OFELIA Usage Policy and Policy Committee

1.1   **Usage policy**

General

This is the usage policy for the OFELIA experimental facility ("OFELIA") provided by the IST OFELIA project under grant Agreement project number 258365 ("Project"). The rules detailed in this policy describe the relationship between the Project and a partner outside the Project who requests access to and usage of the experimental facility ("User"). This includes the general terms and conditions for access to and usage of the provided resources and services.

The project is funded under the seventh framework program (FP7). In conjunction with the rules detailed in FP7, the available resources and services are provided as "best effort": OFELIA does not give any guarantees, but it strives to serve its users as well as possible. Since resources and services are free of charge, Users will not be requested for any financial compensation. Any commercial, illegal and unethical use of OFELIA is prohibited, while usage for research and education is allowed.

Definition of OFELIA facility and Islands

OFELIA provides an experimental facility for advanced network research on top of OpenFlow or related to OpenFlow. The distributed OpenFlow infrastructure includes several facilities ("Islands") at different geographical sites that are connected via Ethernet tunnels.

Possible resources that OFELIA users can access:

•   Users will be assigned a clearly defined part of the flow namespace (e.g., based on MAC addresses, VLANs, or IP addresses)

•   OpenFlow switching hardware: Access is indirect in the sense that users cannot access or modify the configuration of the switch, but only can send traffic to/from the switch or insert/delete flow rules within their assigned flow namespace via an OpenFlow controller.

•   Virtual machines inside the Islands to run OpenFlow controllers and software from the User (e.g., to generate workload traffic)

•   Predefined capacity on network links to exchange traffic between the switches and virtual machines.

Request by user

To get started, a User first needs to register on the Ofelia website. To this end, the user has to provide a valid username, e-mail, and password before the account is activated and accessible. Shared accounts are strictly forbidden.

Experiments are carried out within slices. A slice is a set of resources that are partially distributed across the different OFELIA Islands. In principle, a slice means control of a certain flow namespace for a subset of the OFELIA switches, and/or UNIX shell access to a number of virtual machines.

Slices can only be created in the context of projects. In general, a senior researcher or faculty member from a company and university, respectively, must start a new project and is referred to as project owner. That person must not be a student. The project owner can administrate project members for his project.

Specifically, the project owner is held responsible for the actions of members of his/her project. It is mandatory to provide a short description of the project and its goals (1-2 sentences) when requesting a new project. In general, research and educational experiments will be approved. However, the final decision stays with the Policy Committee, which will be defined in section Policy Committee.

After approval, access to the project's detail page is provided where the project can be managed by the project owner and aggregates/resources can be requested for the project.

People working on the project (students, staff, etc.) will request permission from the project owner to join the project via the web interface. Once project members have been authorized by the leader, they can start and run experiments. When creating slices, users can only use resources that have been assigned to a project in which they are members. In general, slices will have to be renewed at regular time periods, e.g., every 2 months.

The usage policy is displayed in the OFELIA registration page (https://register.fp7-ofelia.eu) during the registration process. All registered users should be alligned with the usage policy.

Detailed user instructions are provided on the project website and user wiki (http://www.fp7-ofelia.eu, https://alpha.fp7-ofelia.eu/doc/index.php/Usage_Policy).

Guidelines

Abuse of the facility or its other users, in any form, will be investigated by the Policy Committee (see below) and will result in termination of access or other actions. Any use of the resources other than stated in the project's description is prohibited.

The User is expected to adhere to widely-accepted standards of network etiquette. Activities that have been rated as attacks in the past (e.g., worm or denial-of-service attacks, excessively probing random machines and routers, overloading links with measurement traffic) and that are not mentioned in the project description are prohibited. By no means, it is allowed to deliberately attack, interfere with, or spy on co-existing experiments. Before running experiments in the OFELIA testbed, it is recommended and the user's responsibility to debug the experiment in a controlled local environment to avoid any preventable and/or foreseeable interference problems or violations of the network etiquette.

On the virtual machines that are made accessible by the OFELIA testbed, the User is only allowed to store data that is needed in the context of the project's stated purpose. User data can be deleted by the OFELIA administrators any time after finalizing the experiments without prior notice. Therefore, it is recommended to download from the virtual machines any data immediately after the execution of the experiment

The User is not allowed to provide third persons access to OFELIA, e.g., by sharing his account information with third persons. He has to make reasonable efforts to protect his account from unauthorized use and to keep his password information confidential.

OFELIA does not guarantee privacy with respect to packets sent within the Islands. For example, traffic logging may be required to monitor the OFELIA network. Attempts to circumvent OFELIA accounting and auditing mechanisms or to hack OFELIA nodes/networks are strictly forbidden.

Moreover, OFELIA does not guarantee the reliability of the testbed devices. Although not expected, devices may crash or be restarted leading to potential loss of stored data.

Any publication that reports on experiments conducted within the OFELIA testbed needs to cite the project webpage as a reference. Users should provide by the time of publication an electronic copy (or link to an accessible copy) for publication on the OFELIA website.

Consequences in cases of violation of usage policy

Any violation of the obligations by a User of OFELIA is forwarded to the Policy Committee. At the same time, the respective slice and user account is deactivated or terminated without prior notice. The Policy Committee will decide further steps within 14 days and inform the User via email.

In general, violation of the OFELIA Usage Policy may result in one or multiple actions of the following:

- The respective User will be contacted and asked to justify.

- The slice and/or the account will be deactivated or terminated.

- The administration of the User organization will be contacted and informed.

To report a suspected violation of this policy, contact the Project Coordinator any of the OFELIA Island Managers (http://www.fp7-ofelia.eu/contact/).

Policy Committee

The Policy Committee has to oversee the distributed OpenFlow testbed. More precisely, its tasks are as follows:

1. Define usage policies that ensure a reasonable, fair, and non-discriminatory use of the testbed and make general decisions that affect the technical configuration of the testbed (e.g., federation with other testbeds).

2. Approve or disapprove requests for new projects: The Policy Committee makes its decision based on the provided project description, based on the type of experiment (research or educational), based on the requested resources, and based on the currently available resources. If needed, it can restrict the amount of needed resources (e.g., byte-wise, capacity-wise). Each member of the Policy Committee will be informed about an incoming request via e-mail. If an experiment is limited to a single Island, the local Island manager can decide alone. Otherwise, each member of the Policy Committee can place a veto within 3 work days after receipt of the request. If there are no objections, the request will be approved.

3. In case violations occur against any of the rules stated in this document, the Policy Committee has to decide what action should be taken.

The Policy Committee includes one representative from each Island. As of March 2011, it is composed as follows:

- EICT: Hagen Woesner

- ETH Zurich: Vasileios Kotronis

- IBBT: Didier Colle

- TU Berlin: Herbert Almus

- University of Bristol: Reza Nejabati

- I2CAT: Marc Sune

- Create-Net: Elio Elio Salvadori

- CNIT: Stefano Salsano

Financial compensation and scope of usage

The project is funded under the seventh framework program (FP7). In conjunction with the rules detailed in FP7, the available resources and services are free of charge and Users will not be requested for any financial compensation.

In addition, any commercial and illegal use of OFELIA is prohibited, but usage for research and education is allowed. Any willful misconduct of the User will lead to consequences as detailed in the section Consequences.

Disclaimer:

OFELIA is providing broad access to the testbed in the hopes that it will be useful, but we do so WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

OFELIA provides absolutely no privacy guarantees with regard to packets sent to/from slices.

WE DISCLAIM ALL LIABILITY from errors in results or security breaches resulting from OFELIA use. OFELIA is constantly undergoing rapid development, so significant amounts of code are new. We make an effort to provide inter-project security, but users must realize that high security is unlikely in i) such a new and rapidly evolving system, ii) where users have such complete control over hardware and software resources, and iii) in such a public facility that will attract attack.

Data Privacy Protection

While sending a request for access to OFELIA, the User allows OFELIA to store and process personal data related to the process and the potential USER of the experimantal facility. The project commits to use the data only in the context of granting access and organisation of the use of the facilities provided by OFELIA. In addition, the project guarantees the privacy of stored data to the extent of today's common best practice. Personal data are never forwarded to 3rd parties. For statistical purposes, anonymised data might be forwarded, always inline with EU rights and guidelines.

1.2 Policy committee

The main role of the policy committee is to overview the federated experimental facility, make management decisions, define policies relevant to the usage of the facility and enforce them.

Essentially, the Policy Committee has to oversee the distributed OpenFlow OFELIA testbed and in particular, its tasks are the following (as stated in the usage policy):

1. Define usage policies that ensure a reasonable, fair, and non-discriminatory use of the testbed and make general decisions that affect the technical configuration of the testbed (e.g., federation with other testbeds).

2. Approve or disapprove requests for new projects: The Policy Committee makes its decision based on the provided project description, based on the type of experiment (research or educational), based on the requested resources, and based on the currently available resources. If needed, it can restrict the amount of needed resources (e.g., byte-wise, capacity-wise). Each member of the Policy Committee will be informed about an incoming request via e-mail. If an experiment is limited to a single Island, the local Island manager can decide alone. Otherwise, each member of the Policy Committee can place a veto within 3 work days after receipt of the request. If there are no objections, the request will be approved.

3. In case violations occur against any of the rules stated in the policy document, the Policy Committee has to decide what action should be taken. Abuse of the facility or its other users, in any form, will be investigated by the Policy Committee (see below) and will result in termination of access or other actions. Any use of the resources other than stated in the project's description is prohibited.

The Policy Committee includes one representative from each Island. As of March 2011, it is composed as follows:

- EICT: Hagen Woesner
- ETH Zurich: Vasileios Kotronis
- IBBT: Didier Colle
- TU Berlin: Herbert Almus
- University of Bristol: Reza Nejabati
- I2CAT: Marc Sune
- Create-Net: Elio Elio Salvadori

- CNIT: Stefano Salsano

Any violation of the obligations by a User of OFELIA is forwarded to the above-described Policy Committee. At the same time, the respective slice and user account is deactivated or terminated without prior notice. The Policy Committee will decide further steps within 14 days and inform the User via email.

In general, violation of the OFELIA Usage Policy (e.g. abuse of the facility or its other users), in any form, will be investigated by the Policy Committee (see below) and may result in termination of access or other actions. In particular, it may result in one or multiple actions of the following action set:

• The respective User will be contacted and asked to justify.

• The slice and/or the account will be deactivated or terminated.

• The administration of the User organization will be contacted and informed.

To sum up, the Policy Committee is the main organizational unit whose function is to oversee the federated testbed, manage it by making high-level decisions and define and enforce facility usage policies.