

Rails + Cloud
=
Agile Deployment

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CTO RightScale

Cloud Layers

- Applications in the Cloud
 - Salesforce.com, Gmail, ...
- Platforms in the Cloud
 - Google App Engine, Heroku, ...
- Infrastructure in the Cloud
 - Amazon Web Svcs, Nirvanix, Joyent, ...
 - RightScale cloud management platform

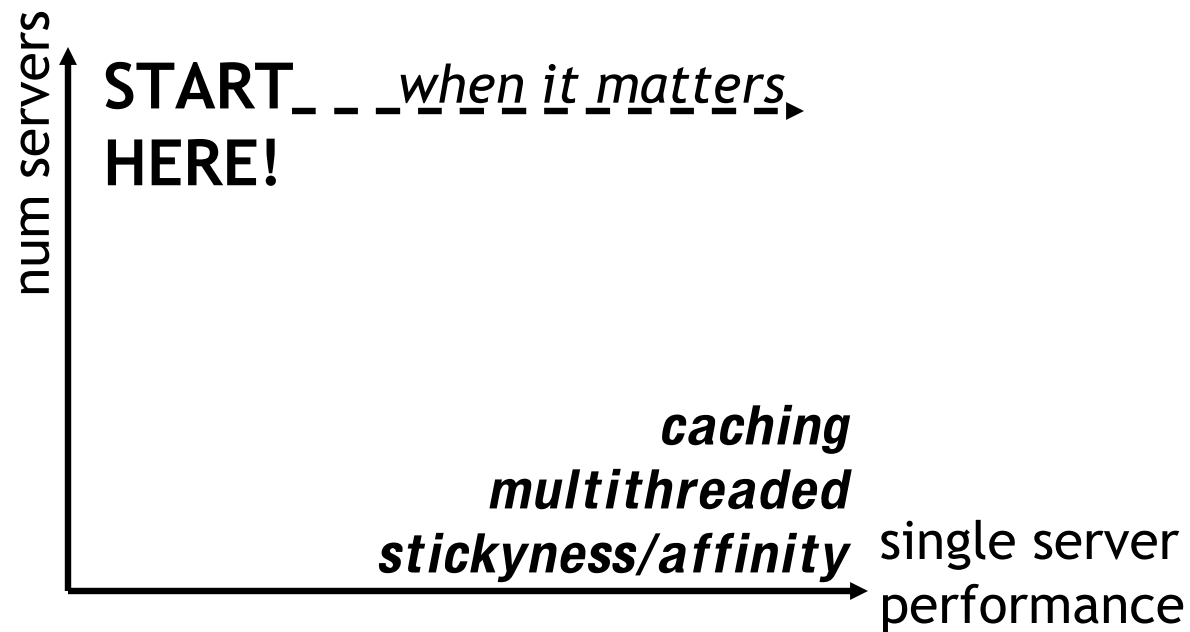
Fork a server!

- Thinking in the cloud:
 - How can I use another server?
 - A new dimension to writing software!

Update	- new clean server, keep old around
Failure	- replace quickly (availability)
Load	- add servers
Save	- remove servers
Test/demo	- clone servers

The cost equation

- 1 server for 1 year = \$900
- 1 programmer for 1 day = \$400-\$1000



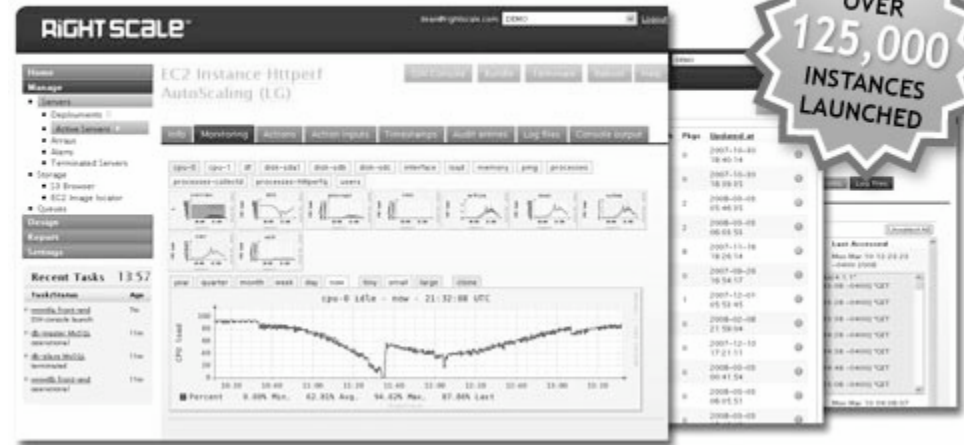
Agile Deployment

- Agile = automate and benefit!
 - From boot to production on auto-pilot
 - Get: auto-failover, auto-restart, auto-scale, clone, ...

“Deploy faster, better, and cheaper than your competitors”

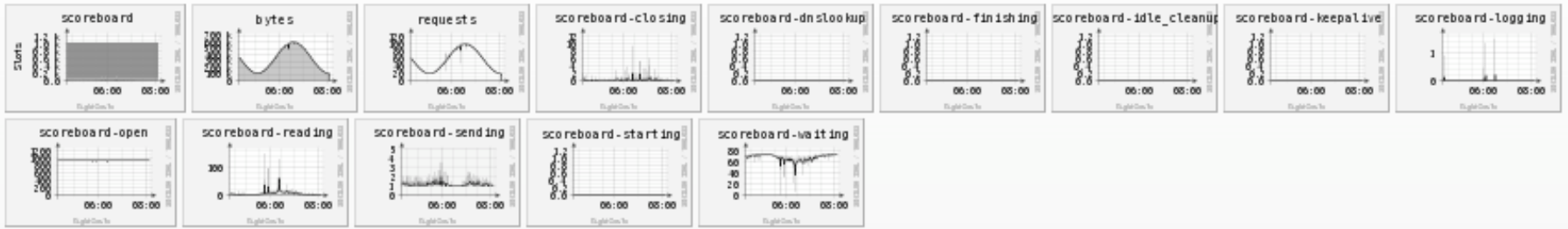
RightScale

- Dashboard w/automation
- Ready-to-go application stacks
 - Fully customizable and extensible
- Set-up help & support



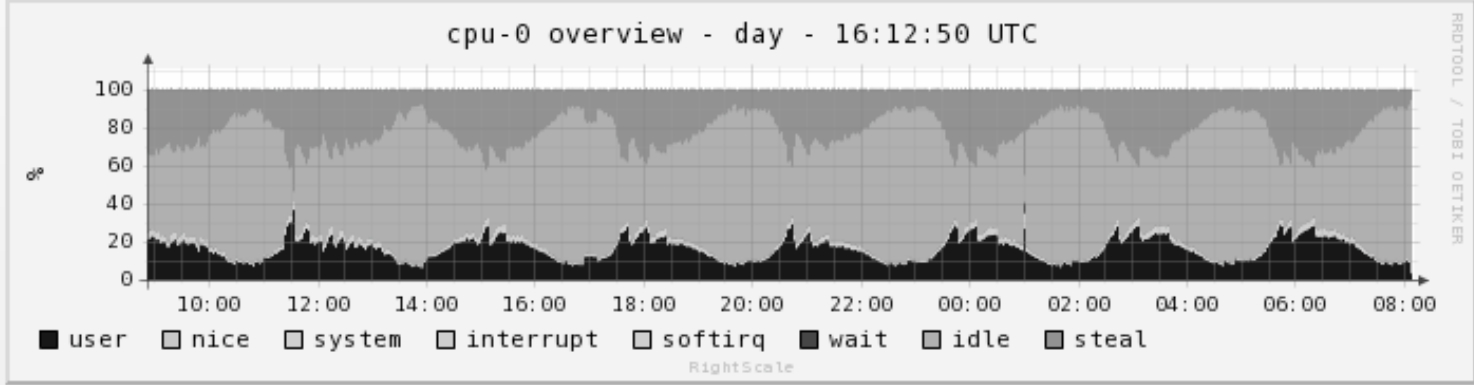
100 hours free EC2 time
rightscales.com/railsconf

[apache](#) [cpu-0](#) [df](#) [disk-sda1](#) [disk-sda2](#) [disk-sda3](#) [interface](#) [load](#) [memory](#) [ping](#) [processes](#) [processes-collectd](#)
[processes-httpd.worker](#) [processes-mongrel_rails](#) [swap](#) [users](#)

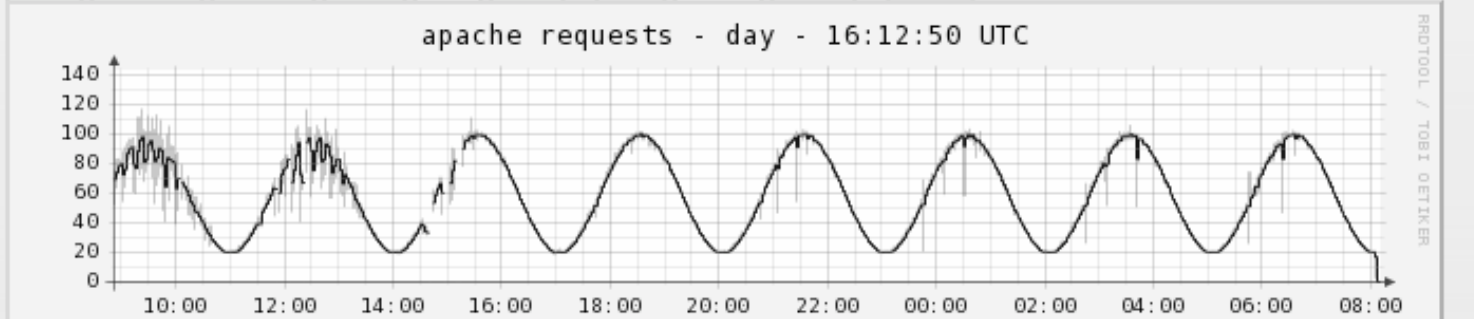


save

[year](#) [quarter](#) [month](#) [week](#) [day](#) [now](#) [tiny](#) [small](#) [large](#) [close](#)

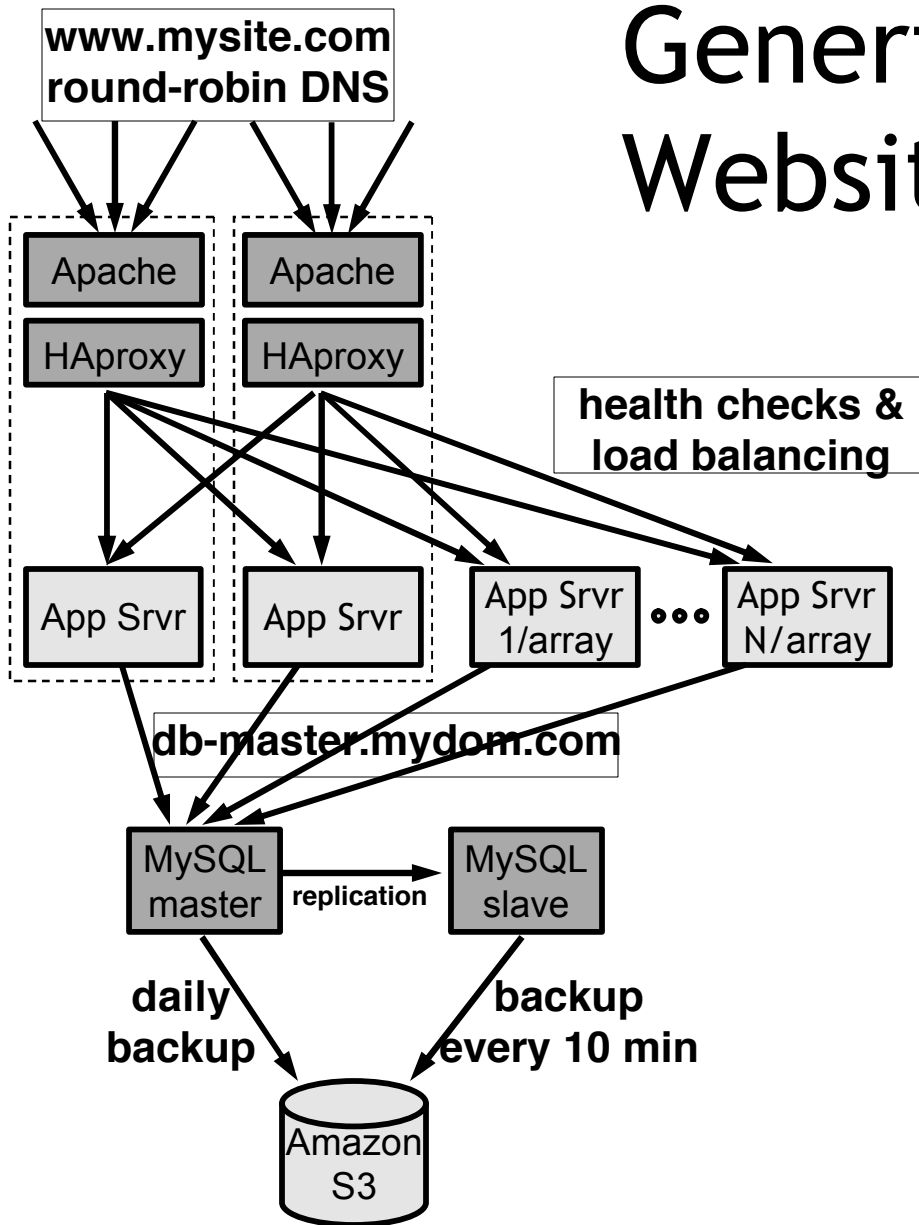


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What's new in the cloud?

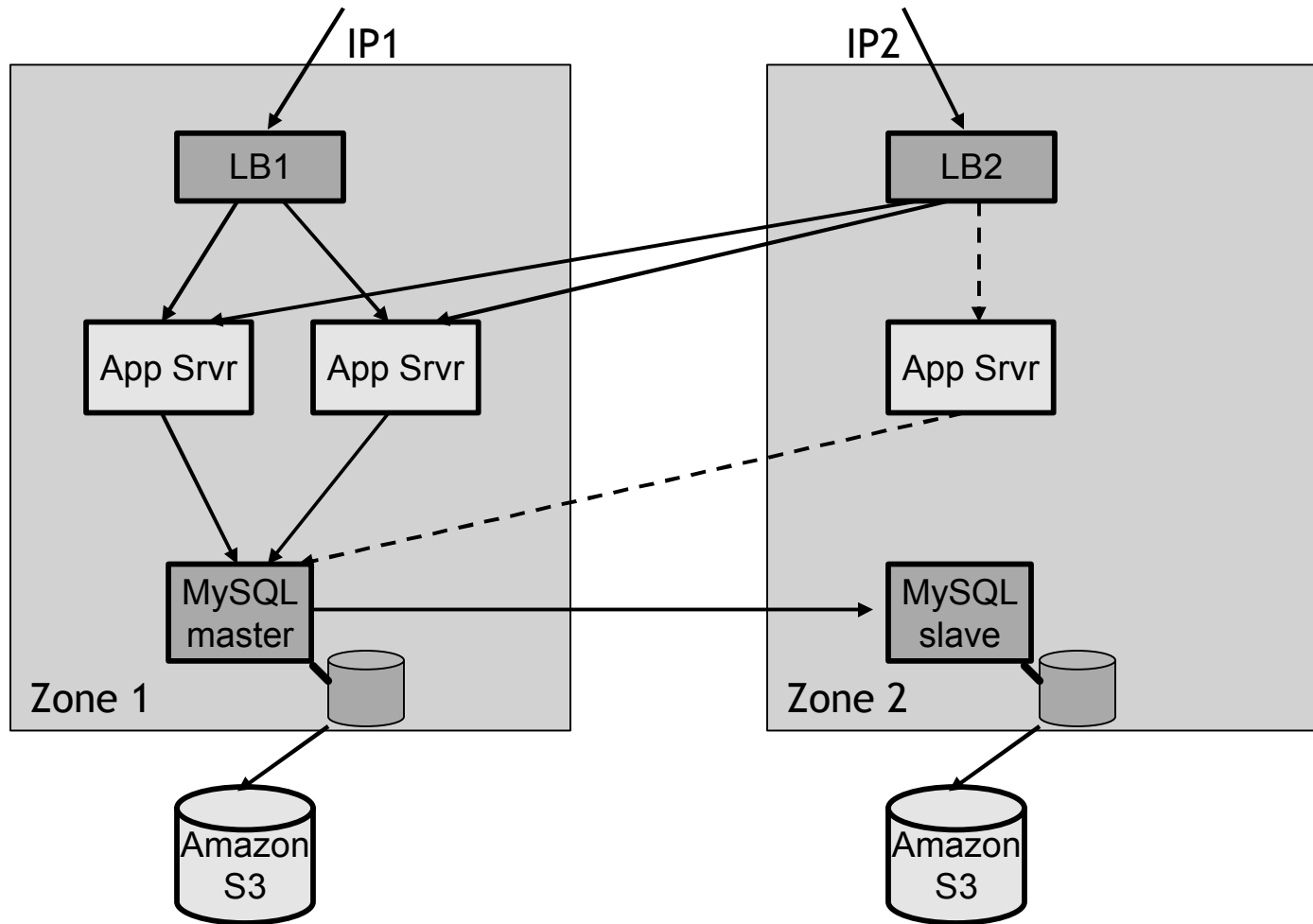
Generic RightScale EC2 Website Architecture



Clouds surpass traditional hosting

- Multiple server sizes: 1/2 core to 8 cores
- Reassign IPs / VIPs
- Multiple failure zones
- Multiple geographies (soon)
- Disk Volumes (soon)

Multi-Zone Deployment



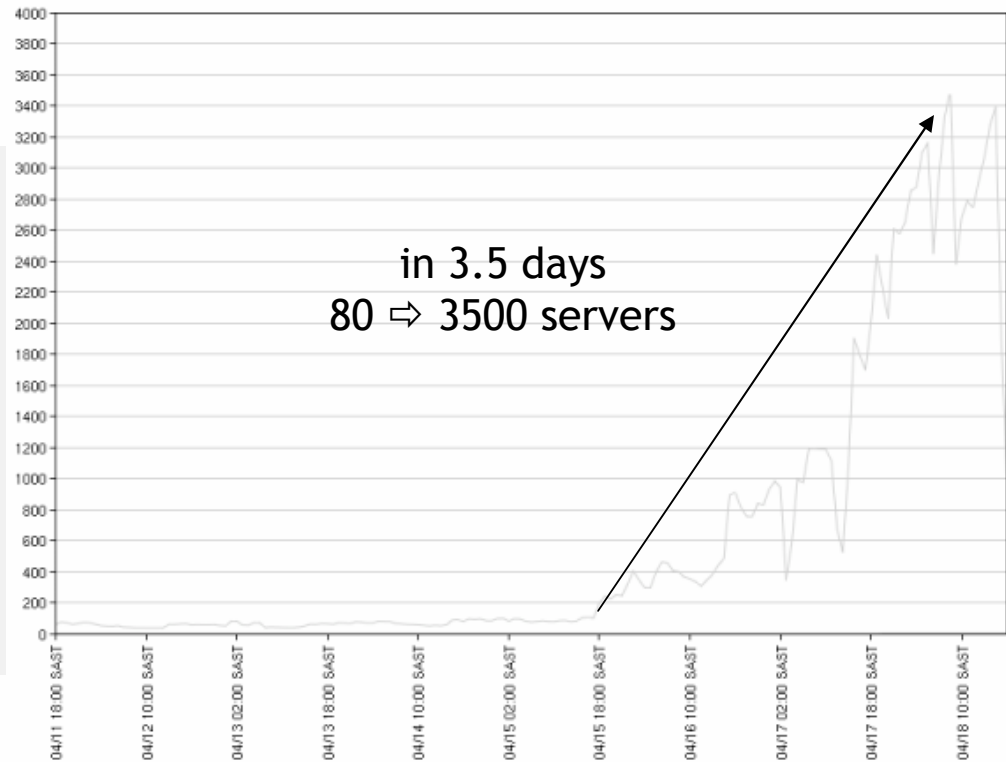
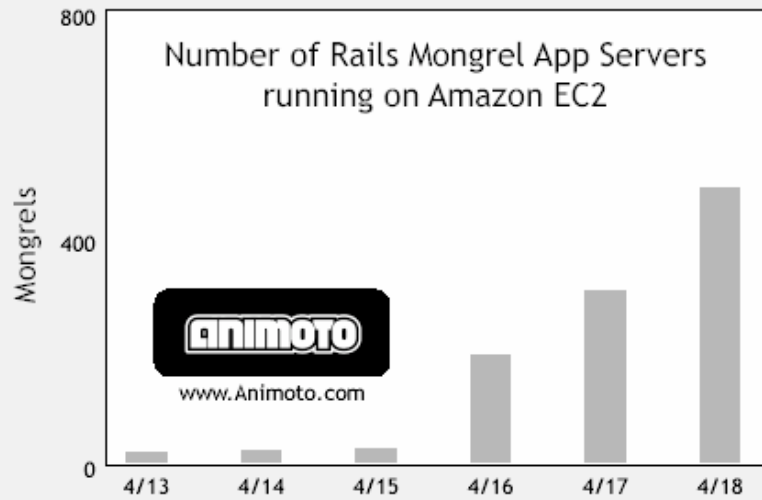
Rails in the Cloud

Animoto

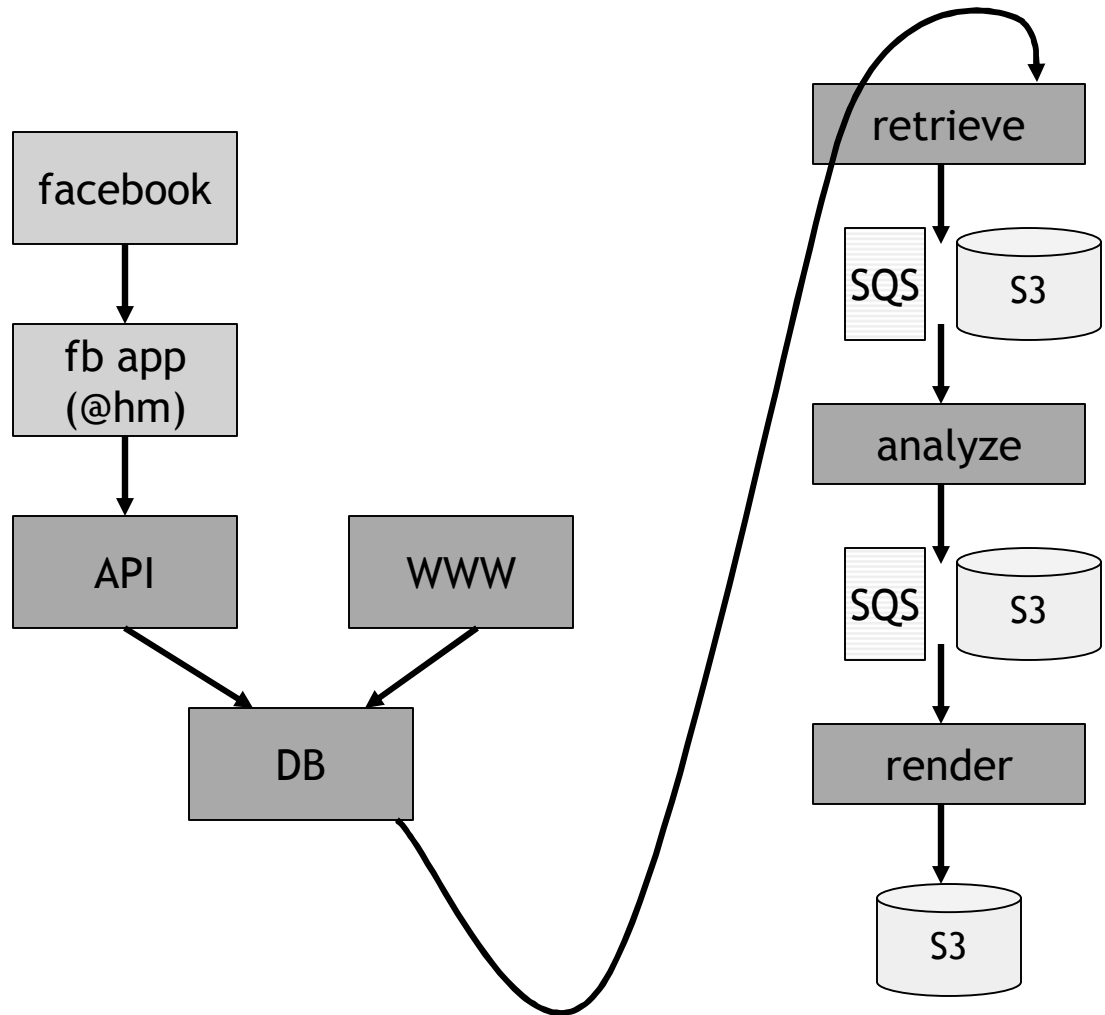
- Generate videos from music and photos
- Compute intense
~8 cpu min/vid

The screenshot shows the Animoto website interface. At the top left, there are links for "music lounge" and "help" with corresponding icons (headphones and a question mark). The "ANIMOTO" logo is prominently displayed at the top right, with "beta" written above it. Below the logo, a large video preview shows a group of people in a line, possibly performing a dance or a synchronized movement. To the left of the video, a vertical sidebar lists three steps: "1. it analyzes your IMAGES" (with a photo of a car), "2. it feels your MUSIC" (with a photo of a record), and "3. it customizes a VIDEO" (with a photo of hands raised). Below the video preview, there are two buttons: "GET STARTED" with a checkmark icon and the text "create a new video", and "LEARN MORE" with a question mark icon and the text "watch the 60-sec video". A "Demos: 1 2" link is also visible below the video.

Yay / Ouch?

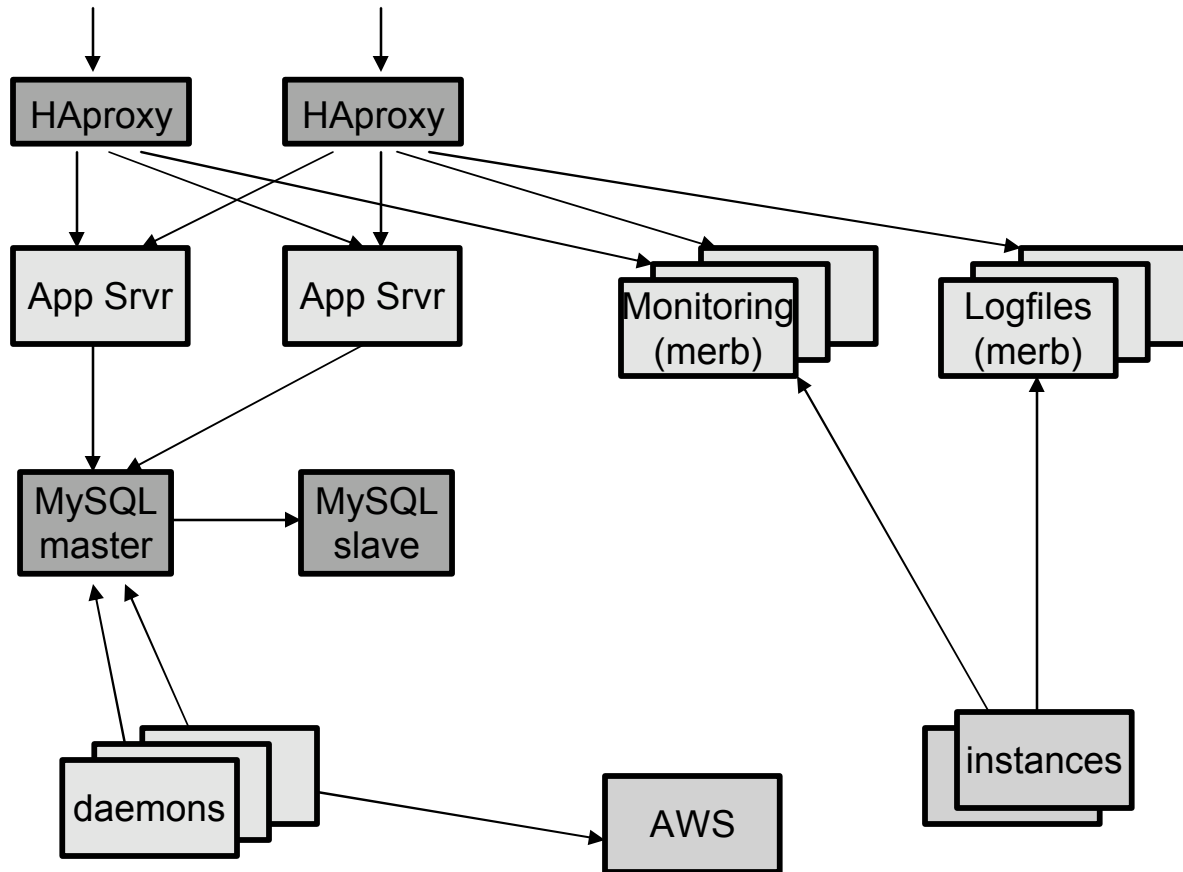


Animoto Architecture



- Know your app
 - Make it fast
 - Cache
 - Plan ahead
- Queue work
 - Make queues visible
- Actively shed load
 - Add tuning knobs
- Practice deployments

RightScale runs RightScale



RightScale Development

- Rails on laptops
- Dev servers in EC2 for sharing and persistency
- Staging in EC2, sometimes multiple, varying resources
- Preview systems in EC2

Key Principles

- Fork a server
- Agile Deployment
- Work queues
- Separate compute and storage

100 hours free EC2 time
rightscale.com/railsconf

