FEC2 REPORT

The Fed4FIRE+ Engineering Conference

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INTRODUCTION

The 2ⁿᵈ Engineering Conference took place in Volos on October 4ᵗʰ-6ᵗʰ, 2017. With more than 85 registered attendees, 39 contributors from 10 different countries, 15 speakers, 19 demos and parallel technical and tutorial sessions, the FEC2 brought stakeholders in the Next Generation Internet and Future Internet Experimentation together from across Europe. This event was a great success in terms of level of the quality of the different sessions and the showcases presented during the demo night.

"We would like to thank all the SMEs who entered a proposal. The quality of responses is phenomenal and showcases tremendous innovative thinking from all the SMEs", stated Peter Van Daele – Fed4FIRE+ Administrative Project Coordinator (imec).

Read the **FEC2 report** to know about the main outcomes of the event.

FEC2 | VOLOS, GREECE

The Fed4FIRE+ project has established the Engineering Conferences (FEC) as a biannual series of events to bring stakeholders in the Next Generation Internet (NGI) and Future Internet Experimentation together. These includes operators and owners of testbed facilities, experimenters, and newly interested people eager to learn about the Fed4FIRE+ testbed portfolio.

The 1st Fed4FIRE+ Engineering Conference was held in Ghent, Belgium in the spring of 2017, and recently the 2nd FEC2 was held in Volos, Greece, hosted by CERTH and University of Thessaloniki.

The programme consisted of a set of tutorials and introductory talks about Fed4FIRE+ and its facilities, in parallel with more technical talks and sessions covering the technical work within the project itself. The FEC2 attracted over 80 participants and lasted two-and-a-half days.

FEC2 Demo Night hosted 19 experiments, offering a rare opportunity to interact with the experimenters and directly gather their feedback, results and experiences of implementing, running and testing their work on the Fed4FIRE+ testbeds. The event gave a good impression on the drivers and incentives which bring experimenters from SME's, industry and research groups to Fed4FIRE+. It also allowed the exchange of new ideas and offered the possibility to interact and build new partnerships.

The FEC's are a unique opportunity to interact with the NGI and Future Internet Experimentation community, build new collaborations, and analyse the lessons learned from other experimenters and apply them to future projects.

The Engineering Conferences will continue with FEC3, organized in Paris, France in March 2018, and FEC4 in Bruges, Belgium in October 2018. More details will be provided on the Fed4FIRE+ website and through the Fed4FIRE and FEC Twitter channels. Save the dates and stay tuned!

TUTORIAL PROGRAM

The 2ⁿᵈ Fed4FIRE+ Engineering Conference (FEC2), which took place in Volos, Greece, offered a 2-day program of tutorials on Fed4FIRE+ and its facilities for NGI and Future Internet experimentation. This program aimed at providing newcomers and new players in the field with a clear and detailed explanation on how to access the testbeds, set up and run the experiments.

Hands-on training sessions and individual assistance are provided to lower the threshold for new players to make use of these exceptional opportunities:

- ➲ Introduction to Fed4FIRE+ in general
- ➲ Tutorial on the NITOS testbed (wireless & open flow technologies)
- ➲ Tutorial on reproducibility and scaling up experiments
- ➲ Introduction to the "GEANT Testbed as a Service"
- ➲ Tutorial on the IRIS Testbed (wireless testbed)
- ➲ Tutorial on w-iLab.t (wireless testbed)

At FEC2, the tutorials were mainly highlighting wireless testbeds, but other technologies are also covered by Fed4FIRE+ and will be covered at future events. Condensed versions of these tutorials are also available via the website of the Fed4FIRE+ project.

DEMO NIGHT

At FEC2, Fed4FIRE+ introduced a demo-night with 19 experiments and testbeds highlighting specific experiences, results and new opportunities. The demo night attracted a great deal of attention, and offered the participants a unique view on the details of the experiments, how they were set up, how they made use of the Fed4FIRE+ facilities, and why Fed4FIRE+ was a unique opportunity for them to remove their roadblocks on the way to product development or enhanced performance.

Demos from running or finished Open Call experiments:

- **CLC**: Cross Layer Control based SDN and SDR towards 5G Heterogeneous Networks
- **Go Quick**: Joint experimentation of modern internet application protocols with SDN
- **Aerial Insights**: performance testing and cost effective process migration
- **EMPATIAxxl**: Large Scale EMPATIA Evaluation
- **POI**: PaaS deployment on multi-IaaS
- **MOCAP**: Measuring performance of cloud-based platform for interactive TV services delivery
- **LASH-5G**: Latency-aware and self-Adaptive Service cHaining in reliable 5G/SDN/NFV infrastructures
- **LTESCHED**: LTE eNB Scheduler performance experiments
- **UbiMed4K**: Transmission optimization and performance evaluation of a realtime ultrahigh definition medical collaboration platform
- **DDLP**: Distributed Deep Learning Platform

Demo's from testbeds:

- Building and Evaluating DIY networks using Fed4FIRE infrastructure
- Rumba: A framework to bootstrap a RINA network on a testbed
- Business Process as a Services (BPaaS) in Multi-Cloud Environments - The CloudSocket Approach
- Video Streaming Service for 5G over Sub-6 GHz and mmWave Technologies
- imec iLab.t testbeds and tools for cloud, wireless and IoT research
- Next generation portal for federated testbeds, MySlice v2: from prototype to production
- Energy Consumption Evaluation in Underwater Acoustic Modems
- Enabling mobile experimentation in NITOS indoor testbed
- Low-Power Wake-Up Radios for Asynchronous Awakenings in Wireless Sensing Systems

The experiments will be soon presented in video by their experimenters in the demo stories of Fed4FIRE+, follow us to see the tangible results achieved with out testbeds.