Jeff's Nerdy Obsession

This is my homelab

It’s more like a collection of stuff

This is my homelab

It’s mine not yours

But that’s not all!

A slice of Pi(s)

SAMSUNG

Okay so what are you running?

This setup looks weak.

Kubernetes

Gogs

Drone

PiHole

Grafana

Prometheus

Docker Registry

InfluxDB

LAN Cacher

Kibana

Elasticsearch

MySQL

Cacher

OpenHAB

Emby

… And some other cool media services (ask me later)

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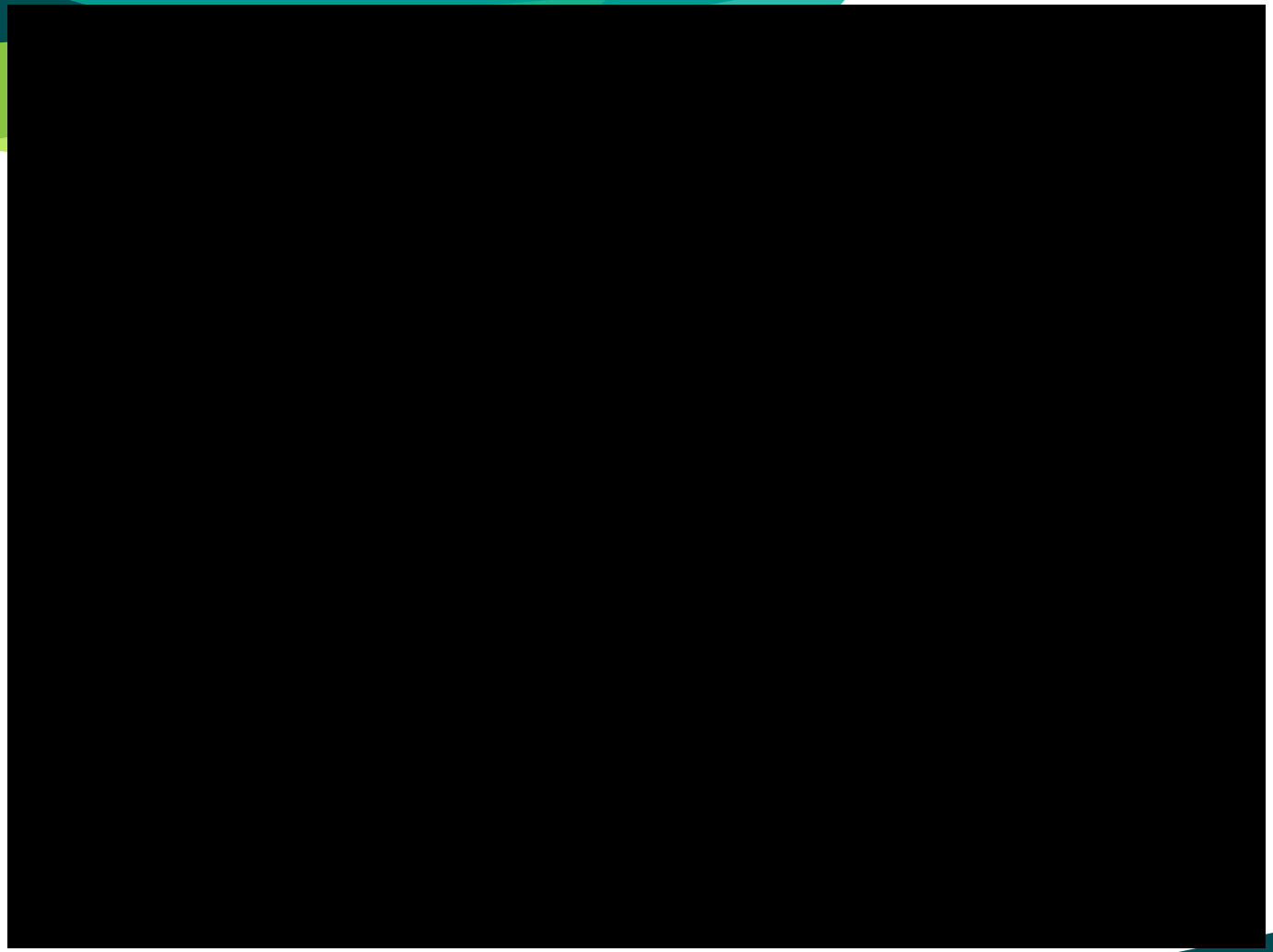
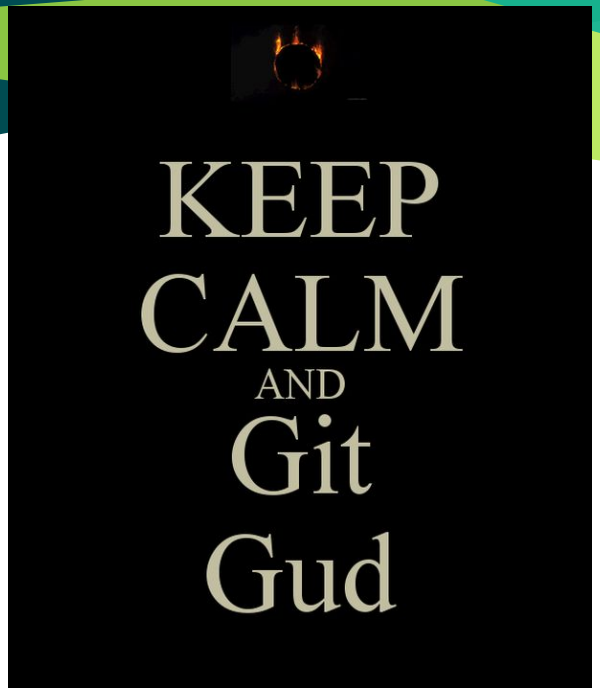
Highly Available

It started with a joke.

Because I'm hilarious.



KEEP
CALM
AND
Git
Gud


KEEP
CALM
AND
Git
Gud

GIT GUD EDITION

KEEP
CALM
AND
Git
Gud

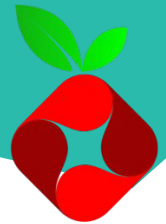
GIT
GUD
SCRUB

GIT GUD
THE PRULD

git gud? git.gud? Oh I’m funny.
- Me

Ok we need custom DNS

PiHole



Home DNS Cacher + Ad Blocker built in

Requests to known ad networks route nowhere

Add custom DNS entries to be cool

https://pi-hole.net/

Now a git repo

Or rather, a full CI/CD setup

Gogs + Drone

Gogs is a lightweight github clone written in Golang

Drone is a lightweight build pipeline written in… Golang

https://gogs.io/

https://drone.io/

DNS so far

pi.hole

git.gud

drone.gud

grafana.gud

kubernetes.gud

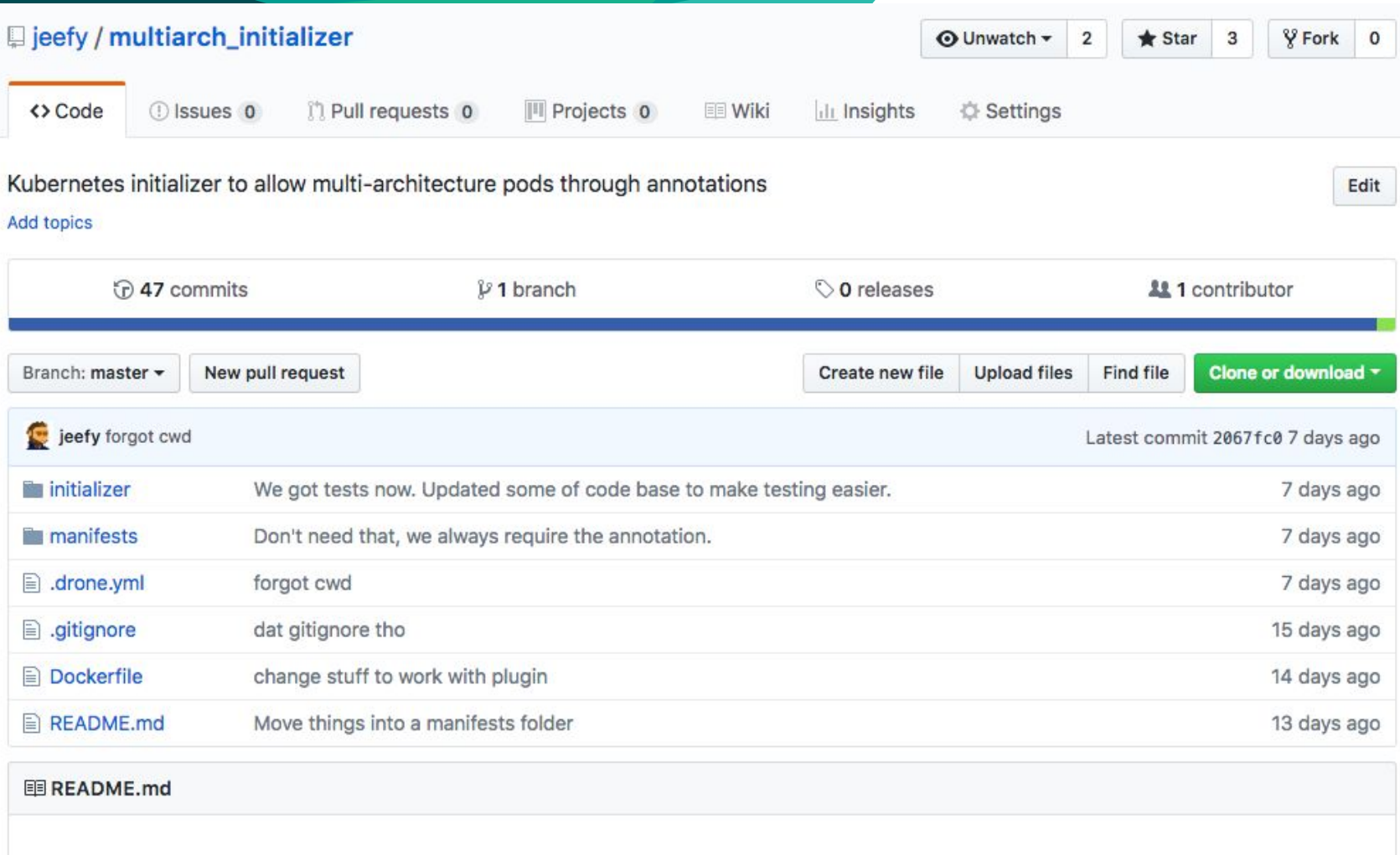
Wait you said

Highly Available

Wait you said

How?

You have a mixed architecture setup.


jeefy / multiarch_initializer
Unwatch 2
Star 3
Fork 0
Code
Issues 0
Pull requests 0
Projects 0
Wiki
Insights
Settings
Kubernetes initializer to allow multi-architecture pods through annotations
Edit
Add topics
47 commits
1 branch
0 releases
1 contributor
Branch: master
New pull request
Create new file
Upload files
Find file
Clone or download
jeefy forgot cwd
Latest commit 2067fc0 7 days ago
initializer
We got tests now. Updated some of code base to make testing easier.
7 days ago
manifests
Don't need that, we always require the annotation.
7 days ago
.drone.yml
forgot cwd
7 days ago
.gitignore
dat gitignore tho
15 days ago
Dockerfile
change stuff to work with plugin
14 days ago
README.md
Move things into a manifests folder
13 days ago
README.md

```yaml
spec:
  replicas: 2
  strategy:
    type: RollingUpdate
  template:
    metadata:
      creationTimestamp: null
      labels:
        io.kompose.service: pihole
      annotations:
        initializer.kubernetes.io/multiarch: '{"arm":{"pihole":"diginc/pi-hole:arm_v3.1"}}'
    spec:
      containers:
```

```
spec:
  replicas: 2
  strategy:
    type: RollingUpdate
  template:
    metadata:
      creationTimestamp: null
      labels:
        io.kompose.service: pihole
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        initializer.kubernetes.io/multiarch: '{"arm":{"pihole":"diginc/pi-hole:arm_v3.1"}}'
    spec:
      containers:
```
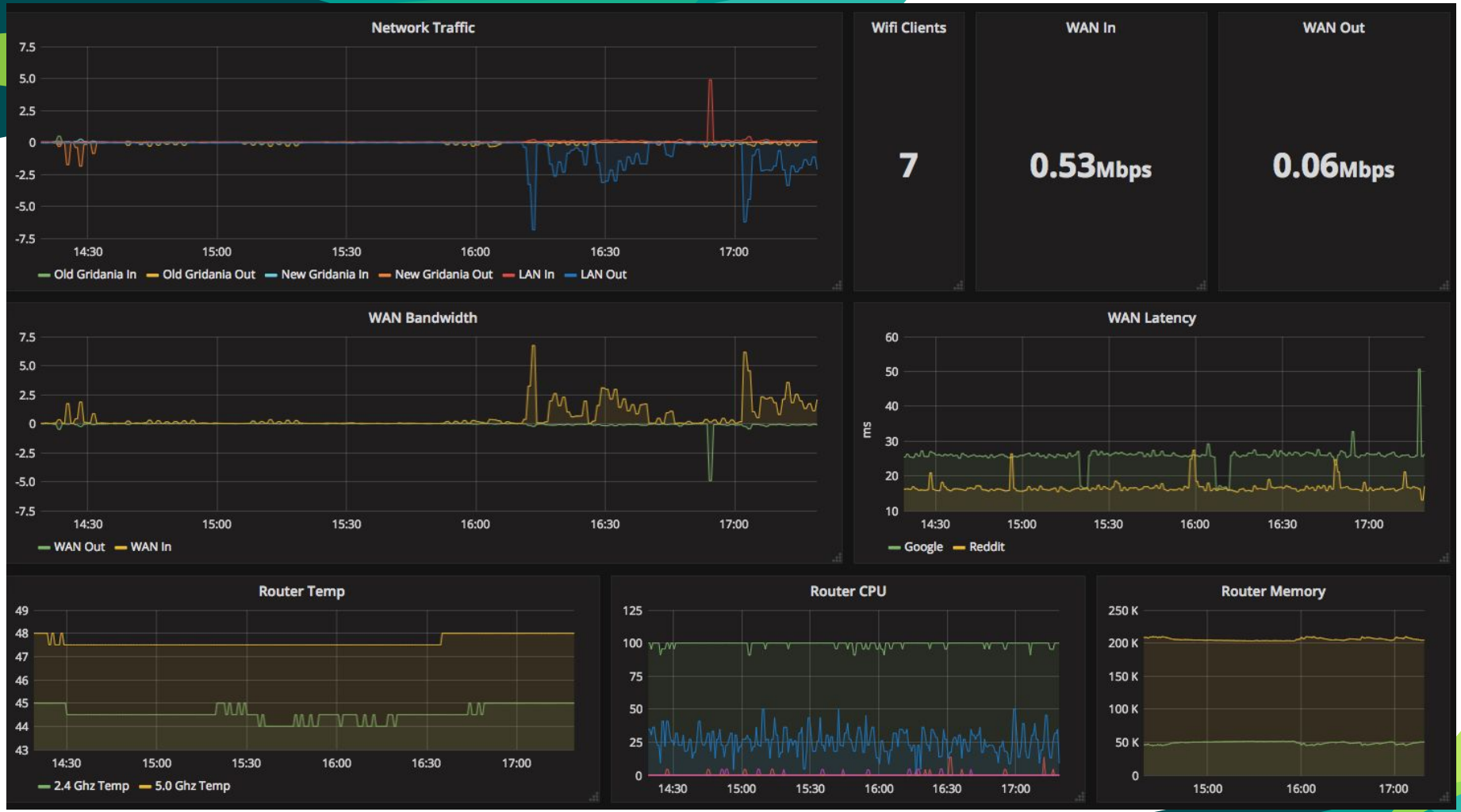
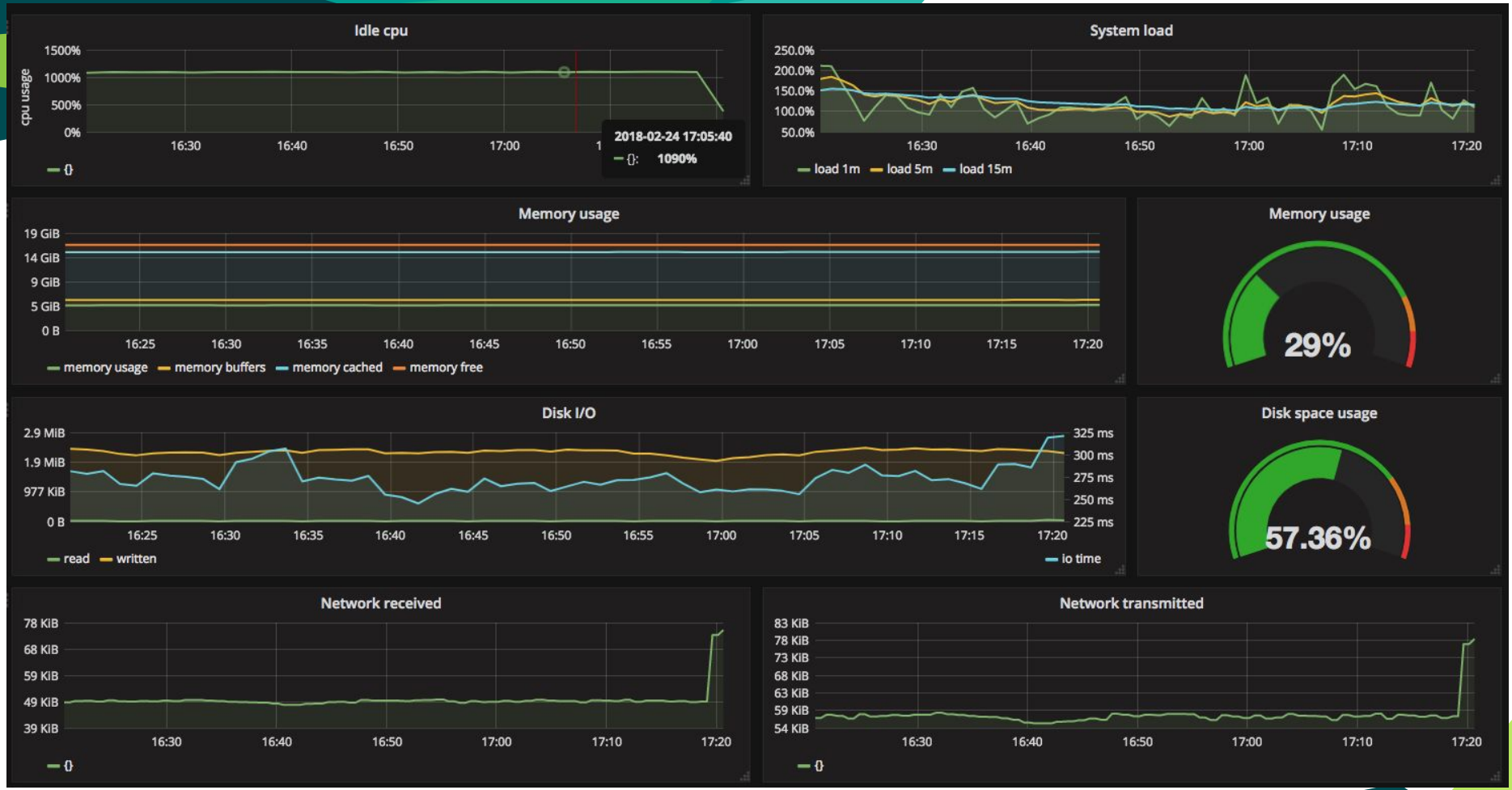

Grafana

Network and Kubernetes Stats


Network Traffic
7.5
5.0
2.5
0
-2.5
-5.0
-7.5
14:30
15:00
15:30
16:00
16:30
17:00
Old Gridania In
Old Gridania Out
New Gridania In
New Gridania Out
LAN In
LAN Out
Wifi Clients
7
WAN In
0.53Mbps
WAN Out
0.06Mbps
WAN Bandwidth
WAN Out
WAN In
WAN Latency
ms
60
50
40
30
20
10
Google
Reddit
Router Temp
49
48
47
46
45
44
43
2.4 Ghz Temp
5.0 Ghz Temp
Router CPU
125
100
75
50
25
0
Router Memory
250 K
200 K
150 K
100 K
50 K
0


Idle cpu
cpu usage
1500%
1000%
500%
0%
16:30
16:40
16:50
17:00
2018-02-24 17:05:40
{}: 1090%
{}
System load
250.0%
200.0%
150.0%
100.0%
50.0%
16:30
16:40
16:50
17:00
17:10
17:20
load 1m
load 5m
load 15m
Memory usage
19 GiB
14 GiB
9 GiB
5 GiB
0 B
16:25
16:30
16:35
16:40
16:45
16:50
16:55
17:00
17:05
17:10
17:15
17:20
memory usage
memory buffers
memory cached
memory free
Memory usage
29%
Disk I/O
2.9 MiB
1.9 MiB
977 KiB
0 B
325 ms
300 ms
275 ms
250 ms
225 ms
16:25
16:30
16:35
16:40
16:45
16:50
16:55
17:00
17:05
17:10
17:15
17:20
read
written
io time
Disk space usage
57.36%
Network received
78 KiB
68 KiB
59 KiB
49 KiB
39 KiB
16:30
16:40
16:50
17:00
17:10
17:20
{}
Network transmitted
83 KiB
78 KiB
73 KiB
68 KiB
63 KiB
59 KiB
54 KiB
16:30
16:40
16:50
17:00
17:10
17:20
{}

Just scratching the surface

Kubernetes at home

It will become more widespread

Kubernetes at home

It will become an operating system for the home

Questions / Inspiration

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