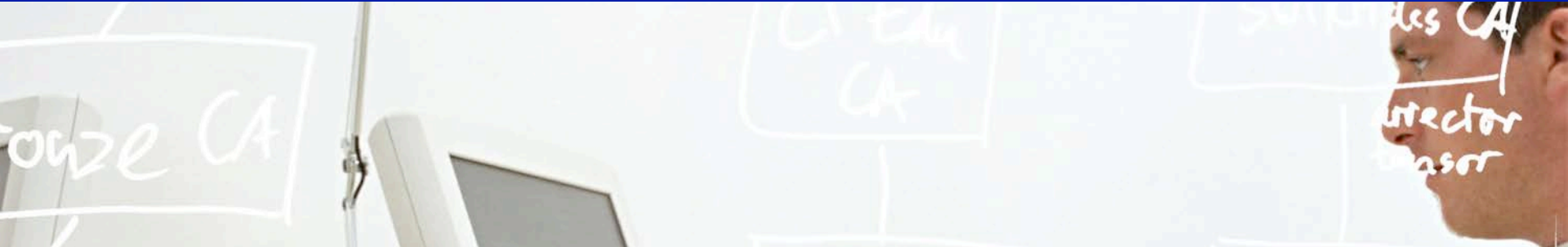


SWITCH & Cloud

Pilot OpenStack deployment at SWITCH



openstack™
CLOUD SOFTWARE

SWITCH

Serving Swiss Universities

Joël Casutt

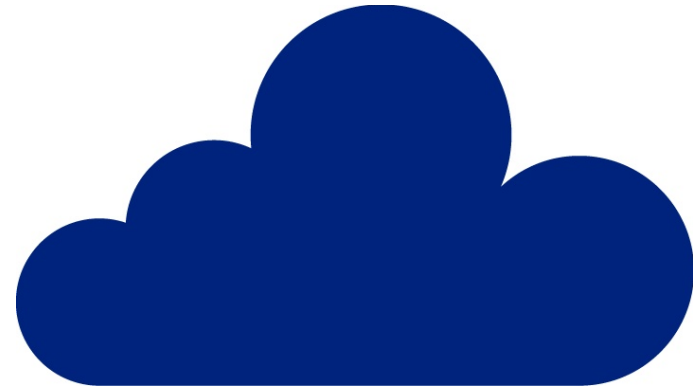
joel.casutt@switch.ch



15. November 2012

Who is SWITCH?

- Services for Universities:
 - AAI
 - Network
 - Internet Access
 - Computer Security
 - Online Lecture
 - Cloud-Services?
 - Many more...



Two Goals

OpenStack Test Deployment

Building
Knowledge

Motivate
users

Timeframe: Installation done end of year, Cloud usable end of February

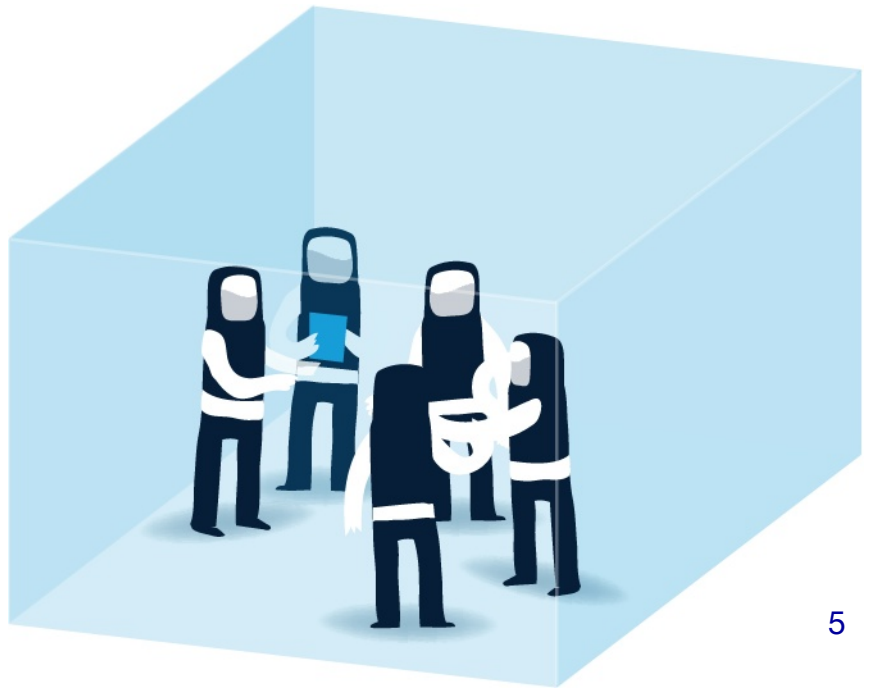
OpenStack Pilot Deployment

- Very similar to the POC from ICCLab
- Emphasis on HA and fast networking
- Testcase: Different Storage will be compared (Ceph, Swift, Cinder)



On the user side

- Pilot-users: Accounts in April
- Hands-On Kickoff-meeting beforehand
- Free usage from (hopefully) April to July 2013
- Afterwards?
Depends on this...



Backup Slides

Hardware

- 160 AMD cores with 4 GB ram per core
- 80 Intel cores with 10 GB ram per core
- 10 GbE redundant network
- Distributed storage, totaling raw 180 TB

Software

- OpenStack Folsom release on Ubuntu 12.04 LTS
- Ceph and Cinder for storage
- Automated by Foreman and Puppet
- Heavy use of Quantum for a SDN network
- No SPOF on the deployment

Deployment

- HA
- Two redundant headnodes with anycast
- One Physical network with Quantum managing the internals
- Two redundant switches
- Live-migration by using Ceph as Storage provider (and Cinder)