

Green ICN



Workshop on Virtualization pre-FIA Workshop

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Motivations

- Software Defined Networking hype
- Migration of network functions into the cloud
 - Even high touch network functions are considered
- Many standards organizations in the arena
 - ETSI Network Function Virtualization, IETF, Open Networking Forum
- Open source initiatives
 - OpenStack and OpenDaylight
- Research programs in EU (e.g., Call 11)

Objectives



- Overview standard organizations' related work
 - ETSI, ONF and IETF
- Explore *some* open source initiatives
 - OpenDaylight and ON.Lab's ONOS
- Overview EU project landscape
- **Discuss**

Agenda Overview



Monday

- Keynotes
 - SDO overviews
- EU projects
 - Virtualization based services
 - Orchestrating virtualization

Tuesday

- Keynotes
 - Controlling Virtualizations
- EU projects
 - Controller and technology aspects

- Open Discussions

KEYNOTES

Monday 14:00 – 15:30



- **Standard bodies in virtualization – overview of activities**
 1. Diego R. Lopez (TID): Overview to ETSI NFV – (Much) beyond Carrier Clouds
 2. Daniel King (Old Dog Consulting): SDN and NFV – an IETF Perspective
 3. Dirk Kutscher (NEC): Overview to ONF's activities

EU 1: Virtualization based services

Monday 16:00 – 17:30



1. George Xilouris (NCSR – "Demokritos"): IP/T-NOVA – Network Functions as-a-Service over Virtualised Infrastructures
2. Eleni Patouni (University of Athens): CIP/Live City – Live Video-to-Video Supporting Interactive City Infrastructure
3. David Florez Rodriguez (Telefonica): IP/ROMEO – Remote Collaborative Real-Time Multimedia Experience over the Future Internet
4. Mayutan Arumaithurai (UGoE): GreenICN – How Information Centric Networking compliments Packet Steering

KEYNOTES

Tuesday 9:30 – 10:30



- **Controlling Virtualization**

1. Ali Al-Shabibi (ON.lab): An overview of ONOS – motivation for it, technical considerations and architectural choices, current status, next steps
2. Konstantinos Katrinis (IBM): IBM approach in network virtualization (openDOVE/SDN-VE)

EU 3: Orchestration issues

Monday 10:45 - 12:00



1. DimDimitrios Klonidis (AIT): STREP/INSPACE - Spatial-Spectral Flexible Optical Networking: Solutions for Efficient SDM
2. Peter Rost (NEC): STREP/iJOIN - Interworking and JOINT Design of an Open Access and Backhaul Network Architecture for Small Cells based on Cloud Networks
3. Daniel King (Old Dog Consulting): STREP/PACE - Next Steps in Path Computation Element (PCE) Architectures
4. itri Staessens (UGent): STREP/PRISTINE - Programmability In RINA for European supremacy of virTualised NETworks
5. Diego R. Lopez (TID): STREP/NetIDE - An integrated development environment for portable network applications
6. Konstantinos Pentikousis (EICT): /FELIX - FEderated Test-beds for Large-scale Infrastructure eXperiments
7. Lars Dittmann (TU Denmark): IP/COSIGN - Combining Optics and SDN In next Generation data centre Networks

Open Discussions & Wrap-up

Monday 12:15 - 13:00



1. All!

Thanks to



- Advisory Board
 1. Rüdiger Martin (European Commission, DG Information Society and Media)
 2. Didier Bourse (FIA Steering Committee, ALCATEL-LUCENT)
 3. Aiko Pras (Future Internet Cluster chair)
 4. Thomas Michael Bohnert (Future Internet Cluster vice-chair)
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