Sinefa

Shared Nothing Cloud Management

Alexander Papaspyrou

27.05.2009

Disclaimer

Since Industry's in the Room...

This is a research project.

Done be undergraduate students.

With no hope for ever getting a product.

We have no customers for it.

And probably Amazon already has something similar.
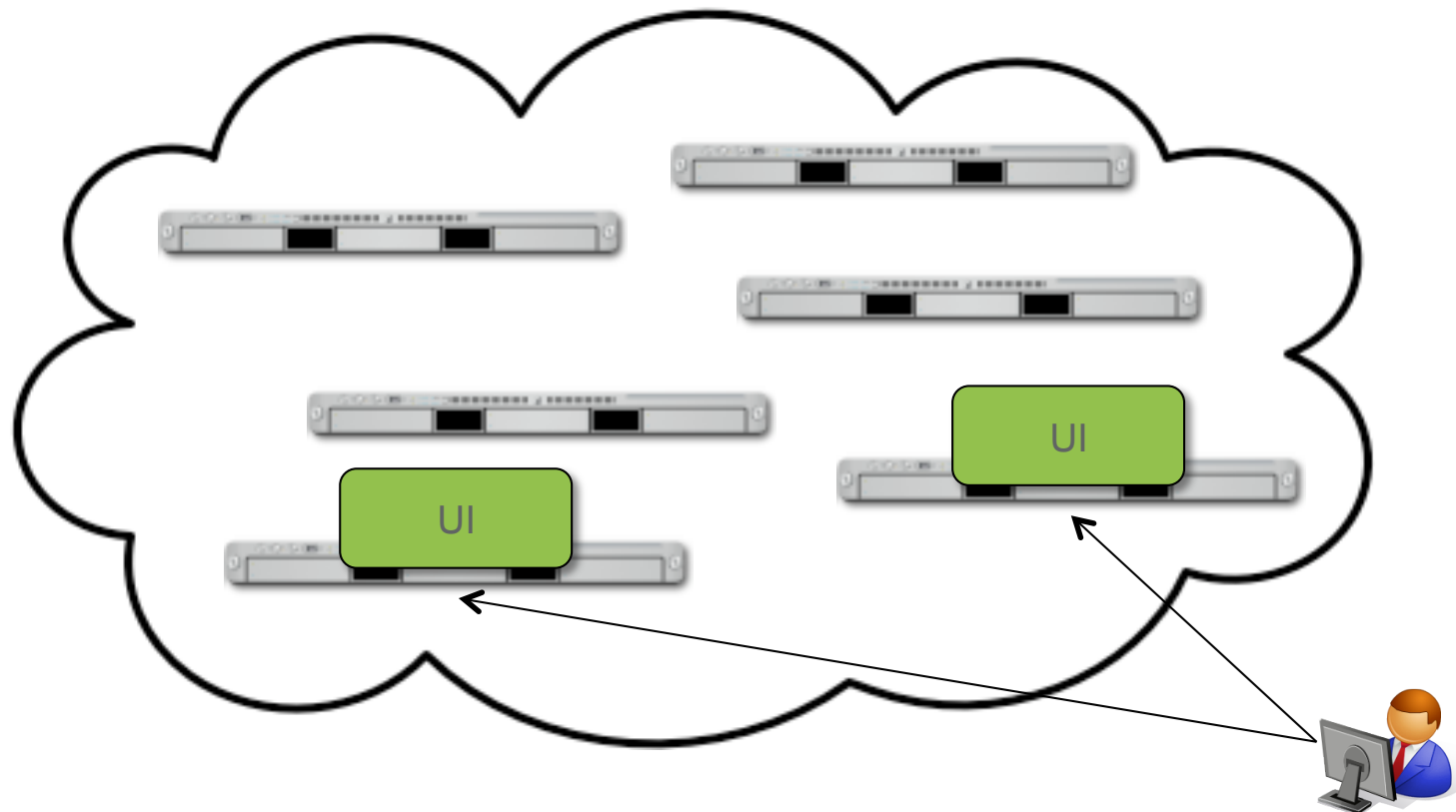
Requirements

A Shared Nothing Management System for IaaS Environments

- Capable of working fully decentral
  - No SPoF components (one database, one user interface, one <you-name-it>
  - Automatic failover on all levels
  - Equitable „nodes" in the infrastructure
- Plug and Play (for the admin)
  - ~~No~~ little effort to integrate new or remove old resources
  - Self-organization where possible
- Shiny Web 2.0-based UI for end user and operator
  - Management of „jobs" (just the test case for the students)
  - Management of resources (the real thing^{tm})
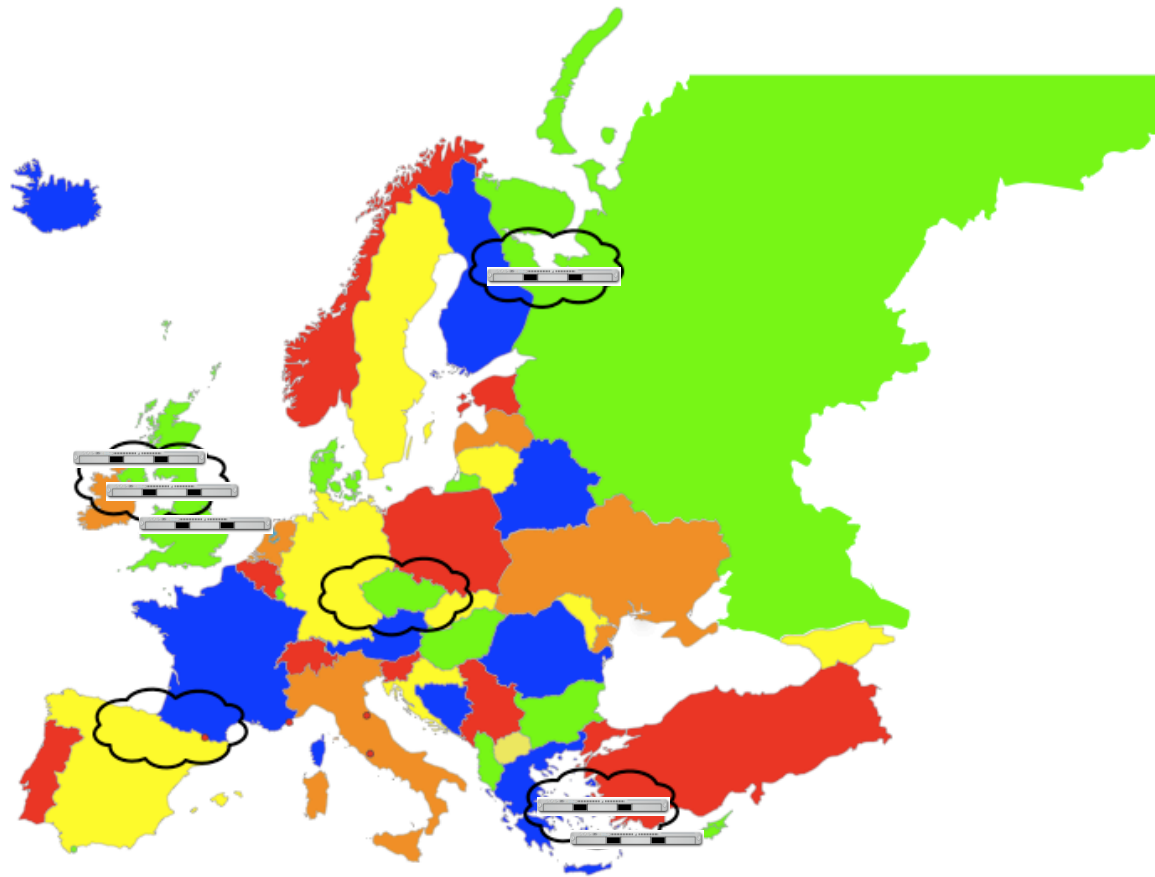
Spiffy, isn't it?

How It Will Work

... If the students ever get it right.

Dortmund University

Attention: Research

The Next Steps After the Basic Stuff

Now Imagine...

An Outlook on What We Anticipate for the Future[tm].

- That the operator does not have to dedice on his own
  - When to move resources around
  - Where to put them
  - What can be shut down
  - Or must be turned on

- But an expert system in the background will help him out...
  - Depending on a rule set
  - Based on objectives
  - Which adapts itself to the datacenter's situation

To get this done seamlessly, we want OCCI.

(hey, clap! You have a new adopter...)

Questions?

Thank You!