Usage of SWITCHengines at the University of St.Gallen (HSG)

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"From insight to impact"

Portrait of Universität St. Gallen (HSG)

The HSG

- Was founded in1898 as a Handelsakademie
- Has about 8200 students in economics, law und social sciences
- Has 5 schools / faculties and
  41 institutes / research centers
- Has a third party funding of about 50%

At the HSG

- There is only one IT department
- We have 2 data centers with about 250 servers
- We have a virtualization quote of about 35%
- The IT offers standardized services for research like (preconfigured) workstations & servers, academic SW or storage

Context of scientific computing@HSG

- A rather large research community, which demands computing power and storage
    - For complex and long-running calculations and simulations
    - For short term usages in projects (e.g. weg server / academic SW)
    - For the evaluation of new SW usages
- HSG research is organized in institutes with financial indipendence
    - Complete data centers or large servers cannot be financed by one project or institute
    - Due to competition conventional reuse / sharing of servers is not possible
- The HSG IT does not have large spare IT capacities
    - With a limited budget this does not make much sense
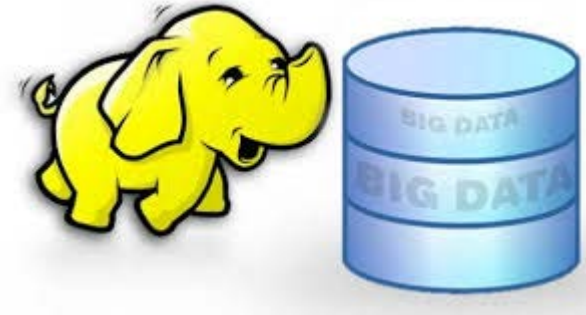
Universität St.Gallen

Why SWITCHengines?!

- One «trusted location» in Switzerland for storing our sensitive data was needed (mostly person-related)

- Simple ordering, fast provisioning, short usage cycles and good scalability

- HSG 'Too small to scale, too big to do nothing'

… and then there was the SCALE PROJECT …

HADOOP@IWI-HSG

Research project on possible usage scenarios of HADOOP in economic scenarios

2 Variants were evaluated

1. Variant: Buying HW, installing a separate virtual infrastructure as a base for the future HADOOP environment
2. Variant: Make usage of SWITCHengines, quick start of the 'real' project, securing later scalability without high upfront costs

From the economic and academic point of view the HSG chose the second option, the project is about to start now.

Data analysis @SEW-HSG

Economic analysis of (statistical-)Data: Sensitive Data is analyzed and larger scale economic simulations are calculated.

Actual project: *Trade Liberalization and Growth - Plant-Level Evidence from Switzerland*

- Until now local power-workstations were in use which were managed by the institute itself. Simulations and analysis runs lasted more than 1 week

- Current plan is a shift oft the IT infrastructure to SWITCHengines: Virtuall servers can be scaled on demand; pre-installed images lead to faster setup times. Costs can be better allocated to specific requests and (third party financed) subprojects

We expect a better performance at lower cost. Also we plan with reduced manual effort and better controlling.

Review & future thoughts

So far every scenario got good feedback from the Academia-

During 2015 we plan to

- Build up IT-internal know how and processes on provisioning and invoicing
- Integrating SWITCHengines into the HSG Service Catalog
- Also evaluate using SWITCHengine for IT-internal purposes
- Expand our IT regulations: Acc. to the HSG Legal Office SWITCHengines is regarded as a private cloud (same as intern)

> With SWITCHengine we can extend the HSG IT
> Service Portfolio simple and without large investments.
> The services are very well received by our researches!

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