The Fraunhofer FOKUS Business Unit NGNI (Software-based Networks) and the associated Chair for Next Generation Networks at TU Berlin sporadically send newsletters with brief information about their latest activities.

FOKUS FUSECO Forum 2016:
Getting ready for 5G and the Industrial Internet –
Understanding Application Drivers and Technology Evolution towards Softwarized 5G Networks and the Industrial Internet Revolution

The 7th FOKUS FUSECO Forum (FFF) themed "Understanding 5G Application Drivers and
Technology Evolution towards Softwarized 5G Networks took place from November 3rd to November 4th 2016 in the Fraunhofer Forum in Berlin and was a big success with more than 220 delegates from over 30 nations attending. It brought together international network operators, manufacturers and researchers to discuss the ICT infrastructure needed for the upcoming 5G network systems as well as the Industrial Internet.

As usual the event was organized in three complementary parallel tracks (5G access network, 5G core network and platform, Industrial Internet) starting with three tutorials and followed by three interactive workshops in the afternoon. A get-together on Thursday evening united the different expert groups and provided a good basis for relaxed networking.

The FOKUS FUSECO Forum was part of the #Berlin5GWeek.

Watch the video with FUSECO Forum impressions:
https://youtu.be/eAcLcxQs0KU

Detailed event minutes of FFF 2016 can be found here:
https://www.fokus.fraunhofer.de/fff2016/minutes

Hosted and organized by:
Fraunhofer Institute for Open Communication Systems FOKUS

General Chair:
Prof. Dr. Thomas Magedanz, TU Berlin/Fraunhofer FOKUS

More details here:
www.fuseco-forum.org
www.5g-playground.org
http://www.berlin5gweek.org/
The first Berlin 5G Week - supported by IEEE Standards Association and IEEE SDN Initiative, IEEE Communications Society, Fraunhofer FOKUS, Fraunhofer HHI, the 5G Berlin Testbed and Berlin Partner - was a huge success. In sum, more than 400 experts from 30 nations attended the five different events related to 5G standardization, technologies, platforms, application domains and emerging testbeds, which all took place in the Fraunhofer Forum in the center of Berlin, Germany, October 31st - November 4th. The main target was achieved, namely to bring together international key experts from industry and academia currently working on the constituting 5G-key-enabling technologies for building the flexible software-based infrastructure for the emerging gigabit society at a location of high relevance for 5G development and early adoption, and to provide a social hub for creating new international 5G partnerships and friendships. Major operators, such as AT&T, Verizon, NTT Docomo, KDDI, Deutsche Telekom, Vodafone, Telefonica, Orange, Telecom Italia, Telia, as well as key vendors like Nokia, Ericsson, Huawei, Samsung, NEC, Intel, and many more joined the events.

The #Berlin5GWeek2017 is already in the making and planned for November 6th to November 10th 2017.

Watch the video with the #Berlin5GWeek2016 impressions and a view of what the future might have in store in 2017 by Prof. Dr. Thomas Magedanz:
https://youtu.be/DuVFfhbTLI

Detailed event minutes of the #Berlin5GWeek2016 can be found here:
http://www.berlin5gweek.org/
Fraunhofer FOKUS delivers scientific basis for "Zukunftsoffensive Gigabit-Deutschland"

On Tuesday, November 8th, 2016, after a meeting of the “Net Alliance Digital Germany”, Federal Transport Minister Dobrindt presented key points of the “Zukunftsoffensive Gigabit-Deutschland” (“Future initiative Gigabit-Germany”).

The basis for the key features is the study "Netzinfrastrukturen für die Gigabit-Gesellschaft" ("Network Infrastructures for the Gigabit Society") launched by the Federal Ministry of Transport and Digital Infrastructure at the initiative of the "Netalliance" and carried out by FOKUS. The key features describe the steps towards a gigabit society and the necessary actions required. Constituent parts among others are the new mobile standard 5G and intelligent networks.

Read the full article here:
https://www.fokus.fraunhofer.de/

First Berlin 5G-Ready Platform Video.

5G-Ready Trial Platform represents a place to integrate and evaluate new ideas and to assess the readiness of 5G prototypes. This is the first demonstration of the Open5GCore and Open5GMTC, and of their Critical Technology Elements and the validation tools that can be used to evaluate 5G readiness.

The work presented in this demo was funded by the 5G Testfield Berlin Initiative of the Berlin Government Senate Department for Economics, Technology and Research. The views expressed herein can in no way be taken to reflect the official opinion of the Berlin Senate.

View the Video here (only in german available as...
Nubomedia selected as best demo at the IEEE NFV SDN Conference in Palo Alto

Nubomedia showcased the capabilities of the PaaS and were selected as the best demo at the IEEE NFV SDN Conference in Palo Alto.

For further information on the event please visit: http://nfvsdn2016.ieee-nfvsdn.org/

For further information on Nubomedia please visit: http://www.nubomedia.eu/

Fraunhofer FOKUS as a new member of the OPNFV project

The OPNFV Project is an open source project that facilitates the development and evolution of Network Functions Virtualization (NFV) components across various open source ecosystems through integration, deployment and testing. The OPNFV Project is supported by a vibrant group of 55 member companies committed to advancing a flexible, open source framework for NFV.

“As networks transform and become more agile, it’s important that the industry come together to work collectively on open solutions,” said Prof. Thomas Magedanz, director of the Software-based Networks business unit at Fraunhofer FOKUS. “We’re excited to be joining the OPNFV community as a natural step for contributing our resources and expertise in areas such as MANO that will help to build a stronger open source NFV platform globally.”
Open Baton release 3 (Contrabass) is available

This new release provides few structural changes which makes Open Baton the first modular and flexible platform for developing NFV. In addition, it includes new features provided by additional components, like the Network Slicing Engine and the Juju VNFM, simplifying the way you can manage your network functions. An extended version of the documentation has been published on the Open Baton website providing simple examples to get started immediately with this new release.

In case of questions feel free to write to us: info@openbaton.org

For further information on Open Baton visit: www.openbaton.org

OpenIoTFog:

With the OpenIoTFog toolkit, the Fraunhofer FOKUS Industrial Internet of Things (IIoT) Center developed a vendor-agnostic prototype of an Industry 4.0 component. The middleware represents a so-called Asset Administration Shell (AAS) in order to integrate existing physical industrial systems into factories of the future as a digital twin, to gain experience with related concepts, and to generate the first added values.
Following results produced within consortia like the Industrial Internet Consortium (IIC) and the Plattform Industrie 4.0, the OpenIoTFog framework collects data from different sensors over industrial field bus systems and various (industrial) wireless technologies in a plug-and-play manner, aggregates them over secured standard-compliant interfaces and allows nodes to be programmed with arbitrary microservices for local actuation and analytics.

For more information visit [http://openiotfog.org](http://openiotfog.org)

Contact: Alexander Willner

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**Moving from the cloud to the edge**

The IEC (International Electrotechnical Commission) initiates White Paper dedicated to Vertical Edge Intelligence Project in cooperation with Fraunhofer Institute FOKUS’ NGNI

To enable and realize the true value of IoT, edge intelligence, which pushes processing for data intensive applications away from the core of the cloud to the edge of the network, continues to expand. As processors, microcontrollers and connectivity are embedded into a plethora of new devices, “edge intelligence” in smart appliances, wearables, industrial machines, automotive driver assistance systems, smart buildings and the like continues to increase.

This means that several IT and OT technologies can be placed so close towards the edge of the network that aspects such as real time networks, security capabilities to ensure cyber security, self-learning solutions and personalized/customized connectivity can be addressed. This radical transformation from the cloud to the edge will support trillions of sensors and billions of systems and will treat data in
Call for Participation – Meet the FOKUS Experts

**ETSI NFV Plugtest**
**Date:** Mon., January 27, 2017 to Fri February 03 2017  
**Location:** Leganes, Madrid, Spain.  
Open Baton will participate in the next **ETSI NFV Plugtest** 23 JANUARY - 03 FEBRUARY 2017 in Leganes, Madrid, Spain.

Get in touch with us: [info@openbaton.org](mailto:info@openbaton.org)

[Read more about this event here.](#)

**Mobile World Congress (MWC) 2017**
**Date:** Mon., February 27, 2017 to Thu March 02 2017  
**Location:** Barcelona, Spain  
Meet our 5G experts @ hall 7, booth #7 L51.

[Visit the MWC17 Website.](#)

**Policy Control**
**Date:** Tue., Apr. 04, 2017 to Wed., Apr. 05, 2017  
**Location:** Maritim ProArte, Berlin, Germany  
T. Magedanz (TU Berlin/Fraunhofer FOKUS) is speaker: “Realizing the Promise of Policy Control in 5G”

[More information](#)

**NGNI wishes you a Merry Christmas and a great year 2017.**
Sincerely Yours,

Prof. Dr. Thomas Magedanz and the Fraunhofer FOKUS NGNI and TU Berlin/AV teams