



# TECT WG MEETING

Latin America

RIO DE JANEIRO • 15 - 16 MAR 2016

Co-organized with



TECT SEMINAR SERIES AGENDA		Doc. #
Time	Wed 16 March 2016 Discussion Topics	
09:00-09:05	<b>1. OPENING OF MEETING AND DOCUMENT REGISTRATION</b>	Doc001
09:00-09:05	<b>1.1 Opening Address and delegate introduction</b> <ul style="list-style-type: none"> <li>Jose Antonio Aranda, GSMA, Technology Director - Latin America</li> <li>Martin Wessel, Telecom Argentina, Chair TECT (Technical and Terminal Group)</li> </ul>	Doc002
09:05-09:15	<b>2. AGENDA: OVERVIEW OF INDUSTRY SEMINAR SERIES</b>	
09:05-09:15	<b>2.1 Review of TECT Seminar series agenda</b> <ul style="list-style-type: none"> <li>Martin Wessel, Telecom Argentina, TECT Chair (Technical and Terminal Group)</li> </ul>	Doc003
09:15-10:30	<b>3. ACCESS NETWORK SEMINAR: KEY HOT TOPICS</b>	
09:15-09:30	<b>3.1. Small Cells: Benefits and new tendencies</b> Low-powered radio access nodes operating in licensed and unlicensed spectrum: Small cells can improve capacity by up to 1600x and placing four small cells within one macro, improves macro network performance by 315 per cent. Key tendencies: Hetnet, ICIC, e-ICIC, fe-ICIC, CoMP, LTE-U/LAA, 256QAM, Interference management) <ul style="list-style-type: none"> <li>Sue Monaham, CEO Small Cell Forum</li> </ul>	
09:30-09:45	<b>3.2 Migration of 2G-3G networks</b> Most Operators in Latin America do not think that 2G will be entirely replaced by 3G/4G in the near future (before 2025). Factors keeping 2G in the market include long service life of 2G M2M applications, availability of affordable handsets, existing nationwide 2G/GPRS/EDGE coverage or expectation of data traffic in the country. <ul style="list-style-type: none"> <li>Telefonica Argentina</li> </ul>	
09:45-10:00	<b>3.3 Centralized RAN (C-RAN)</b> Introduction to C-RAN: Why Centralized?, Fronthaul vs Backhaul, CPRI/OBSAI transportation, DWDM vs GPON, Cloud RAN, ETSI NFV Architecture, VNF, Hypervisor, SDN, SBI/NBI, OpenFlow, OpenStack.	
10:00-10:15	<b>3.4 Multimedia Broadcast Multicast Services (MBMS) and eMBMS</b> Unicast vs Multicast, Architecture, Network Elements, Air interface Channelization, Single Frequency, Applications. <ul style="list-style-type: none"> <li>Qualcomm</li> </ul>	
10:15-10:30	<b>3.5 Radio Access Network Deployment Panel</b> Possible Regional guidelines /working paper to identify issues found by the Operators in the Region and the possible solutions related to the Radio Access Network Deployment in the main countries in Latin America. Moderator: Martin Wessel, Head of Technology - Telecom Argentina <ul style="list-style-type: none"> <li>Telefonica Argentina</li> <li>Iusacell</li> <li>TIM Brasil</li> </ul>	

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	<ul style="list-style-type: none"> <li>○ Oi Brazil</li> </ul>	
<b>10:30-11:00 Networking Break</b>		
<b>11:00-12:30</b>	<b>4. CONNECTED LIVING SEMINAR: SECURELY SCALING THE INTERNET OF THINGS (IoT)</b>	
11:00-11:15	<b>4.1 LPWA (low power wide area networks) Mobile IoT = Trusted IoT</b> By 2022, as many as 5 billion devices are forecast to be connected via low power wide area networks. Introduction to Mobile IoT, LPWA promise: How big is the world of IoT?, Choosing the right technology for IoT: Key decision factors, Standardisation or diversity: Which serves the IoT industry best? ; LoRA/SigFox; LTE-M: Cat.0/Cat.1/Cat.M; NB-LTE vs C-IoT; MTC <ul style="list-style-type: none"> <li>○ Wilson Cardoso, CTO for LATAM, Nokia</li> </ul>	
11:15-11:30	<b>4.2 Securing the Internet of Things</b> IoT services can only scale if they are secure, and the security of any service is only as good as its weakest link. The GSMA has developed IoT security guidelines to promote best practice for the secure design, development and deployment of IoT services. A proven and robust approach to address typical cybersecurity and data privacy issues associated with IoT services will create trusted, reliable services that can scale as the market grows <ul style="list-style-type: none"> <li>○ Fernanda Vaqueiro, Security Information Manager, Oi</li> </ul>	
11:30-11:45	<b>4.3 Embedded SIM: Enabling the Internet of Things</b> The GSMA's specification provides a mechanism for the remote provisioning and management of M2M connections, allowing OTA provisioning of an initial operator subscription, and the subsequent change of subscription from one operator to another. Benefits which have been realised since the launch of the specs. <ul style="list-style-type: none"> <li>○ Vivo Brazil</li> </ul>	
11:45-12:00	<b>4.4 Big Data: Realising the Full Potential of the IoT</b> From its inception, to the present day, and into the future, the IoT continues to produce an almost unquantifiable amount of data. Speakers will be sharing their experiences and knowledge on how harmonised ecosystems can be achieved, the value they can generate, and how a new generation of IoT services leveraging data from multiple sources can be developed, to realise the full potential of the IoT. <ul style="list-style-type: none"> <li>○ Javier Sendin, Network Director, GSMA</li> </ul>	
12:00-12:15	<b>4.5 Smart Cities: activities using enablers like eSIM, Security, LPWA to grow value</b> How to leverage operator assets such as eSIM, security, LPWA & data management to make cities smarter. IoT potential to add value to the proposition of smart-cities applications and key enablers. <ul style="list-style-type: none"> <li>○ Alessandro Quattrini, Head of Government &amp; Industry Relations, Ericsson</li> </ul>	
12:15-12:30	<b>4.6 Vodafone Brazil: First M2M dedicated MVNO in Brazil</b> Developing M2M technologies for the Brazilian market. Lessons learnt in providing M2M connections. How to unify voice, mobile data and m2m architectures. <ul style="list-style-type: none"> <li>○ Daniel Fuchs, CIO, Vodafone Brazil</li> </ul>	

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12:30-13:30	<b>Networking Lunch</b>	
13:30-14:30	<b>5. NETWORK 2020 SEMINAR: ALL-IP TECHNOLOGY - VoLTE /RCS</b>	
13:30-13:45	<p><b>5.1 VIRTUE: VoLTE Interoperability ResOLUTION Expediting task force</b> Group fully dedicated at fast tracking resolution of interoperability issues. Started with VoLTE/ViLTE, now covering also VoWiFi and IMS NNI. Annual release of new versions of the profiles (IR.92, IR.95) that takes place in April each year. IP Shared Solutions Resource Report.</p> <ul style="list-style-type: none"> <li>○ Javier Sendin, Network Director, GSMA</li> </ul>	
13:45-14:00	<p><b>5.2 IRET: Interconnect and Roaming Execution Team for IP communications/VoLTE</b> Review of the practical implementations: Operator IP communications interconnection guidebook. Lessons learnt and possible case studies to make implementations easier. Lighthouse projects in Korea, Germany, China and Spain.</p> <ul style="list-style-type: none"> <li>○ GSMA</li> </ul>	
14:00-14:15	<p><b>5.3 5G: 4G Evolution to 5G Commercialisation</b> 4G is still a relatively new technology, with limited or no coverage in many countries. Operators continue to invest strongly in LTE and in its evolution. 5G requirements: latency, throughput, battery consumption, connected devices; enabling technologies: massive MIMO; D2D; Spatial Modulation; NOMA vs OFDMA; new architecture: NVF/SDN; roadmap; standardization status.</p> <ul style="list-style-type: none"> <li>○ Huawei</li> </ul>	
14:15-14:30	<p><b>5.4 Case in Oi: trials on VoWiFi</b> Outcome of the pilot on VoWiFi in Brazil. Lessons learnt.</p> <ul style="list-style-type: none"> <li>○ Digelson Pereira, Technology consultant, Oi Brazil</li> </ul>	
14:30-14:45	<p><b>5.5 Case in TIM Brazil: trials on LTE advanced and Carrier aggregation</b> Outcome of the pilot on Carrier aggregation in band LTE-A CA B3 + B7 Trialled tri-band LTE-A CA B3+B7+B28</p> <ul style="list-style-type: none"> <li>○ TIM Brazil</li> </ul>	
14:45-15:45	<b>6. IDENTITY SERVICES SEMINAR: MOBILE CONNECT A NEW SERVICE FROM MOBILE OPERATORS ALREADY IN LATIN AMERICA</b>	
14:45-15:00	<p><b>6.1 Importance of digital identity and the opportunity for Mobile Operators</b> Overview of the power of Mobile Connect for organizations interested in adopting the technology and showcases how existing organisations are benefiting from the implementation of different use cases. Enabling 1 Billion users Globally.</p> <ul style="list-style-type: none"> <li>○ Oscar Mancebo, Head of Mobile Connect, Telefonica Group</li> </ul>	
15:00-15:15	<p><b>6.2 Telecom Argentina case. Implementation of Mobile Connect Service in Latam</b> Telecom Argentina is building their identity service with the aim of interworking with the rest of local Operators becoming the first interoperable Mobile Connect country in Latin America.</p> <ul style="list-style-type: none"> <li>○ Martin Wessel, Head of Technology, Telecom Argentina</li> </ul>	

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15:15-15:30	<b>6.3 Service Providers implementing Mobile Connect</b> Mobile Connect has attracted service providers from different industries: Government, banking, ecommerce, utilities, content, corporate, transport, etc. Hear what these companies expect from Mobile Connect.	
15:30-15:45	<b>6.4 Mobile Connect Panel: Implementation plans for Latin America</b> Moderator: Fabio Moraes, Strategic Engagement Manager, GSMA	
15:45-16:00	<b>Networking Break</b>	
16:00-17:00	<b>7. SEMINAR: MOBILE MONEY AND MOBILE PAYMENT INDUSTRY IN LATIN AMERICA</b>	
16:00-16:20	<b>7.1 Mobile Money: Mobile Financial Services in Latin America &amp; the Caribbean</b> Mobile money has emerged as a powerful tool to expand financial access around the globe. Most LAC markets now offer mobile money services. 2015 recent report. <ul style="list-style-type: none"> <li>○ Tiago Novais, Market Engagement Manager, Latin America, GSMA</li> </ul>	
16:20-16:40	<b>7.2 Mobile money services in Brazil</b> Three LAC markets Brazil, Mexico and Colombia, have three or more mobile money services. Brazil produced a range of integrated partnership models between operators, financial institutions, retail chains and others. Interoperability and ecosystem development are central to the DNA of their mobile money deployment	
16:40-17:00	<b>7.3 Mobile Payments: Tokenization</b> Mobile payments are going mainstream. By 2019, half a billion people will be paying for goods with their mobile phone. Enhanced payment security is crucial to this rise: tokenisation for mobile payments - why the industry is heading there and what the future holds. <ul style="list-style-type: none"> <li>○ Carlos Romero, MKT Business Development and Innovation Latam, Gemalto</li> </ul>	
17:00	<b>Close of meeting</b>	

### Seminar Series Coordinators

TECT (Technical and Terminals): Jose Antonio Aranda ([jaranda@gsma.com](mailto:jaranda@gsma.com))

Javier Sendin ([jsendin@gsma.com](mailto:jsendin@gsma.com))

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## Speaker BIOS



### **Martin Wessel, Chair TECT, Telecom Argentina**

Es Ingeniero en Sistemas egresado del Instituto Universitario Aeronáutico y Master en Administración de Negocios Tecnológicos de la Universidad de San Andrés de Buenos Aires. Ha trabajado en empresas de telecomunicaciones durante los últimos 18 años, al principio en redes móviles y desde hace 8 años en redes convergentes. Es hoy el Gerente de Evolución Tecnológica de TELECOM PERSONAL ARGENTINA y el Chairman del Grupo Técnico y Terminales de la GSMA LATAM.



### **Alberto Boaventura, TECT Deputy Chair, Oi**

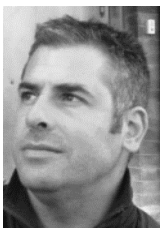
Master of Science (MSc) and Telecommunication Engineer, working at Telecommunication Industry over 25 years in several areas (Engineering, Network Planning, Strategic Planning, Marketing and Business Planning, System Development Specification, Product Management, Business Development Management), in different companies: Embratel, Lucent Technologies, Telemar, Ericsson, Brasil Telecom. Currently working as Technology Consultant in Network Technology and Service Platforms Area, he is responsible for technology leading for 2G/3G/4G network initiatives (technology, business and strategic perspectives). MBA in Corporate Finance and PMI Certified PMP, he also acts as Deputy Chair in Technical Working Group (TECT) in GSMA Latin America.



### **Jose Antonio Aranda, Technology Director - Latin America, GSMA**

Responsible for providing technical expertise to the region. In 2008-9 he was the Event Director of the GSMA Mobile World Congress in Barcelona (Spain). Joined GSMA in 2006 as Technical Working Group Director managing first the BARG (roaming) Group, then IWG (Interconnection) Group and more recently IREG (network) Group. Worked 8 years for Vodafone Spain in the Institutional Relations and Customer Service Departments. With a Technical Telecommunications Engineering degree, Jose began his career working in Austria and Slovakia.

### **Javier Sendin, Network Group Director, GSMA**



Licenciado en Informática por la Universidad de Deusto, España comencé como Consultor informático. Durante 14 años he trabajado en la Unidad de Gestión Técnica de Roaming, de Telefónica de España acabando como manager del área de Operaciones de Roaming Internacional y el Area de 24x7 Supervisión y resolución de incidencias. CTO en la creación de L2O Roaming Hub Company y Jefe de Operaciones para GRTU, Grupo Telefónica. 1 Año Roaming manager para Syniverse en Tampa, Fl, US y en la actualidad soy Roaming Technical Director en la GSMA en Reino Unido (Director de IREG y de IWG).



### **Óscar Mancebo, Global Initiative Leader for Digital Identity Area and Head of "Mobile Connect", Telefonica**

Óscar Mancebo is Global Initiative leader for Digital Identity area and Head of "Mobile Connect" at Telefonica Group, with more than 15 years of experience in the Telecommunication sector. Mobile Connect represents a standardized solution for user identification and authentication, allowing the mobile phone number to operate as the user's unique ID. The objective of the project, launched in February 2014 by GSMA (Global System for Mobile Communications Association) is to simplify people's lives in the new digital world, offering a simple, safe identification service that offers the user total control over their privacy and turns the Mobile Phone in the key to access the Internet services.

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### Carlos Romero, MKT Business Development and Innovation Latam, Gemalto

Carlos Romero has worked in the smartcard industry for more than 16 years, a career that goes thru different areas, from Manufacturing to Software Services and currently in Marketing and Innovation. He was responsible for setup and operation of the first Perso Center in Latin America supplying EMV Banking and Telecom SIM cards. Currently in Gemalto is working with Banks and Telecom Operators to create value services around new technologies as MobileID, Machine to Machine (M2M), NFC, Mobile Payments and LTE networks. He provides thought leadership on emerging technology trends and is a frequent presenter at industry forums and panels. Romero earned advanced degrees in computer systems engineering, mathematics and innovative marketing from ITESM México and has published extensively on digital image processing.



### Sue Monahan, CEO of the Small Cell Forum

Sue Monahan was appointed CEO of the Small Cell Forum in Feb 2014. Sue is responsible for executive level carrier engagement, membership engagement, recruitment, and partnership development. She also provides leadership to the Forum's technical groups and is also charged with providing succession management of the Forum. In addition to her role as CEO for the Forum, Sue has been managing technical working groups in North America for the GSMA since 2002. Sue brings a wealth of telecoms experience to the Small Cell Forum. She has over 25 years of experience in Telecommunications in Engineering, Sales, Product Development and Business Development. She holds a Bachelor of Science degree in Computer Science from the University of Delaware.



### Tiago Novais, Market Engagement Manager, GSMA

Tiago Novais is Market Engagement Manager for the GSMA's Mobile Money Programme. Based in São Paulo, Brazil, he is responsible for mapping mobile money deployments in Latin America, collecting best practices and supporting stakeholders on leveraging services in the region. His background comes from project and product management, with working experiences in Brazil and the United Kingdom on technology, mobile operator and banking industries. Tiago holds a Master's degree in Business Administration from Fundação Getúlio Vargas and a Bachelor's degree in Electrical Engineering from Escola Politécnica of the University of São Paulo.

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