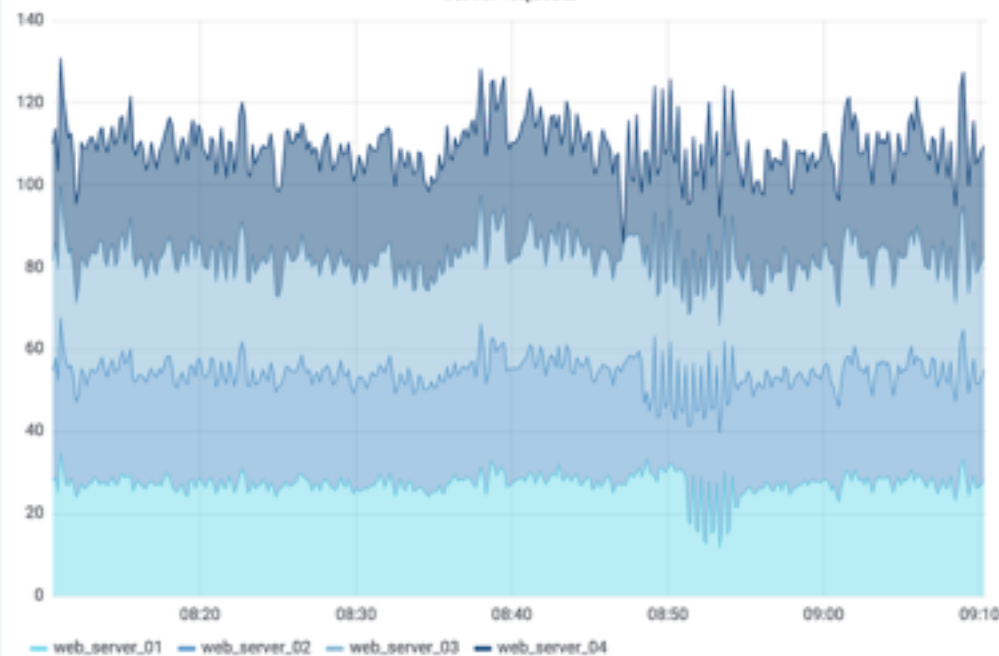




logins



server requests



Google hits



Sign outs

273

Logins



Logins

190

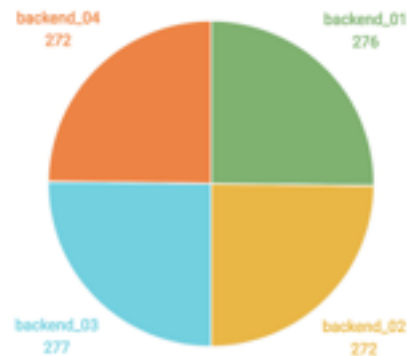
Memory



Support calls

83

Distribution



# Dashboard Settings



Logins

199

Sign outs

283

Support calls

85

Logins

199

Google hits



Memory



Google hits



Logouts



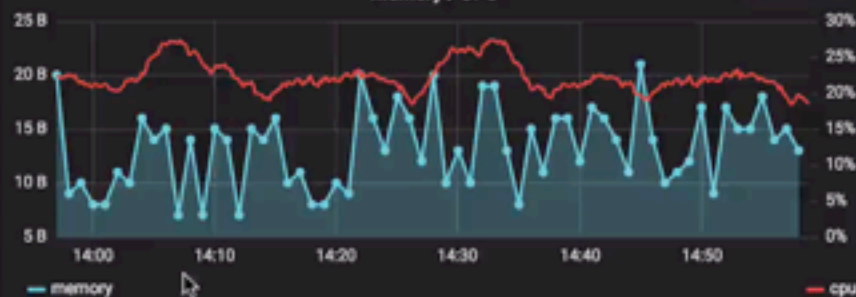
logins

timeshift -1h



Memory / CPU

timeshift -1h



server requests



client side full page load



Improve the core

# Building Dashboards



Logins

198

Support calls

84

Sign outs

281

Logins

198

Google hits

57

Memory

113 B

Google hits

57

Logouts

226

logins

timeshift -1h



Memory / CPU

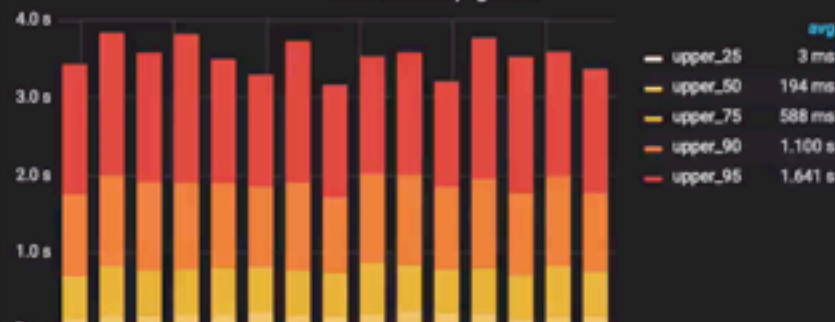
timeshift -1h



server requests



client side full page load







logins

timeshift -1h



Sign outs

268

Support calls

83

Logins

185

Logins

185

server requests



Memory / CPU

timeshift -1h



Memory

Logouts

Google hits

Backward  
compatible

FILTERING server : backend\_01



Server requests



New session



Load time

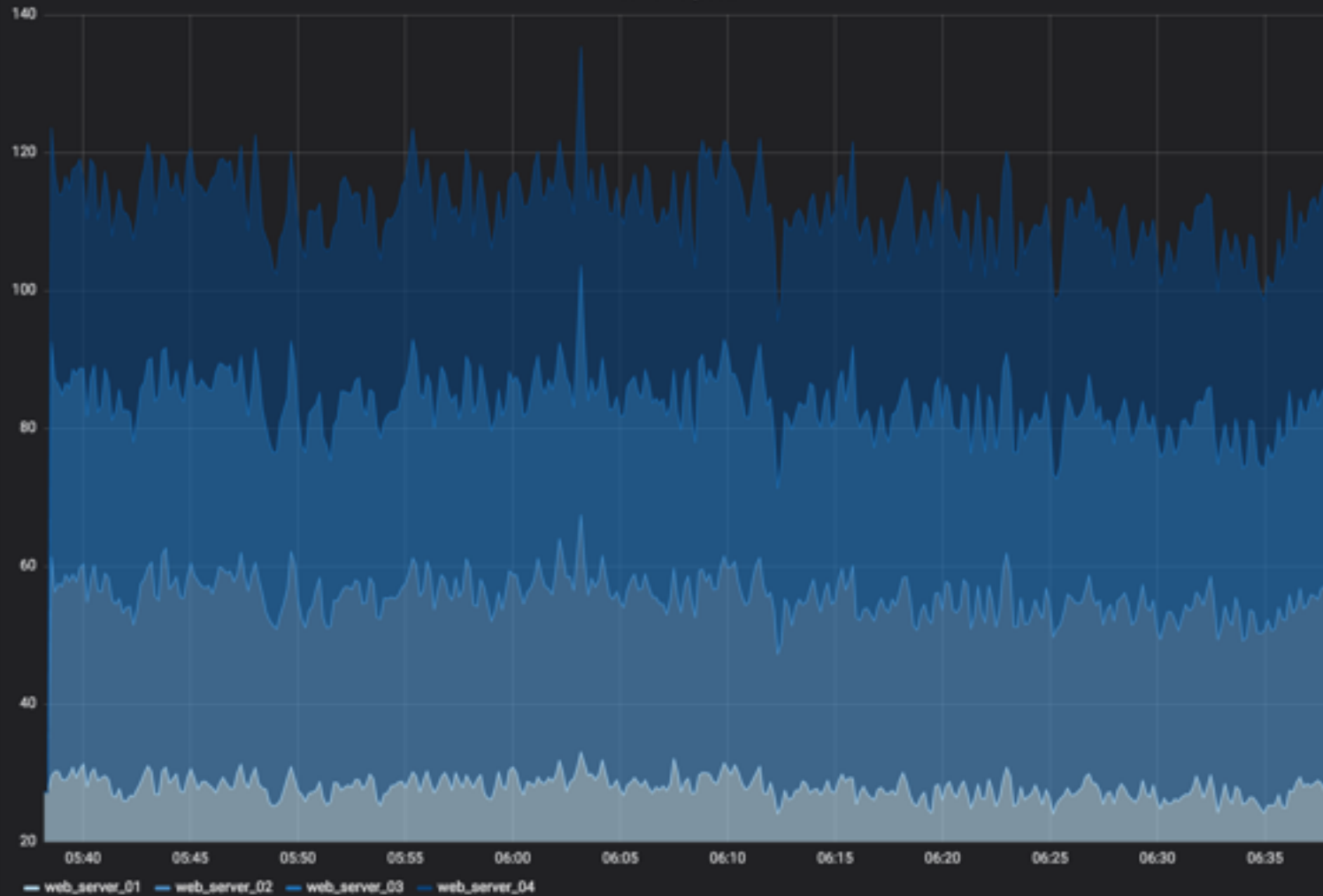




React



server requests

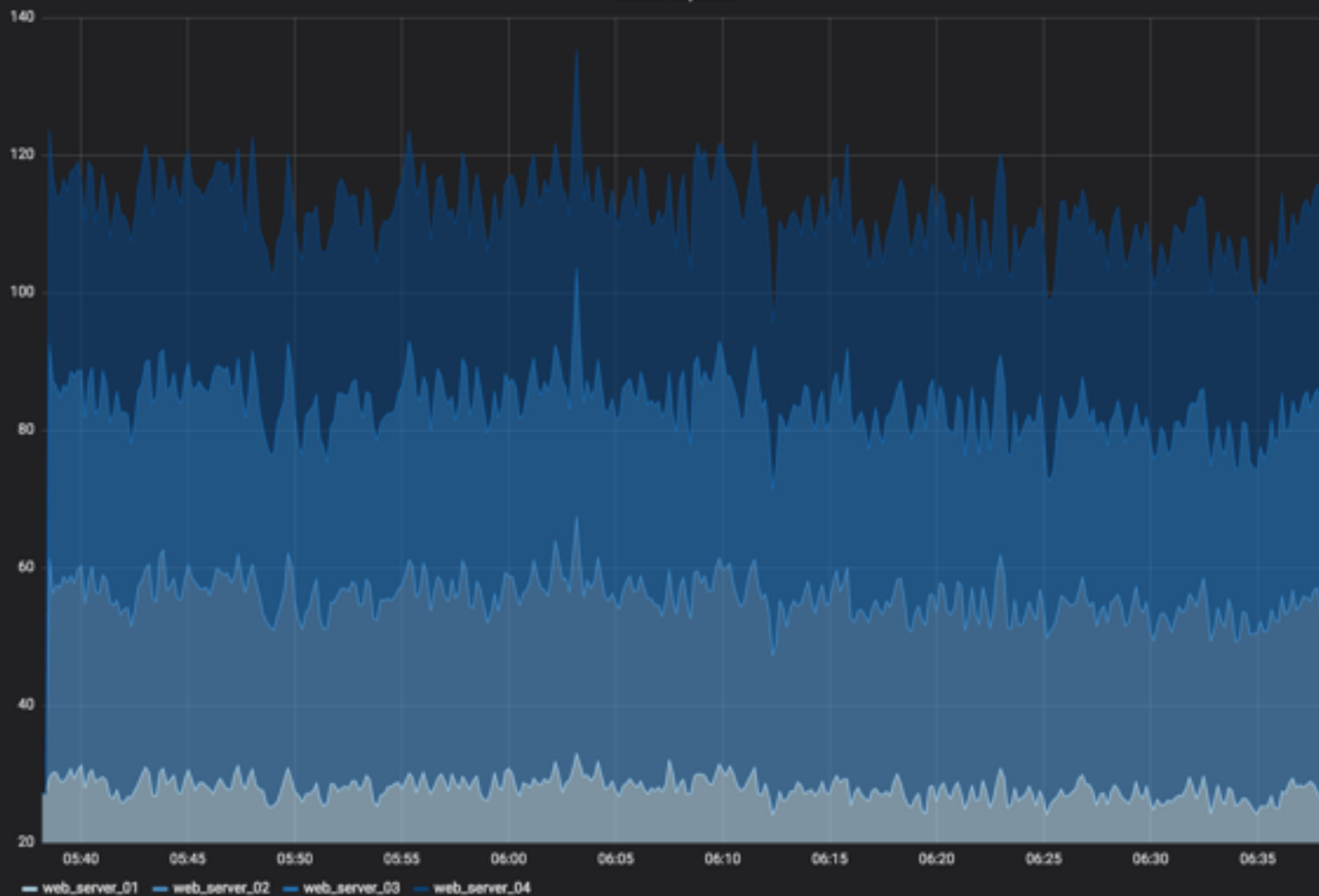


Sign ups

278



server requests



Sign ups

278

Sign outs

281

Logins

196

Support calls

84

Google hits



Memory





Panel title

9

Logins

16

Logouts

29

Signups

11

Sign outs

14

Support calls

23

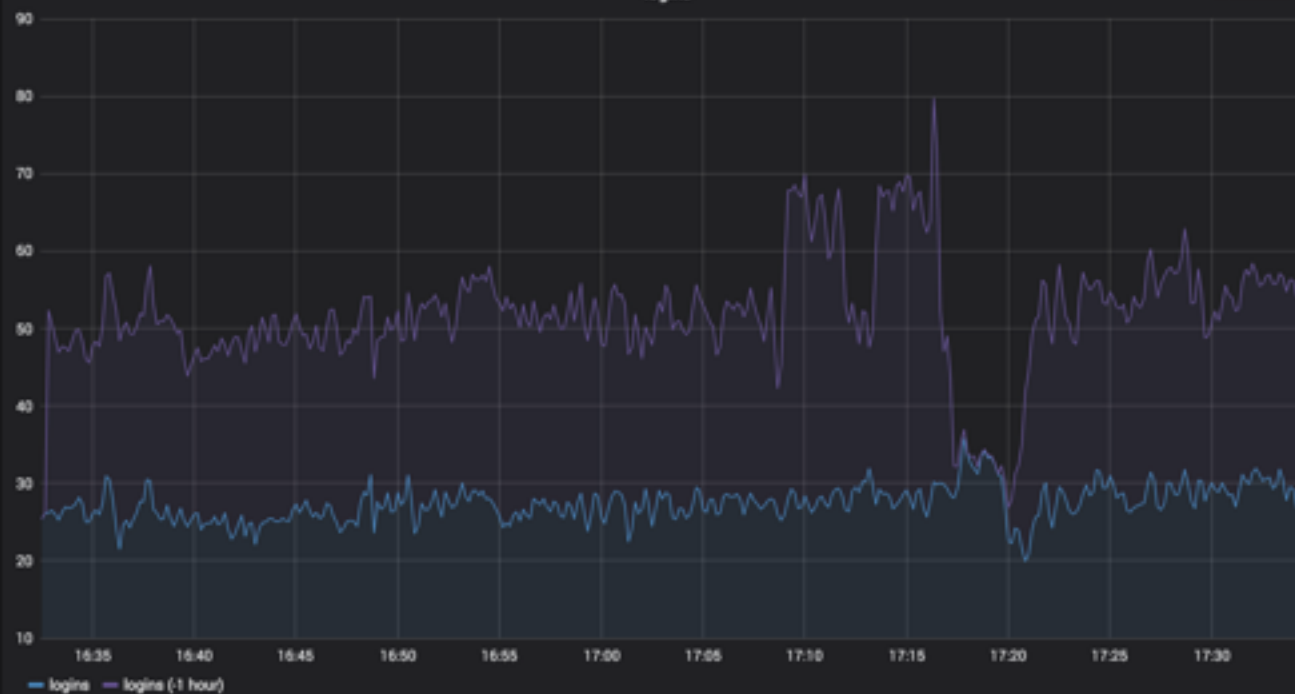
Google hits

25

Memory

logins

timeshift -1h



server requests

Server A

60%

Server B

6%

Server C

30%

Server D

45%

Server E

53%

Server F

25%

Server G

31%

Server H

55%

Server I

10%

# Graphite



Tags  
Custom functions  
Function documentation

▼ A

Series

app

=

api-server

AND

env

=

production

+

Functions

groupByTags(avg, server)

movingAverage(5min)

aliasByTags(server)

+

▼ B

Add Query



ByTags(server)

Alias



alias

Calculate



aliasByMetric

Combine



aliasByNode

Filter Data



aliasByTags

Filter Series



aliasQuery

Sorting



aliasSub

Special



legendValue

Transform



## aliasByTags

Takes a seriesList and applies an alias derived from one or more tags and/or nodes

```
&target=seriesByTag("name=cpu") | aliasByTags("server","name")
```

This is an alias for aliasByNode .

# Provisioning

(cloud-native\*)

# Managing large installations

Folders  
Teams  
Permissions



# GrafanaCon 2018

## New in v5

|                                  |   |
|----------------------------------|---|
| 1.0 - Old Dashboard grid         | ☆ |
| 1.1 - Old Layout -> New Layout   | ☆ |
| 1.2 - New Grid                   | ★ |
| 2.0 - Unified dashboard settings | ☆ |
| 2.1 - New Page UX                | ☆ |
| 3.0 - Dashboard Folders          | ☆ |
| 4.0 - Permissions                | ☆ |
| 5.0 - Teams                      | ☆ |
| 7.0 - New Dashboard URLs & ID    | ☆ |

## Tips & Tricks

|                       |   |
|-----------------------|---|
| 1.0 - Annotations     | ☆ |
| 2.0 - Panel Repeats   | ☆ |
| 3.0 - Style Overrides | ☆ |

v5.0





DASHBOARD FOLDERS



IMPROVED UX



NEW DASHBOARD  
LAYOUT ENGINE



REDESIGNED LIGHT  
THEME

# Grafana 5.0

Now Available!



FOLDER & DASHBOARD  
PERMISSIONS

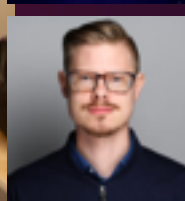
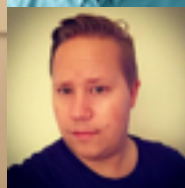


DATASOURCE & DASHBOARD  
PROVISIONING



TEAMS

Thanks



# Contributors

## Pull Requests ▾

user\_login

Count ▾

mtanda

🔍 🔍

62.00

svenklemm

18.00

thuck

16.00

ryantxu

9.00

ilgizar

8.00

alin-amana

7.00

m0nhawk

7.00

Jonnymcc

5.00

mauve

5.00

mitjaziv

5.00

seuf

5.00

AnonyV

4.00

bentranter

4.00

rickard-von-essen

4.00

roidelapluie

4.00

sliceratwork

4.00

[community.grafana.com](https://community.grafana.com)



Grafana v5  
launch party  
To night!