

Program



World Telecommunications Congress 2014

**"Telecommunications:
Enabling Infrastructure for the Future"**

Berlin, Germany, June, 1 to 3, 2014

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Conference Topics

A. Network and Technology Development

- Network Architectures for core, aggregation and access
- Future Internet
- Network Function Virtualization (NFV)
- Software Defined Networking (SDN)
- New air interface technologies and Cloud RAN
- Small Cells and Heterogeneous Network
- Mobile ad-hoc, mesh and sensor networks
- Optical networks for access, metro and core networks
- self-x and autonomic networking
- Quality of Service and traffic control
- Data and network security

B. Applications & Services

- Service development & deployment
- Internet of Things and machine-to-machine communication
- Ambient-assisted living networking solutions and services
- Cloud / Grid computing
- Fixed-Mobile convergence
- Content distribution networks (CDN)
- Social networking and multimedia services
- Immersive communications platforms
- Gaming architectures
- Smart Grid / Smart Cities
- Digital information preservation and retrieval
- Emergency Telecommunication / Disaster Relief

C. Emerging Business Models

- Economics of new generation services
- Smart-Government, Smart-Health, Smart-Learning
- Closed loop health care
- Vertical applications in different business areas

(Continued next page)

Conference Topics (continued)

D. Regulatory and Policy Issues

- Telecommunications as a productivity enabler
- Bridging the Digital Divide
- Network neutrality
- Privacy & personal security
- Spectrum Issues and the Digital Dividend
- Next-Generation Voice Regulation
- Standardisation strategy

E. Green and Sustainability

- Green Telecoms, Technologies, Architecture
- Energy Efficient Network Architecture
- Breakthrough Technologies for Energy Efficient Network
- ICT Business Models for Energy Reduction
- Efficient Use of ICT for Ecological and Sustainable Society

F. Other Telecommunications-related Issues

Welcome Message from the General Chair



On behalf of the WTC 2014 Organizing Committee, it is my great pleasure to welcome you to the World Telecommunications Congress 2014 from June, 1 to 3, 2014 in Berlin, Germany. The theme of WTC 2014 is "Telecommunications: Enabling Infrastructure for the Future".

Telecommunications is the major enabler of new ways of working in the 21st century. There have been dramatic changes in network architecture and service capabilities over the past 20 years in response to new needs and applications. The World Telecommunications Congress brings together leading experts from industry, academia and government to map out the future requirements for telecommunications technologies, applications and policy.

The World Telecommunications Congress builds on the traditions of quality, timeliness and open interaction from its origins in the ISS

(International Switching Symposium) and ISSLS (International Symposium on Services and Local Access).

I would like to thank all the members of the organizing and steering committee for their constant support and valuable work.

I am very pleased to invite you to attend the WTC 2014 and are looking forward to meeting you in Berlin.

Bruno Jacobfeuerborn

Chief Technology Officer (CTO)
Deutsche Telekom AG, Bonn, Germany

Keynotespeaker



*Dr. Bruno Jacobfeuerborn
(General Chairman WTC 2014)
Director of Technology Telekom Deutschland
GmbH and Chief Technology Officer (CTO)
of Deutsche Telekom AG*

**Technology-driven innovations
Leading the way into Gigabit society**

Biography

Bruno Jacobfeuerborn has been Director of Technology at Telekom Deutschland GmbH since April 2010. In addition, he is Chief Technology Officer (CTO) of Deutsche Telekom AG within the Europe Board area, a position he has been holding since February 2012.

Since July 1, 2009 Bruno Jacobfeuerborn has been responsible for Technology (both mobile and fixed network) in Germany. He joined what is today Deutsche Telekom AG in 1989. Two years later he became head of department for radio network planning in Hanover and, at the same time, regional head of T-Mobile in Leipzig. In this role, he also managed the planning and development of the mobile communications network in the German regional states of Saxony, Saxony-Anhalt and Thuringia. From 1995 to 1999, he was responsible for the Technology division of the T-Mobile Northern District in Hanover and took on additional responsibility for Sales and Marketing as head of the T-Mobile Northern District in Hanover from 1999 to 2002.

From 2002 to 2007, Bruno Jacobfeuerborn was a member of the management team in his capacity as Managing Director of Technology, IT, Procurement and, until 2004, Customer Service at T-Mobile Netherlands in The Hague. At the same time, he headed the International Service Management unit at T-Mobile International. Subsequently, he was a member of the management team and Managing Director of Technology, IT and Procurement at Polska Telefonia Cyfrowa in Warsaw until June 30, 2009.

Bruno Jacobfeuerborn is Deputy President at VDE, the Association for Electrical, Electronic & Information Technologies, as well as Board Member at ITG, the Information Technology Society.



*Dr. Robert Henkel
Senior Policy Officer in the European
Commission*

**Broadband Policy of the European
Union**

Biography

Mr. Henkel studied physics and philosophy in Berlin.

He was Principle Advisor in the Federal Ministry of Economics and Technology in Germany and since 2012 he is Senior Policy Officer in the European Commission with focus on research and innovation.

He is responsible for the development and implementation of the European broadband policy.

Keynotespeaker



*Dr. Markus Hofmann
Bell Labs/Alcatel-Lucent*

The User-Centric Network

Biography

Dr. Markus Hofmann joined Bell Labs in 1998, transitioning from researcher, to project manager, to Head of Bell Labs Research – Alcatel-Lucent’s research organization that is globally recognized for inventions that shaped the world of telecommunications and technology including the transistor, the laser, DSL, UNIX, C and C++, Solar Cells and MIMO. Dr. Hofmann has overseen research in multimedia communications, optics, wireless, cloud, Internet, content networking and more. Not to mention he is renowned for his pioneering work on reliable multicasting over the Internet and for defining and shaping fundamental principles of content networking. In his current role, Dr. Hofmann is building up Bell Labs’ new IP Platforms research program, leading a global research team in inventing and creating disruptive technologies in the software and systems space. This includes the overall research portfolio from project inception through business transfer. Dr. Hofmann has published over 60 journal and conference papers and given invited talks as well as courses all over the world. He has been granted 14 U.S. patents, with many more patent applications pending. Dr. Hofmann has a Ph.D. with honors in Computer Engineering from the University of Karlsruhe in Germany. For more information, see www.mhof.com.



*Kazuya Hashimoto
Senior Vice President NEC Europe*

SDN vision

Biography

Kazuya received his M.A degree of Applied Physics from the University of Tokyo in 1984 and joined NEC Corporation on the same year.

He was initially engaged in the Analog cellular handset system development. During 2005 to 2007, he was Managing Director, NEC Technologies (UK) Ltd, where he engaged himself in Mobile Terminal Application business. He became General Manager of Mobile Radio Access Network Division in 2008 and led base station development and business. Then he became responsible for wired and wireless business as Vice President and Executive General Manager of Network Platform Operations Unit. In May 2013 he was transferred to NEC Europe and became responsible for the business development of Carrier Business with the focus on SDN/NFV as Executive Vice President of NEC Europe.

Keynotespeaker



Dr.-Ing. Hagen Woesner
Co-founder and CEO of BISDN GmbH

How Software Defined Networks (SDN) are lowering the entrance barrier into the telecommunications market.

Biography

Dr.-Ing. Hagen Woesner is co-founder and CEO of BISDN GmbH, a Berlin-based startup developing OpenFlow software and hardware components.

From 2010 to 2013 he led the EU research project OFELIA (fp7-ofelia.eu) which constructed a pan-European OpenFlow testbed.

Before he worked in research projects on optical networks / GMPLS and clean-slate Internet architecture. From 2003 to 2006 he was with Create-Net, Italy, where he set up the research group on Broadband and Wireless networks. He received his PhD from TU Berlin in 2003, and is still an associated lecturer at the telecommunication networks group there. He is general chair of the European Workshop on SDN (EWSDN).

Conference Program

Room: Saal 1

14:00 - 15:30 Tutorial 1:
Developing SDN Applications with OpenDaylight platform – Part 1
Srini Seetharaman, Dhananjay Sampath,
Deutsche Telekom Innovation Center

Biography

Srini Seetharaman is a contributor to sdnhub.org and the Technical Lead for Software-defined Networking (SDN) at Deutsche Telekom Innovation Center. Previously he was a member of the OpenFlow/SDN team at Stanford, between 2008-2011, where he led the SDN deployments in several nation-wide campus enterprise networks, including Stanford. He holds a Ph.D. in Computer Science from the Georgia Institute of Technology.

Abstract

We see a strong ecosystem of controller applications developing to manage software-defined networks. The goal of this tutorial is to prepare you for app development for the OpenDaylight controller platform.

This tutorial will start with a very brief introduction to OpenFlow/SDN, and then describe the OpenDaylight SDN controller platform and its various components. We will then dive into a hands-on tutorial on OpenDaylight where we will set up the controller platform, walk through an Openflow-based learning switch application, and test the application using virtual Openflow switches. If time permits, we will also visit a stateless loadbalancer application. The tutorial will use content from <http://sdnhub.org/tutorials/opendaylight>

15:30 - 16:00 Coffee Break • Room: Hall

Room: Saal 2**14:00 - 15:30 Tutorial 2:****Wireless Communication**

*Prof. Dr. rer. nat. Thomas Schneider, HfTL Leipzig,
Head of the "Institut für Hochfrequenztechnik"*

Biography

Thomas Schneider received the diploma degree in electrical engineering from the Humboldt Universität zu Berlin, Germany, in 1995, and the Ph.D. degree in physics from the Brandenburgische Technische Universität Cottbus, Germany in 2000.

Since 2000 he has been with the Hochschule für Telekommunikation (HfT) in Leipzig, Germany. Since 2006 he has been the head of the Institut für Hochfrequenztechnik at the HfT.

Dr. Schneider was a guest professor at the Swiss Federal Institute of Technology (EPFL), Lausanne, Switzerland, a guest scientist at the Deutsche Telekom Innovation Laboratories, Berlin and an external examiner at the Dublin Institute of Technology, Dublin, Ireland. Now he is a guest scientist at the Fraunhofer Heinrich Hertz Institute in Berlin, Germany. His current research interests include the communication with THz- and millimeter waves, true-time-delay radar systems, nonlinear optical effects in telecommunications, light storage, sinc-pulse generation and silicon photonics.

Dr. Schneider is the author and co-author of 4 books, more than 170 publications and 30 patents or patent applications.

Abstract

According to the Cisco Networking Index forecast the global mobile data traffic will increase 13-fold between 2012 and 2017 and the traffic from wireless and mobile devices will exceed the traffic from wired devices already by 2016. Today spectral efficient modulation and coding together with MIMO and FEC are the solutions to keep pace with the increasing data rates. However, for the next generation systems new innovative solutions and the exploitation of new frequency bands are required.

In the first part of the tutorial an overview about the wireless technologies of today with a special focus on spectral efficiency will be given. In the second part the challenges and possible solutions for ultrahigh data transmission especially in the millimeter and THz-region will be discussed. The third part concludes with results of first testbed experiments for the wireless communication with data rates exceeding 100 Gbps.

15:30 - 16:00 Coffee Break • Room: Hall

Room: Saal 1**16:00 - 17:30 Tutorial 1:****Developing SDN Applications with Open-
Daylight platform – Part 2**

*Srini Seetharaman, Dhananjay Sampath,
Deutsche Telekom Innovation Center*

- Biography and Abstract: see page 11 -

17:30 - 20:00 Casual Reception • Room: Hall

Room: Saal 2**16:00 - 17:30 Tutorial 2:****Optical Free-Space Communication***Dr. Volker Jungnickel, Basics & VLC;**Dr. Nicolas Perlot, FSO & SatCom, Fraunhofer
Heinrich Hertz Institute***Biography V. Jungnickel**

Volker Jungnickel received a Ph.D. in physics from Humboldt University in Berlin in 1995. He worked on semiconductor quantum dots and laser medicine and joined Fraunhofer HHI in 1997. Since 2003, he is an adjunct lecturer at TU Berlin and project leader at HHI. Since 2013, he is head of the metro-, access and inhouse systems group. He contributed to high-speed optical wireless links, first 1 Gb/s MIMO-OFDM mobile radio transmission experiments, a first real-time implementation and field trials of LTE including multiuser MIMO and joint transmission coordinated multipoint (JT CoMP). He has authored and co-authored more than 160 conference and journal papers, 10 book chapters and 25 patents.

Biography N. Perlot

Nicolas Perlot studied electrical engineering at the university of Valenciennes (France) and obtained a Ph.D. on the modeling of the optical atmospheric turbulent channel in 2005. During roughly 10 years, he was with the German Aerospace Center (DLR) working on the development of FSO communication systems. Since 2012, he has been with Fraunhofer HHI where he is leading the group on free-space optical (FSO) communications.

Abstract

The first part of the tutorial reviews the development of high-speed short-range optical wireless communications (OWC) targeting wireless LAN applications complementary to radio. Main topics are the optical wireless channel, transmitter and receiver properties, the rate adaptive system concept and its realization based on discrete multi-tone, recent efforts towards real-time implementation, latest records in the Gbit/s range and promising fields of future research and application. The second part focuses on long-distance regarding free-space optical (FSO) communications either near ground or in space (with satellites). Pros and cons of this approach are discussed and the atmospheric channel, state of the art in transmission technology and recent research trends are highlighted.

17:30 - 20:00 Casual Reception • Room: Hall**Room: Atrium****09:00 - 09:30 Opening****09:30 - 09:40 Welcome Address***Luigi Licciardi, Telecom Italia, Italy***09:40 - 10:20 Keynote 1:****Technology-driven innovations – Leading the way into Gigabit society***Dr. Bruno Jacobfeuerborn, Director of
Technology Telekom Deutschland GmbH
and Chief Technology Officer (CTO) of
Deutsche Telekom AG***10:20 - 11:00 Keynote 2:****Broadband Policy of the European Union***Dr. Robert Henkel, Senior Policy Officer in
the European Commission***11:00 - 11:30 Coffee Break • Room: Hall**

Room: Atrium**SA.1: Evaluation of mobile access network**

Chair: L. Licciardi, Telecom Italia, Italy

11:30 Simulation and Complexity Analysis of Iterative Interference Cancellation Receivers for LTE/LTE-Advanced

M. Mondin, Politecnico di Torino, Italy; B. Melis, I. Collotta, M. Caretti, Telecom Italia, Italy; I. Bari, Politecnico di Torino, Italy; F. Daneshgaran, California State University, Los Angeles, USA

11:50 Mobility Performance of LTE-Advanced Heterogeneous Networks with Control Channel Protection

Q. Kuang, J. Belschner, M. Lossow, P. Arnold, Telekom Innovation Laboratories, Germany; O.D. Ramos-Cantor, Technical University Darmstadt & Telekom Innovation Laboratories, Germany

12:10 Tailoring LTE-Advanced for M2M Communication using Wireless Inband Relay Node

F. Ahmad, S. N. K. Marwat, University of Bremen, Germany; Y. Zaki, New York University Abu Dhabi (NYUAD), UAE; C. Görg, University of Bremen, Germany

12:30 Tunable generation of high quality mm- and THz-waves for wireless communications with carrier frequencies up to several THz

S. Preußler, T. Schneider, Hochschule für Telekommunikation Leipzig, Germany

13:00 - 14:00 Lunch • Room: Hall

Room: Saal 1**SB.1: Solutions for Infrastructure related problems**

Chair: F. Effenberger, HUAWEI, United Kingdom

11:30 On the Frequency Offset Effect on Zadoff-Chu Sequence Timing Performance

W. Yang, M. Hua, J. Zou, J. Hu, J. Zhang, M. Wang, Nanjing University of Science and Technology, P.R. China

11:50 Delivering copper-based broadband access services at 100 Mbps (Invited Presentation)

M. Mohseni, ASSIA, Inc, USA

12:10 Delivering superfast broadband access services with hybrid solutions (Invited Presentation)

T. Valette, Huawei, France

13:00 - 14:00 Lunch • Room: Hall

Room: Atrium**SA.2: Small Cells and heterogeneous networks**

Chair: A. Gladisch, Deutsche Telekom AG & Innovation Labs, Germany

14:00 A decentralized load balancing algorithm for heterogeneous wireless access networks

G. Oddi, A. Pietrabissa, F. Delli Priscoli, University of Rome "La Sapienza", Italy; V. Suraci, Università degli studi e-Campus, Italy

14:20 LTE-WiFi Link Aggregation at Femtocell Base Station

Y. Kojima, J. Suga, T. Kawasaki, M. Okuda, R. Takechi, Fujitsu Laboratories Ltd., Japan

14:40 Covering from Spot to Belt: Virtual Single Cell Network for the 3rd Wireless Access Means

T. Yamada, T. Nishimura, Ritsumeikan University, Japan

15:00 Small Cell planning (Invited Presentation)

A. Eisenblätter, atesio GmbH, Berlin, Germany

15:30 - 16:00 Coffee Break • Room: Hall

Room: Saal 1**SB.2: Telematic Solutions**

Chair: H. Orlamünder, Consultant, Germany

14:00 Distributed algorithm for energy management in smart grids

D. Brettschneider, R. Tönjes, P. Roer, D. Hölker, University of Applied Sciences Osnabrück, Germany

14:20 Smartphone enabled connected vehicles pave the way to intelligent mobility

G. G. Albertengo, Politecnico di Torino, Italy; A. Bragagnini, Telecom Italia, Italy; W. Buttazzo, Politecnico di Torino, Italy; R. Quasso, Telecom Italia, Italy; M. Ricca, A. Tragno, Politecnico di Torino, Italy

14:40 Personalized Health Care Technologies Need an Eco System (Invited Presentation)

H. Leopold, AIT Austrian Institute of Technology, Austria

15:00 Mobile government - trend or hype or just again? (Invited Presentation)

J. Fromm, Fraunhofer Institute FOKUS, Germany

15:30 - 16:00 Coffee Break • Room: Hall

Room: Atrium**SA.3: Mobile ad-hoc, mesh and sensor networks**

Chair: A. Timm-Giel, Hamburg University of Technology, Germany

16:00 Wi-Fi Direct Multi-group Data Dissemination for Public Safety

Y. Duan, C. Borgiattino, C. E. Casetti, C.-F. Chiasserini, P. Giaccone, Politecnico di Torino, Italy; F. Malabocchia, Telecom Italia, Italy; M. Ricca, Politecnico di Torino, Italy; M. Turolla, Telecom Italia & Innovation and Industry Relations, Italy

16:20 A Kad Prototype for Time Synchronization in Real-Time Automation Scenarios

J. Skodzik, V. Altmann, P. Danielis, A. Wall, D. Timmermann, University of Rostock, Germany

16:40 Mobility-Aware Routing in Wireless Sensor Networks (Invited Presentation)

C. An, Technical University Hamburg-Harburg, Germany

17:00 Load-Adaptive Network Operation and Smart Grid Services (Invited Presentation)

H. Lehmann, R. Schlenk, D. Prantl, J. Kiendl, Ch. Lange, M. Schlosser, T. Jungel

19:00 - 23:00 Conference Dinner • Room: Lichthof

Room: Saal 1**SB.3: Audio processing: steps forward into Telecommunications**

Chair: G. Gordos, Budapest University of Technology and Economics & Bay Zoltán for Applied Research - IKTI, Hungary

16:00 An Intuitive Sound Transmission Service based on a User's Touch Interface

S.-E. Kim, T. Kang, J. H. Hwang, S. W. Kang, K. H. Park, Electronics and Telecommunications Research Institute, Korea

16:20 Hearing supportive algorithm with self-adjustment user interface integrated in the telephone network

D. Oetting, Fraunhofer IDMT & Cluster of Excellence Hearing4All, Germany; J. Rennies, J.-E. Appell, Fraunhofer IDMT, Germany

16:40 From Speech Communication to Audio Communication (Invited Presentation)

J. Ahrens, University of Technology Berlin, Germany; J.-N. Antons, TU Berlin, Deutsche Telekom Laboratories, Germany; S. Möller, Quality and Usability Lab, Telekom Innovation Labs, TU Berlin, Germany

17:00 Speech Analytics in Call-Centers – Infrastructural Questions (Invited Presentation)

T. Fegyó, G. Németh, P. Mihajlik, G. Gordos, Budapest University of Technology and Economics & Bay Zoltán for Applied Research - IKTI, Hungary; G. Körmendi, Clementine Consulting, Hungary

19:00 - 23:00 Conference Dinner • Room: Lichthof

Room: Atrium

- 09:00 - 09:40 Keynote 3:**
The User-Centric Network
Dr. Markus Hofmann, Bell Labs/Alcatel-Lucent
- 09:40 - 10:20 Keynote 4:**
SDN vision
*Kazuya Hashimoto, Senior Vice President
 NEC Europe*
- 10:20 - 11:00 Keynote 5:**
How Software Defined Networks (SDN) are lowering the entrance barrier into the telecommunications market.
*Dr.-Ing. Hagen Woerner, Co-founder and
 CEO of BISDN GmbH*

11:00 - 11:30 Coffee Break • Room: Hall

Room: Atrium**SA.4: Content networking and multimedia services**

Chair: L. Licciardi, Telecom Italia, Italy

- 11:30 Accelerating File Downloads in Publish Subscribe Internetworking with Multisource and Multipath Transfers**
*Y. Thomas, C. Tsilopoulos, G. Xylomenos,
 G. C. Polyzos, Athens University of Economics
 and Business, Greece*
- 11:50 Loss Recovery Method for Content Pre-distribution in VoD Service**
*N. Kamiyama, Osaka University, NTT Network
 Technology Laboratories & NTT Network Techno-
 logic Laboratories, Japan; R.Kawahara, NTT, Japan;
 T. Mori, Waseda University, Japan*
- 12:10 A Framework and Evaluation of Rate Adaptive Video Telephony in 4G LTE**
*N. Hermanns, L. Hamm, Ericsson GmbH, Germany;
 Z. Sarker, Ericsson AB, Sweden*
- 12:30 WebRTC enabled multimedia conferencing and collaboration solution**
*A. Zeidan, A. Lehmann, U. Trick, University of
 Applied Sciences Frankfurt/M., Germany*

13:00 - 14:00 Lunch • Room: Hall

Room: Saal 1**SB.4: Optical Networks for Access, metro and core networks**

Chair: R. Freund, HHI Fraunhofer, Germany

11:30 The Economics of using IP over OTN in Core Networks

P. Mahajan, Infinera, USA

11:50 Software-Defined FlexPON

L. Zhou, Advanced Access Network Research & Huawei Technologies, P.R. China

12:10 Investigation on coarse WDM components and systems for four-channel Multi-Gb/s short-range transmission over 1-mm diameter step-index polymer optical fiber

M. Joncic, M. Haupt, U. Fischer, Harz University of Applied Sciences, Germany

12:30 Level 1 optical interconnects - a pathway to volume manufacturing

M. Riestler, Multiphoton Optics GmbH & maris TechCon, Germany; R. Houbertz, Fraunhofer ISC, Germany

13:00 - 14:00 Lunch • Room: Hall

Room: Atrium**SA.5: QoS / QoE & traffic control**

Chair: K. Shiimoto, NTT, Japan

14:00 New Tool for Examining QoS in the IPTV Service

T. Uhl, Flensburg University of Applied Sciences, Germany; H. S. Jürgensen, Nextragen GmbH Flensburg, Germany

14:20 Dynamic Class of Service mapping for Quality of Experience control in future networks

F. Delli Priscoli, L. Fogliati, A. Palo, A. Pietrabissa, University of Rome, "La Sapienza", Italy

14:40 QoE Enhancement of Multimedia Communications by User-Assistance

S. Tasaka, Nagoya Industrial Science Research Institute, Japan; T. Nunome, Nagoya Institute of Technology, Japan

15:00 A Network Simulation Tool for User Traffic Modeling and Quality of Experience Analysis in a Hybrid Access Architecture

O. D. Ramos-Cantor, Technical University Darmstadt & Telekom Innovation Laboratories, Germany; M. Lossow, H. Droste, G. Kadel, Deutsche Telekom Laboratories, Germany; M. Pesavento, Technical University Darmstadt, Germany

15:30 - 16:00 Coffee Break • Room: Hall

Room: Saal 1

SB.5: Business considerations in ICT services

Chair: K.-D. Kohrt, Germany

14:00 Call Blocking and Dropping in Sectorized Cellular Networks with Fractional Frequency Reuse

T.-L. Sheu, B.-J. Lin, National Sun Yat-Sen University, Taiwan; C. Ma, Institute for Information Industry, Taiwan

14:20 Requirements for Private User Offers of Cloud Computing Services

T. Gerpott, S. May, University of Duisburg-Essen, Mercator School of Management, Germany

14:40 Emerging Business Models in Innovation ecosystems: the case of Indoor Location Based Services

F. Malabocchia, Telecom Italia, Italy; S. Napolitano, University of Bologna, Italy

15:00 First Unicast Communication Network Protecting both Content and Metadata

H. Jaeger, R. Rieken, A. Monitzer, J. Modi, K. D. Nguyen, C. Karatzas, V. Georgiev, E. Ernst, D. Spillmann, S. Antony, Uniscon GmbH - The Web Privacy Company, Germany

15:30 - 16:00 Coffee Break • Room: Hall

16:00 - 17:30 Panel & Closing Plenary • Room: Atrium

General Information

WTC 2014 Website

www.wtc2014.de

Registration

Category

Registration fee

Regular Fee	600 EUR
Personal VDE-Member*	500 EUR
Corporative VDE-Member*	520 EUR
Students (VDE-Member)*	400 EUR
Students (Non-Member)	450 EUR

Full registration includes Sunday Tutorials and the Welcome Reception on Sunday evening, all technical sessions, Conference Proceedings, Coffee Breaks, Lunch and Conference Dinner on Monday evening.

* VDE Members and Students are required to send together with their registration a valid Member/Student-Card by e-mail to vde-conferences@vde.com or by fax to +49-69 6308 144 in order to validate their registration. Otherwise Full Registration will be required on-site.

Payment

Payment for registration must be made in EUR. The congress fee has to be fully paid in advance.

The following methods of payment are accepted:
By credit card authorization
Cash payment on-site in EUR (€)

Badges

Delegates will receive badges and vouchers for the booked events. Participants are kindly requested to wear their badge throughout the congress, even at social events. Lost badges will not be replaced. A new registration will be mandatory.

Cancellation

In case of cancellation after May 4th, 2014 or a no show, no refund will be made. Proceedings will be sent to the registrant after the conference. There will be a 100 EUR service charge for all refunds.

Proceedings

All accepted papers will be published in the electronic proceedings and will be provided to the conference participants. Additional proceedings will be on sale during the conference (upon availability).

Visa / Letter of Confirmation

Nationals from some countries may require a visa to enter Germany. Please check with the German Embassy in your country. If documentation/letter of confirmation is required, please contact the WTC 2014 Secretariat in support of a visa application after having registered for the conference.

Please note: Due to legal reasons, Letters of Invitation will not be issued.

Venue

The WTC 2014 conference will take place in:
 Deutsche Telekom AG
 Hauptstadtrepräsentanz
 Französische Straße 33 a-c
 10117 Berlin
www.telekom-hauptstadtrepraesentanz.de

Conference language

All sessions will be held in English. There will be no simultaneous translation.

Currency

The official currency in Germany is the euro (EUR). Standard credit cards (Mastercard, American Express, VISA) are accepted in hotels, department stores and restaurants. Currently (April 2014) the exchange rate is approx. 1 EUR = 1,40 USD

Electricity

Power supply is 230 V AC, 50 Hz. It is recommended to have a suitable plug-in for German standard when charging your laptop.

Emergency services

Police call 110, Ambulance and Fire Brigade call 112

Insurance

The organizer may not be held responsible for any injury to participants or damage, theft and loss of personal belongings. Participants should therefore make their own insurance arrangements.

Time Zone

GMT (UTC) +01:00

Weather

The weather in Berlin in June is usually beautiful and mostly warm. However, there might be chilly and rainy days. The temperature is around 20 °C. Please check the actual weather on www.weather.com

Program Overview

Sunday, June 1, 2014

Time	Saal 1	Saal 2
14:00 15:30	Tutorial 1 – <i>Developing SDN Applications (Part 1)</i>	Tutorial 2 – <i>Wireless Communication</i>
15:30	Afternoon Coffee Break (Hall)	
16:00 17:30	Tutorial 1 – <i>Developing SDN Applications (Part 2)</i>	Tutorial 2 – <i>Optical Free-Space Communication</i>
18:30	Casual Reception (Hall)	

Monday, June 2, 2014

Time	Atrium	Saal 1
09:00	<i>Opening & Plenary</i>	
11:00	Morning Coffee Break (Hall)	
11:30	<i>SA.1: Evaluation of mobile access network</i>	<i>SB.1: Solutions for Infrastructure related problems</i>
13:00	Lunch (Hall)	
14:00	<i>SA.2: Small Cells and heterogeneous networks</i>	<i>SB.2: Telematic Solutions</i>
15:30	Afternoon Coffee Break (Hall)	
16:00	<i>SA.3: Mobile ad-hoc, mesh and sensor networks</i>	<i>SB.3: Audio processing: steps forward into Telecommunications</i>
19:00	Conference Dinner (Lichthof)	

Tuesday, June 3, 2014

Time	Atrium	Saal 1
09:00	<i>Keynotes Plenary</i>	
11:00	Morning Coffee Break (Hall)	
11:30	<i>SA.4: Content networking and multimedia services</i>	<i>SB.4: Optical Networks for Access, metro and cor networks</i>
13:00	Lunch (Hall)	
14:00	<i>SA.5: QoS / QoE & traffic control</i>	<i>SB.5: Business considerations in ICT services</i>
15:30	Afternoon Coffee Break (Hall)	
16:00	<i>Panel & Closing Plenary</i>	