Global
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ICIN 2011: From Bits to Data, from Pipes to Clouds

The Network as an Asset for Convergence of Telecoms, IT, and Media into an Internet of Knowledge

By Warren Montgomery, Insight Research and A. C. McQuaide, Jr., StraDis Consulting, LLC, USA

ICIN 2011, the 15th conference in the ICIN series, was held on October 4 – 7 in Berlin, Germany to discuss technological trends and business models emerging from the blending of telecommunications, IT, media, and cloud based services. The conference was held at the Park Inn Berlin Alexanderplatz under the technical co-sponsorship of the IEEE and IEEE Communications Society, with the support of many patrons including Deutsche Telekom Laboratories, Ericsson, Nokia Siemens Networks, Alcatel-Lucent, Orange, Telecom Italia, and TSB Innovation Agency Berlin. It brought together 160 delegates from 27 countries for tutorials, keynote addresses, technical sessions, demonstrations and poster sessions, networking receptions, and workshops on the conference themes.

The foundation for the conference was laid on Tuesday morning with opening tutorials on identity management for Web 2.0 and Cloud Computing and on the evolution of the Next Generation Network toward a Future Internet. The conference was formally opened Tuesday afternoon by Technical Program Committee Chair Roberto Minerva of Telecom Italia, along with local hosts, Heinrich Arnold representing Deutsche Telekom Laboratories and Adolf Kopp representing TSB Innovation Agency Berlin.

Opening day keynotes accented major conference themes. Musa Unmehopa of Alcatel-Lucent representing the Open Mobile Alliance (OMA) described OMA progress towards standardizing APIs for accessing service capabilities in networks. Ulrich Reimers of the Technical University of Braunschweig described how broadcast and point-to-point mobile bandwidth can be used cooperatively to address rising demands. Uwe Kubach of SAP noted the motivations and challenges of businesses moving towards cloud based services, a theme reinforced by Joe Weinman of HP who highlighted ways in which businesses can use both private and public cloud services efficiently. Hiroaki Harai of the National Institute for Information and Communication Technology in Japan described their efforts towards design and implementation of a next generation Internet.

The city of Berlin again provided strong support. With the sponsorship of TSB Innovation Agency Berlin, ICIN included a Welcome Networking Reception featuring presentations by local ICT companies based in Berlin-Brandenburg. This initiative brought together local start-ups and entrepreneurs with the international research-focused ICIN delegates for a unique networking opportunity greatly appreciated by both communities.

International ICIN 2011 delegates share ideas at poster session reception.

Beginning on Wednesday morning, a total of 39 papers were presented in 13 technical sessions organized in two parallel tracks. Technical sessions addressed a wide range of topics. A session addressed the challenges of providing structures for machine-to-machine communications for "the internet of things", potentially interconnecting billions of devices. Sessions on exploiting and enhancing the value of network functionality included presentations on service enhancements, augmented reality, and improved quality of user experience (QoE). Network programmability was also addressed in presentations on the value of APIs, methods of service composition, and a wide variety of new services.

Business models for meeting industry transformational challenges also constituted an important conference theme. Topics covered in related sessions included dealing with competition between network services vs. "over the top" offerings of 3rd parties, opportunities in emerging economies (especially Africa), innovative mobile offerings, the mobile virtual network operator (MVNO) model, and new network operator opportunities in advertising and social networking.

In keeping with the theme of the conference, many keynotes, sessions and papers focused on the new challenges of cloud technologies and services including virtualization of network assets, the value of cloud solutions to the enterprise and end user, the ownership/management/location of cloud-

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Asia-Pacific Conference on Communication 2011, Kota Kinabalu, Malaysia

By Borhanuddin Mohd Ali, Hafizal Mohamad, Mahamod Ismail, Malaysia Chapter

Bidding for APCC 2011 went back a couple of years, in APCC 2009 Shanghai when it was presented in absentia with "voice-over ppt" presentation. It must have been a compelling presentation, the ASC (APCC Steering Committee) eventually agreed to award it to us, just in time to update our preparation in APCC2010 in Auckland, NZ. And we believe that their trust in us have been well repaid.

The city we selected for this conference is Kota Kinabalu, the capital city of Sabah, the eastern most state of Malaysia, home to countless natural wonders. The venue was Pacific Sutera Harbour Hotel, a renowned 5 start resort hotel, complete with modern conference facilities. The hotel is nicely tucked by the beach over-looking the breezy Sulu Seas dotted with many small islands home to many marine parks. On the other side of the hotel sprawl an 18-hole golf course equipped for night golfing. From some strategic hotel windows, one can catch a glimpse of the mighty Mount Kinabalu, the highest mountain in South East Asia, which stands at 4095m (13,455 ft) above sea level, only a 2 hour road trip away.

This is the 17th edition of APCC, which is technically co sponsored by Korea Information and Communications Society (KICS), China Institute of Communications (CIC), Japan IEICE, and ComSoc Asia Pacific Board. This time it is held together with 10th MICC (Malaysia International Conference on Communications) which for this event, focused on Rural Communications. MICC is a flagship conference of the Malaysia Joint Chapter ComSoc/VT.

There were about 200 participants from more than 30 countries, the majority of whom are obviously from the host country, Malaysia. 395 Papers were submitted out of which 232 were accepted (59%), and 171 presented. The majority of the papers (42%) were contributed from Malaysia, followed by Korea (20%), Japan (7%), and many other small contributions from other countries. They were organised broadly into several tracks, namely Wireless and Mobile Communications, Wireless and Ad Hoc Networks, Telecoms Networks, Optical Comms, Internet Technologies, Information Theory and Rural Communications (for MICC), in the order of the number of paper contributions, and they were presented in 6 parallel tracks, organised into 46 sessions.

The event kicked off on Monday 3rd October, 2011, with a simple opening ceremony officiated by Dato' Hod Parman, the General Chair. Accompanying him on the stage was Byeong Gi Lee, ComSoc President; Prof Hyung Ji Choi, APCC Steering Committee Chair; Khaled ben Letaife, the Keynote Speaker, and Borhanuddin Mohd Ali, APCC 2011 Executive Vice Chair. Byeong Gi Lee also gave a short remark on ComSoc and the region.

The main technical session started with an inspiring keynote by Khaled on the Internet of Things (IoT). In his talk he related the evolution of telecommunications from the traditional paradigm of user to user or user to machine, and next communications is expected to be between objects themselves which poses interesting challenges for researchers. Another interesting talk was given by Abbas Jamalipour from University of Sydney on Smart Grids and security issues. In the next day, the keynote was given by Tharek Abdul Rahman a local professor from UTM talking on LTE, while the invited

VIP on the stage for the opening ceremony: L-R: Borhanuddin, Khaled Letaief, Dato' Hod, Byeong Gi Lee, HJ Choi.

Part of the audience: front from Left; Abbas Jamalipour, Tharek Abdul Rahmat, Khairuzan.

paper was given by Hiromi Ueda of Tokyo University of Technology, talking about Passive Optical Networks. The last day was devoted to Rural Communications, the theme of the companion MICC. The session chairman introduced a lengthy agenda for rural communications, then the next speaker Toh Swee Hoe from MCMC (Malaysian Commission for Multimedia and Communications) related communications and multimedia infrastructure development in Malaysia. The final talk was given by Alvin Yeo of Universiti Malaysia Sarawak who gave a hands-on account of the initiatives to bring modern communications services to a remote settlement engulfed on all sides by thick equatorial rain forest in Sarawak, close to Kalimantan (Indonesian Borneo) border.

As part of an established culture in APCC, a conference banquet was thrown in ex gratia, in the second night of the conference. In this banquet the authors of four excellent papers were honoured with best paper awards. The banquet also was given a sneak preview of next year's APCC, to be held in Jeju Island, Korea. As usual, the delegates were entertained by a cultural troop depicting dances and activities of major local ethnic groups, courtesy of MyCEB (Malaysian Convention and Exposition Bureau) and Sabah Tourism Board.

Finally, we would like to express our heartfelt gratitude to all those who have contributed to the success of the conference, too many to enumerate here. With the experience gained and the demonstration of selfless volunteerism, it gives us some measure of our readiness to host further international events in the future.

Highlights from the IEEE 3rd Latin-American Conference on Communications (LATINCOM 2011)

By Stefano Bregni, Politecnico di Milano, Italy, Eduardo Cerqueira, Federal University of Pará, Brazil, Technical Program Co-Chairs, IEEE LATINCOM 2011

The Latin-American Conference on Communications (LATINCOM) was created in 2009 to be the flagship conference of the IEEE Communications Society in Region 9 and to fulfill the need of a regional conference, yet with international stature and broad coverage of topics.

IEEE LATINCOM 2011 was held in Belém, Pará, Brazil on 26-28 October 2011 and has been the 3rd edition of this conference. Previous editions took place in Medellin (2009) and Bogota (2010). All editions were technically sponsored by the IEEE Communications Society. Highlights of IEEE LATINCOM2010 and of its history of success were reported in a previous article published on the December 2010 issue of the IEEE Global Communications Newsletter.

IEEE LATINCOM, in spite of its still young history, has rapidly gained a good international reputation well beyond Latin America. It has immediately become a key IEEE event in the Latin America Region. In 2011, the LATINCOM Steering Committee wanted to consolidate its success, by further strengthening its technical program and ensuring good international representation from all ComSoc subject areas in the Technical Program Committee and technical sessions.

As already for past editions in 2009 and 2010, IEEE LATINCOM 2011 has been the most important opportunity for ComSoc Latin-American members in 2011 to meet colleagues in a conference on communications with good worldwide reputation without travelling to another continent. We believe that this is a very significant benefit to ComSoc Latin-American members, because of the high cost of travelling to other continents to attend other international conferences, as well as to ComSoc membership development in the Latin America Region.

Besides being an excellent opportunity to promote ComSoc services in Latin America, IEEE LATINCOM 2011 provided again an outstanding chance to engineers and researchers from the entire world to get in touch with Latin-American ComSoc members and communications companies. In 2010, IEEE LATINCOM received 114 papers from 21 countries, including 13 outside Latin America, and, with the co-located ANDESCON conference, was attended by more than 450 attendees of various countries of the Americas and Europe. In 2011, IEEE LATINCOM received 109 papers from 27 countries. Only 43 papers were accepted for publication.

The Third Latin-American Conference on Communications (LATINCOM 2011) was held in Belém, Pará, Brazil. The biggest city on the delta of the Amazon River, Belém is a great tourism destination for cruises on the river, tours in the forest and maritime beaches. It provided an excellent venue for LATINCOM. The conference was held at the Hangar Convention and Fair Center of the Amazon, with the support of many local patrons including the Brazilian Internet Steering Committee (CGI.BR), Para State Government and Coordination for the Improvement of Higher Level Education Personnel (CAPES).

Madjid Merabti, Liverpool John Moores University, UK, giving his keynote talk on "Energy Supply Chain Security."

From left to right: Eduardo Cerqueira, Theo Ribeiro (Pará State Government), Fernando Neves (Federal University of Pará); Antônio Abelém and Hugo Dias (Chair of the IEEE Brasilia Chapter).

The theme of LATINCOM 2011 was SUSTAINABLE COMMUNICATIONS FOR A GREEN WORLD. Submission of technical papers was encouraged not only on topics related to this theme, but also to cover all subject areas of the IEEE Communications Society. The technical sessions addressed a wide range of topics in the areas of

- Sustainable Communications and Energy Efficiency.
- Communications Systems and Signal Processing.
- Mobile and Wireless Networking.
- Next-Generation Networking and Internet.
- Communication Software, Services and Multimedia Applications.
- Communication QoS, Reliability and Performance Modeling.

The conference started on Monday morning with the opening keynote talk on "Development and Evaluation of Energy-Efficient and Adaptive Protocols for Wireless Sensor Networks" by Torsten Braun from University of Bern, Switzerland. In this talk, he presented a wireless sensor network testbed developed by his team for automated remote execution of experiments.

After this keynote talk, on Monday 19 technical papers were presented in 5 sessions. In the afternoon, the tutorial "Future Network Architectures: Requirements and Challenges" was presented by Antonio Marcos Alberti, National Telecommunication Institute (INATEL), Brazil.

The conference was formally opened Monday afternoon by the General Co-chair Antônio Abelém and the Technical Program Committee Co-Chair Eduardo Cerqueira, along with local hosts representing the Brazilian Computer Society, Pará State Government and Federal University of Pará. At night, an opening ceremony was offered with typical foods and drinks.

On Tuesday morning, the second keynote talk on "Energy Supply Chain Security" was given by Madjid Merabti, Director

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based data, and business models for cloud based offerings.

Other conference sessions included present and future challenges in regulation, energy efficiency, identity management, and security.

The 7 poster/demonstration presentations covered many topics including service creation, energy efficiency, and multimedia services. The associated reception hosted by Nokia Siemens Networks on Wednesday evening provided extensive networking opportunities for the delegates in attendance.

Conference partners provided a second set of keynotes on Wednesday afternoon. Graham Trickey of GSMA discussed the competition for user attention between mobile operator services and downloaded over-the-top applications, highlighting the importance of deploying APIs that offer application builders real value. Andras Vadja of Ericsson described the evolution of cloud solutions from simple consolidation to opportunities for network operators to add value through integration including the opportunities for network operators in delivering cloud solutions. Hans-Ulrich Schoen of Nokia Siemens Networks addressed ways in which network operators can maintain the flexibility to expect the unexpected (new applications, new competition, new technology).

On Thursday TPC Chair Roberto Minerva brought the conference to conclusion by summarizing its major themes and highlighting areas to be explored in the future. He also presented awards recognizing outstanding papers and presentations as follows: Best Paper: "Service Oriented Network Architecture for Scalable M2M and Sensor Network Services" by Kazumine Matoba, Kenichi Abiru, and Tomohiro Ishihara (Fujitsu Laboratories, Japan). Best Presentations: Day 1 - Falk von Bornstaedt (Deutsche Telekom, Germany) for "The Sending Party Network Pays: a First Step Towards End-To-End Quality of Service"; Day 2 - Javier Arias (Telefonica Espana, Spain) for "Rich Communication Suite: the Challenge and Opportunity for MNOs"; and Demonstration - Ray van Brandenburg (TNO, The Netherlands) for "Spatial Segmentation for Immersive Media Delivery".

Two workshops took place on Friday in conjunction with ICIN. One, the 3rd workshop on Business Models for Mobile Platforms, was chaired by Pieter Ballon of Vrije Universiteit Brussel, Belgium, and a second on Smarter Living for Telco Customers was hosted by Deutsche Telekom Laboratories and involved a tour of their Living Lab of Connected Living as well as keynotes and other presentations. Both were well attended and thought provoking.

Planning for ICIN 2012 is already underway under the leadership of Igor Faynberg of Alcatel-Lucent, incoming chair of the Technical Program Committee. ICIN 2012 will pick up where ICIN 2011 left off, exploring the new communications landscape and innovative services that make use of capabilities in the operator network. ICIN 2012 will take place from October 8-12, 2012 in Berlin. For more information, visit www.icin.biz.

LATINCOM 2011/*continued from page 3*

of the School of Computing & Maths at the John Moores University in Liverpool, UK. This talk addressed the research and technical challenges of developing secure systems that encompass both existing legacy SCADA systems and new cyber communications systems, thereby providing the fundamental foundation of technical security required to ensure energy supply chains.

On Tuesday morning and afternoon, 12 more technical papers were presented in 5 sessions. In the afternoon, Renny Badra from University Simón Bolívar, Venezuela presented the second tutorial entitled "OFDM/OFDMA for 4G Wireless Systems". A gala dinner was offered at night, during which Eduardo Cerqueira announced the Best Paper Award to Rafael Curi, Daniel Batista and Nelson Fonseca (Brazil) for th€eir paper "Robust hybrid mechanisms for scheduling of grid tasks". This paper was selected by an international committee including representatives from all IEEE ComSoc Technical Committees sponsoring the conference.

On Wednesday morning, the third keynote talk on "Localization and Tracking: Challenges and Opportunities" was given by Antonio Loureiro from the Federal University of Minas Gerais, Brazil. This talk presented the problems of localization and tracking in the new scenarios of mobile social networks and vehicular networks, discussed their importance for other network services, and outlined some of the main challenges and opportunities in this area.

Still on Wednesday, other 12 technical papers were presented in four sessions. During the afternoon, the tutorial "Opportunistic Networking: Extending Internet Communications Through Spontaneous Networks" was presented by Waldir Júnior and Paulo Mendes from University Lusófona, Portugal. Finally, in a panel organized before the conference closing ceremony, the panelists Nelson Fonseca, Antônio Loureiro and Antonio Marcos Alberti discussed about Sustainable Communications For a Green Word.

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