50% Utilization and Beyond

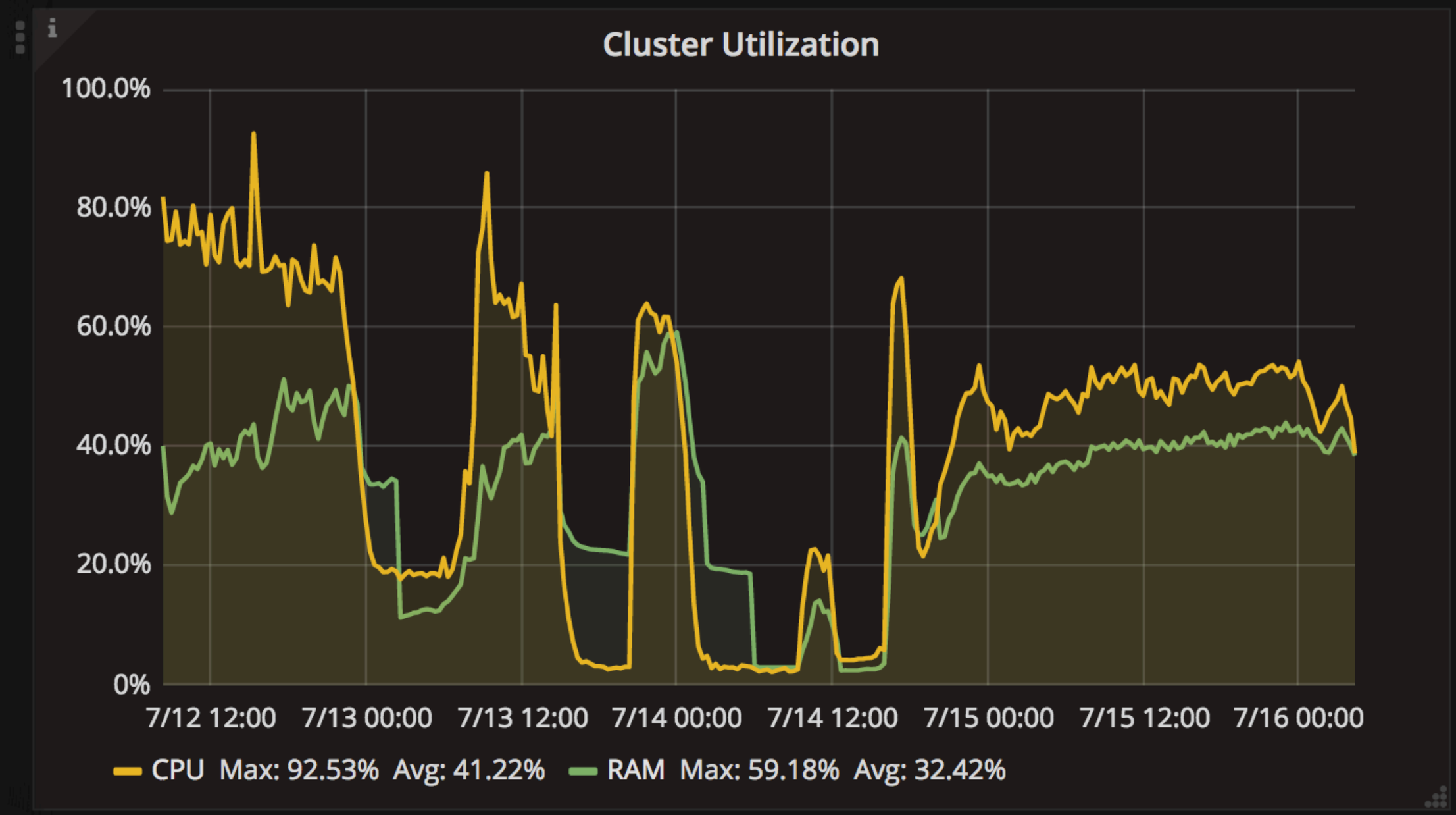
Removing the Blindfold with Prometheus

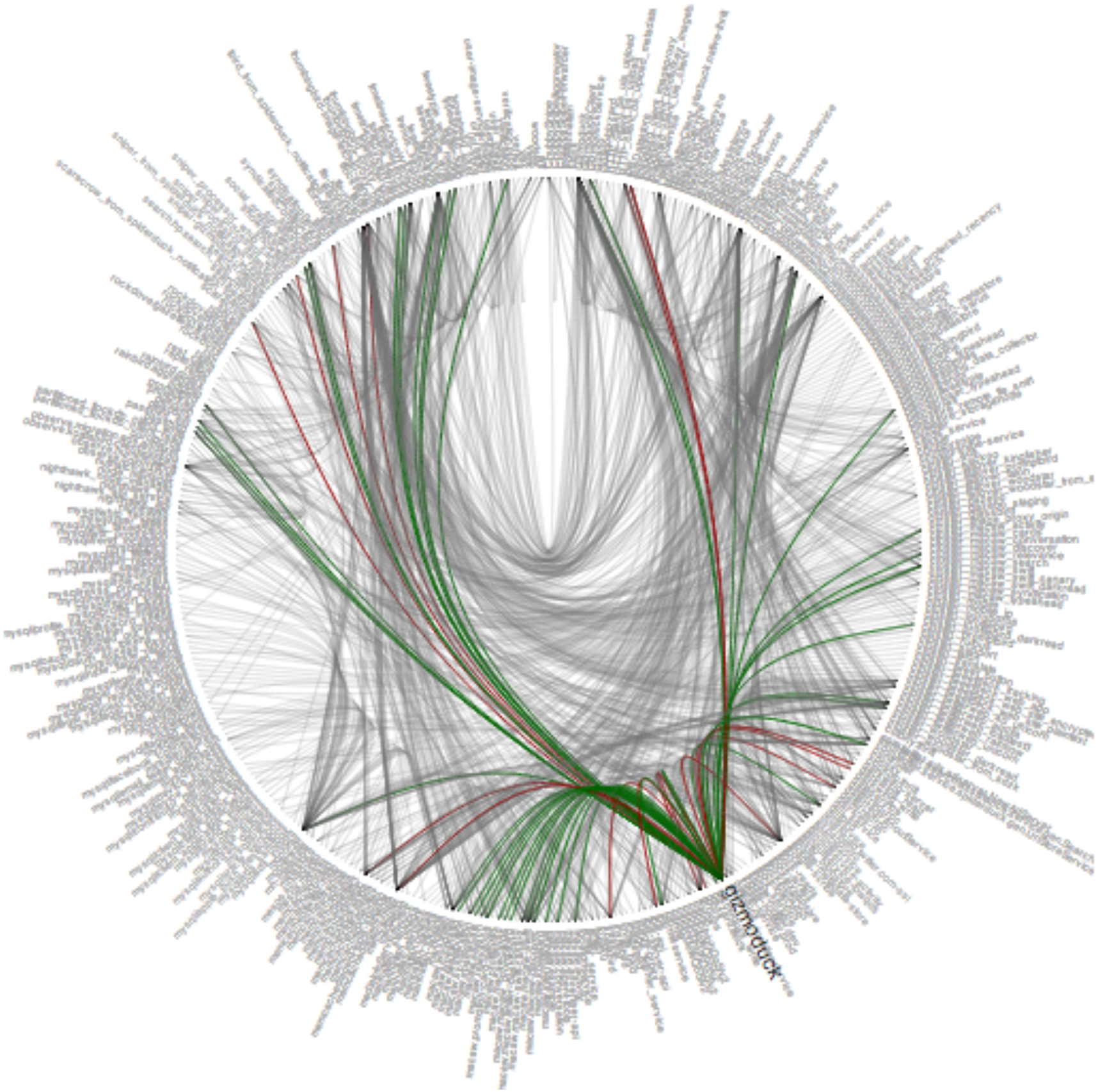
PromCon 2017

Stephan Erb

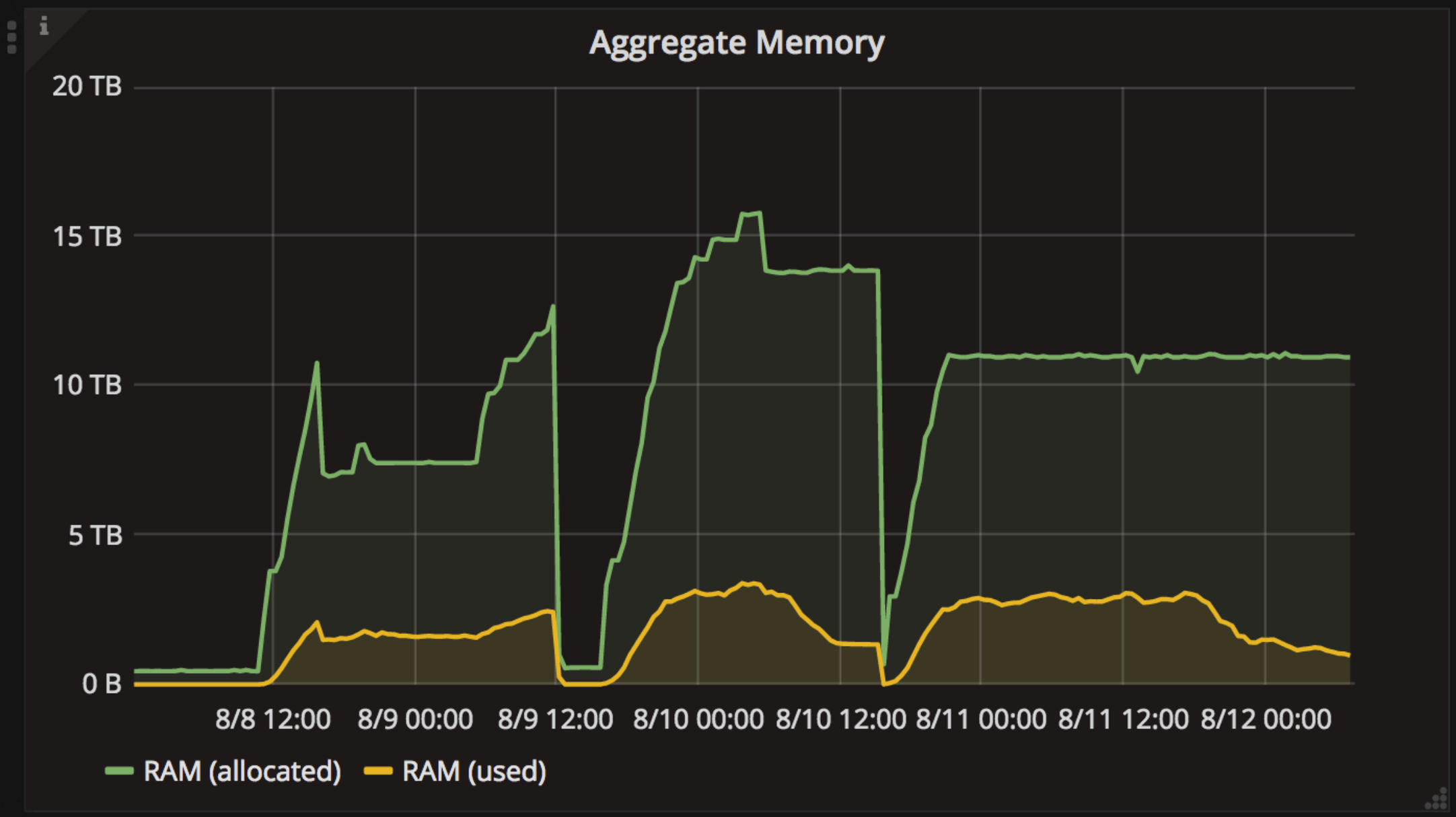
BlueYonder

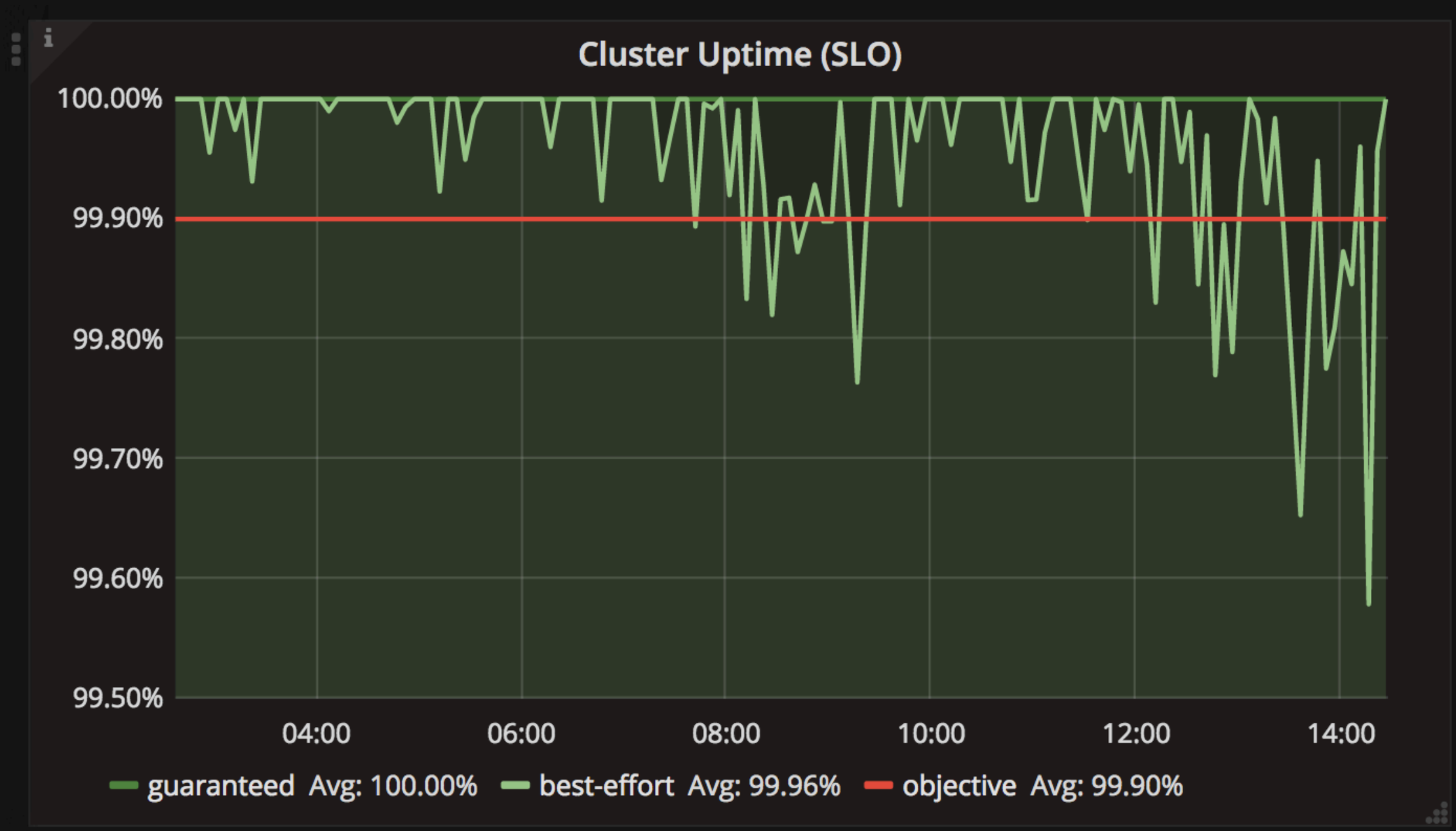
Best decisions, delivered daily


Cluster Utilization
100.0%
80.0%
60.0%
40.0%
20.0%
0%
7/12 12:00
7/13 00:00
7/13 12:00
7/14 00:00
7/14 12:00
7/15 00:00
7/15 12:00
7/16 00:00
CPU Max: 92.53% Avg: 41.22%
RAM Max: 59.18% Avg: 32.42%


gizmoduck

role c0070001 environment devel + prod + staging




Cluster Uptime (SLO)
100.00%
99.90%
99.80%
99.70%
99.60%
99.50%
04:00
06:00
08:00
10:00
12:00
14:00
guaranteed Avg: 100.00%
best-effort Avg: 99.96%
objective Avg: 99.90%

```
ALERT ServiceLevelObjectiveBreached
  IF (
      sum(
        rate(http_request_latency_seconds_bucket{le="1"}[5m])
      ) by (job)
    /
      sum(
        rate(http_request_latency_seconds_count[5m])
      ) by (job)
    ) < 0.95
FOR 5m
LABELS { severity = "page" }
ANNOTATIONS {
  summary = "Service {{$labels.job}} is slow.",
}
```

Nagios®

```
MCE 0
CPU 25 THERMAL EVENT TSC 1ec5d566523daaf
TIME 1499861965 Wed Jul 12 12:19:25 2017
```

Processor 25 heated above trip temperature.
Throttling enabled.

Please check your system cooling.
Performance will be impacted

https://landing.google.com/sre/book/chapters/part3.html

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