INL WIRELESS SECURITY WORKSHOP AGENDA

November 17-18, 2020

TUESDAY, NOVEMBER 17, 8:00 AM – 4:00 PM MST

OPENING SESSION 8:00 – 9:30 AM MST	
Welcome and Opening Remarks	Dan Elmore, Arup Bhuyan, *Idaho National Laboratory*
5G & Department of Energy (DOE)	Rocky Campione, Chief Information Officer, *DOE*
5G & Office of Science & Technology (OSTP)	Eric Burger, Assistant Director, *OSTP*
5G & DHS Cybersecurity and Infrastructure Security Agency (CISA)	Daniel Kroese, Deputy Assistant Director (A), *National Risk Management Center, DHS CISA*
5G & Joint Base San Antonio (JBSA)	Michael Lovell, *JBSA*
Break 9:30 – 10:00 AM MST	
TECHNICAL SESSION I: 5G DEVICES AND DRONES 10:00 – 11:30 AM MST	
5G Device Security	Arup Bhuyan, *Idaho National Laboratory*
5G in Aviation	Eric Ringer, Co-founder & Director of Aviation Technology, *Skyward, A Verizon Company*
5G Drone Security	Ismail Guvenc, *North Carolina State University*
5G Drone Authentication	Kemal Akkaya, *Florida International University*
5G V2X Security	Eyuphan Bulut, *Virginia Commonwealth University*
Break 11:30 AM – 12:00 PM MST	
TECHNICAL SESSION II: 5G DEVICES AND NETWORKS 12:00 – 1:15 PM MST	
5G Security for DoD	Sudhir Pattar, *InterDigital*
5G Beam-Based Transmission	Robert Heath, *North Carolina State University*
5G Core Network Security	Brian Kelley, *University of Texas – San Antonio*
5G Security including Telemedicine	Vuk Marojevic, *Mississippi State University*
Break 1:15 – 1:45 PM MST	
TECHNICAL SESSION III: 5G SPECTRUM 1:45 – 3:15 PM MST	
FCC 5G Spectrum	Monisha Ghosh, Chief Technology Officer, *FCC*
5G Spectrum Sharing Industry Presentation	David Debrecht, CTO, North America, *Nokia*
5G Spectrum Sharing Security	Sneha Kasera, Mingyue Ji, *University of Utah*
5G Ultra Low Latency	Hussein Moradi, *Idaho National Laboratory*
AI / ML for 5G Spectrum Security	Rose Hu, *Utah State University*
CLOSING SESSION 3:15 – 4:00 PM MST	
Facilitated Input Gathering on Summary and Future Work	
Closing Notes	Dan Elmore, Arup Bhuyan, *Idaho National Laboratory*

WEDNESDAY, NOVEMBER 18, 8:00 AM – 1:45 PM MST *(US CITIZENS ONLY)*

	OPENING SESSION
8:00–8:10	Paul Titus, *Idaho National Laboratory*
8:10–8:30	Vincent Sritapan, *Federal Mobility Group (FMG)*
	FEDERAL MOBILITY GROUP VIRTUAL TOURS AND LIVE Q&A
8:30– 9:15	IDAHO NATIONAL LABORATORY SECURE WIRELESS CAPABILITIES
9:15–9:45	VERIZON WIRELESS 5G LABS: BRINGING INNOVATION TO SOCIETY *Verizon will discuss their 5G Labs and explain how the solutions collaboratively tested there can help to bring the promise of 5G to society.*
9:45–10:15	ADVANCED TECHNOLOGY ACADEMIC RESEARCH CENTER (ATARC) TEST BED *The ATARC Mobile RF Lab capability was developed to perform research and testing of 5G and Blockchain/DLT mobile devices and related software. The Mobile RF lab is capable of ad hoc and bespoke testing of full spectrum RF communication and signal (10 MHz to 6 GHz range) monitoring and testing; as well communications over Wi-Fi and base station IP to verify communications strings. It also features a secret level SCIF.*
	Break 10:15 AM – 10:30 AM MST
10:30–11:00	NOKIA 5G TEST FACILITIES
11:00–11:30	NSF ADVANCED PLATFORM FOR WIRELESS RESEARCH: COSMOS *COSMOS (Cloud-Enhanced Open Software-Defined Mobile-Wireless Testbed for City-Scale Deployment) is a joint project of Rutgers, Columbia, and NYU in partnership with NYC, CCNY, U. Arizona, IBM, and Silicon Harlem. It targets the technology "sweet spot" of ultra-high bandwidth and ultra-low latency, a capability that will enable a broad new class of applications including augmented/virtual reality and cloud-based autonomous vehicles.*
	Break 11:30 AM – 12:00 PM MST
12:00–12:30	NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION – INSTITUTE FOR TELECOMMUNICATION SCIENCES (NTIA ITS) *The Advanced Communications Test Site at the Table Mtn Radio Quiet Zone is a unique facility for over-the-air testing of spectrum sharing solutions equipped with a meteorological satellite earth station testbed, two 18 m parabolic dish antennas, four general purpose research buildings, multiple guyed towers to support antenna installations, a vehicle size turntable for antenna pattern measurements, a radar emissions test range, and flat, homogenous terrain which is free of power lines and obstructions to support propagation measurements.*
12:30 – 1:00	VIRGINIA TECH RESEARCH CENTER: 5G RESEARCH PLATFORM *The Virginia Tech CCI has established a 5G security testbed as a collaborative activity and joint resource of the Network. Principal development of the core network and expertise in standing up the equipment will be provided by the CCI Hub. CCI Nodes will explore research issues related to specific application modes of 5G, such as IoT management, smart ports, grid management, UAV and Satellite communications, factory automation, and transportation. The Hub and Node research will leverage base stations (gNBs) located at the Nodes that connect to the 5G core network located at the CCI Hub.*
1:00 – 1:30	ERICSSON 5G TEST FACILITIES
	WRAP-UP / FEEDBACK
1:30 – 1:45	Paul Titus, Carl Kutsche *Idaho National Laboratory*