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Webinar: Storage as a differentiator for Cloud, MSP & hosting companies

Agenda

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- Typical storage issues service providers face
- Ways to solve/avoid these issues
- How StorPool can help & brief demo
- Customer story: CloudSigma
- Q&A

Storage Issues

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"We have a lot of performance issues with our current storage setup" - hosting company, Netherlands

"We were using RAID 10 in local servers, however as the number of servers grew, management and lack of flexibility became a problem" – cloud company, Turkey

"Finding a suitable storage solution for our cloud hosting product has perhaps been the single most frustrating obstacle we've had to overcome as a company" – Kualo

"Storage is a very big area to be keeping up with and we wanted to focus on our core business" – CloudSigma

Performance issues

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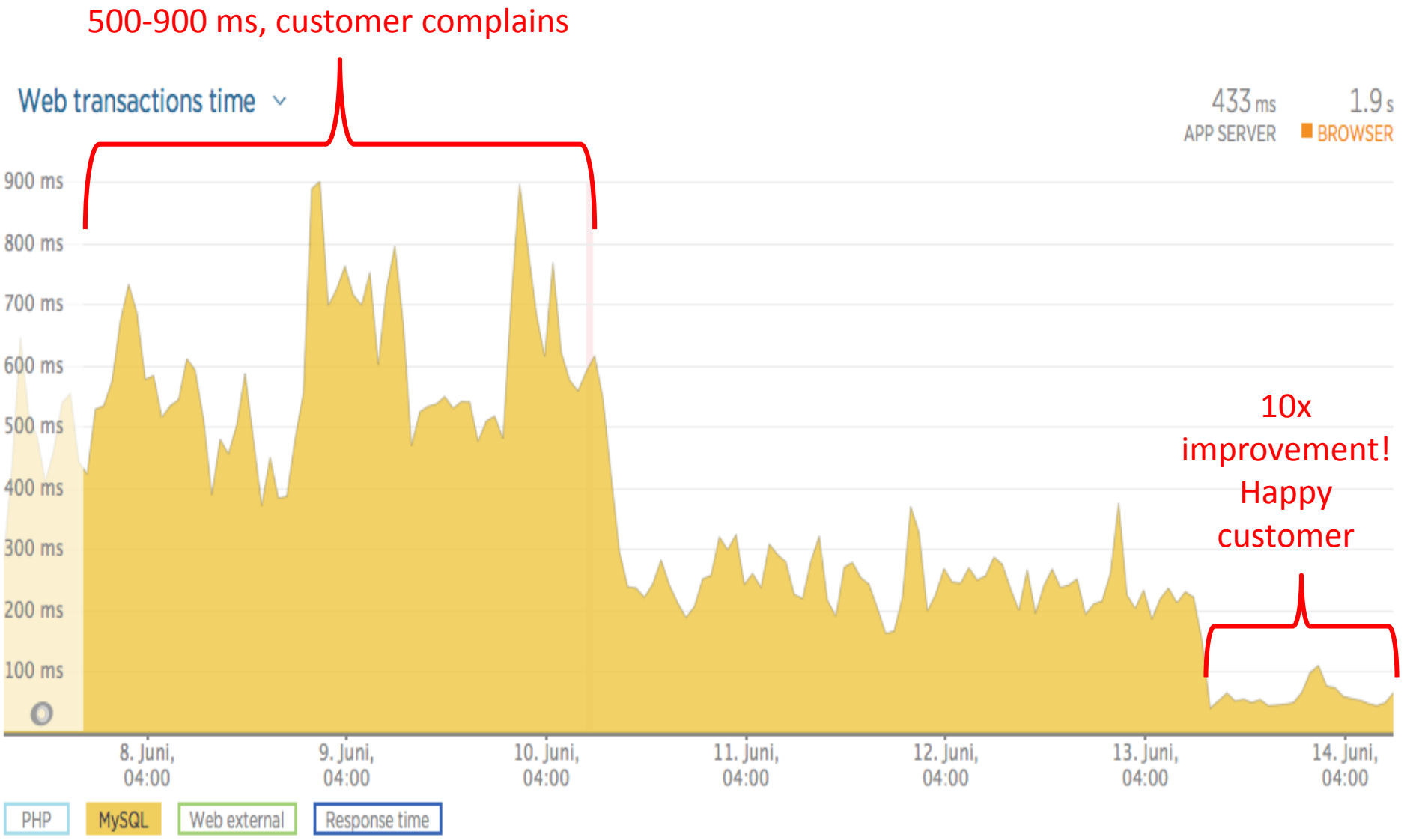
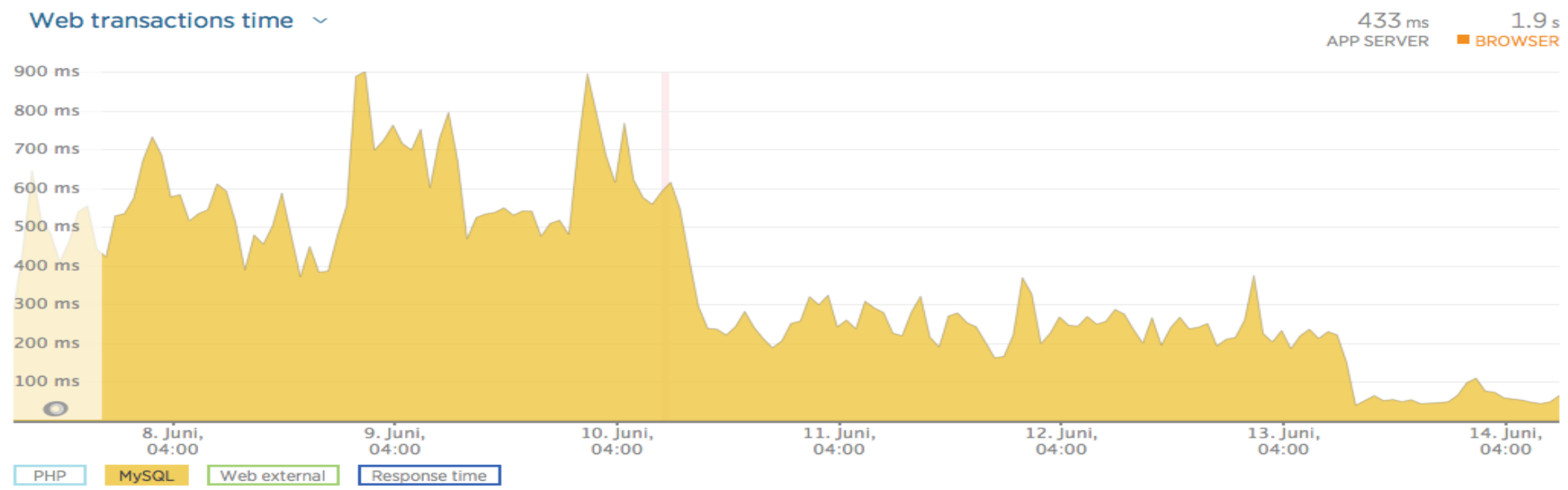
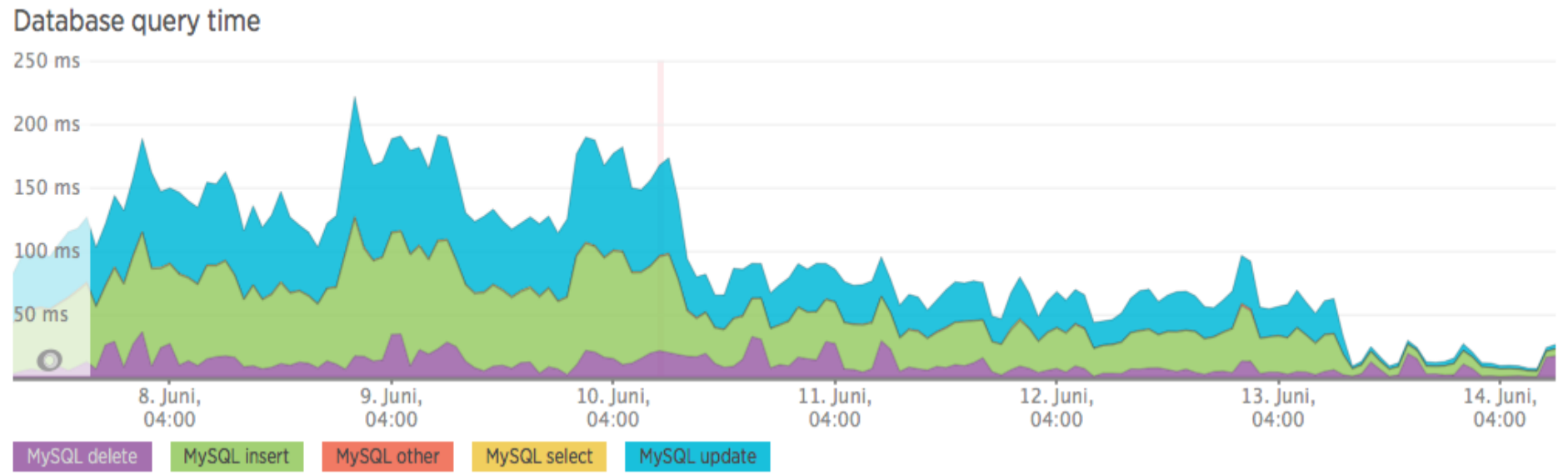


Performance issues





Eliminating Downtime

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- Not using shared storage guarantees storage related down time
- All upgrades should be without downtime – software (kernels, etc.) & storage
- Hardware refresh should be without downtime
- Implement live migration of VMs for hardware maintenance or hardware refresh

Improving Scalability

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- Scale-out is the norm now
- No SPoF (Single Point of Failure) is the norm
- Live expansion/shrink of volumes, live-migration to different host, HA (High Availability)
- Snapshots, clones, QoS increasingly used

Price & price/performance

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- Running on a SAN does not commercially work anymore
- Doing 100,000 IOPS & <1ms as a start is now a minimum
- Hosting, MSPs/IaaS/Cloud companies need all-flash performance, but not at “all-flash” cost
- You should be able to compete with “the big guys”
  - Detailed Cloud infrastructure reference architecture (260% ROI): https://storpool.com/roi
- “Software-defined storage” is the future

Do's, don'ts & tips

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Do's:

- Use tested and widely used firmware version & latest BIOS
- Proper CPU selection – more expensive, more economical
  - 32-36 cores (E5-2697v4) and 512GB RAM
- Recent generation of servers
- Use larger SSDs – more expensive but better value
- Use redundant switches – they are the backbone & SPoF
- Look for storage system integrated with your cloud management
- Always stress test your hardware before using in production
- Inspect the network – it is a usual cause of storage issues

Do's, don'ts & tips

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Don'ts:

- Don't run on 1Gbit any more. Upgrade!
  - Get: 10/40 GbE Mellanox SX1012, costs less than $6k
  - 10 GE Dell, Cisco – even second hand is better than 1GE
- Don't use consumer-grade SSDs (laptop-grade)
- Don't use FC. Infiniband is good. Do not underestimate 10/40 GE w/ RoCE
- Don't expect magic: any technology can fail, have a backup

How StorPool can help

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- Software storage solution, running on standard servers
- Eliminates the need of a SAN or all-flash array
- Fully distributed – no SPoF, scale-out
- The leading implementation – performance, efficiency
- 100k IOPS per node on 2/3 CPU cores, 0.2 ms latency
- Flexible – run on compute nodes or separate nodes
- Running in production for 3+ years, 12 major releases
- Integrated with almost all technologies hosting/MSPs use

How StorPool can help

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DEMO

Customer Story

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Thank you ☺

Q&A – post in Hangouts

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