



OSG-CACHE implementation at SURF

Docker container running on MS4

By:

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Little bit about the speaker:

- Jasmin Čolo, born and raised in Bosnia and Herzegovina
- Been in the Netherlands for 4 years now
- With SURF for 2 years
- Working as a Dev-Ops for multiple services in SURF

MS4 INTRODUCTION

- Intended for hosting various software solutions
- Broad spectrum of software hosted, but very focused resources
- Technologies used
 - Openstack as a cloud middleware
 - CEPH as background storage
 - Centos7/RHEL9 OS
 - XFS FS on the VMs themselves
 - Terraform for provisioning and Ansible for configuration

OSG-CACHE journey through SURF

- Software hosting for Ligo-Virgo
- Registration procedure for the instance
- Decision of implementation as a docker container
- Resource provisioning
 - 4 core CPU, 16GB RAM
 - 100TB disk space for the cache
 - 50GB OS disk

Challenges

- Communication with OSG regarding issues and instructions
- Registration with OSG
- Approved certificates
- Docker version on MS4
- Network requirements

Challenges - communication with OSG regarding issues and instructions

- Time difference
- SURF internal way of working between advisors and DevOps/admins
- Long ticket history
- Changes in intention behind implementing the cache

Challenges - registration with OSG

- Technical contacts
 - Was it for maintaining hardware or admin work on the cache itself
- Instructions were a bit unclear for us which resulted in a long long support ticket with OSG
- Change in the purpose of the cache

Challenges - approved certificates

- There is a requirement for certificates in the instructions from which it wasn't clear if our provider will be adequate
- Again the time difference caused a little bit of a delay in the conversation there

Challenges-docker version on MS4

- MS4 is really narrow in versioning of the software installed
- Docker version on MS4 caused issues with missing signature key when starting the container
- Updating docker to a newer version solved the issue

Challenges - network requirements

- External firewall team requires additional explanations
- Security concerns because of publicly available parts of infrastructure
- Container breakout

Conclusion

- Implementation was pretty straightforward
- Communication with the OSG team was in general good
- Instructions are very helpful in general
- I would do it again 😊

The background is a gradient of blue, darker at the bottom. In the four corners, there are white line-art graphics resembling circuit traces or data paths, with small circles at the end of the lines.

Thank you for your attention



Questions?