

## KIVS 2011 – NV Workshop

<http://tm.kit.edu/NV2011>

## Workshop on Challenges and Solutions for Network Virtualization

Network Virtualization (NV) is becoming an increasingly important technology for the deployment of new network architectures that try to go beyond the Internet's current capabilities. Virtualization of whole networks allows for increased flexibility with respect to resource management as well as for an efficient deployment of different network architectures in parallel but isolated from each other (e.g., coexistence of 3G and different beyond 3G mobile networks on the same physical hardware). While some virtualization techniques are well known for links (e.g., VLANs, MPLS, Tunneling, VPNs, and so on) the challenges lie more in virtualization of network nodes, whole networks, and an efficient management thereof. In particular, the virtualization of mobile network architecture adds to the research challenges. Accordingly, network virtualization has received significant attention in the network research community, but it is a field that is just beginning to be understood; recently an IRTF research group has been formed for this topic. The current technological challenges and solutions for network virtualization are of interest in this workshop.

In addition, major drivers for the success of network virtualization are the considered use cases that can be used to derive important requirements for NV architectures. Network virtualization allows providing specialized, dependable, and predictable networks (e.g., a global IP-TV network, a safe kids' network or a banking network) and also supports network resource scalability, thereby reducing time and overhead required for an introduction of new services (e.g., starting small scale deployments that can grow fast if the service is becoming more mature and popular). The definition of such use cases helps to design and evaluate (technically and economically) NV solutions.

The workshop welcomes submissions from both researchers and practitioners that explore recent investigation on architectural and design issues as well as related implementation, experimentation, or simulation efforts towards realization of network virtualization for the future Internet. A particular focus lies on use cases for network virtualization. Original papers not under consideration of another conference, workshop or journal are encouraged to submit via Conftool (<https://www.conftool.com/kivs11/>). Submissions should be written in English, adhere to the ECEASST format (a special KIVS Workshop template is provided in LaTeX and Word formats via the web site <http://tm.kit.edu/NV2011/>), and comprise no more than 12 pages in total in this format. Accepted papers will be published in the Open-Access-Journal Electronic Communications of the EASST.

Topics of interest for submissions include, but are not limited to:

- Solutions and drivers
- Virtualization technologies, platforms, and architectures
- Use cases, applications and services enabled by NV
- Business considerations and economic aspects
- Network virtualization in data centers
- Mobile virtual network operators
- Control plane and management plane mechanisms for virtual networks
- Resource allocation for co-existing networks
- Radio access network sharing
- Monitoring in virtualized environments, e.g. QoE or energy consumption
- Network virtualization for energy efficiency
- Isolation, performance and security

### Important Dates:

- **31. Oct 2010 - Submission Deadline**
- 28. Nov 2010 – Notification
- 19. Dec 2010 - Camera-ready papers
- 10.-11. Mar 2011 – Workshop

### Organization Committee:

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Martin Stiemerling (NEC Labs Europe/U Göttingen)

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