Adform case: from 0 to business metrics

Mantas Klasavičius, IT architect

adform – Ad serving company

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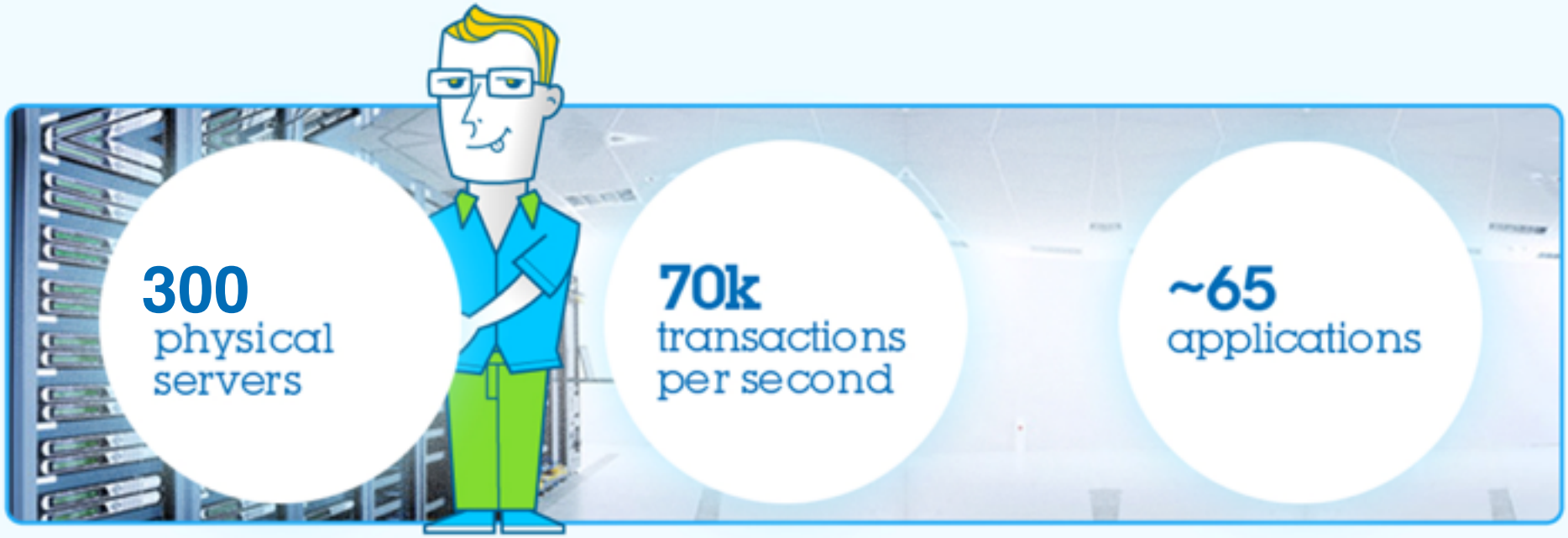
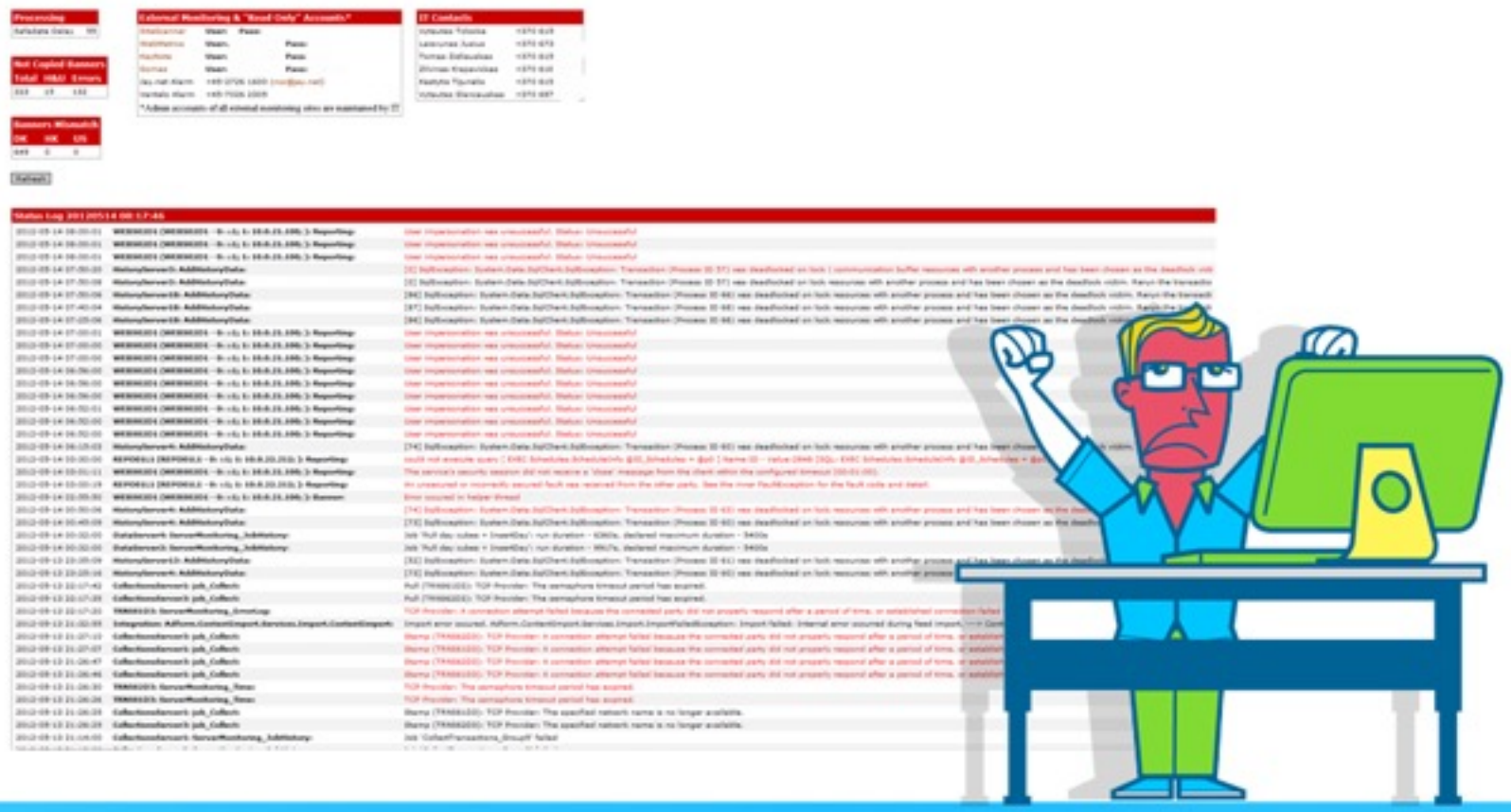



We started at zero..

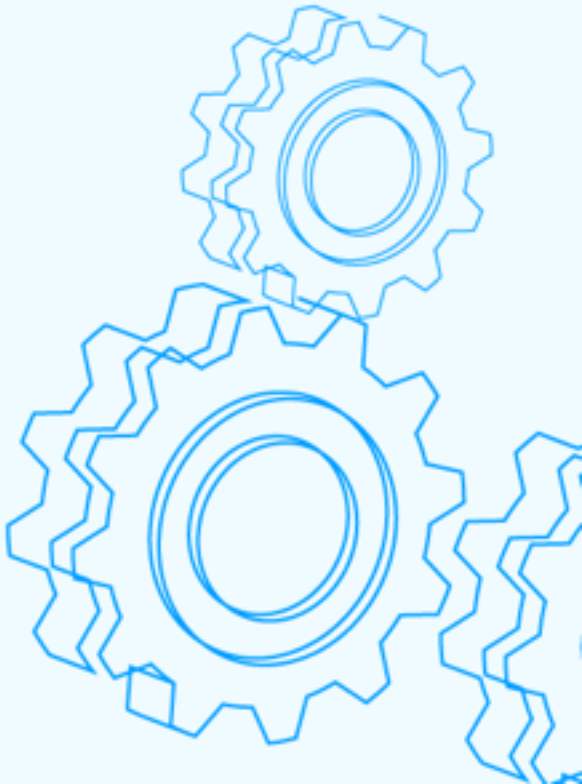
Operations team tool – “perfmon”



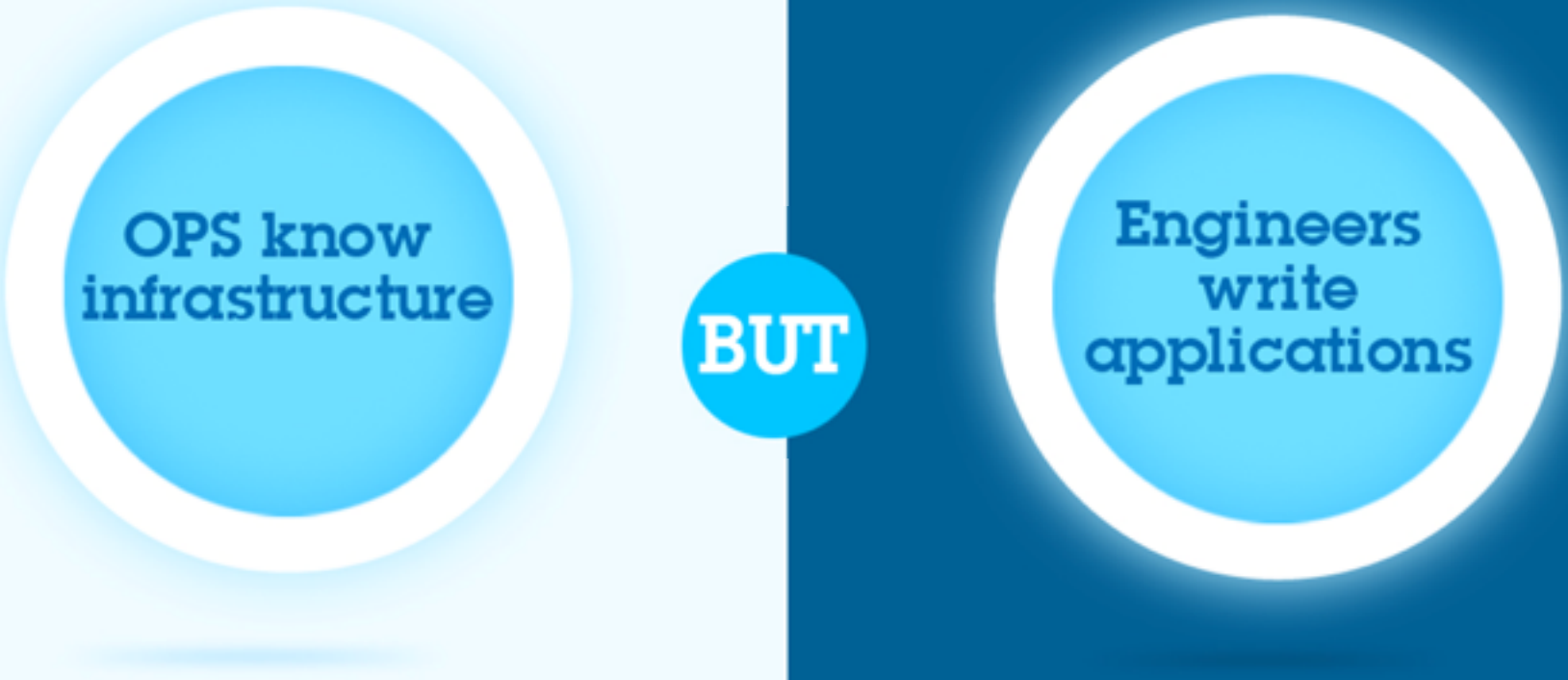
Monitoring - Part of Continuous Deployment

- SCOM, Nagios+cacti, Zenoss, Splunk, Zabbix

- Why – ZABBIX ?
  - Templates
  - Screens
  - User Parameters



Metrics - is (not) for operations team

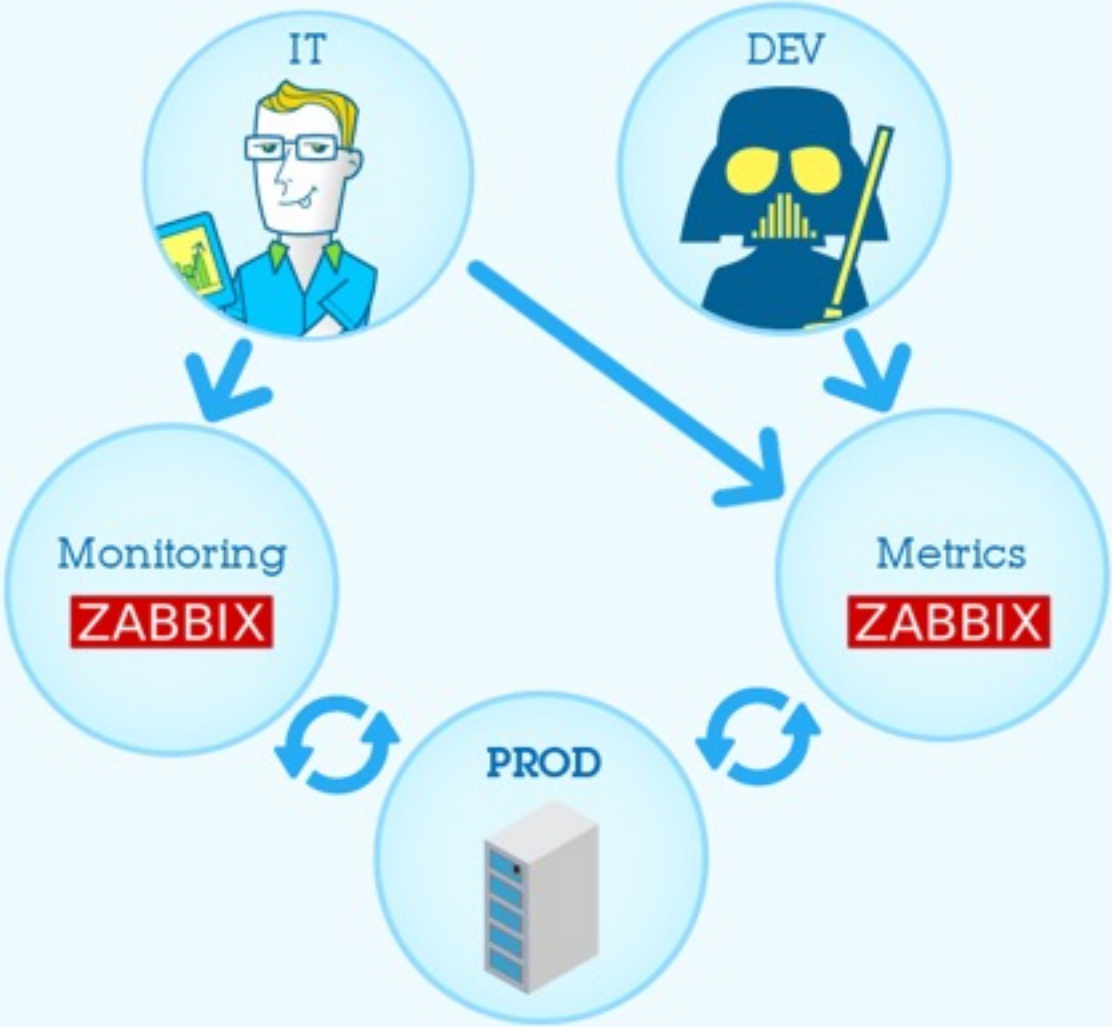


Attracting DEV: shot 1

- Joint server for OPS and DEV
- DEV provides templates for OPS
- OPS supervises and implements

FAILED

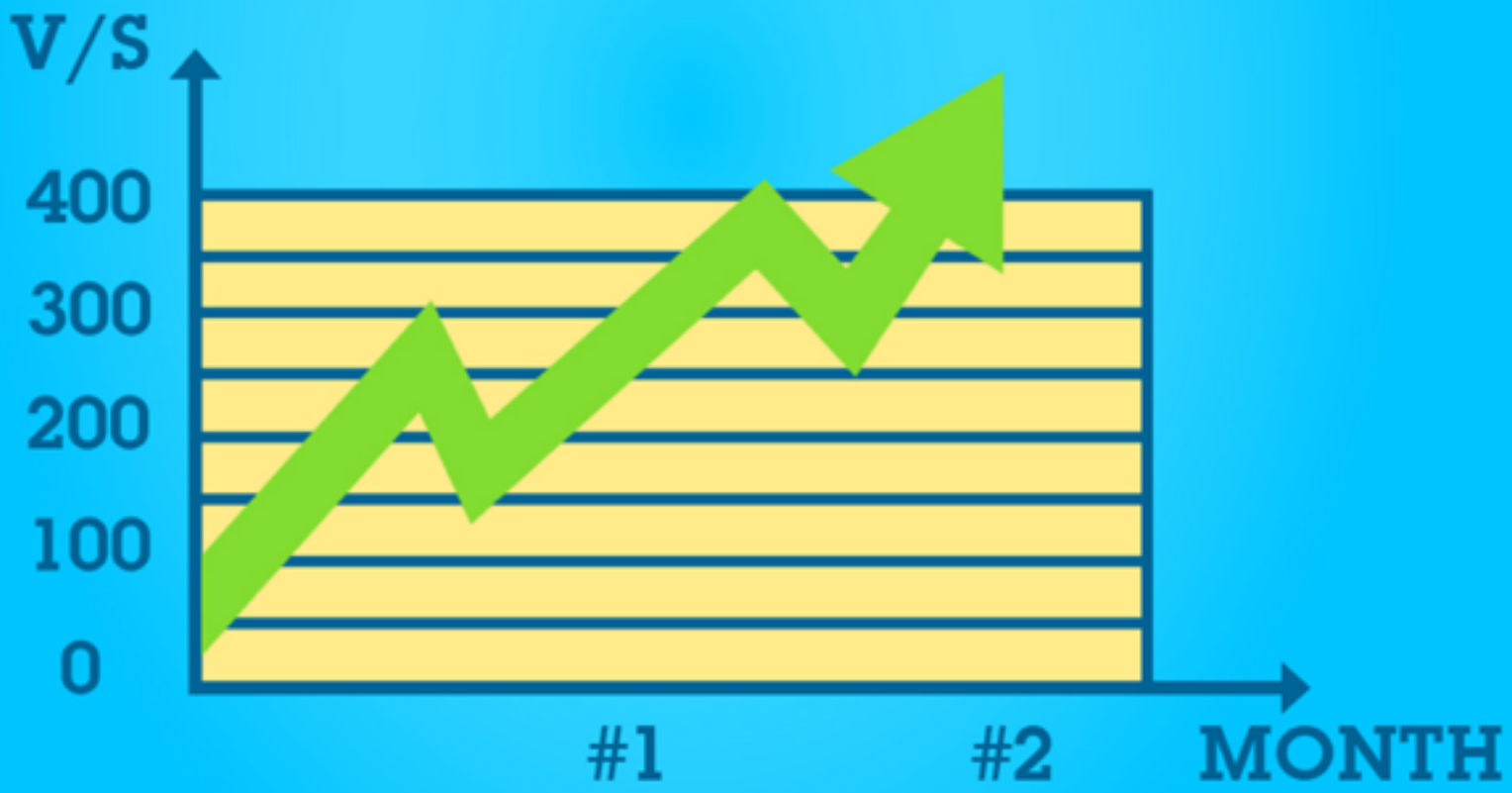
Attracting DEV: shot 2



Success!!! - First adopters

"Monitor everything"

"Monitor frequently"



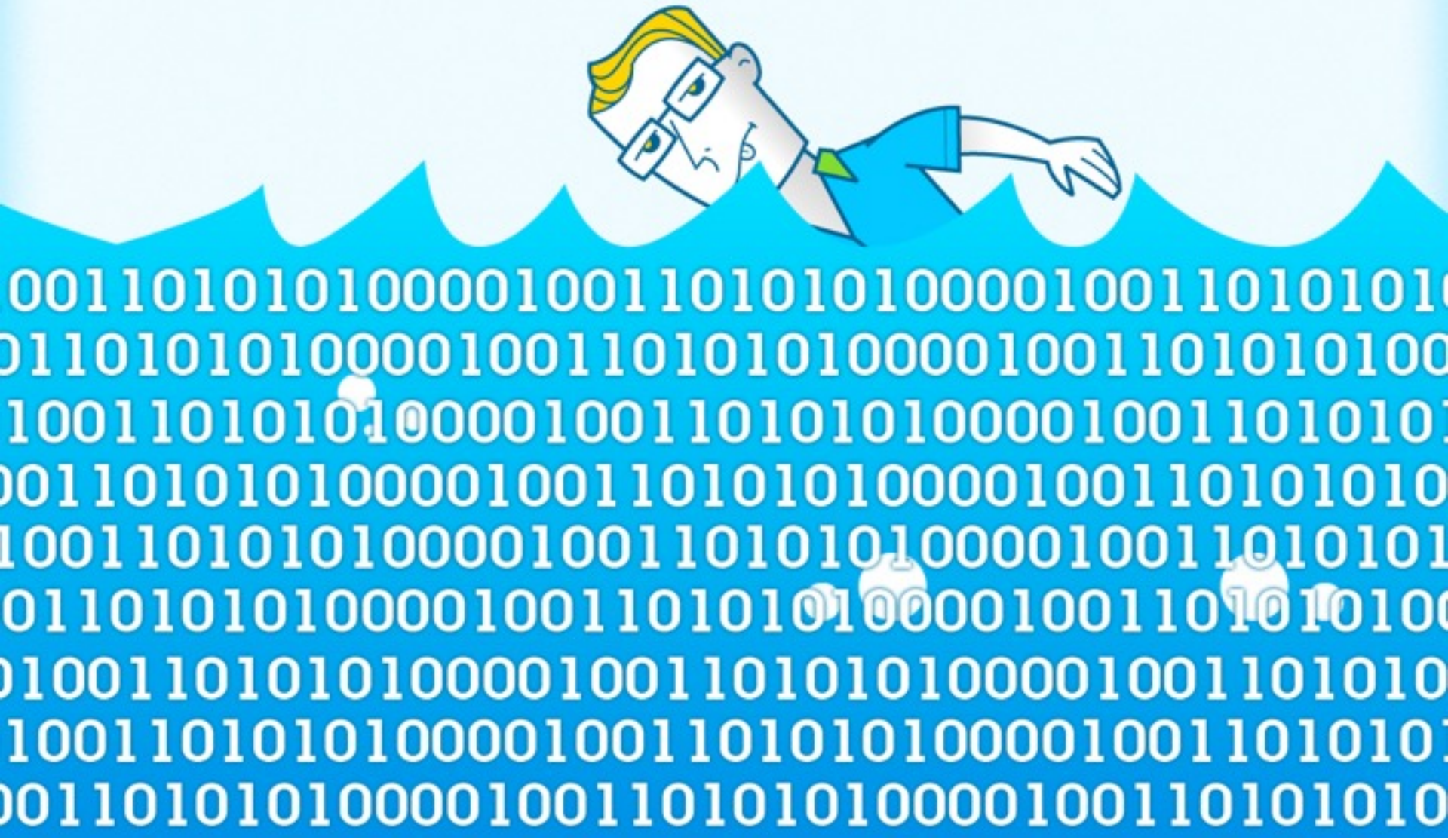
Real-time bidding...

Real-time bidding - use case

Throughput only ~ 5000 QPS

~25% failed requests

What we are missing?



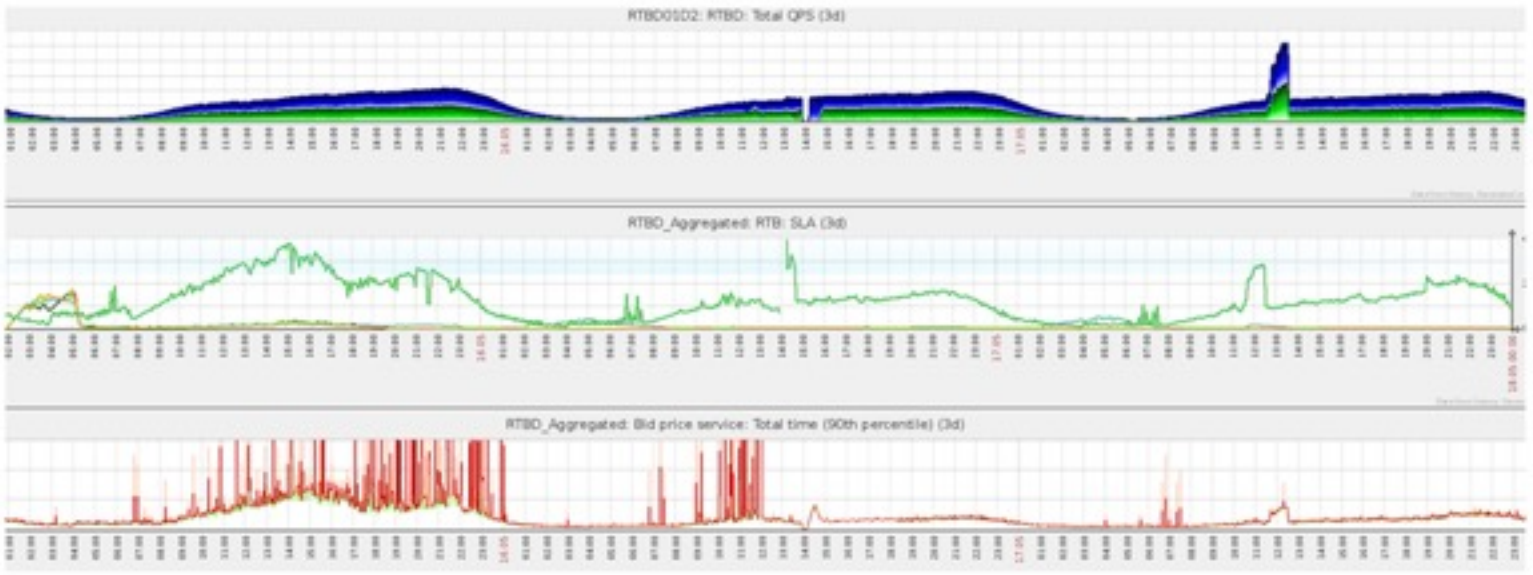
The Prescription

- Organized data
- Correlated data
- Added additional counters
- Picked really important metrics

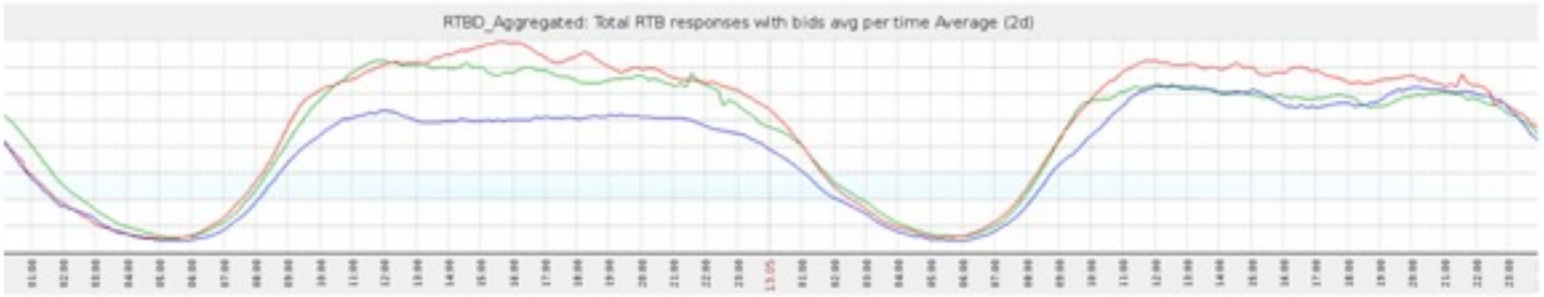
Organize data

- Infrastructure metrics
- Application metrics
- Latencies
- Business metrics

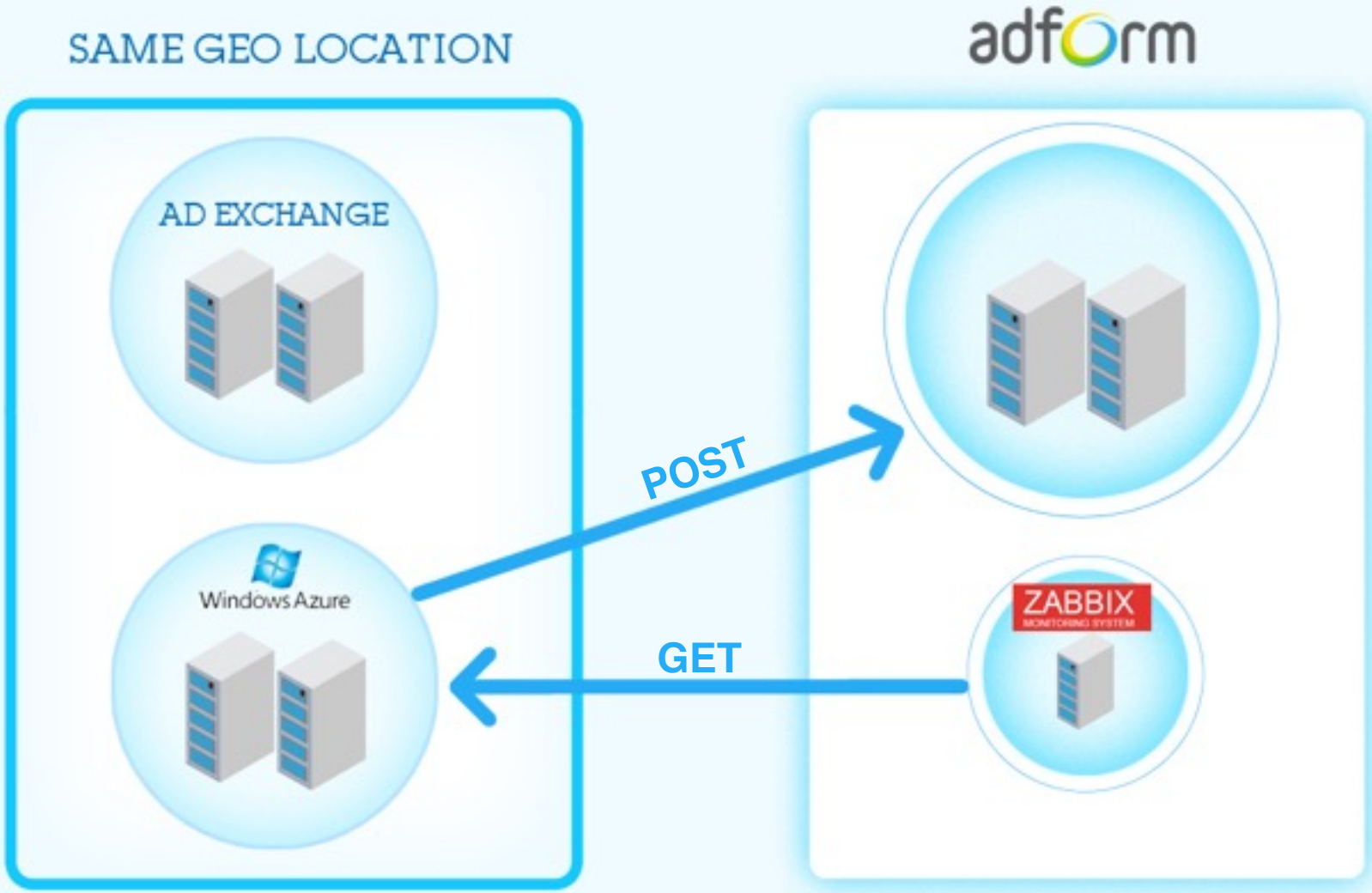
Correlate - recent data



Correlate - time shifted data



Add additional counters



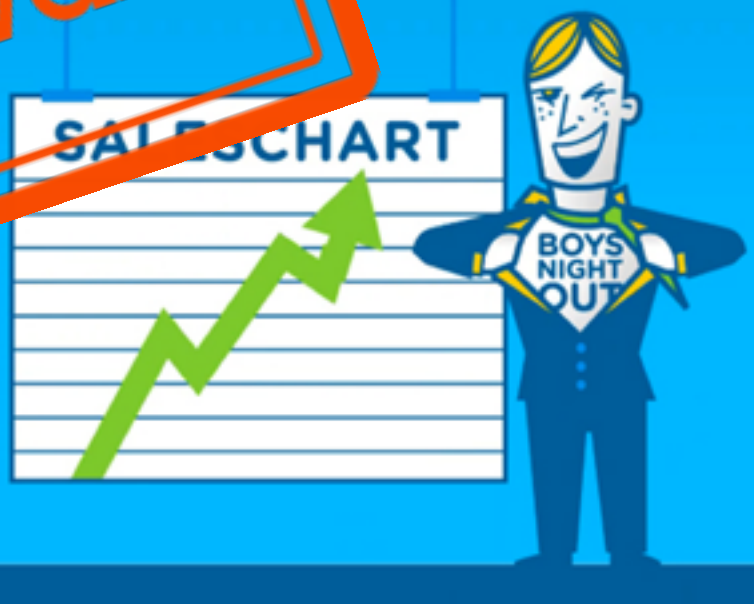
Pick only key metrics

Real-time bidding - result

QPS increased ~14 times (>70k)

Fails decreased ~50 times (<0.5%)

Same Hardware



What we have now

Monitoring Infrastructure

- Zabbix – Monitoring application
- 2 servers
- > 230 hosts
- > 20 000 items
- > 5 000 triggers
- ~ 400 values per second

What we monitor

Servers

Money

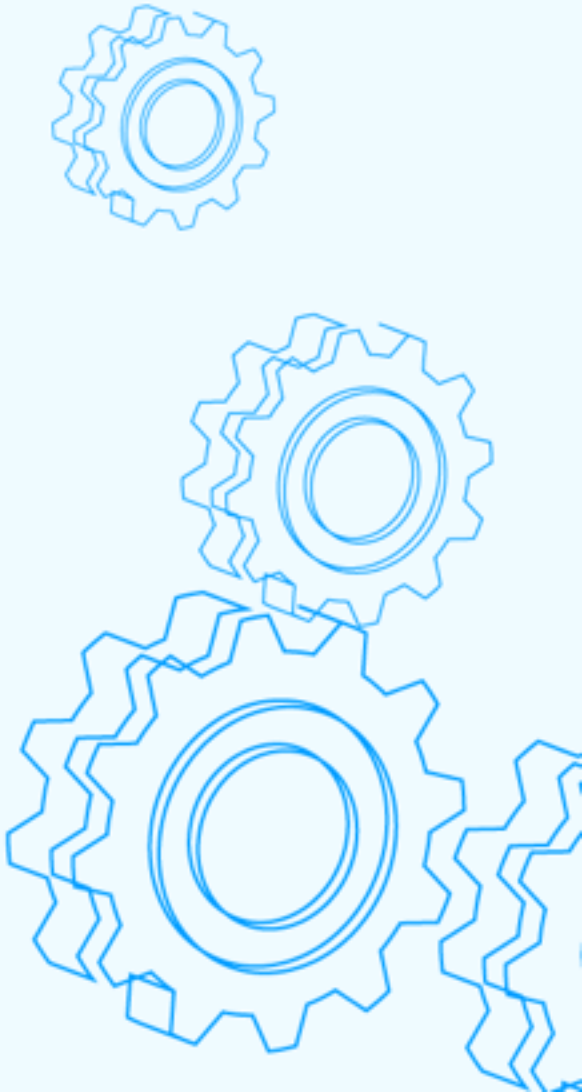
Applications

AWS

Latencies

Team performance

Network devices



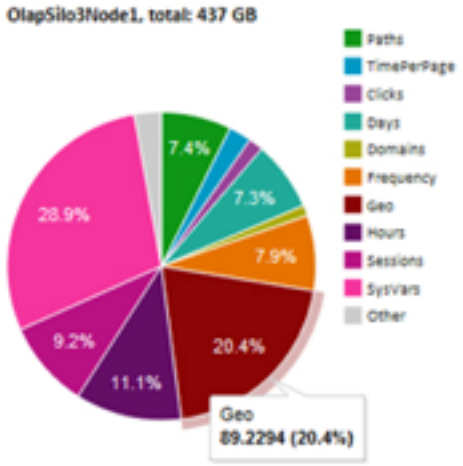
DEV, PM and Metrics

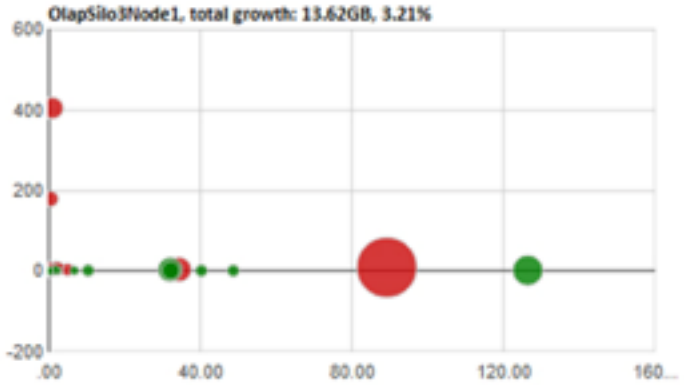
- SCRUM team monitors their applications
- SCRUM team decides & implements what and how shall be monitored
- Product managers monitor business side
- If it is critical to do “night watch”, OPS gets involved

DEV comments

- “We are blind without metrics/”
- “We would like to know what is happening with our application, what features are used and how our performance changes after release.”
- “(2012.05.13 23:02:42) Ramunas Urbonas: Have a look. It’s almost finished now.”

More difficult / interesting cases





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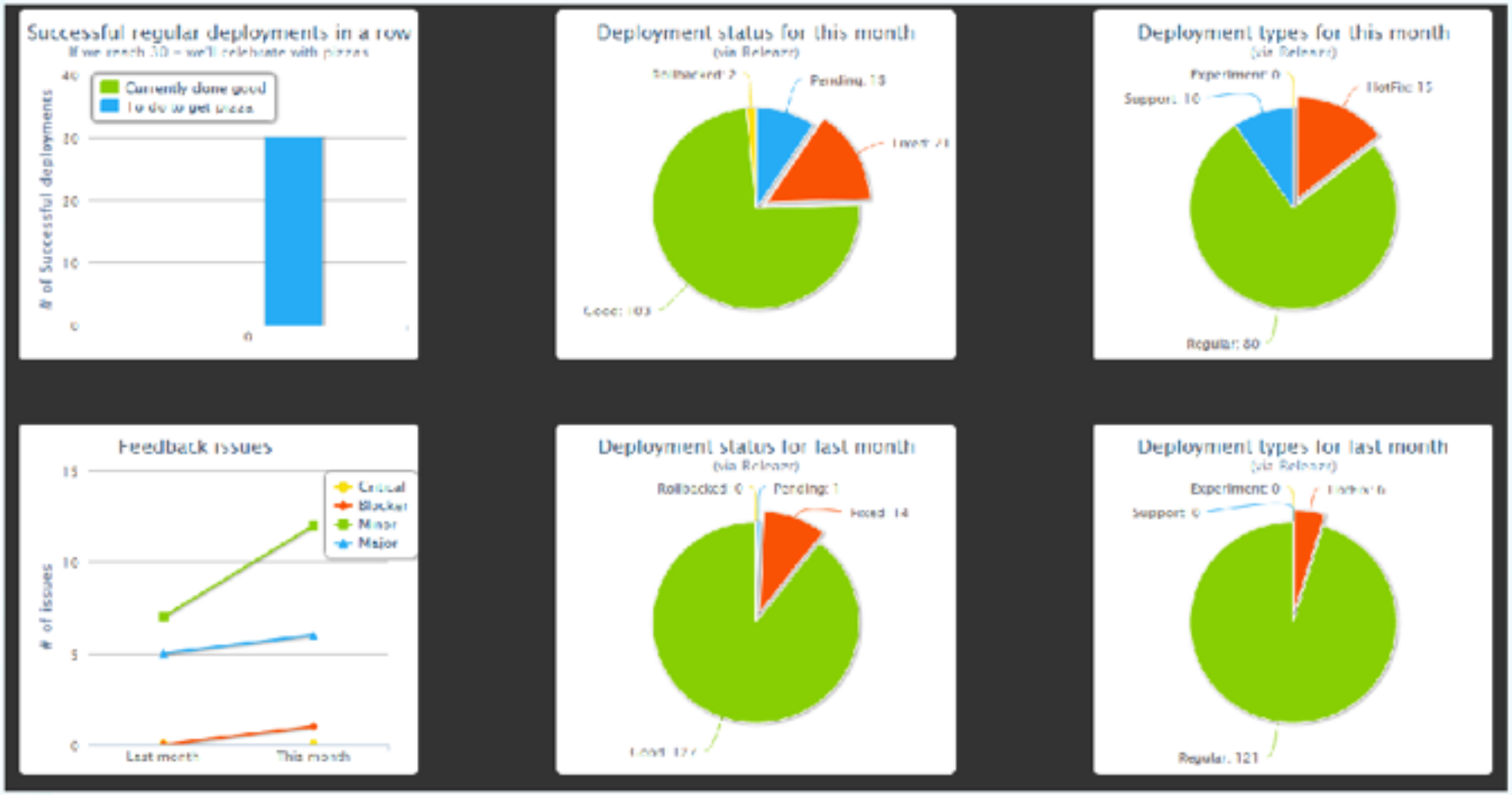
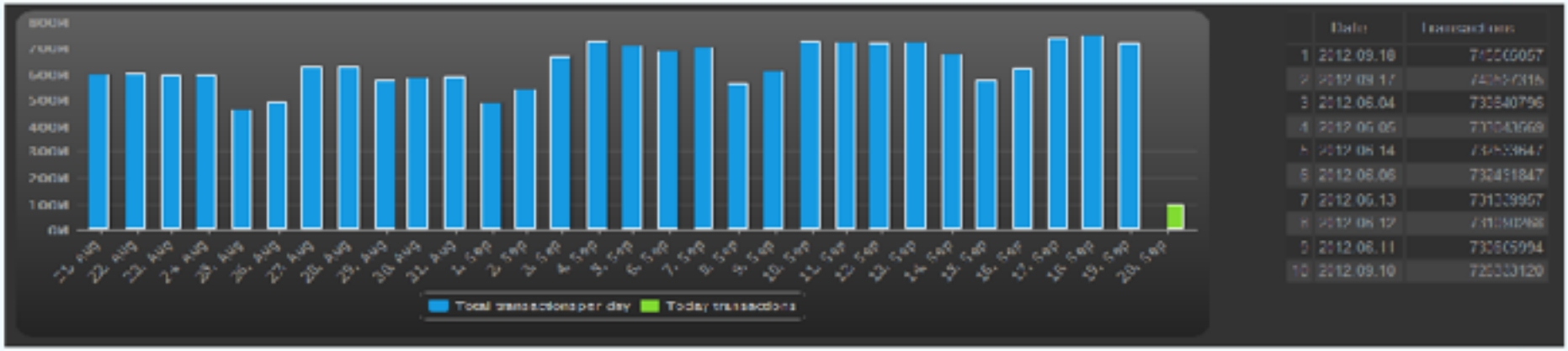
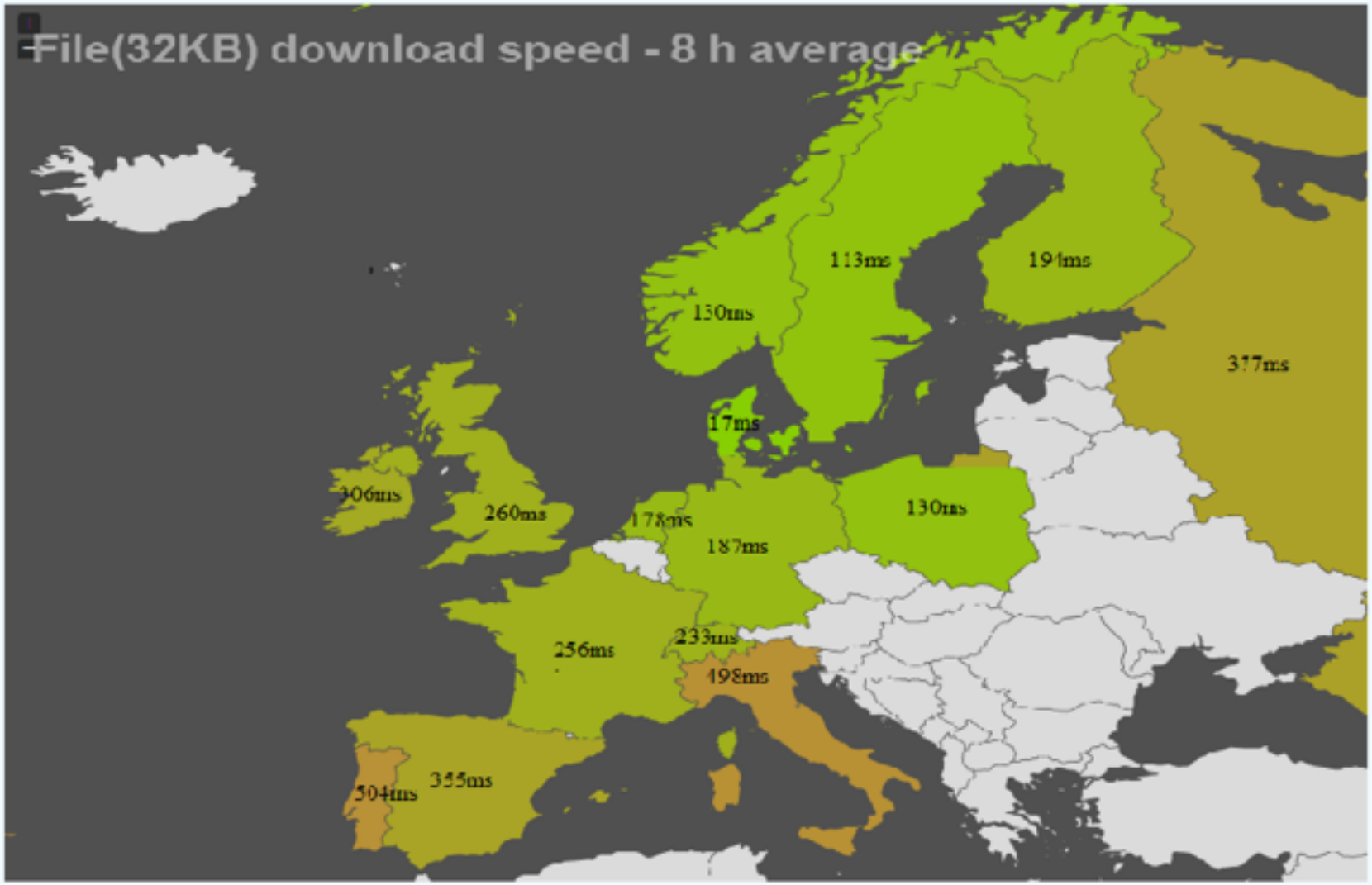


More difficult / interesting cases



	Date	Transactions
1	2012.09.18	[illegible]
2	[illegible]	[illegible]
3	2012.06.04	730840796
4	[illegible]	[illegible]
5	[illegible]	[illegible]
6	2012.06.06	730481847
7	2012.06.13	731039957
8	[illegible]	[illegible]
9	2012.06.11	730565994
10	2012.09.19	728333129

More difficult / interesting cases



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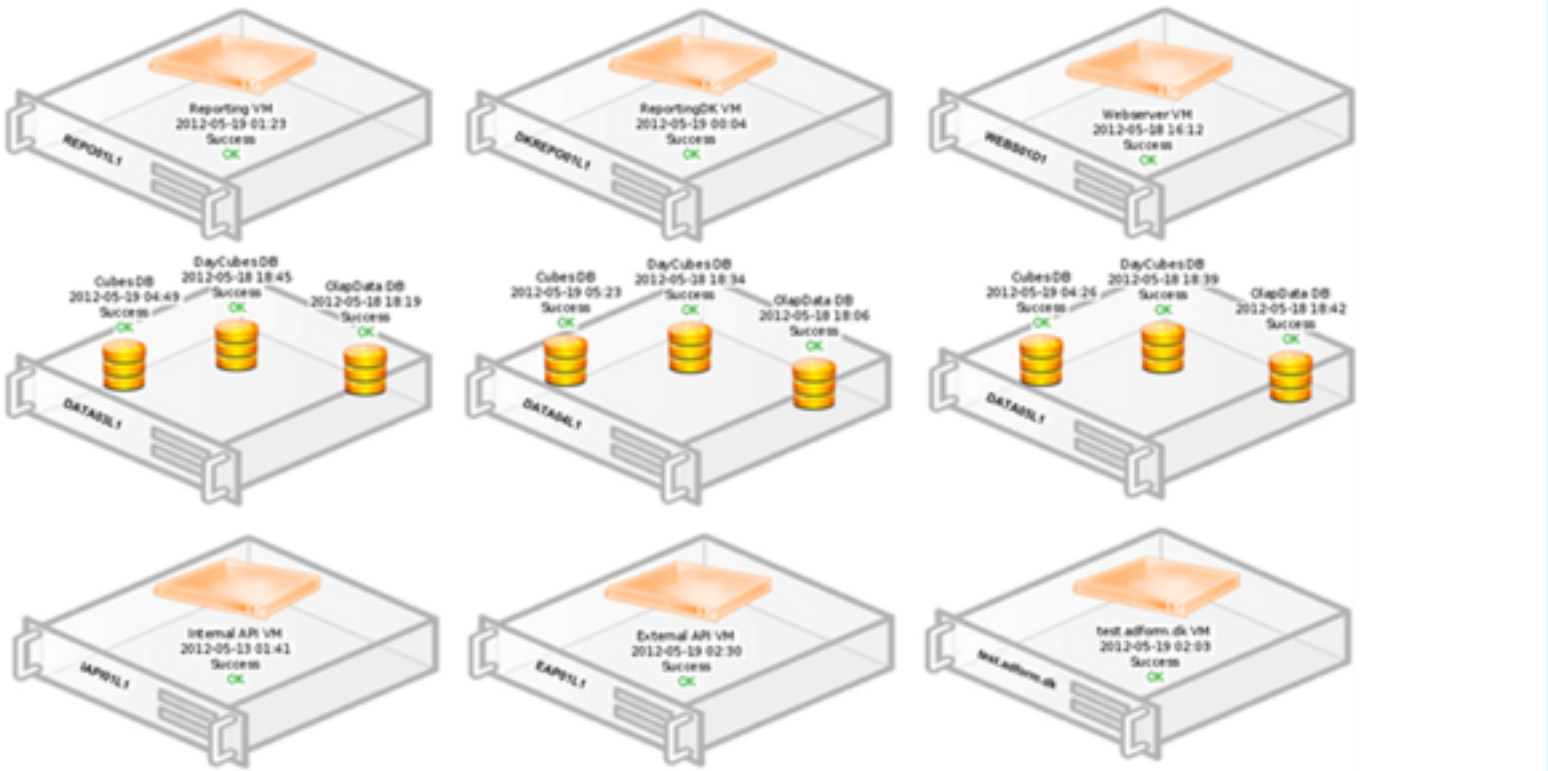
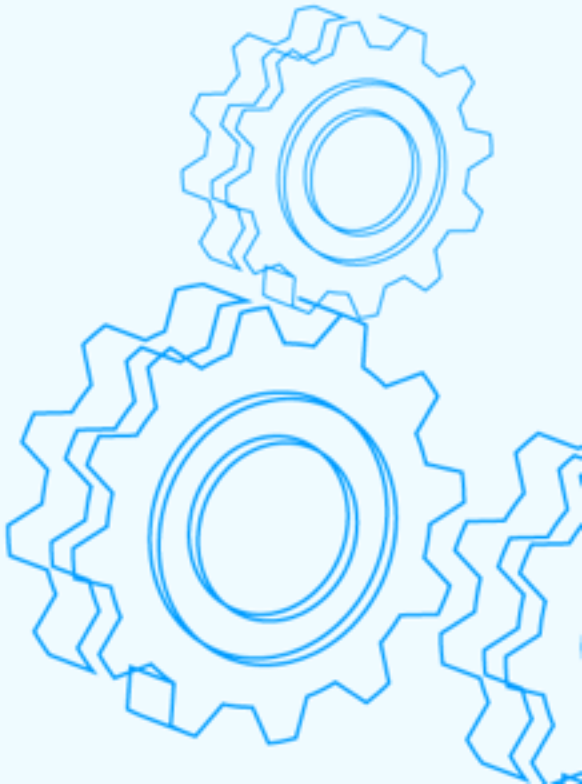


Summarise

Why it worked

- True value
- Right tools
- No man in the middle
- Management support



Questions?