

The OFELIA Control Framework

The OFELIA Control Framework (OCF) is a set of software tools for testbed management. It controls the experimentation life-cycle; reservation, instantiation, configuration, monitoring.

The control framework hides the complexities involved in single and federated island setup, still providing enough information so that experimenters can program their environment using heterogeneous, scalable resources. It enables allocating resources and running experiments in the whole OFELIA facility.

The OCF is released under BSD license.

<http://fp7-ofelia.github.com/ocf>



How to Experiment

The OFELIA facility is offering best-effort service free of charge for external users.

Users without direct access to an island can use the facility through an OpenVPN connection to the central hub at iMinds in Ghent. After getting an OFELIA account users can login to all ten OFELIA islands.

For conducting experiments, users receive and get control over a virtual network that is composed of a subset of the physical OFELIA network:

- Virtual machines as end-hosts.
- A virtual machine to deploy the OpenFlow network controller. The user may either use his/her own controller implementation/application, or use one available in the OFELIA framework.
- A subset of the overall network flowspace (data paths allocated on the OpenFlow switch fabric as the network data-plane).

Through a graphical user interface (GUI), a user can create and run experiments. Each island runs a web-based GUI that allows controlling resources in all federated islands.

For information about experimenting and registering to the OFELIA facility please refer to the OFELIA website (www.fp7-ofelia.eu) and the OFELIA user manual (<https://alpha.fp7-ofelia.eu/doc>).

OpenFlow in Europe

Linking Infrastructure and Applications



About OFELIA

The OFELIA project offers a Pan-European testbed to the research community for conducting experiments in an OpenFlow-enabled wide-area network. The flow-based virtualized OFELIA environment enables researchers to change the network behavior as a part of their experiments on innovative network protocols and applications.

OFELIA provides an experimentation space which allows for flexible integration of test and production traffic by isolating the traffic domains inside the OpenFlow enabled network equipment. This enables realistic test scenarios and seamless deployment of successfully tested technology.

OFELIA provides high-performance OpenFlow equipment to enable experiments at scale and to ensure that the facility is based on mature technology.

OFELIA is a collaborative project within the European Commission's FP7 ICT Work Programme.

The project is run by a consortium of 17 partners and has a budget of 6.3 M€ (4.45 M€ funded by the EU).

The OFELIA Facility and Islands

As of late 2012, ten islands are part of OFELIA. If you would like to be part of the testbed, please contact us! More details are on the project website.

Berlin (TUB)

Gent (iMinds)

Zürich (ETH)

Barcelona (i2CAT)

Bristol (UNIVBRIS)

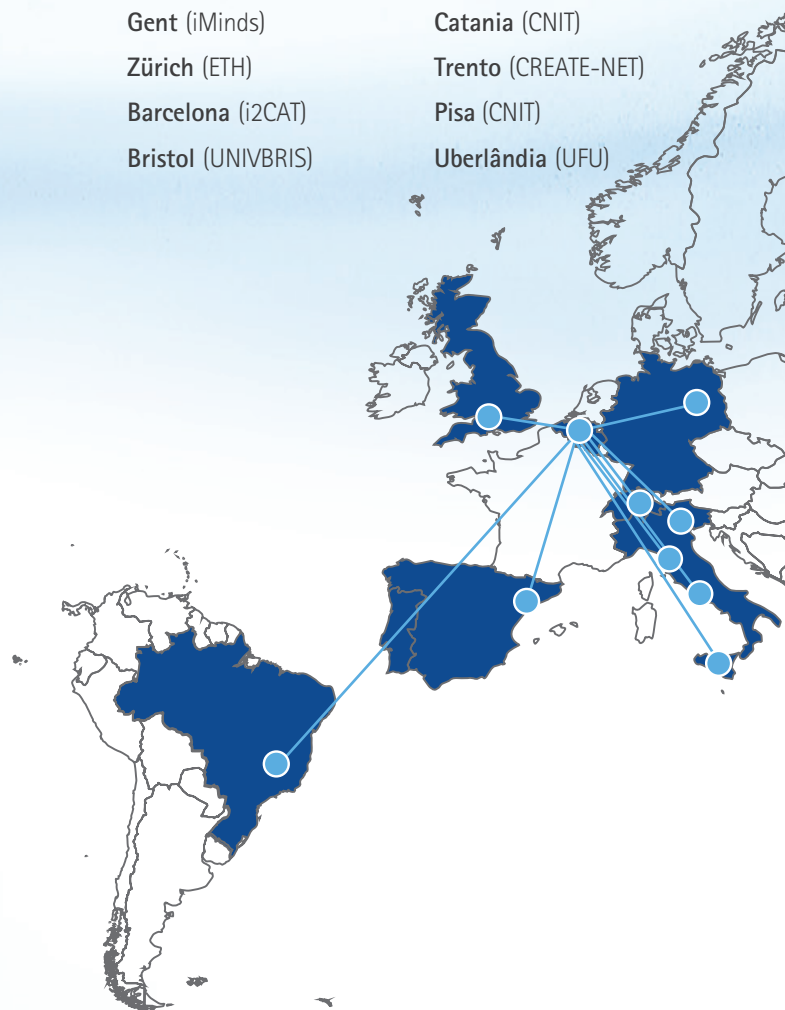
Rome (CNIT)

Catania (CNIT)

Trento (CREATE-NET)

Pisa (CNIT)

Überlândia (UFU)



Contact

Dr. Hagen Woesner

EICT GmbH

Ernst-Reuter-Platz 7, 10587 Berlin, Germany

e-mail: hagen.woesner@eict.de

phone: +49 (30) 3670 23511

facsimile: +49 (30) 3670 23512

