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MEMBER RELATIONS

Latin America Region

Interview with Pedro Aguilera, Director of the Latin America Region

By Stefano Bregni, Vice-President for Member Relations, and Pedro Aguilera, Director of the Latin America Region

This is the fifth article in the series of eight, begun in September and published monthly in the *Global Communications Newsletter*, which covers all areas of IEEE ComSoc Member Relations. In this series of articles I introduce the seven Member Relations Directors (Sister and Related Societies; Membership Programs Development; AP, NA, LA, EAME Regions; Marketing and Industry Relations) and the Chair of the Women in Communications Engineering (WICE) Standing Committee. In each article they present their activities and plans.

Stefano Bregni

Pedro Aguilera

In this issue I interview Pedro Aguilera, Director of the Latin America Region. Pedro is an Electrical Engineer, graduated from the University of Chile. He is an IEEE Senior Member and has been an active volunteer for ComSoc and IEEE since 2003. Last year he was the General Chair of the IEEE Latin American Conference on Communication (LATINCOM 2013). Currently he is a member of the IEEE Chile Section Board, Chair of the ComSoc Chile Chapter, and Director of the ComSoc Latin America Region. He has worked for 17 years on network planning and technology development at Telefónica Chile. Presently he is Account Manager at Switch Comunicaciones, Chile.

It is my pleasure to interview Pedro and to have this opportunity to present the organization and activities of the Latin America Region, which I have visited dozens of times, beginning in 2003 as an IEEE Distinguished Lecturer.

Stefano: Hola Pedro! Como estás? You have been Director of the Latin America Region for three years already. What are the biggest challenges and best opportunities in your Region?

Pedro: Hola Stefano! Yes, it is true. How quickly have these three years passed! About your question: I think we can do great things in this region. We have a lot of potential, but we need to achieve a higher level of participation and integration between ourselves. We have to take advantage of the many things we have in common: our cultural roots, our language, etc. Therefore, some of my personal objectives as Director of the LA Region are to achieve greater use of telecommunication technologies; increase the use of the DL/DS Programs; improve and extend the contributions to the GCN; improve the transition process from the Regional Director whose term is expiring to the new incoming Director; making the LA Board more efficient by having more meetings and by extending its composition.

Stefano: How would you extend the use of telecommunication technologies in the ComSoc activities of the LA Region?

Pedro: I deeply believe that ComSoc should be a model for the rest of the IEEE in this matter. Webinars, for example, are of great benefit for the members of ComSoc of Latin America who live in remote areas of the big cities. It is a good way to share the numerous technical activities in the region carrying out each chapter. Just imagine if we were able to transmit online and record each technical conference, we could construct a valuable database for our current members and attract new ones.

There has been some progress in this area already. Each year two or three webinars are realized in LA. Some of them are combined with the Distinguished Lecturer Tours program. Last year we also incorporated technical conferences in Spanish and Portuguese, the two predominant languages in the region. I encourage the use of webinars for all Latin American chapters. Today we have Webex accounts available at no cost for all chapters of ComSoc. It is easy to use and the technical requirements are minimal.

Stefano: You mentioned the Distinguished Lecturer/Speaker Programs. Over my 10 DLTs in the past, six were in Latin America. So I am very much interested to know more about what are your objectives and achievements in this area.

Pedro: The Distinguished Lecturer Tour (DLT) and the Distinguished Speaker Program (DSP) are much appreciated sources of activity for members of ComSoc. However, Latin America has some particular challenges that it must be addressed. This year we tried to organize seven DLTs, but only four were finally completed. ComSoc's Distinguished Lecturers are distributed mainly in North America, Europe, and Asia. The geography of Latin America makes it very difficult to get DLs from Europe and Asia. The high cost of the airfare and the long hours of travel are difficult barriers to overcome. In this sense, in 2014 we made valuable progress on flexibility for the limits of funds for international tickets associated with Distinguished Lecturer Tours. This is very positive and we thank the MPD Director, Dr. Koichi Asatani, and of course you, Stefano, for the strong support, without which we would not have achieved this flexibility.

Stefano: Thanks a lot. It is always good to hear when someone appreciates our work. It is true indeed that I always presented the Distinguished Lecturer Program as one of the most important programs of ComSoc, because it is an effective way to serve members, especially in disadvantaged areas. Another element that I believe is central in ComSoc's Member Relations strategies is the *Global Communications Newsletter*. I am working to improve its contents and distribution. Indeed, I want it to be considered the "Voice of the Chapters." Would you tell us something about your plans about GCN in the LA Region?

Pedro: I must admit that our region contributes very little to this excellent newsletter. The number of articles sent does not reflect the level of activity that we carry on in the Region. In conjunction with our GCN Regional Correspondent, Lisandro Zambenedetti, we have been implementing some steps to improve

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Distinguished Lecture Tour of Ying-Dar Lin in Australia, June 2014

By Ying-Dar Lin, National Chiao Tung University, Taiwan

This was my first DLT (Distinguished Lecture Tour), piggybacked on the IEEE International Conference on Communications (ICC) in Sydney, Australia, 10-14 June 2014. The reason to piggyback this DLT with a conference trip is to save money and time. During ICC I attended several editorial board meetings, TPC meetings, and technical meetings. I also gave the first lecture at the University of Sydney, hosted by Prof. Albert Zomaya, who is the Editor-in-Chief of *IEEE Transactions on Computers*. I've known Prof. Zomaya for three years, since I started serving on his editorial board. We decided that we might have a common research interest in an emerging area (software defined networking (SDN)) that combines the IEEE Computer Society and the IEEE Communication Society.

After ICC I flew to Melbourne to give two other lectures at Deakin University, hosted by Prof. Shui Yu, and Swinbourne University of Technology, hosted by Prof. Grenville Armitage. I met Prof. Yu at a conference in Hawaii, and he invited me to give a talk at their one-day workshop on Emerging Topics in Computer Science. With Prof. Armitage, I recently finished guest-editing a successful special issue on Open Source for Networking in *IEEE Network Magazine*. This special issue attracted a record high 70 submissions, and we had to split it into two issues, published in March 2014 and September 2014.

Although I provided five topics (Research Roadmap Driven by Network Benchmarking Lab, Traffic Forensics, Benchmarking Smartphones, Open Source for Networking, Software Defined Networking) for my hosts to choose from, they all picked the same topic — Software Defined Networking: Why, Where, When, and How — because SDN is an emerging area and could fundamentally change the networking industry. A four-minute introductory video to the five topics is available at **https://www.youtube.com/watch?v=BuxQ9Yk3OXc&feature=youtu.be**.

Special thanks should go to the chairs of two local chapters who helped arrange the local publicity for the lectures: Prof. Jinhong Yuan, New South Wales ComSoc Chapter Chair, and Dr. Paul G Fitzpatrick, Victorian ComSoc Chapter Chair.

Three Lectures

The lecture itself is a tutorial and survey on SDN. I argued why, where, and when for SDN. Then I illustrated how SDN works in four sections: standardization, development, testing, and deployment. These four sections reflect the viewpoints from standard bodies, vendors, test labs, and operators. It was final exam week in all universities in Australia. The attendees were mostly faculty members, post-doc researchers, and Ph.D. students. The number of attendees at the University of Sydney, Deakin University, and Swinbourne University of Technology was approximately 25, 50, and 30, respectively.

Left to right: Ying-Dar Lin, Leith Campbell, and Grenville Armitage after the talk at Swinbourne University of Technology.

Left to right: Ying-Dar Lin, one of Prof. Zomaya's students, and Prof. Albert Zomaya after the talk at the University of Sydney.

Attendees after the talk at Deakin University.

In-Depth Discussions after Lectures

The lectures triggered many questions from the audience. I briefly summarize their major questions and my answers below.

Why active networking failed and why SDN could succeed? Though both promote the idea of network programmability, active networking tried to put the control of that programmability into every router, i.e. running programs on routers, which is infeasible. In SDN the control of programmability is the cloud at the controllers, i.e. running programs on controllers to program routers and switches. Cost reduction and new service revenue would be the two driving forces for the success of SDN.

Why redirecting data-plane packets to controllers could lead to performance problems? Most data-plane processing at switches is done in hardware, e.g. table lookup in ASIC, but control-plane processing at controllers and applications is done in software. Redirecting data-plane packets to controllers would trigger control-plane software processing, which slows down the forwarding process. Thus, the redirection ratio should be reduced.

How can one controller serve a large network? Currently there are approximately 100,000 domains on the Internet. Some of them would be turned SDN-enabled. Each domain can have one controller or multiple controllers for fault tolerance and load balancing.

How about the Internet backbone? The evolution starts from data centers, then service providers and their subscriber networks they support, i.e. enterprise, residential, and cellular users. It may evolve into handheld and wearable devices, but the entire Internet backbone itself is likely to remain the same, i.e. running BGP routing in a distributed way, because the Internet backbone does not belong to a single domain.

How is the routing information collected in SDN with just

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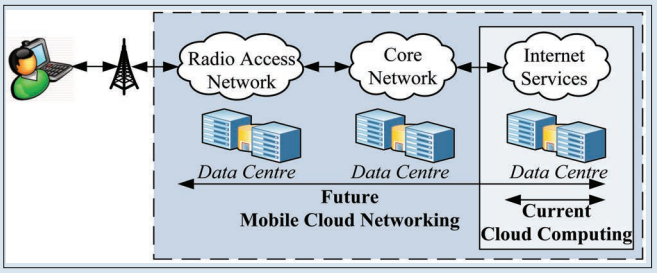
CONFERENCE REPORT

Highlights from the Mobile Cloud Networking Workshop 2014, Lisbon, Portugal

L. M. Correia and L. S. Ferreira (INOV-INESC/IST – University of Lisbon, Portugal), Paulo Simões (ONE Source, Portugal), Jorge Carapinha (PT Inovação e Sistemas, Portugal), and T. M. Bohnert (ZHAW, Switzerland)

On 19 June, 2014 the Mobile Cloud Networking workshop was held at IST – University of Lisbon, Portugal. It was co-organised by the IEEE ComSoc Portugal Chapter and MCN (Mobile Cloud Networking), an EC FP7 R&D project. It was motivated by an ongoing transformation that drives the convergence between the Mobile Communications and Cloud Computing industries, enabled by the Internet (see figure upper right). The expression of interest in this workshop was reflected by the number of participants: more than 90 professionals from industry, operators, regulators, and universities. It was a full-day workshop, with talks from 13 experts, some involved in the MCN project, but others having been invited, coming from manufacturers, operators, and universities in Portugal.



An ongoing transformation is driving the convergence between the Mobile Communications and Cloud Computing industries, enabled by the Internet.

MCN Workshop panelists.

The Mobile Cloud Networking Vision

Mobile communication networks are constantly growing and being enhanced. Driven by an increase in capacity needs from end-users, these networks need to continuously densify their deployments, and upgrade and optimize their networks with the most recent systems advances. Current network elements are based on hardware, designed by vendors for specific purposes. Their deployment and configuration requires the intervention by technicians on each device, while most of the time their upgrade and re-size requires their replacement. The concept of cloud, based on data-centers with servers networked all together, makes it possible to install software that performs similar network functionalities. This enables the easy configuring and updating of network elements, and elastically scaling the associated computation, storage, and networking resources. Given a network with a small load, the software can run only on one machine, while if the load drastically increases, the system is able to increase dynamically the number of machines to support the necessary features. The concept of mobile cloud networking will change the paradigm of network operators and equipment manufacturers. From the moment operators have platforms where they can easily install software with various types of features, the use of resources becomes more dynamic, adaptive, and efficient, thereby reducing the costs of acquisition and operation. New business models will appear, giving rise to new players with new value-added services. For the end user, this certainly means more choice among operators, more services, and lower costs.

An overview of MCN, a project that aims to offer a service combining mobile networking, computing, and storage elastically, on-demand, and only paid per use, was presented by Thomas M. Bohnert and Andy Edmonds (ZHAW, Switzerland). A novel business player, the mobile cloud provider, is foreseen, driving the requirements for a mobile network architecture that exploits and supports cloud computing, and enabling the exploitation of the concept of an "end-to-end Mobile Cloud" for novel applications. A vision of the use of cloud technologies in mobile core networks was given by Rui Gomes (Vodafone, Portugal). Cloud will ease trials, full network swaps, and deployments. It is a solution based on low-cost and reusable hardware, software being the differentiator. This is good for software telco vendors and newcomers, challenging hardware-based vendor models, seen as a clear win-win for operators and vendors. New ICT consumption models in corporate environments were addressed by José Pereira (Novabase, Portugal). In a very aggressive market, where pricing models tend to be decided based on business (OPEX consumption), cloud can provide a benefit in deploying scalable and pay-as-you-grow solutions.

The trend toward a cloudified service function chaining infrastructure was highlighted by Rui Aguiar (Instituto de Telecomunicações, Portugal). Two burning telco topics were presented: Software Defined Networking (SDN) and Network Function Virtualisation (NFV), which point toward cloud concepts. It was reinforced by Raúl Caldeira (Ericsson, Portugal), who discussed how NFV, SDN, and cloud are transforming networks, services, and business, highlighting how "it takes three to tango." NFV virtualizes network functions, Cloud scales them to the cloud for optimal deployment, and SDN enables cross-domain control, orchestration, and management, enabling infrastructure to meet changing demands. In the same direction, the talk from Fernando Carvalho (Portugal Telecom, Portugal) traveled from SDN to the Software Defined Cloud (SDC) concept, which provides management and automation of computing, networking, and storage resources through simple portals. Key requirements for the next-generation cloud are fast time-to-market, scalability, quality of service, and total cost of ownership. Emulation techniques to speed up the convergence between mobile communications and cloud computing were presented by Manuel Ricardo (University of Porto, Portugal). ns-3 may contribute to the reduction of development times of new solutions (distributed systems, protocols, resource management techniques), enabling performance evaluation and main use case validation, combination of models with real building blocks, fast prototyping, and short validation times.

From the MCN project, several innovations were presented. An architecture to offer cloud-based Radio Access Network (RAN) as a Service (RANaaS) was presented by Dominique Pichon (Orange, France), bringing cost and efficiency benefits from the cloud computing model. It aims at offering elastic, scalable, and on-demand RANaaS, dynamically adapted to geographic and temporal load variations. Several challenges were discussed concerning the front-haul, baseband unit, radio resource management, real-time performance, and scalability. On the other side, an architecture to offer IP Multimedia Subsystem (IMS) as a service for NFV-based architectures was presented by Giuseppe Carella (Univeresity of Berlin, Germany). It offers the possibility to deploy on-demand an instance of the IMS platform. With a very limited number of entities, a large number of subscribers can be served. Finally, a live demonstration of LTE Evolved Packet Core

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REGIONAL REPORT

Professional Development Opportunity through IEEE ComSoc Workshops in New Zealand

By Nurul I Sarkar, IEEE Joint NZ North and South ComSoc Chair

In New Zealand (NZ) we have two ComSoc Chapters. A joint chapter of IEEE NZ North and South Sections, and the other a joint Chapter of the Communications, Signal Processing, and Information Theory (COM/SP/IT) Societies of the New Zealand Central Section. We are in the process of forming a single joint ComSoc Chapter NZ-wide spanning all three sections. We believe that members of ComSoc and the wider community would benefit from this single joint Chapter.

Being a ComSoc chapter chair, Associate Professor Nurul Sarkar had organized a day-long workshop for professional development of the members of the society and the wider university community. The workshop was held on 4 November 2013 from 9 am to 4 pm at Auckland University of Technology (AUT), Auckland, New Zealand. The event was sponsored by IEEE NZ North Section and the School of Computer and Mathematical Sciences, AUT. The workshop began with a short introduction by Chapter Chair Dr. Nurul Sarkar highlighting the role of the ComSoc Chapter and its association with IEEE NZ North Section. He then introduced distinguished invited guest speakers, local presenters, and the overall program for the day.

The workshop consisted of a series of presentations on aspects of computer networking and communications. There were 12 presenters, including three invited guest speakers from the National University of Defence Technology (NUDT), China; the remaining nine presenters were from AUT's Network and Security Research Group (both staff and research students). A brief description of each presentation is highlighted below.

Shuaib Memon (Ph.D. research student) gave a talk on "Strict QoS Guarantee for Emergency Traffic in Wireless Networks" by summarizing his Ph.D. research at AUT. Akbar Hossain, another Ph.D. student, spoke about "Spectrum Management in Cognitive Radio Wireless LANs." The talk highlighted the importance of developing new techniques/algorithms for spectral efficiency. Next, Priyanka Undugodage (AUT research assistant) gave a talk on "Achieving Transmission Fairness in Wireless Mesh Networks" by highlighting opportunities and research challenges.

Among the three guest speakers from NUDT China, Professor Jibo Wei gave an interesting presentation on aspects of "Broadband Communication and Network Research" to share his research ideas. Associate Professor Haitao Zhao gave a talk on "Available Bandwidth Estimation and Prediction in Cognitive Wireless Networks" by summarizing his research activities and findings. Professor Jun Zhang talked about computational photography, which generated a lot of interest among industry participants for further discussion.

Our next presenter was Dr. Sayan Ray (Manukau Institute of Technology, Auckland) who gave an interesting talk on "Base Station Congestion Control Mechanisms in Natural Disaster Situations." The talk highlighted practical system implications. Sumeet Thakur, another research assistant, gave a talk on "Simulation and Modelling of LTE-A Using OPNET Modeler."

Informal discussion and networking during tea break.

Networking and international collaboration opportunity.

Among the three presenters from the academic staff, Dr. Jairo Gutierrez gave a talk on "Wireless and Mobile Network Pricing Models" by highlighting the link between technology and businesses in the global wireless and mobile markets. Krassie Petrova, another staff member, spoke about interesting aspects of a mobile learning research framework and future directions. Mee Loong (Bobby) Yang highlighted his research on "The Multiple-Key Blom's Key Agreement Scheme." Finally, Sotharith Tauch (Ph.D. research student) gave a talk on "Cascading Failure" by summarizing his work.

The length of each presentation ranged from 15 to 30 minutes. Academic staff members had slightly more time than research students to share their research and development work with the audience. Each presentation concluded with open research areas that generated a lot of interest among the participants for further discussion. The tutorial style of presentation helped the audience attain a thorough understand of the emerging research topics. There was also ample opportunity for questions and answers after each presentation.

Despite of the busy time of the year, approximately 50 people (30 IEEE members and 20 non-members) from the wider university community attended the event. There was ample opportunity for informal discussion, networking, and international collaboration, especially during morning tea and lunch break. People enjoyed the facilities provided by AUT University. There was also a discussion session in the afternoon especially for international research collaboration.

Overall it was a productive opportunity for the attendees to network, encourage academia-industry links, collaborate, and share ideas. Organizing Chair Associate Professor Nurul Sarkar received positive feedback from the participants, indicating that the event was very successful.

IEEE ComSoc workshop attendees in Auckland.

REGIONAL REPORT

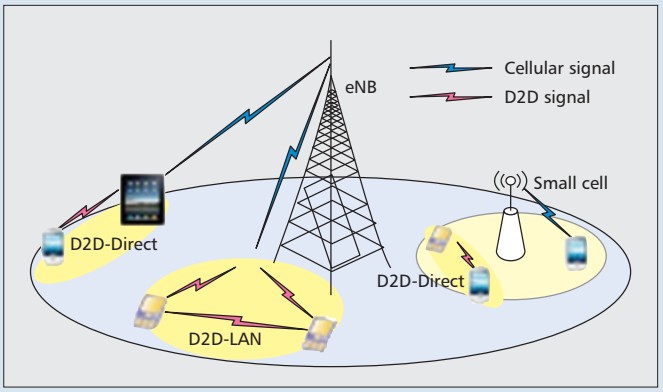
Coordinated Device-to-Device Local Area Networks: The D2D-LAN Project in China

By Lingyang Song, Peking University, Beijing, China

As the research on the fifth generation mobile communications steps into its startup period, the Ministry of Science and Technology (MOST) of China granted a five-year (2013-2017) fundamental research project belonging to "973" programs, named Coordinated Device-to-Device Local Area Networks, i.e. D2D-LAN. This project is organized by Prof. Lingyang Song, in cooperation with Prof. Xiang Cheng, both from Peking University; Prof. Minghua Chen and Prof. Yingjun Zhang, both from Chinese University of Hong Kong; and Prof. Shengli Zhang from Shenzhen University.

Device-to-Device (D2D) communication has been recognized as an efficient way to improve system performance for future wireless networks. In China D2D-related research has attracted a great deal of attention from numerous researchers and wireless engineers in both academia and industry. In the universities, research topics regarding D2D communication cover a wide range, from the physical layer to the MAC layer, and the upper layer, etc. In industry, people mainly look at the possibilities of standardization in 3GPP, as well as real implementation and prototypes, and their current focus is on neighborhood discovery and public safety applications. In almost every local wireless communication conference and seminar, you will see a few presentations about D2D communication.

A large number of research works and projects on D2D systems focus on one-hop (one D2D pair) communication. On the other hand, multihop communications arise in many emerging applications, such as data communication in hotspots. The corresponding research is highly associated with specific applications, such as mobile social networks for advertisement push, and community networks for fast data dissemination. Most of these problems still remain open and are in need of extensive investigation. The D2D-LAN project focuses on these multi-hop application scenarios, catering to the demands of high-efficiency cellular technology, and carries out research from the two perspectives of basic theory and key technology, aiming to develop a new network structure that highly improves spectrum efficiency and system capacity.



A representative study scenario, consisting of small cell, conventional cellular communication, one-hop D2D direct transmission, and D2D-LAN for group communication.

The researchers in the D2D-LAN project believe that there are many challenges different from those faced with traditional wireless networks. One of the major challenges by enabling D2D-LAN communication is to realize efficient data spreading in the D2D network without causing severe disturbance of the original cellular networks. Other challenges to be extensively researched include: identification of services for which D2D communication is useful; radio resource allocation and resource management for D2D links; self-organizing D2D links; and capacity and performance evaluation. Finally, many applications, such as mobile social networks, vehicular ad-hoc networks, or even machine-type communications, will be studied by considering specific constraints.

By now, the project has made innovative progress in various fields of research. The achievements have been published in international journals, conference proceedings, and applied for patents and proposals both in China and aboard. Moreover, the international and Chinese research institutions have given recognition and praise for the work. The results obtained so far through intensive collaboration among the project partners are rather encouraging in comparison with relevant state-of-the-art approaches and thus pave the way to further study of more composite protocols in the future.

For more information, visit the website at **http://wireless.pku.edu.cn/home/songly/973project/home.html**

MEMBERSHIP PROGRAMS/*Continued from page 1*

this situation. One of them was to contact the organizers of technical activities, searching in the official IEEE L31 Report database, and ask them for articles. This was recently implemented a few months ago and we expect to evaluate results next year. We are also managing to have access to the reports that Distinguished Lecturers provide after tours when visiting our region. No doubt that this issue has been the most difficult to address by me.

Stefano: I am confident you will be successful to improve the situation. You also mentioned that you wish to improve the transition process from the Regional Director, whose term is expiring, to the incoming Director.

Pedro: This is a new aspect that I am raising as a problem for our Region. Indeed, the ComSoc policy establishes that RDs are appointed by the President of Comsoc, for two-year terms. In my case, when I assumed this position everything was completely new for me. Despite the fact that I had been a member of the ComSoc Latin America Regional Board (LAB) for six years as, in the region we never had a meeting of the Board. I knew little or nothing about the guidelines and plans of the previous directors. In practical terms, I had to start from scratch.

An interesting discussion has been started with you, Koichi Asatani, and the other regional directors on this subject. This has been very helpful. I have discovered that this problem is not exclusive to Latin America. We have taken some good ideas from the excellent work and organization of the AP Region that I hope to implement in our region. For instance, the AP Region nominates the new AP Director candidate (remember that regional directors are appointed by the President of ComSoc) from a list of active AP Board members who have attended half or more of the last two year's AP Board meetings.

Stefano: I agree that Regional Boards should meet in addition to working by email. How would you proceed to make the LA Board more efficient?

Pedro: Related to the first point, I believe that we need to have more LA Board meetings. Unfortunately, the ComSoc budget does not allow in-person meetings, so we are using virtual-meeting tools. We had our first virtual meeting last November. With the exception of some minor Internet connection problems, everything was fine. I think we should also add more members to the LA Board. Finding volunteers for the LA Board has not been easy. There are several positions within the Board that have not been filled so far. First, this generates overwork for the rest of the Board. Also, this decreases the possibility of finding suitable candidates to be the next LA Director.

Distinguished Lecturer Tour/*Continued from page 2*

OpenFlow? A layer-2 protocol, Link Layer Discovery Protocol (LLDP), enables switches to broadcast themselves and identify their neighbor switches. Then through OpenFlow 'Hello' messages, switches report themselves and connectivity to their controller. The controller takes the collected routing information to construct the topology for path computation and then, through OpenFlow 'Modify' messages, configure flow tables at switches.

Where should traffic classification happen? If only TCP/IP-layer traffic classification is needed, it can be done at switches because the packet headers checked by flow tables are TCP/IP headers. But if the application header or even the payload is checked in doing traffic classification, it should be redirected to the extended data-plane, i.e. network function virtualized (NFV) modules. However, for the first packet, redirection to the controller for service chaining (SC) is needed to identify where the NFV modules are.

What about the security of SDN vs. the security by SDN? When talking SDN security, most researchers now talk about securing SDN, especially its centralized controllers, which could be the single points of failures. However, if we view security as a valuable service that requires resources, the operators could offer SaaS (Security as a Service) to their enterprise, residential, and cellular subscribers. Thus, another stream of research should be focused on how to offer SaaS on top of NaaS (Networking as a Service) by SDN.

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MCN Workshop/*Continued from page 3*

(EPC) as a Service, based on Fokus OpenEPC, OpenSDNCore, Openstack, and Zabbix, was presented by Marius Corici (Fraunhofer FOKUS, Germany).

After the presentations, a panel including many of the speakers and chaired by Luis M. Correia (IST – University of Lisbon, Portugal) discussed several topics raised during the day, as well as questions from the audience. All presentations are available at the MCN website (http://www.mobile-cloud-networking.eu/site) as well as at the IEEE ComSoc Portugal Chapter website (http://chapters.comsoc.org/Portugal).

Call for Contributions

Global Communications Newsletter

The Global Communications Newsletter (GCN) appears monthly within *IEEE Communications Magazine*.

It provides an excellent opportunity to present news and events related to communications around the world, as well as activities carried out by IEEE Communications Society chapters in greater detail.

In general, articles published in the Global Communications Newsletter are not technical papers or even technical surveys. Rather, they are short articles informing the IEEE Communications Society community about various activities being carried out and organized in the four corners of the world by the many volunteers who are the true engine of the IEEE Communications Society. Also, major news from the regional telecommunications industry, operators, and academia may be of great interest to our global community.

The relevance, timeliness, and interest of reports published in our Newsletter depend on your cooperation. The willingness of everyone to contribute timely and informative reports is essential to ensure the success of our Newsletter. We look forward to receiving your submissions.

Please submit your articles to the GCN Editor Stefano Bregni (bregni@elet.polimi.it). Submissions should be prepared in standard MS Word DOC format. Articles should begin with title, authors and affiliation, should have length 300 to 1000 words, and may also include 1 or 2 figures.