CONDÉ NAST

AWS Cost Optimization: from $$$ to $$$/4

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Digital CTO
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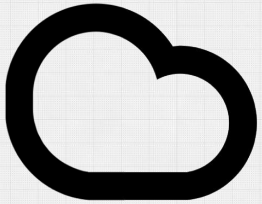
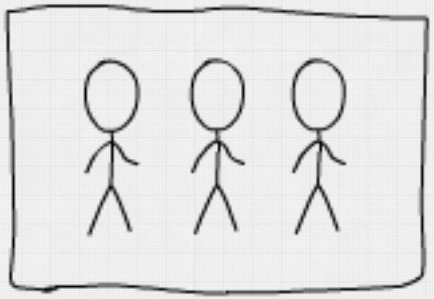
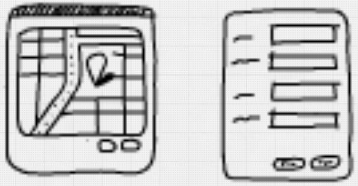


CloudConf

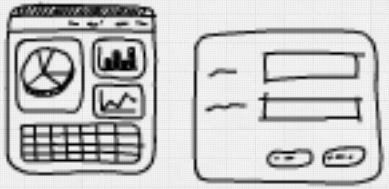
CN.numbers // by month

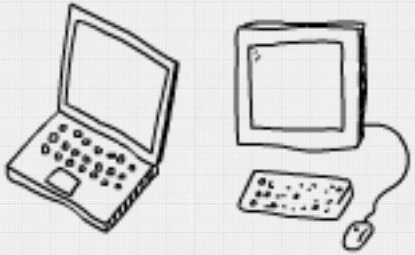


30M Unique Visitors

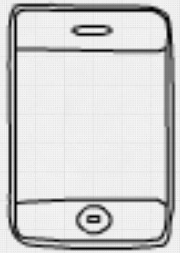


250M Page Views



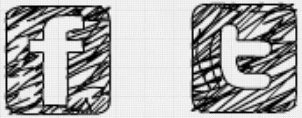


20% Desktop



80% Mobile

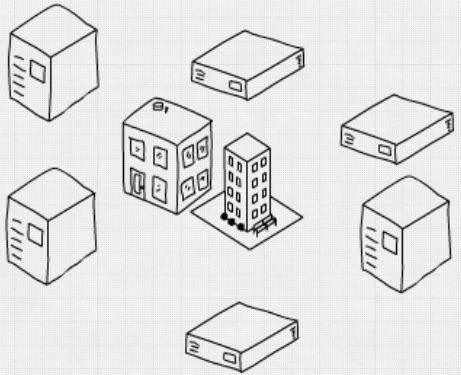
46% SEO

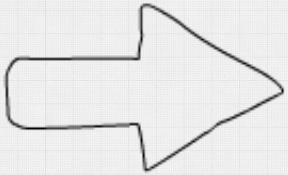


29% Social

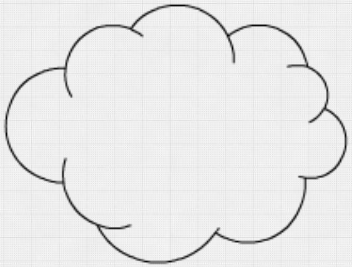
onPremise(CN) = Error 500 Internal Server Error

- Infrastructure scaling problems due to traffic boost
- Non optimal delivery and uptime
- Aggressive time to market
- No automation
- Costs



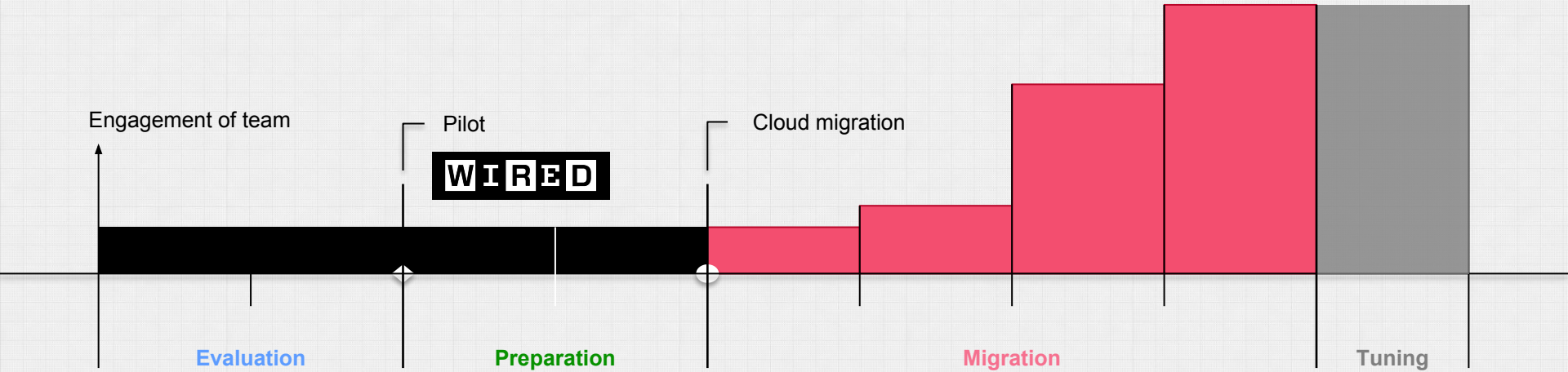


2013 / 2014



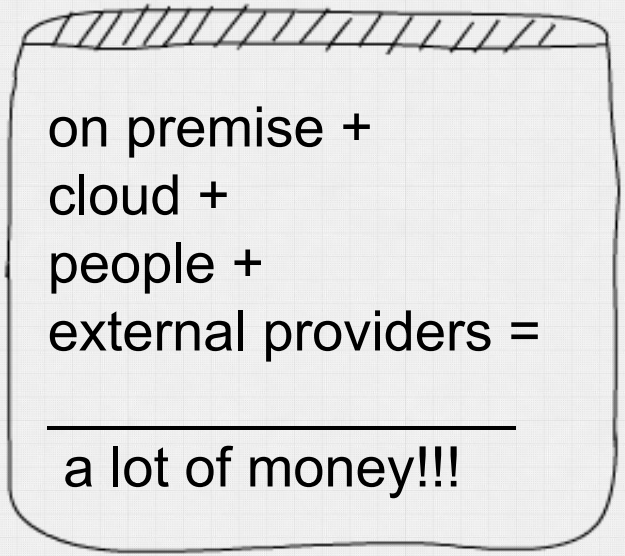
Wave 1: the pilot

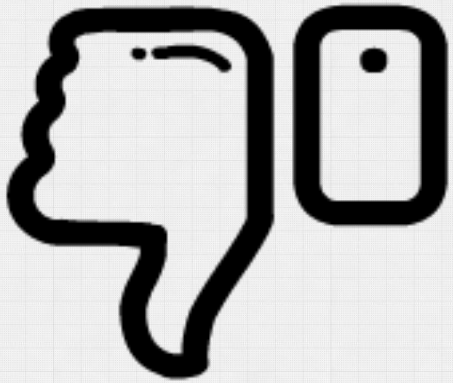
CN.pilot === “Wired.it”



CN #epicfail

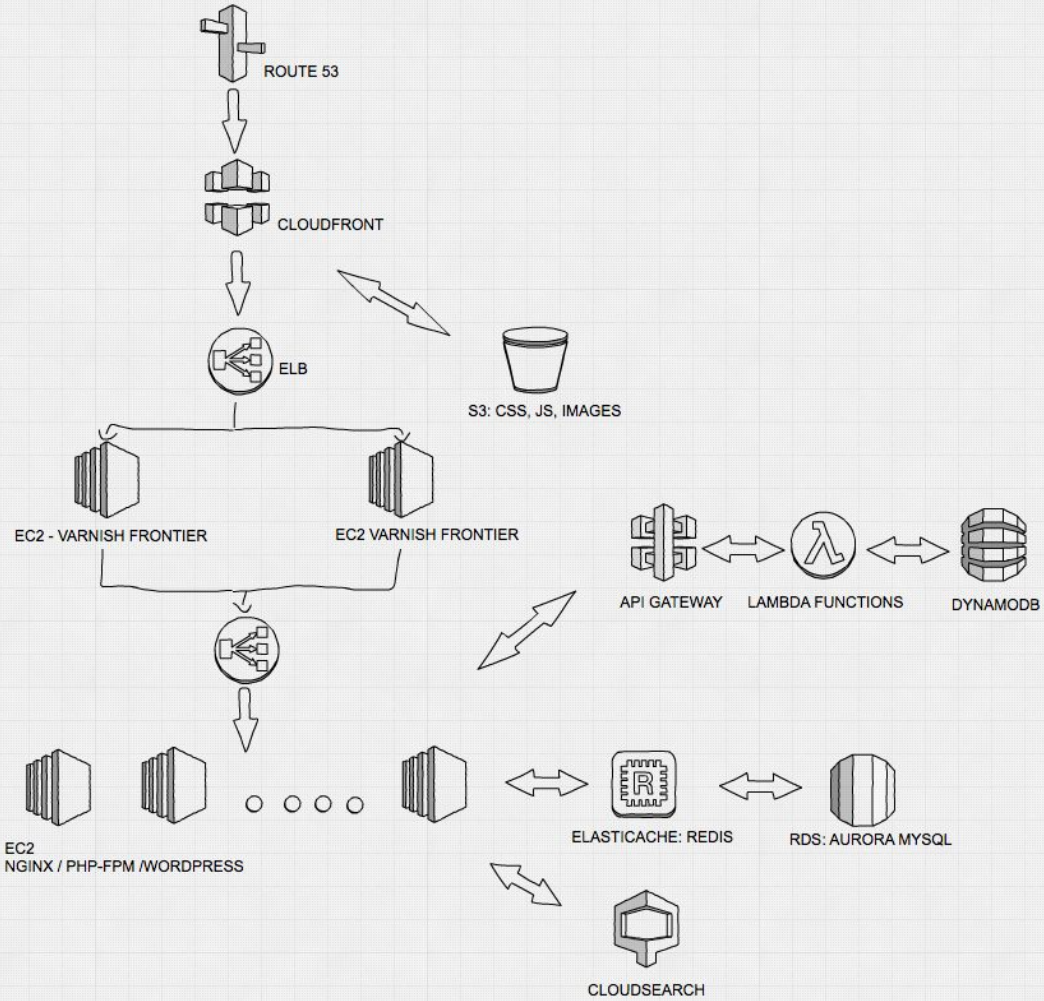
- Infrastructure migrated AS IS -> no optimization for the cloud
- 150 Server + 30 DB + more than 50 LB
- Application redundancy
- Costs explosion:

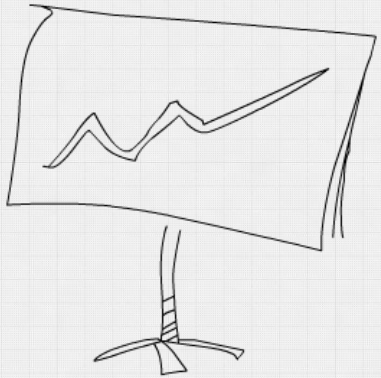




Wave 2: consolidation (start Q3 2014)

CN.blueprint





end of wave 2 (2015): ROI

Wave 3: thinking Serverless (start Q3 2014)

Serverless(CN.Vogue().photovogue)

Some numbers:

- > 300,000 photographers
- more than 800,000 photos
- image size up to 50/60 Mb

The Challenge:

- IT infrastructure wasn't able to manage the website traffic: problems in scaling
- costs

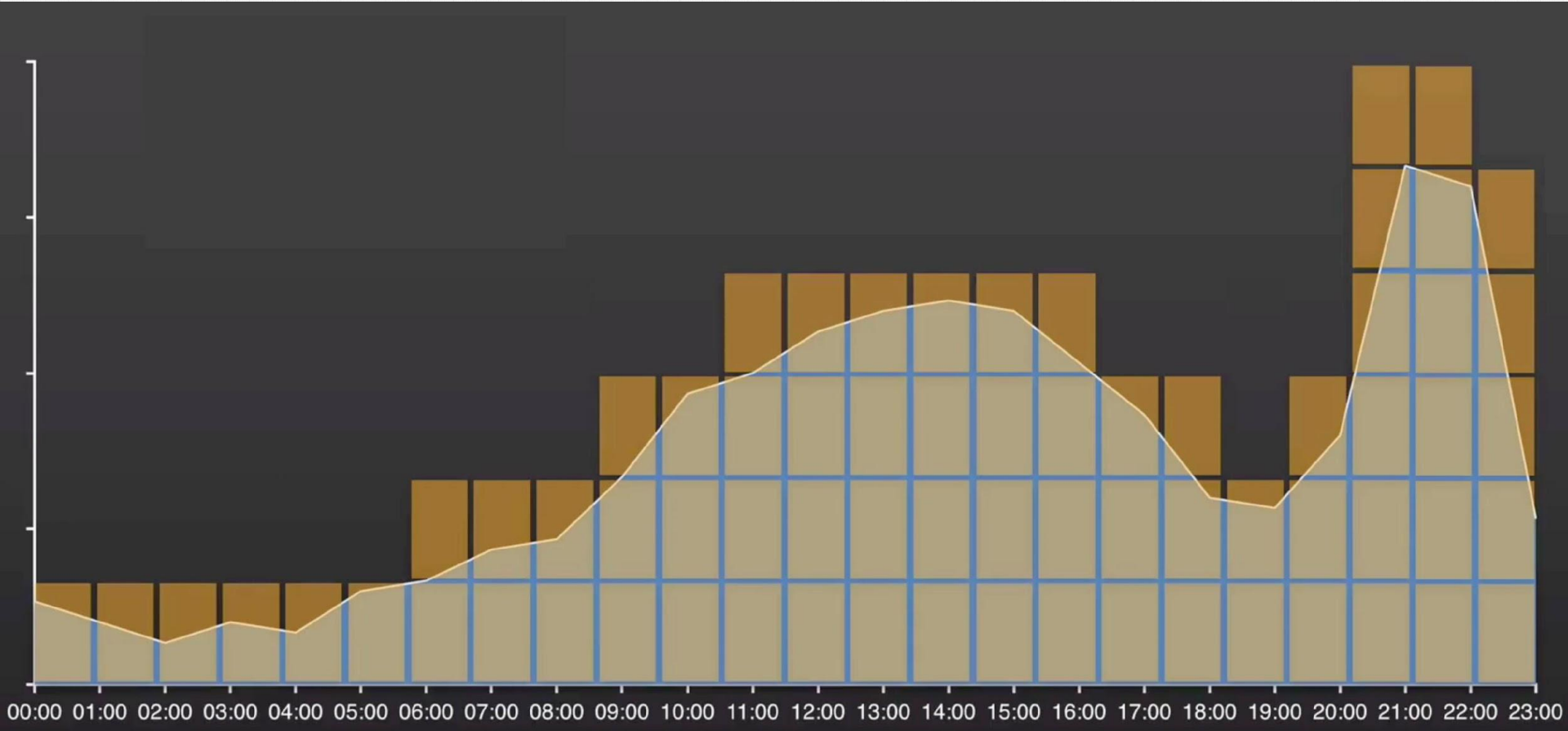
Going Serverless:

- Quicker provisioning of resources: from days to hours
- No scaling problems due to traffic boost
- 30% Costs saving

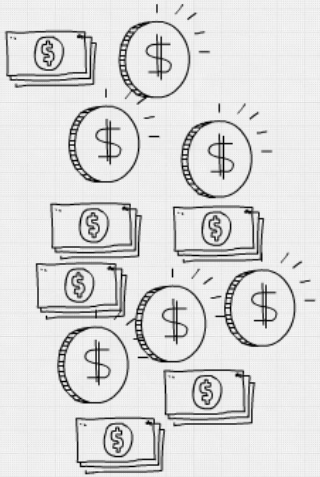
SERVERLESS
LIGHTYEAR
EVERYWHERE!!!
imgflip.com

Wave 4: reserve capacity
(start in Q2 2016 – running in 2017/2018)

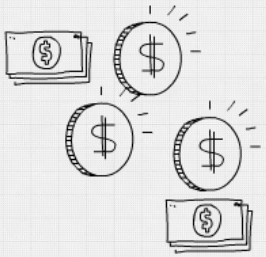
Predictable Workloads



AWS.Reserved_Instances(CN);



Pay as yo go

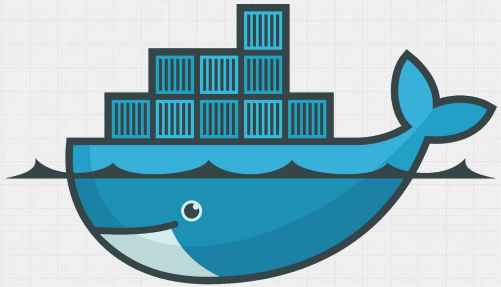


Reserved Capacity

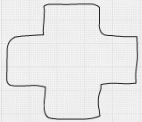
- 1 year / 3 years
- CN.Italy.saving[‘2016’] = 35%
- CN.Italy.saving[‘2017’] = 60%
- CN.Italy.saving[‘2018’] = VMs + DB + DWH

2017 costs = On Premise / 4

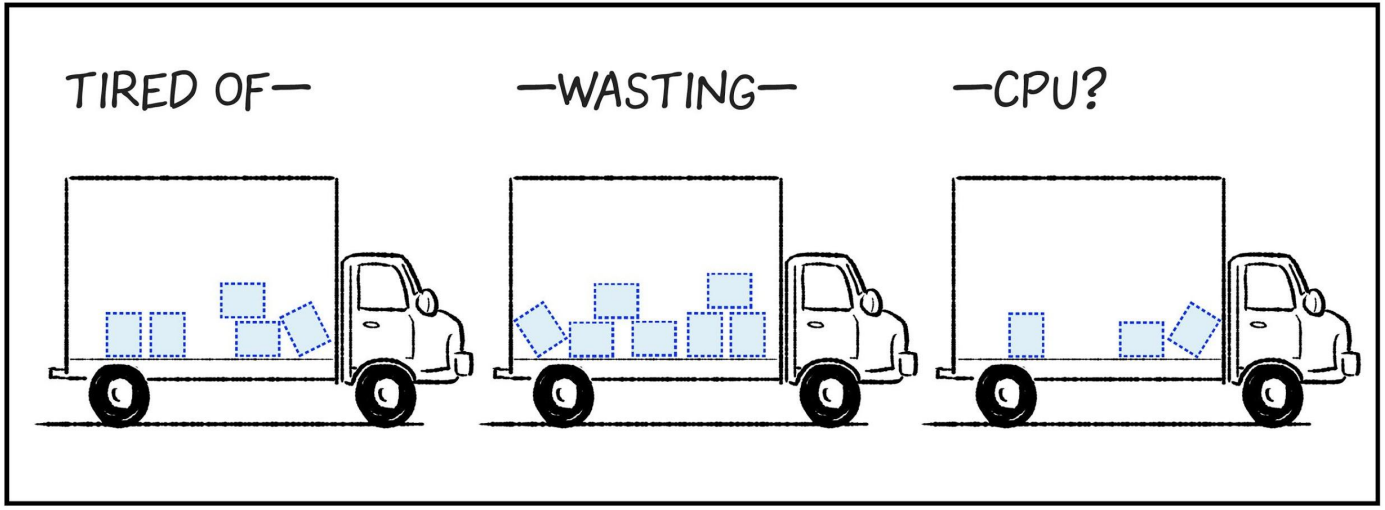
Wave 5: container
(start Q4 2017 - runninng)



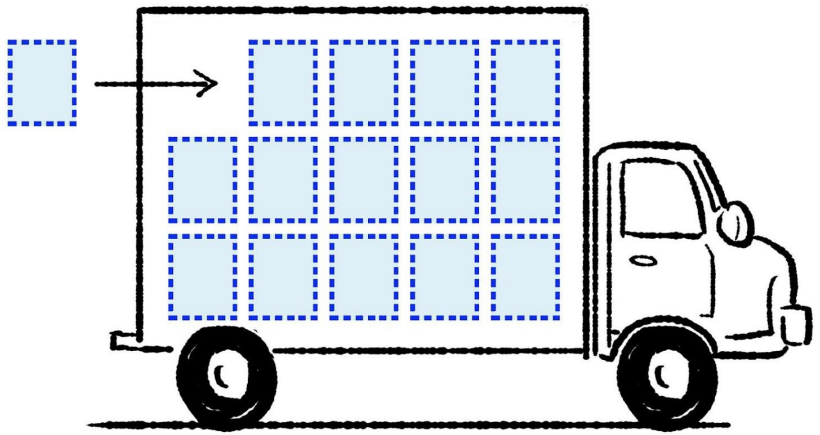
docker



kubernetes

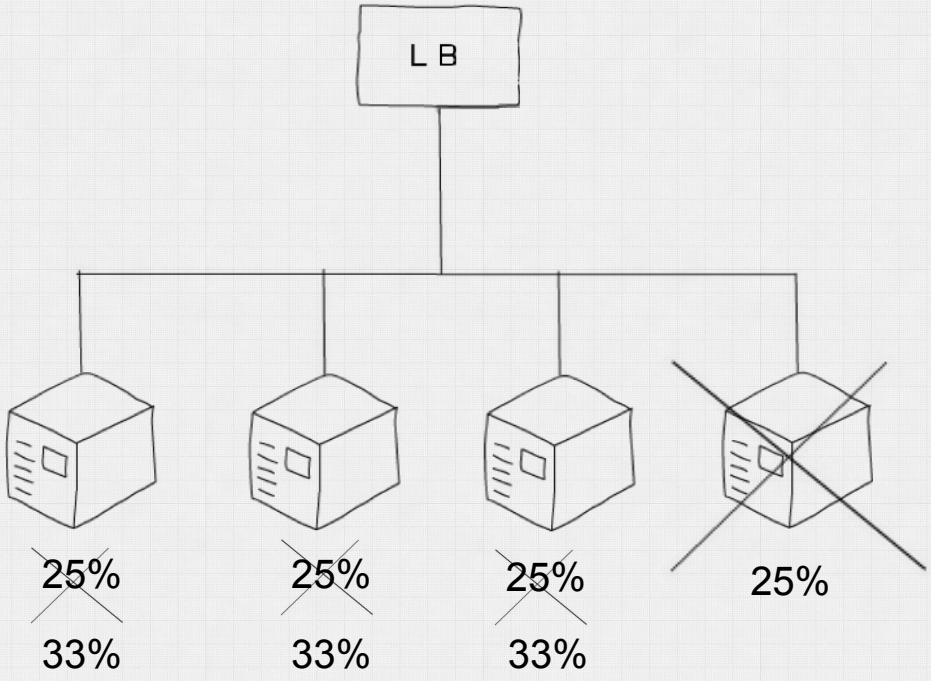


KUBERNETES WILL BE ON THE LOOKOUT FOR MORE EFFICIENT **BIN PACKING** OPPORTUNITIES.



Turn off the lights

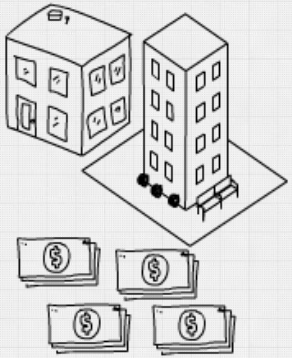
Turn off the lights



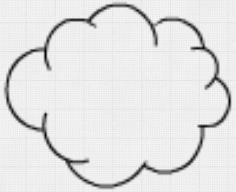
- CPU from 8pm to 8am
- 0.2$/h
  0.2$/h x 4VMs x 24h x 365day = 7008 $
- Turn of from 8pm to 8am
  12h x 365day = 4380h saving = 876$
- 7008$ - 876$ = 6132$
- 12.5% Saving

summary

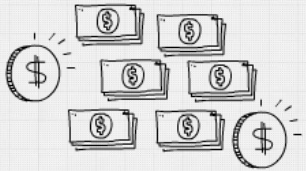
From an angry CFO… to a happy CFO :)

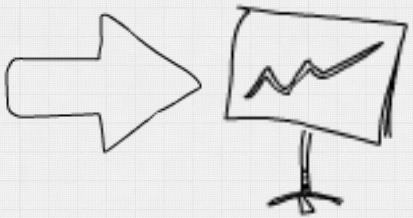


On premise

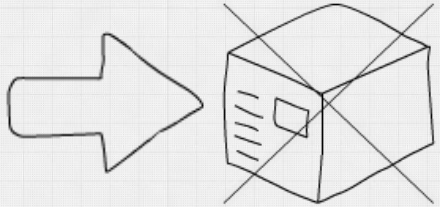


2013/2014
>150 servers!
30 Databases

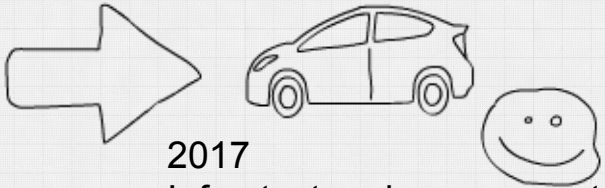




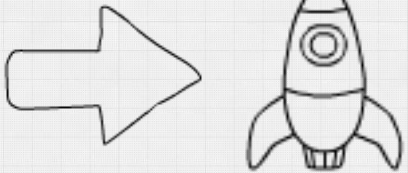
2015: ROI!!!!



2016
Change Mindset:
Thinking Serverless
- Photovogue
- Starting reducing costs

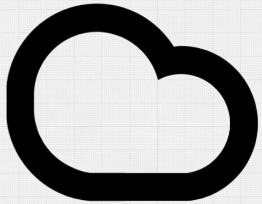


2017
Infrastucture improvements
50 servers - 8 Databases
Costs = on premise / 4



2018
Continuos improvements:
Serverless *.*
Docker / K8

Thank You



CloudConf

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