goto; conference aarhus

MAKING YOUR APPLICATION CLOUD READY

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.NET Platform as a Service

San Francisco | Copenhagen

(we're hiring)

What are we going to cover?

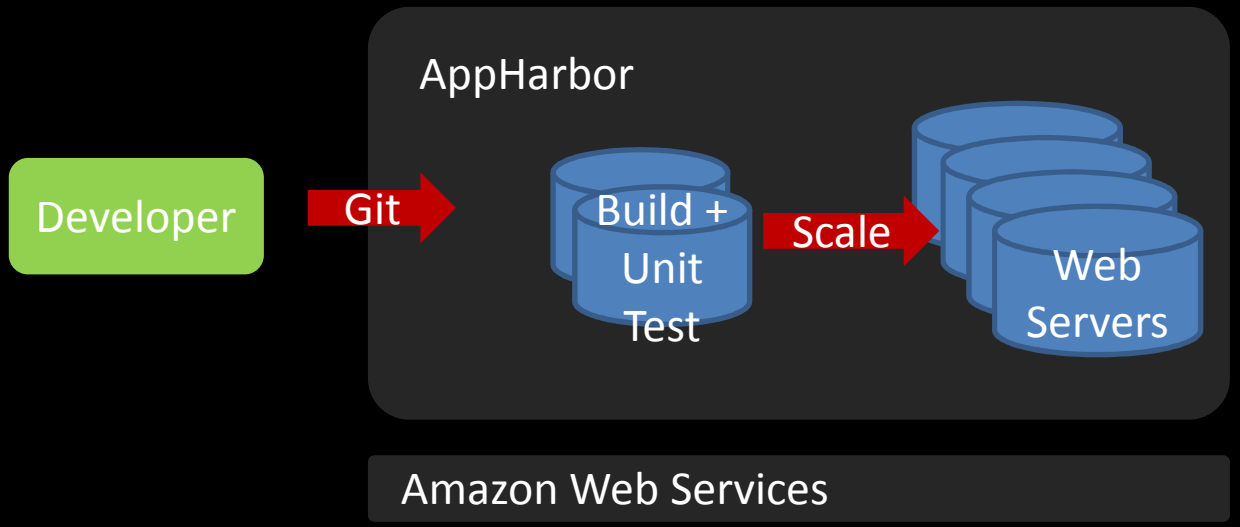
- Obstacles to scaling
- Make the move to the cloud an easy one

What do we know?

- AppHarbor is a .NET platform as a service (running on top of AWS EC2)
- We’re like Heroku, but for .NET
- 8500 developers are running around 4000 .NET applications on our platform
- Some of them need help getting applications to run and scale
- AppHarbor runs on AppHarbor

An Aside on Deployment

- I’m using Git to deploy to AppHarbor
- There are plenty other options
- Or you can roll your own
- (I think you should use AppHarbor)



Demo

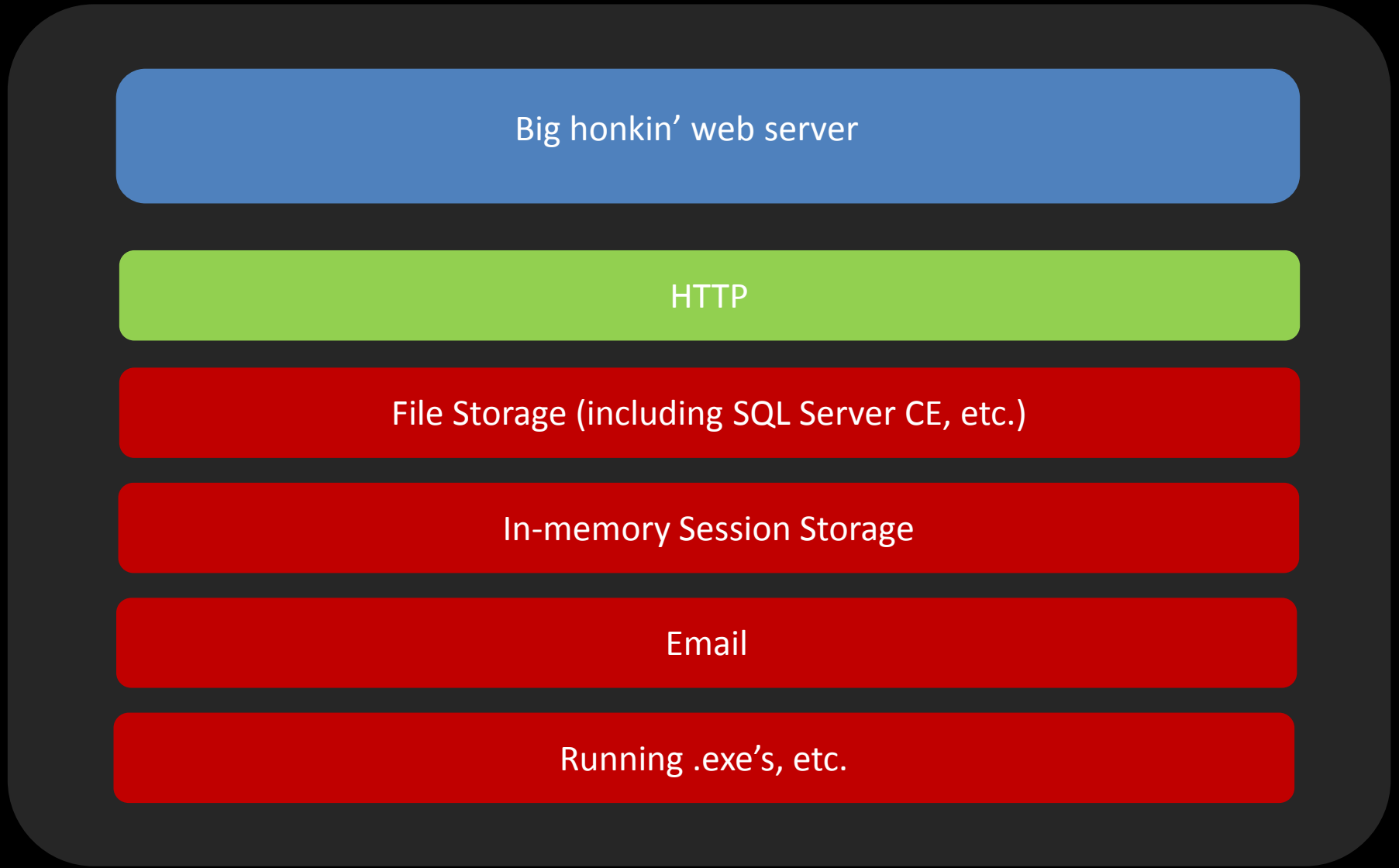
Get example running

And see what happens if we scale it…

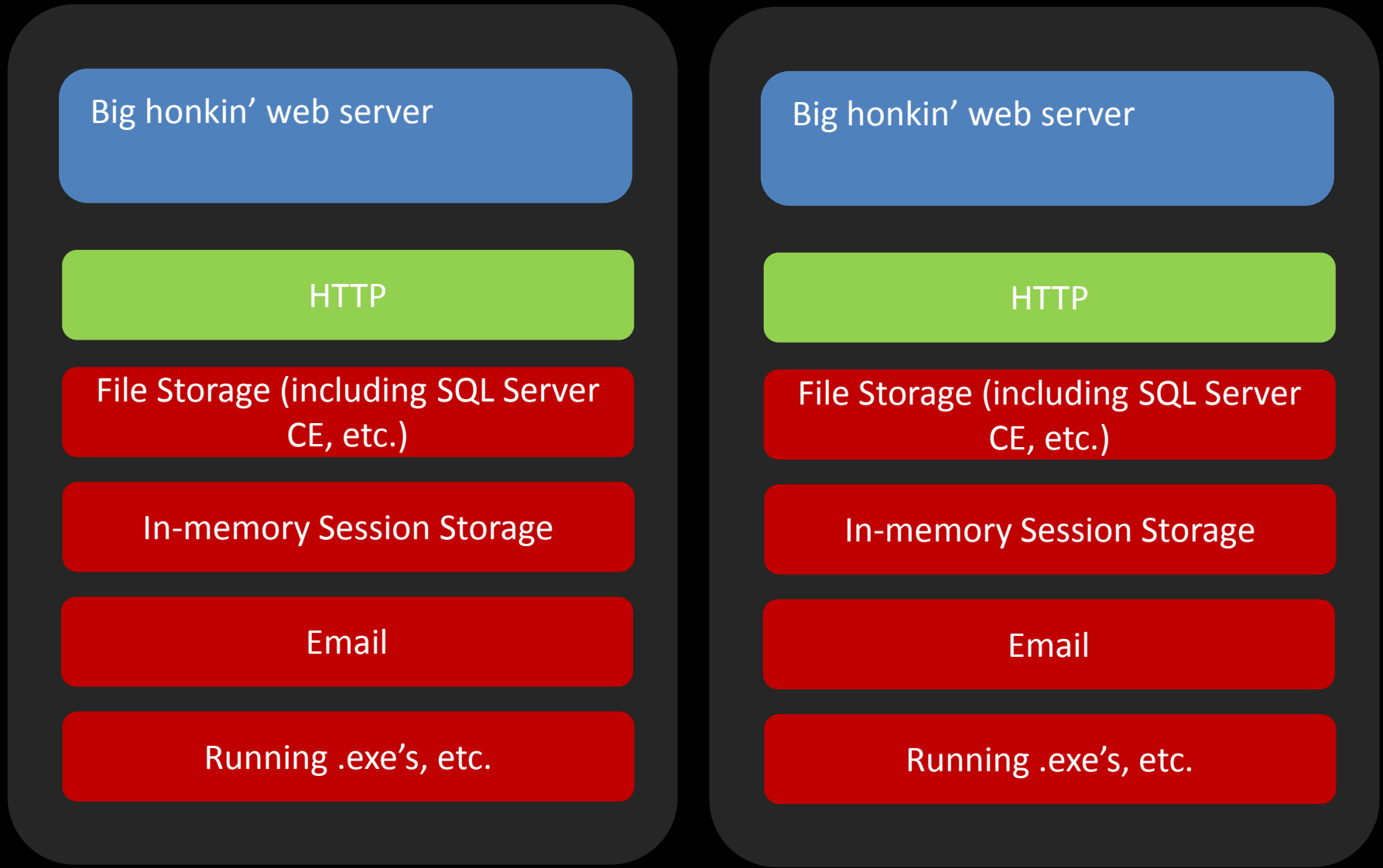
What's wrong with applications people deploy on AppHarbor?

- They rely on instance file systems
  - Hard to sync between multiple instances
  - Data disappears if instance fails (and they do)
- Application state is not shared
  - (e.g. .NET session state stored in memory)
  - User state is stored in instance memory
- Unmanaged dependencies

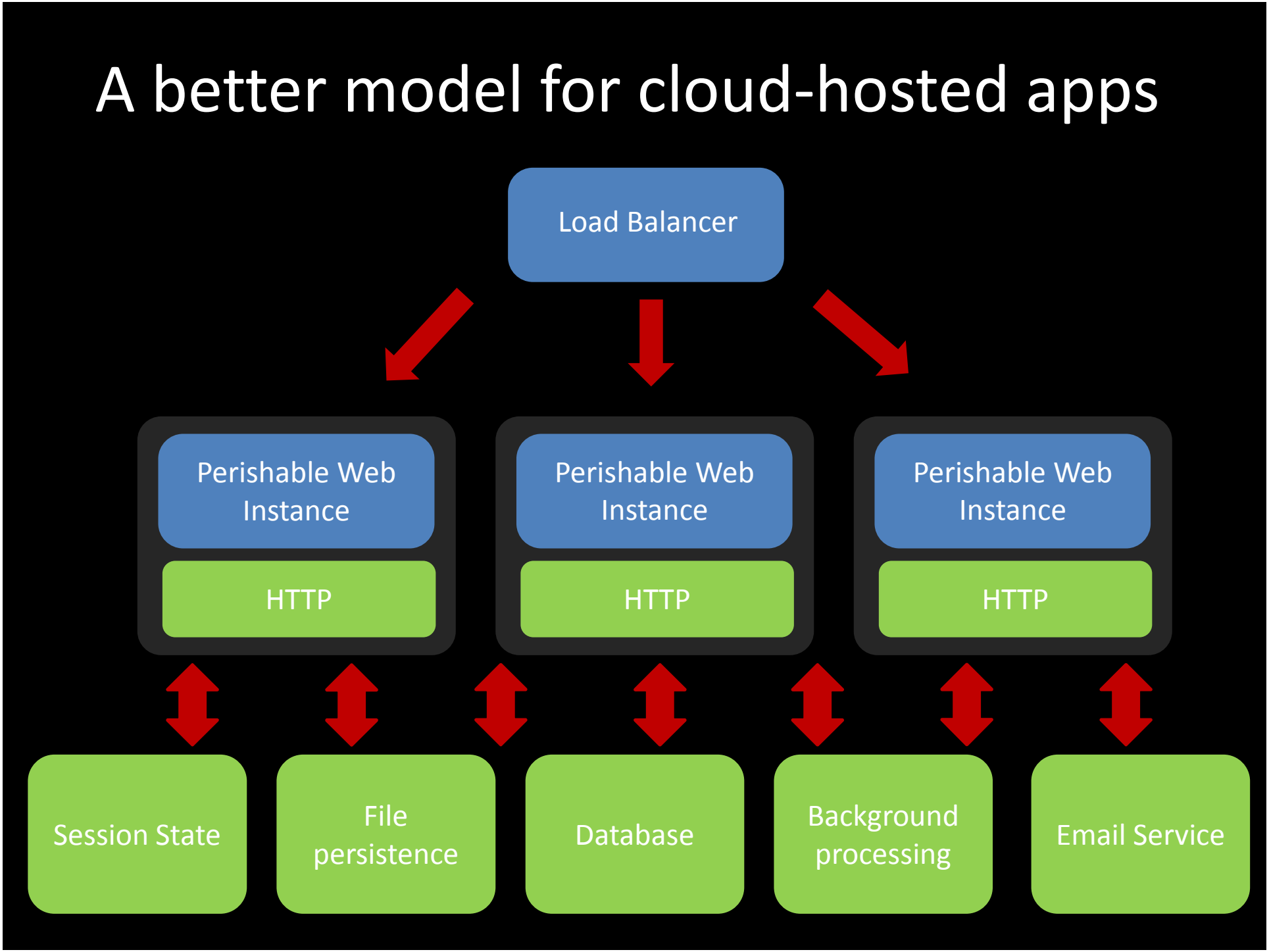
Bad Mental Model



Bad Mental Model



A better model for cloud-hosted apps



Demo

Change from local file system to S3

Use email service

What else?

- Session state and cache: On ASP.NET, use memcached-backed provider
- Always use off-instance, shared databases
- Take advantage of all the great 3rd party services in the cloud

Easing deployment

- Application should be self-contained
  - Do not expect infrastructure to provide dependencies

Easing deployment 2

- Application should be self-configuring
  - No possibility of human mistakes in setup
  - No time wasted changing configuration strings etc.
  - Data schema management should be automated
- Project should be self-testing

Lessons

- There are good alternatives to managing own infrastructure
- Get the mental model right for scaling and failure
- Organize your application for the cloud
- Take advantage of all the great services

Questions?

http://appharbor.com/

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