

Welcome to the NGMN Industry Conference & Exhibition 2018

6 - 8 November 2018 JW Marriott Parq, Vancouver, Canada

5G – First Experience, Evolution & Innovation

kindly supported by **TELUS**°

As with the previous NGMN Industry Conference & Exhibitions you can expect:

- Gathering of world's top Operator CTO's to gain a perspective on the future of mobile broadband
- Viewpoints, insights and an outlook from Telco, IT and Vertical Industry Executives and Thought-leaders
- Latest updates, presentation and discussion of NGMN Work Programme deliverables
- Exhibition: Leading international partners with demonstrations of 5G solutions and concepts
- Networking opportunities and entertainment
- Caroline Lewko, WIP, as conference moderator

Grand opening event hosted by 🥂 TELUS®

Tuesday, November 6th 2018, 6pm - 8pm

Opening remarks by Ibrahim Gedeon (TELUS)

Experience the 5G demonstrations in a relaxed environment while networking and enjoying traditional Canadian delicacies and a special performance. NGMN would like to thank the entire TELUS team for their outstanding support and dedication with organizing the conference and exhibition!

NGMN IC&E WiFi Access

- SSD: NGMN_ICE
- Password: ngmn2018

Find the latest programme and information on the website. **https://ice2018.ngmn.org/**

Emergency Contact

Elyse Gawley from PACE Tel: + 1 604 379 5958

Follow the Conference at:





Conference Day 1, Wednesday, November 7th 2018

Pre-C	Conference Session	
	Session Moderator: Philipp Deibert Oliver Wyman	
09.00	Communication Systems Beyond 5G organized by WWRF	Starting off with a stream of presen- tations organised by Wireless World
	Moderator: Sudhir Dixit WWRF Speakers: Victor Leung University of British Columbia Matti Latva-Aho Director for 6Genesis Javan Erfanian Bell Canada Ashutosh Dutta Co-Chair of IEEE 5G Initiative	Research Forum (WWRF) addressing research on future communication systems (from full realisation of 5G vision to beyond 5G), with emphasis on requirements, gaps and enabling technologies.
10.00	Canadian Entreprenuers and Start-Ups organized by WIP together with EDC and NRC-IRAP	
	Moderator:Caroline Lewko WIPSpeakers:Grant Henderson Dali WirelessSwati Chakravarty-MarconCommunication ComponentsKyle MacDonald MojioGreg Wynans RioT MicroDavid Woodcock Colony NetworksKeith Dalton Signal Hill TechnologiesAlfred Engelhardt RCATSONE Inc.Jeff Spencer HYAS InfosecHunter MacDonald Tutela Technologies	Followed by a round of pitches given by some of the brightest Canadian entrepre- neurs and start-ups working in the area of IoT, Virtualization, AI & Analytics and Secu- rity invited by our cooperation partner WIP together with EDC and NRC-IRAP.
	с. 	
11.00	The Future of 5G Standards organized by ETSI	The first release of 5G specifications has already been delivered and a more
	Moderator: Christian Toche Member of the ETSI Board Speakers: Atte Lansisalmi 5G ACIA Prodip Sen Linux Foundation Networking Luigi Licciardi 5G SA	complete set is on target to be comple- ted by the end of 2019. But how will these specifications evolve over the next 5 to 10 years? How can we be sure that we satisfy the requirements of those new industry sectors that are beginning to engage with

Lunch Break 12.00

kindly sponsored by Rogers - Speaker: Rick Sellers

standards bodies and work at a pace commensurate with their needs?

Notes



Conference Day 1, Wednesday, November 7th 2018

Conference Session

14.00	Welcome &	& Introduction	
	Conference Moderator: Speaker:	Caroline Lewko WIP Peter Meissner NGMN Alliance	
	5G Busin	ess & Strategy	
14.15	5G Value F Services	Proposition, Use Cases, Applications,	Keynotes in this session will cover the opportunity 5G enables for the broader
	Moderator: Keynotes:	Caroline Lewko WIP Eros Spadotto TELUS Jeff McElfresh AT&T Jean Luc Bérubé Canadian Government Scott Jones Canadian Centre for Cyber Security	mobile ecosystem including business perspective, market demand, cyber security, and spectrum regulation.
16.00	Coffee Br	eak	
16.30	5G Platfor	m Delivery	
	Moderator: Keynotes:	Safdar Mahmood Accenture Stephen Howe Bell Canada Emmanuel Lugagne-Delpon Orange Labs Networks Peter Zhou Huawei Thomas Noren Ericsson Volker Ziegler Nokia	Strategies for migration from 4G to 5G, enabling platforms, roadmaps, and deployment strategy from operator as well as equipment vendor perspective will be covered in this session.
17.50	5G Applica	tions for Vertical Industries	
		Luis-Jorge Romero ETSI Andrea Calvi TIM Arash Ashouriha Deutsche Telekom Jessie Adcock City of Vancouver Christoph Voigt Audi Steve Maybee Edmonton International Airport	Technical challenges and requirements of 5G to enable new services for Vertical Industries, focusing on 5G Automotive, Transport, Smart Cities etc
19.10	Evening Evening Evening Evening Evening	vent sored by Huawei - Speaker: Peter Zhou	

Notes



Conference Day 2, Thursday, November 8th 2018

5G Architecture & Technology

09.00 Building Blocks for 5G Architecture Moderator: Hossein Moiin Virafon Keynotes: Michael Irizarry US Cellular Yuhong Huang China Mobile Sean Cai ZTE Sam Samuel Cisco Hassan Ahmed Affirmed Networks Morgan Kurk CommScope

5G presents the industry with an opportunity to go in a different direction. Speakers in this session will present some of the building blocks to make this happen: Antenna Systems, Small Cells, Chipsets, Service Based Architecture.

11.05 Coffee Break

11.35 Key 5G Component – Security Moderator: Ibrahim Gedeon TELUS Keynotes: Jason Hart Gemalto

Stéphane Jacquelin Idemia **Kireeti Kompella** Juniper **Lee Klarich** Palo Alto Networks

Jim Nevelle Kathrein Geng Wu Intel

13.20 Lunch Break

kindly sponsored by Bell - Speaker: Bruce Rodin

Experience from Test, Trials & First Deployments

14.40 5G Test & Measurement Equipment

Moderator:	Chris Pearson 5G Americas
Keynotes:	Kailash Narayanan Keysight
	Anton Messmer Rohde & Schwarz
	Stephen Douglas Spirent

With the people inductory at the three hold

Security Requirements, the importance

of end to end security solutions, policies,

and MEC security will be presented and

discussed by speakers in this session.

With the mobile industry at the threshold of 5G acceleration and commercialization, mobile operators are addressing new technical requirements to realize the full potential of 5G. End-to-end 5G tests need to be executed to validate complex multi-vendor interoperability test scenarios, network architecture and functional splits. Speakers will look at at both sub 6GHz and cm-/mm-Wave spectrum, 5G NR technology, and testing impact from vertical industries.

15.30 Coffee Break

6.00	Lab Trials, and User E	Field Trials, First Deployments Experience
	Moderator: Keynotes:	Philipp Deibert Oliver Wyman Jongkwan Park SK Telecom YongGyoo Lee KT Kevin Holley BT Karri Kuoppamaki T-Mobile US Czar Christopher Lopez Smart Communications Mikio Iwamura NTT DOCOMO Gerry Flynn Verizon
7.50	Farewell	
	Speakers:	Caroline Lewko WIP

Philipp Deibert Oliver Wyman Peter Meissner NGMN Alliance Focus of this session featuring NGMN operator partners from Asia, Europe and North America will be updates on lab trials, field trials, user trials and testing. Expect fantastic news and feedback from first live deployments.

18.00 End

Unrivalled Line-up of Speakers:

- Jessie Adcock
 CTO, City of Vancouver
- Hassan Ahmed Chairman & CEO, Affirmed Networks
- Arash Ashourih
 SVP & Deputy CTO Deutsche Telekom
- Jean Luc Bérubé President CRC, Canadian Government
- Sean Cai
 VP & GM, ZTE
- Andrea Calvi
 SVP Technology Evolution & Innovation, TIM
- Swarti Chakravarty-Marcon
 VP Global Channels, CCI
- Keith Dalton CEO, Signal Hill Technologies
- Phillip Deibert Principal, Oliver Wyman
- Sudhir Dixit WWRF
- Stephen Douglas Solutions & Technical Strategy, Strategic Marketing, Spirent
- Ashutosh Dutta Co-Chair of IEEE 5G Initiative, Johns Hopkins University
 Alfred French and L
- Alfred Engelhardt CEO, RCATSONE
- Javan Erfanian
 Distinguished Member of Technical Staff, Bell Canada
- Gerry Flynn
 Director Corporate Technology, Verizon
- Ibrahim Gedeon CTO, TELUS
- Jason Hart CTO, Gemalto
- Grant Henderson CMO, Dali Wireless
- Kevin Holley
 Director Technology Strategy & Ecosystems, BT
- Stephen Howe EVP & CTO, Bell Canada
- Michael Irizarry EVP & CTO, US Cellular
- Mikio Iwamura Executive Research Engineer, NTT DOCOMO
- Stéphane Jacquelin Director Advanced Business Line, Idemia
- Scott Jones Head, Canadian Centre for Cyber Security
- Lee Klarich
 EVP, Chief Product Officer, Palo Alto Networks
- Kireeti Kompella SVP & CTO, Juniper
- Karri Kuoppamaki
 VP Technology Developement & Strategy, T-Mobile US
- Morgan Kurk EVP & COO, CommScope
- Atte Lansisalmi 5G ACIA
- Matti Latva-aho Director, 6Genesis
- YongGyoo Lee SVP, Head of 5G, KT

- Victor Leung Professor, University of BC
- Caroline Lewko
 Ceo, WIP Factory
- Luigi Licciardi 5G SA
- Czar Christopher Lopez
 Head of Technology Strategy, Smart Communications
- Emmanuel Lugagne-Delpon SVP, Orange Labs Networks
- Kyle MacDonald Head of Marketing, Mojio
- Hunter MacDonald CEO, Tutela Technologies
- Saf Mahmood Managing Director, Accenture
- Steve Maybee VP Operations & Infrastructure, Edmonton International Airport
- Jeff McElfresh President of Technology & Operations, AT&T
- Peter Meissner
 CEO, NGMN Alliance
- Anton Messmer
 VP Mobile Radio Testers, Rohde & Schwarz
- Hossein Moiin
 CEO, Virafon
- Kailash Narayanan VP & GM, Keysight
- Jim Nevelle President & CEO, Kathrein
- Thomas Noren
 Head of 5G Commercialization, Ericsson
- Jongkwan Park SVP, Head of Network Technology R&D Center, SK Telecom
- Chris Pearson President, 5G Americas
- Bruce Rodin VP Wireless Networks, Bell Canada
- Luis Jorge Romero Director General, ETSI
 - **Sam Samuel** CTO Mobility Business Group, **Cisco**
- Rick Sellers
 President BC Region, Rogers
- Prodip Sen Linus Foundation Networking
- Eros Spadotto
 EVP Technology Strategy, TELUS
- Jeff Spencer
 COO, Hyas Infosec
- Christian Toche
 Member of the ETSI Board
- Christoph Voigt Head of R&D Connectivity, Audi
- David Woodcook
 VP Sales & Business Developement, Colony Networks
 Conc. Was
- Geng Wu
 Intel Fellow, Intel
- Greg Wynans
 VP Marketing, RioT Micro
- Huang Yuhong Deputy GM, China Mobile R&D
- Peter Zhou
 CMO, Huawei
- Volker Ziegler
 Head of 5G Leadership, Chief Architect, Nokia Mobile Networks

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