SteamCannon

Platform-as-a-Service by JBoss

Marek Goldmann | Java Night 2010 | Utrecht, NL

Marek, who?

- 🇵🇱
- JBoss Developer
  - Cloud-related projects: BoxGrinder (lead), SteamCannon
- Part of project:odd
- Electronic music lover

Agenda

- **Some terminology**
  - IaaS, PaaS, EC2, Image, WTF, Instance...
- **SteamCannon overview**
  - What? Where? How?
- **Demo time**
  - Shot an app into the Cloud!

Terminology and background

Two roles

- **Developer**
- **User**

IaaS

IaaS

- **Developer** (hidden role)
  - **Has:** hardware
  - **Talks about:** disk, network, CPU
  - **Installs:** operating system
- **User**
  - **Talks about:** operating system
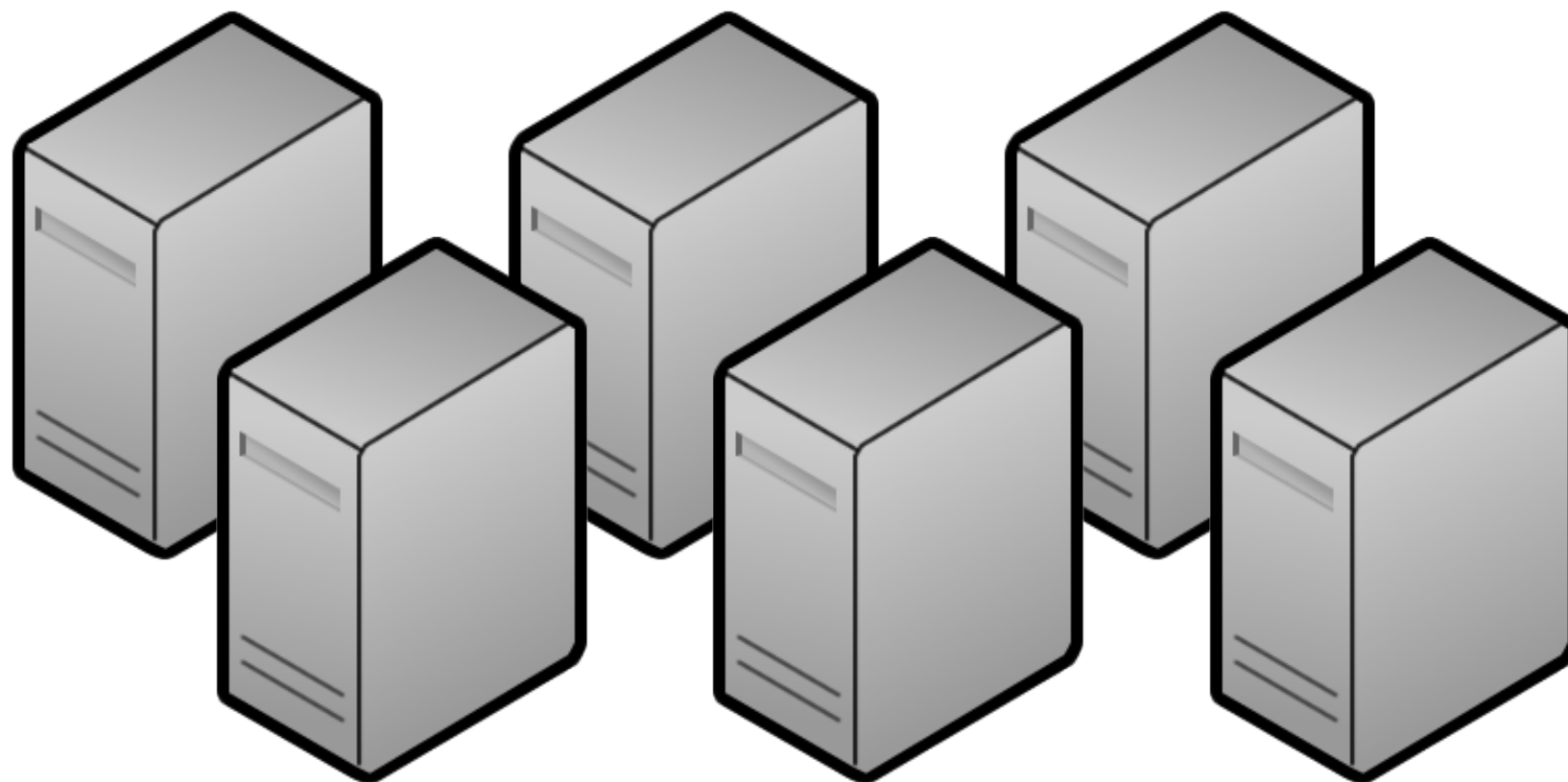
IaaS examples

- **Amazon EC2**
- **Rackspace**

Image / appliance

- Complete **VM**
- A **template**
- We use BoxGrinder to build our images

Instance

- A **server** launched from an **image**

But IaaS is pretty barren...

PaaS

PaaS

- **Developer**
  - **Has:** operating system
  - **Talks about:** partitions, users
  - **Installs:** application server, database
- **User**
  - **Talks about:** datasources, applications

PaaS examples

- **Google AppEngine**
- **Heroku (Ruby)**

Platform is the **contract** your application targets

IaaS – **undifferentiated** servers

PaaS – servers **working together**

Platform isn't only the **API**s or the **language**

Platform is the actual **implementation** too!

Application

- **Collection** of components, services and data solving some problem
- May be **Java**, **Ruby**, PHP, ... or a mixture!

Don't get hung up on **.war**s and **.ear**s!

PaaS is **way more** interesting for application developer than IaaS

Software
(SaaS)

Platform
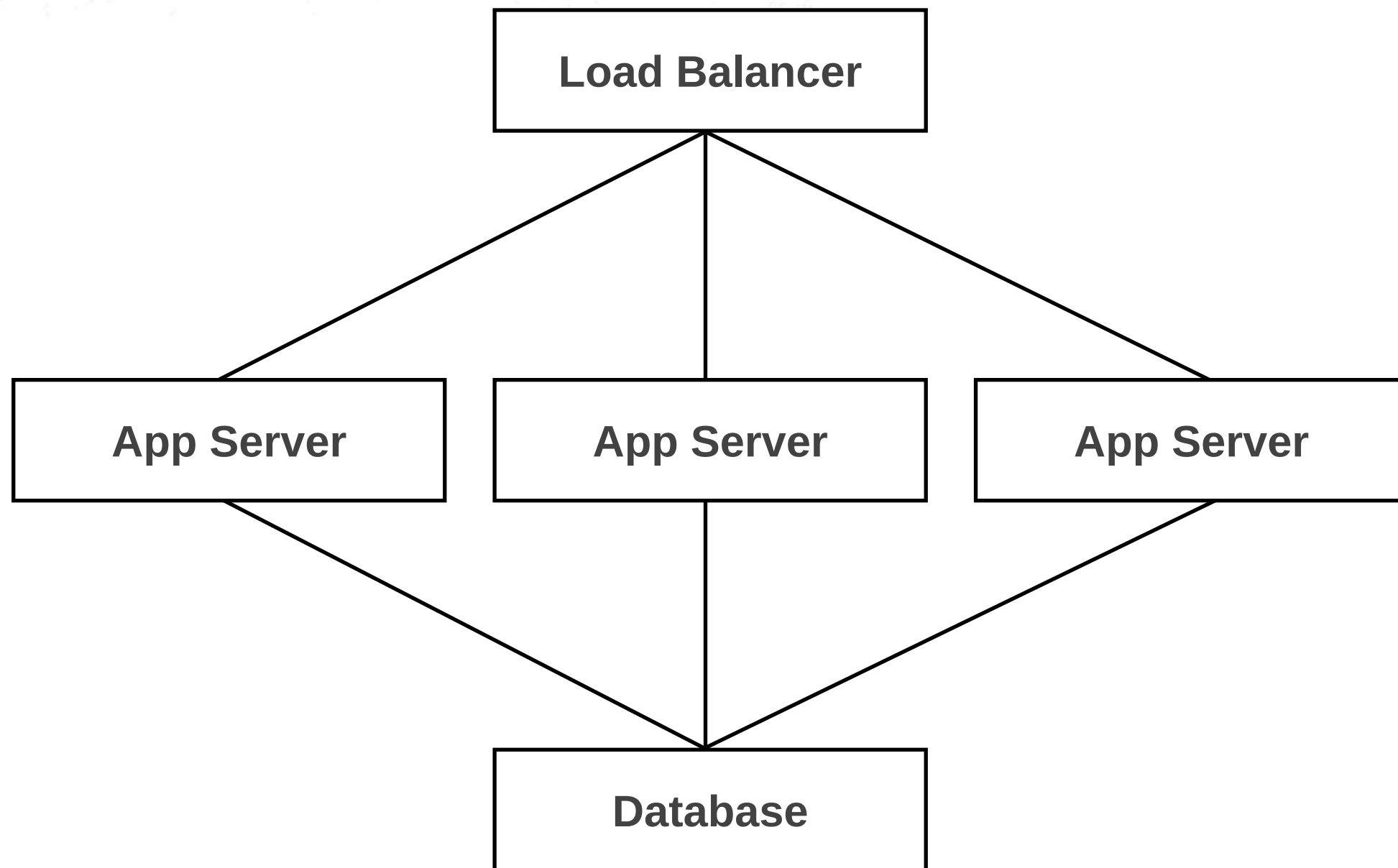(PaaS)

Infrastructure
(IaaS)

Software
(SaaS)

SteamCannon

Infrastructure
(IaaS)

YOU!

SteamCannon

Infrastructure
(IaaS)

How we create these servers?

```
name: appserver
version: 1
release: 5
summary: SteamCannon back-end appliance
hardware:
  memory: 2048
  partitions:
    "/":
      size: 4
appliances:
  - _base
packages:
  includes:
    - jboss-as6
    - jboss-as6-cloud-profiles
    - torquebox-jruby
    - torquebox-deployers
    - torquebox-cloud-profiles-deployers
post:
  base:
    - "echo -e '\n  - JBossAS' >> /etc/sysconfig/steamcannon-agent"
```
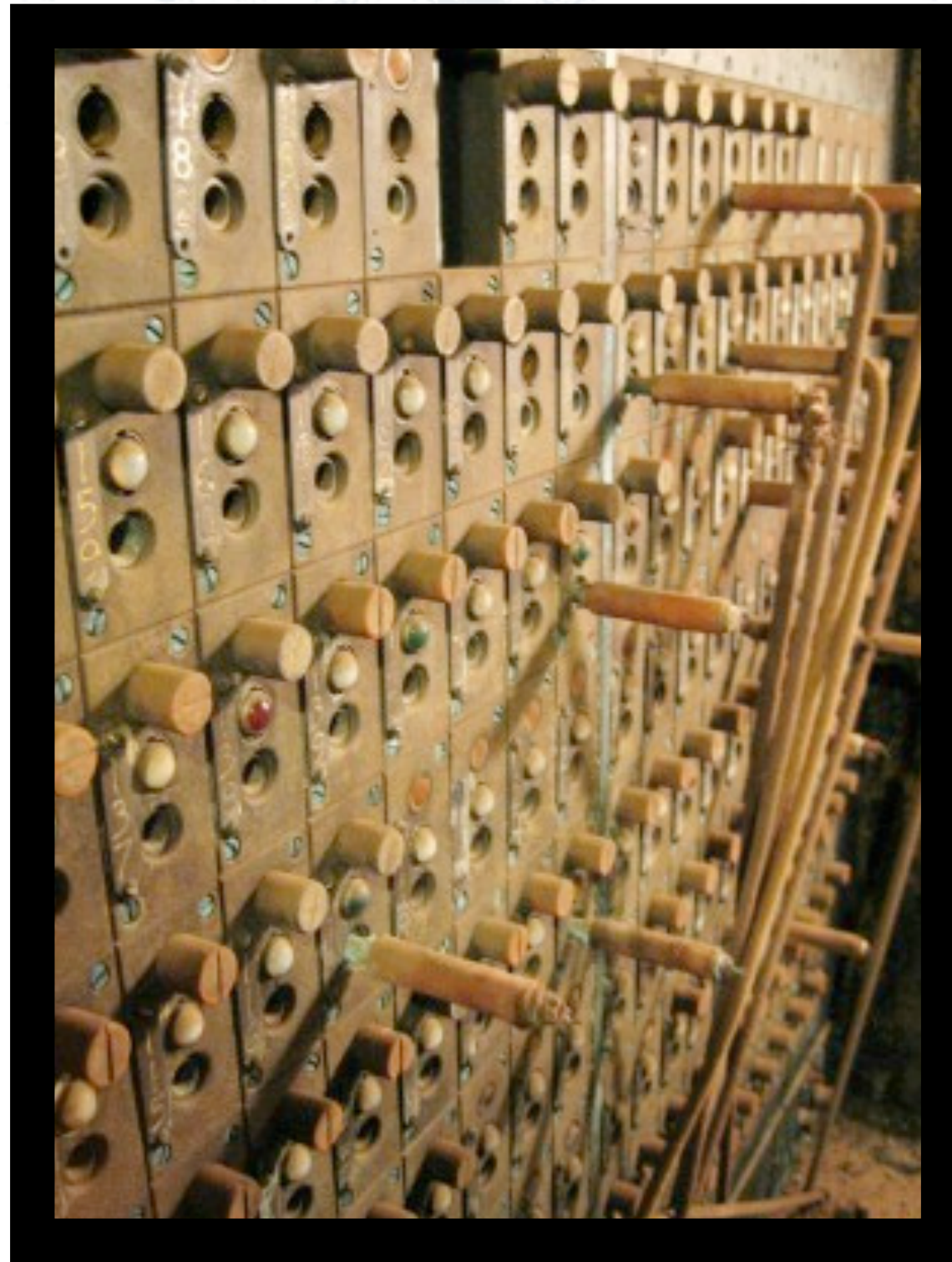
```
$ boxgrinder-build \
appserver.appl -p ec2 -d ami
```

SteamCannon portfolio

- **Front-end**: Apache HTTPD, mod_cluster
- **Appserver**: JBoss AS 6 + TorqueBox
- **Database**: PostgreSQL

- **Sandbox**: JBoss AS + TorqueBox + PostgreSQL

SteamCannon

SteamCannon terminology

- **Platform**
- **Environment**
- **Artifact**

Platforms

- JBoss 2-Tier
- JBoss 3-Tier
- Developer Standalone

Environments

- My Sandbox
- Chicken
- Staging
- Bacon
- Production
- Steven
- Experimental

Artifact

- Application
- Datasource

Demo

How it works

1. Nodes are launched
2. Nodes are configured
3. Applications are deployed to nodes

We can deploy Rails apps too!

TorqueBox

SC main features

- **Click and deploy** even complex, multi-artifacts applications
- **Grow** your cluster using one click

Future directions

- **REST API**
- **Private clouds**
- Additional platforms
  - **Infinispan**
  - HornetQ
- Improved UI/UX/Workflows
  - Bundling artifacts as applications
  - Movement between environments

Try it!

- http://steamcannon.org/
- http://boxgrinder.org/
- http://steamcannon.org/try/
- Download the VMware image
- Boot the AMI

Q&A

@marekgoldmann
@steamcannon

#steamcannon

Image sources

- http://unimaps.com/flags-europe/poland-print2.html
- http://ratuagung.com/2010/12/02/prisonplanet-com-censored-news/
- http://www.flickr.com/photos/pagedooley/1092862034/
- http://www.flickr.com/photos/deltamike/112665708/
- http://www.flickr.com/photos/sheilascarborough/3532118420/