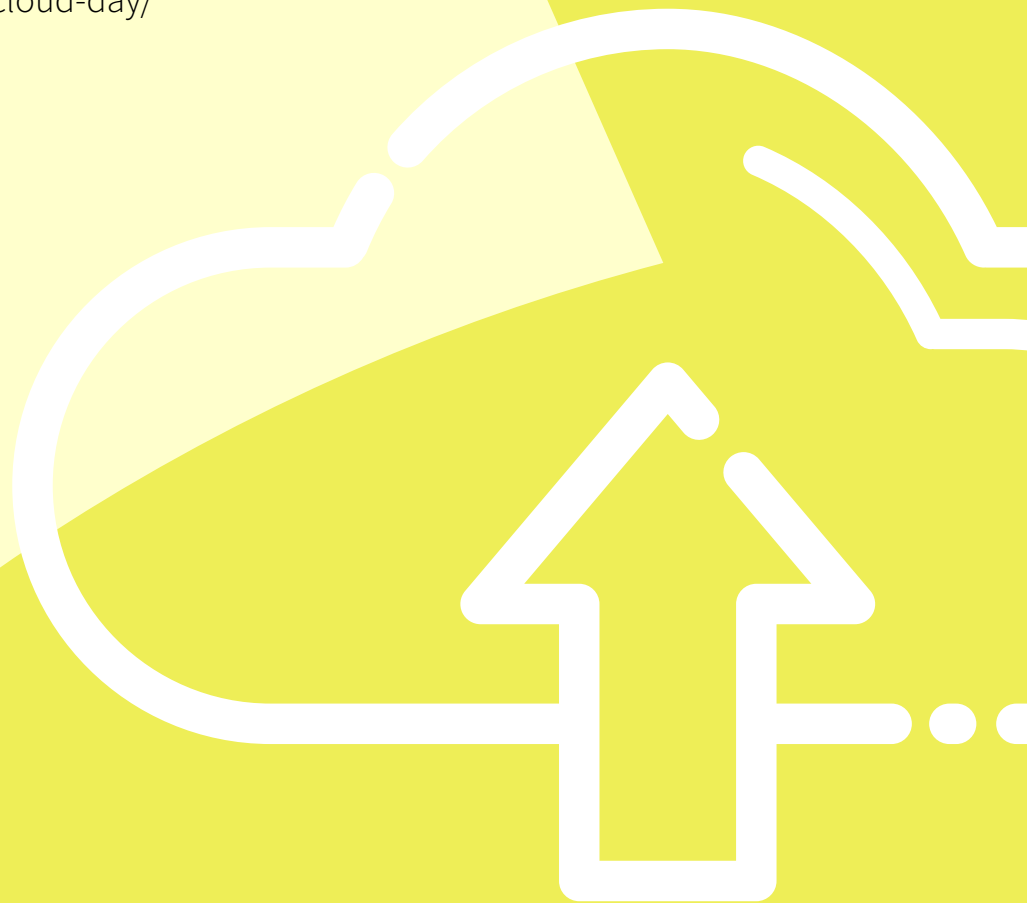


Open Cloud Day 2017

www.ch-open.ch/events/open-cloud-day/

DATUM Mittwoch, 14. Juni 2017
ZEIT 08:30 bis 17:20 Uhr
ORT Universität Bern



08:30 Opening and Registration

09:00 | 09:05

Christof Marti
Head of Service Engineering Research Group ZHAW

«Welcoming speech | «Is it PaaS or IaaS and DevOps?»»

Christof Marti is Senior Lecturer and Head of the Service Engineering Research Group at Zurich University of Applied Sciences (ZHAW) with R&D activities in the area of Cloud Computing (ICCLab) and Service Prototy-

ping (SPLab). His interests are on enabling and optimizing ICT systems for cloud platforms with a specific focus on concepts and tooling to support the full lifecycle of complex cloud-native applications from design to operation.

09:30

Saverio Proto
SWITCH

«Openstack VPC, Your VM in the Cloud in your own network»

The SWITCHengines cloud enables users to start servers on demand to scale horizontally the compute power and the storage needs. However it is difficult to extend existing services using servers that are outside of the campus network. With the Virtual Private Cloud service SWITCH will make

possible to start servers on SWITCHengines, that will appear connected to the same layer 2 network inside the campus where the existing resources are already running. In this talk we show how to extend the Openstack Neutron SDN controller to bridge the user tenant network with the university campus network.

09:55

Tobias Brunner
VSHN AG

«Cloud Native Computing – The evolution of Cloud and Open Source»

While Cloud has been used synonymously with outsourcing and Open Source with «free software tools», Cloud Native Computing has established itself as a set of established best practice patterns for building distributed software applications with a community, a successful track record, a set of Open Source tools and a nonprofit foundation hosted by The

Linux Foundation to support them. These best practices and tools can and should be used when developing new software - no matter if it will be run in the cloud or not - to leverage the advancements in distributed software development. In this talk I'll present the Cloud Native Computing Foundation and explain the business impact of some of its best known Open Source projects: Kubernetes, Fluentd and Prometheus.

10:20–10:50 Coffee Break

10:50

Men Beglinger
Acceleris AG

«Security risks in the public cloud and how to dispatch them»

Security Issues are one of the most serious barriers for adapting a public cloud solution. A very current example is the changing of the data protection regulation in the EU, which is about to come into effect in 2018. However there are several possibilities for a cloud provider to counteract those concerns. The talk will inform you of the possibilities, potential risks and the implementation of the countermeasures.

Rob Blaauboer, Yenlo

Workshop 1: «Create your own API»

APIs are hot. If you working in IT, you cannot do without APIs. They are the only way to communicate data to partners and they are your only option to offer customers tailor-made services in real-time. All major companies like Google, Facebook but also insurances, museums and government agencies (like the geo.admin.ch) are using APIs to provide access to their systems and data. At this workshop, you will learn how to create and manage your own API with the Open Source WSO2 API Manager.

11:15

Baltisar Oswald
Head of Cloud, SBB
Dominik Wotruba
Manager Solution Architecture Red Hat Switzerland

«DevOps at scale with Red Hat OpenShift»

Many companies and even SBB deal with topics like agile, lean and digitalization. The common ground of the topics is IT operations and operations management. Therefore, DevOps is an important condition for agi-

lity and digitization, and cloud technologies, e.g. PaaS and their services are a necessity for DevOps. In this lecture we will give you an insight into how SBB has initialized and scaled the DevOps initiative, and how Red Hat OpenShift has supported this.

11:40

Albena Mihovska
and **Sofoklis Kyriazakos**
Aarhus BSS

«Challenges to the practical Implementation of Sensing and Cloud Environments for Active and Assisted Living Services»

Smart connectivity in an active and assisted living (AAL) context relates to the availability of a reliable data channel between the devices; between the human and devices, and an interface to the cloud/network where information gets personalized. Smart connectivity is the ability to provide user-centric (i.e., personalized) applications in a very complex scenario. The main challenges and distinctive features of this scenario are the large amount of information gathered from the ambient environment and the human body that must be processed mostly in real- or near-real-time for the unobtrusive delivery of personalized and often of critical to the user's

well-being services. The most essential feature of smart connectivity for user-centric scenarios is the unobtrusiveness and seamlessness of the technology. These require that security, trust and privacy procedures are properly put in place to guarantee user-friendliness, the protection of personal user data and the safety of the user.

This contribution examines the above challenges and puts them in the perspective of a practical realization. A lot of the experience gained is through EU-funded activities and tangible exploitation of R&D results into startups, which allowed for obtaining real user feedback, essential for any successful market deployment.

12:05

Nico Schottelius
ungleich GmbH

«Data Center Light – das Open Source Data Center in Glarus»

Rechenzentren sind bis anhin proprietär, teuer und auf höchste Effizienz ausgerichtet. Diesen Status Quo stellt das Projekt Data Center Light in Frage. In diesem Vortrag wird Nico Schottelius die Annahmen, Prinzipien

und eingesetzten Technologien vorstellen und zeigen, weshalb Glarus als Standort eine zentrale Rolle spielt und wie Open Source Software den Aufbau eines Rechenzentrums ermöglicht.

Rolf Schaerer und Alexander Stoklasa, CISCO

Workshop 2: «Building a policy driven infrastructure to run microservice applications with Contiv and Cisco ACI»

Micro services architectures are rapidly changing the way applications are being developed. In this lab we will be introducing Project Contiv, which is an open source project to provide a high level abstraction of the networking services. Contiv provides a secure framework with a rich policy framework in order to protect these applications. This lab will guide the student in the installation of Contiv, and how to integrate Contiv with ACI. During the lab students will become familiar on how to navigate a container environment and understand the value of Docker Swarm and be able to deploy a micro services application in an ACI environment. At the end of the lab students will be able to understand how to deploy a micro-services application in an ACI environment leveraging Project Contiv.

«The Edge is Nigh»

Rechenzentren sind bis anhin prosperierend, teuer und auf höchste Effizienz ausgerichtet. Diesen Status Quo stellt das Projekt Data Center Light in Frage. In diesem Vortrag wird Nico Schottelius die Annahmen, Prinzipien und eingesetzten Technologien vorstellen und zeigen, weshalb Glarus als Standort eine zentrale Rolle spielt und wie Open Source Software den Aufbau eines Rechenzentrums ermöglicht.

13:30

Sean Murphy
ZHAW ICCLab**«How To: Big Data Pipeline Using Open Source and Exclusively European Services»**

Big Data is not only a buzzword, it's also reality for many companies nowadays - from predicting customer behaviour to analysing log events, Big Data usually means having the right pipeline that involves costly subscriptions to tools and cloud services where the data resides on US servers. This talk shows an architecture example for a Big Data pipeline that runs on open source tools and European-only servers. With tips on

how to design the data models and infrastructure needed, the architecture example features exclusively open source software running on either home-grown clouds or European cloud services instead of AWS and Google Cloud - including options of how to deal with (and in some parts embrace) their limitations.

13:55

Sanja Bonic
Exoscale**«Swiss Parliament Cloud Collaboration with the Fabasoft Cloud»**

Modern organizations work collaborative, distributed and mobile, their members need access to business data – even highly confidential information – everywhere at any time. The Swiss Parliament has decided to trust in a cloud solution for the members of parliament and their staff as the platform for secure document management and collaboration.

This talk will give an overview of the performance and security characteristics as well as the architecture of the Fabasoft Cloud that convinced even organizations with the highest security requirements like the Swiss Parliament.

14:20

Andreas Dangel
Fabasoft
Schweiz AG**«Bootstrapping OpenStack with Foreman and Puppet»**

Spawning new virtual machines in a running OpenStack cloud is fast and easy. But before you get there, you first need to spawn the OpenStack cloud itself. For our new CentOS based set-up, we decided to bootstrap

OpenStack with Foreman and Puppet. This gives us powerful tools for bootstrapping the cloud, adding new nodes and managing the existing ones.

14:45

Niklaus Hofer
stepping stone
GmbH**«Infrastructure as Code (IaC) with Terraform and Ansible»**

So now you have this new shiny cloud standing around, but how to use it? How to automate the creation of complex environments? In the dark ages, virtual machines and corresponding networks were setup manually. This is a time-consuming and error-prone task. At the end you have a complex ecosystem of different configured servers and environments and nobody knows how this happened. Infrastructure as Code (IaC) is an approach to describe everything needed to build an environment by

text - starting with the needed virtual machines and virtual networks and ending with the needed operating system configuration. This textual representation of everything can be stored in version control and is used to build the environment. Infrastructure changes become suddenly visible and it's a snap to quickly build a needed test environment. In this talk I will highlight some aspects of Infrastructure as Code by using Terraform and Ansible.

15:40

Sandro Beffa
Puzzle ITC**«Who really benefits from Open Source Clouds: users or providers?»**

Swisscom, thanks to embracing open source technologies like Cloud Foundry, MongoDB and RabbitMQ was able to successfully launch its PaaS - Application Cloud - in a record time. Get insights why open source matters tremendously also from a point of view of the cloud provider.

You can also learn why you as a user should care about it, what value it has in clouds of the future and in interoperability between them. And finally who is a winner in open source clouds: users or providers?

16:05

Michal Maczka
Swisscom AG**«Rapid prototyping of cloud applications with open source tools»**

Open cloud platforms have made inroads everywhere, whereas applications are often still engineered and integrated using conventional techniques. This talk shows how recent research progress in the Service Prototyping Lab at Zurich University of Applied Sciences assists the transition of applications into the cloud. It presents a lifecycle model which

combines tools for rapid API prototyping, light-weight Function-as-a-Service programming, deployment as composite microservices and rule-based monetisation of the resulting services. A live demo of a sample application will be given to show how easy it is to conquer the clouds with cool application ideas.

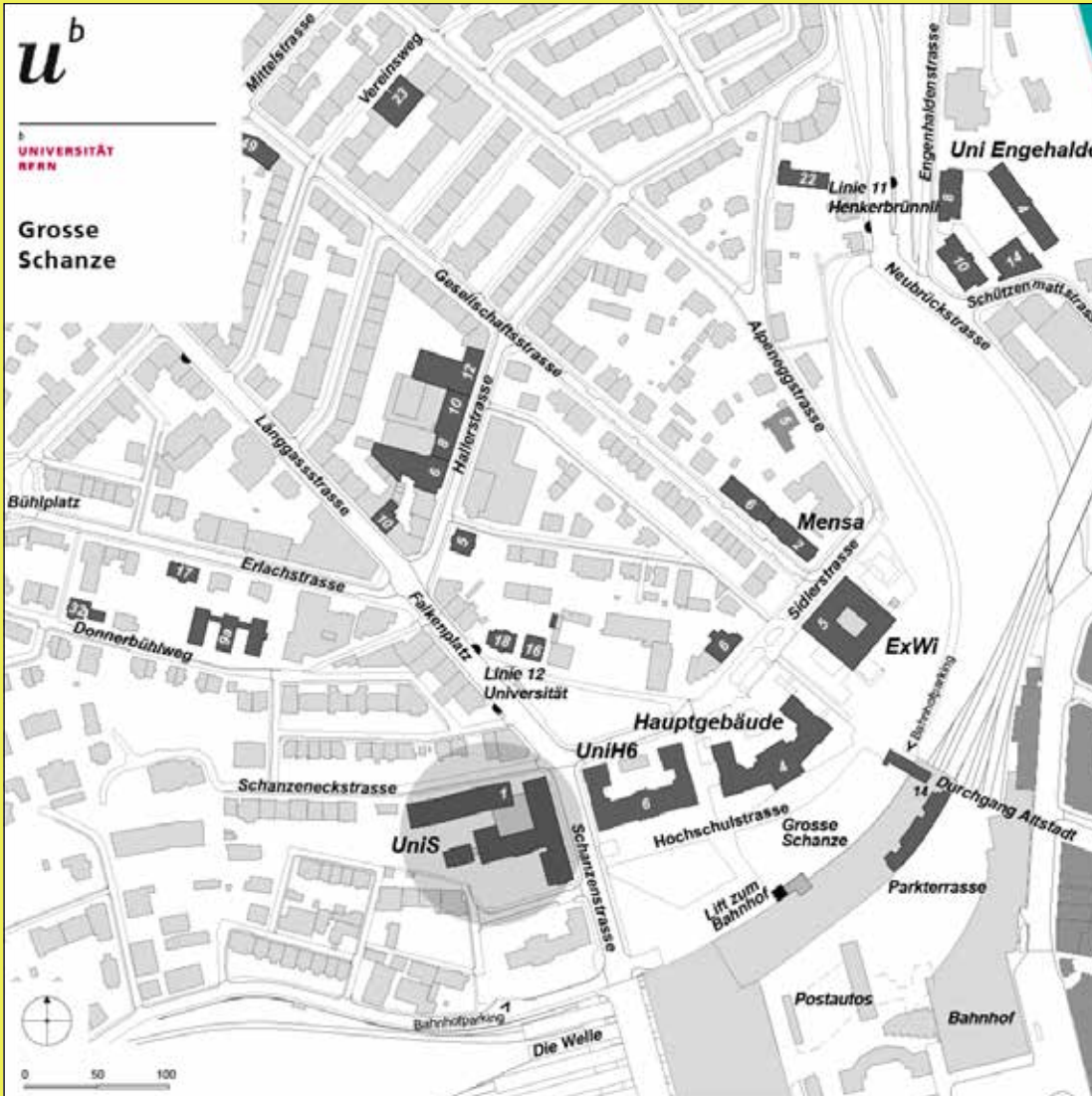
16:30

Josef Spillner
ZHAW SPLab

«Secure Collaboration with Nextcloud»

Privacy and security on the internet are under attack by hackers and international espionage programs. If we want to use the internet as a free and secure medium again then we have to fix the internet to provide the security and privacy that people deserve. Open Source file sync and share solutions make it easy for everyone to run EFSS services and keep im control of the own data while guaranteeing privacy and security. Federated sharing makes it possible to share, exchange file with user on different servers. The Nextcloud community is build an open source and fully federated and distributed network for files and communicati-

on. Everyone can run an Nextcloud server at home or somewhere on the internet and collaborate and share with everyone else. Nextcloud can be used to provide file access, syncing, sharing, calendar, contacts, video calling, music and video streaming in a distributed way. This talk will cover the current challenges around security and how user, companies and institutions can protect themselves. It will also discuss the current and upcoming federation features of Nextcloud and how to become part of the community. It also presents a new architecture to bring the scalability of on premise file sync and share solutions to the next level.



Veranstaltungsort

Universität Bern, UniS,
Schanzeneckstrasse 1, 3012 Bern

Anmeldung

bis am 12. Juni 2017
xing-events.com/OCD2017.html

Veranstalter

CH Open – Verein zur Förderung
von Open Source Software und
offenen Standards in der Schweiz
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