

## **Breakout Session on Experimental Facilities (FIRE Future Internet Research and Experimentation)**

### **Plenary Presentation of the Issues Paper:**

Anastasius Gavras (Eurescom, Panlab/PII, FIREWorks)

1 April 2008, 10:30 – 12:30 (15 minutes)

### **Break-out (BO) session:**

2 April 2008, 9:00 – 12:30

The session will start with about one hour of short position statements from different perspectives followed by a group discussion of some of the issues listed below.

### **Objective and target audience:**

Taking the opportunity of participation to the Bled Conference of all Future Internet related projects of Challenge 1, the major focus of the session is to discuss the relationship of the FIRE initiative with the research community. In detail, the goal is to discuss the configuration and offering of the FIRE facility versus the requirements and expectations of the research community, as well as to discuss the concept of experimentally-driven research towards the Future Internet.

### **Draft Agenda:**

**Session organiser:** Max Lemke (EC-INFISO-F4)

**Co-chairs:** Serge Fdida, Anastasius Gavras (FIREWorks)

**Rapporteur:** Georgios Tselentis (EC-INFISO-F4) in collaboration with the PANLAB project

**Opening:** Mario Campolargo, EC-INFISO, Director "Emerging Technologies and Infrastructures"

### **Short presentations of the offering of relevant testbed infrastructure projects (max 5 min each)**

- Onelab / OnelabII: Serge Fdida, UPMC
- Panlab / PII: Anastasius Gavras, Eurescom
- Federica: Mauro Campanella, GARR
- UNITE: Georgios Kormentzas, University of Aegean

### **The testbed offering and the testing needs of the ETPs (max 5 min each)**

- The eMobility White Paper on Experimental Research: Rahim Tafazolli, University of Surrey
- NESSI: Serge Druais (including the NEXOF project), Thales

### **The needs of the research community (max 5 min each)**

- ANA: Martin May, ETH Zuerich
- 4Ward, Henrik Abramovicz, Ericsson
- Trilogy, PSIRP: Dirk Trossen, BT
- SENSEI: Mirko Presser, University of Surrey
- Resume-Net: Bernhard Plattner, ETH Zuerich (tbc)
- SOA4ALL, BEINGRID: Santi Ristol, ATOS
- ASPIRE: Albena Mihovska, Aalborg University

Issues suggested for discussion at the session and in the position statements:

1. **Configuration, offering and roadmap of relevant infrastructure-type projects** in terms of testbed infrastructure and services to the Future Internet research community as they expect it to be in 2 - 3 years from now.
2. The desired scope of the FIRE facility and the expected added value of federating testbeds by **deriving concrete, visionary, and challenging research scenarios** of experimentally-driven research which the potential users would like **to be supported by the FIRE large-scale experimental facility**.
3. The **most important design principles and characteristics of the FIRE facility**, e.g. federation, virtualisation, plug and play, modularisation, security, openness (e.g. use of open source / open standards), ... .
4. How can the **experimental facility be designed** to be open and flexible **to effectively support the research cycle** – how can the following problems be resolved:
  - a. defining and budgeting experimentally-driven research projects without knowing the exact configuration and offering of the experimental facility;
  - b. building an experimental facility without knowing what research is planned to be done?
5. How can the FIRE facility be set-up to **allow for testing a broad range of technologies on the network as well as on the services levels** (protocols, architectures, services, middleware, etc.), considering the internet not just as an interconnection of networks in terms of component technologies but as a complex system cutting across many layers.
6. What is the **commitment of industry and the ETPs to the FIRE facility**? How to get at the same time industrial commitment and academic involvement? How to ensure **sustainability of testbed components** beyond the duration of the projects under which they are provided?
7. How can **end-users be effectively involved** in order to provide real-world feedback? In which cases is this necessary to assess also **usability and socio-economic impact**?
8. The need for close **collaboration between industrial and academic players** in a research environment for investigating and experimentally validating highly innovative and revolutionary ideas.

An extended issues paper is available on the web and distributed prior to the session. The paper is based on the FIRE reports as well as on the discussion at the preparatory meeting for the Bled event in during the SAC-FIRE Workshop in Torino at the beginning of March.

It is the planned to further elaborate this issues paper based on the discussion at the BO session in Bled.