stackato™

Scaling and Monitoring in the Cloud

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ActiveState®

Code to Cloud: Smarter, Safer, Faster™


Scaling and Monitoring in the Cloud
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Agenda

- Scaling Truths
- The Cloud
- Platform as a Service
- Scaling Practices
- Tools and Techniques

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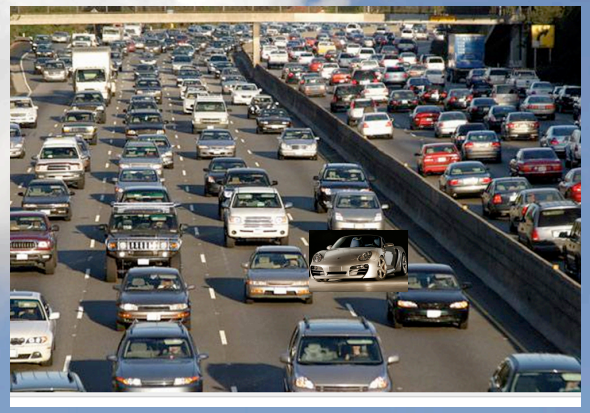
Scaling Truths / Principles / Practices

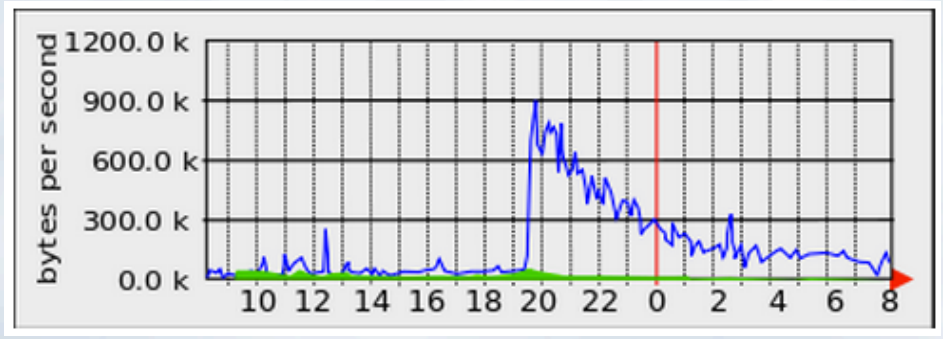
- scaling is hard and painful
- it's not always required
- if required, design from day 1
- profile before optimize
- measure / monitor

Scaling Truths / Principles / Practices

- practice “mature optimization”
- establish a baseline early (now)
- do not reinvent the wheel
- go horizontal (scale out)



It’s not always required. But...



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Platform as a Service
and
The Cloud

The Cloud

- "Utility Computing"
- CraaS (Computing Resources aaS)
- On demand
- Self service
- Scalable
- Measurable

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PaaS and Scaling

PaaS Features that enable scaling

- Distributed Routing
- services (eg: memcached)
- log integration
- monitoring hooks
- Polyglot

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PaaS Features that enable scaling

- Pack density on physical hardware
- LXC Containers
- Auto-scaling / Elasticity
- Health-management
- Load balancing
- IaaS hooks

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Optimization

- Insidious
- Seductive
- Wasteful (often)
- Obfuscating (often)

Practice Mature Optimization

- Just Say No
- Focus on clarity,brevity
- Focus on flexibility, features
- Profile first
- Optimize later (or never)

Optimization

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Optimization

Just Say No

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Invest

- architecture
- instrument / measure
- tools
- establish baseline now
- coding practices
- test

Tools

- health-management
- notifications
- resource constraints

Tools

- load testing
- logging
- monitoring


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