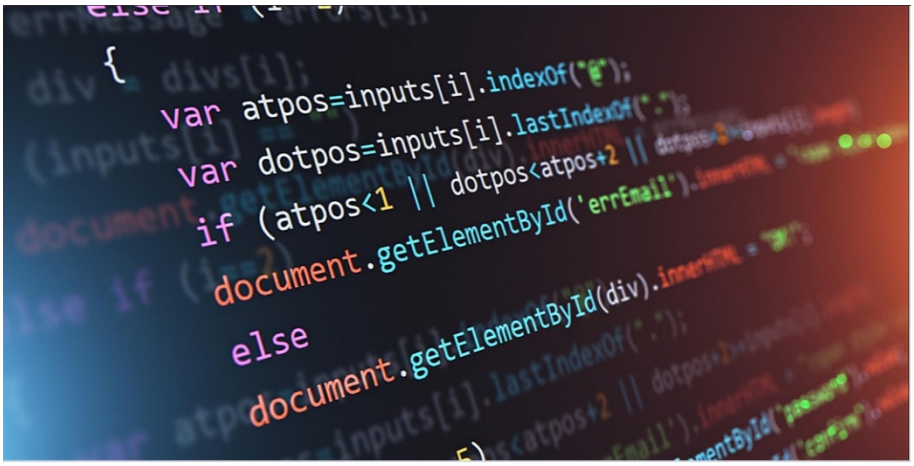

5G Software Defined Networking and Network Function Virtualization

Oct 30, 2019

by Georgetown Center for Business & Public Policy

Posted at: https://www.eventbrite.com/e/5g-software-defined-networking-and-network-function-virtualization-tickets-73481997633#

Date and Time: Wed, October 30, 2019, 9:30 AM – 12:00 PM EDT

Location: Georgetown University McDonough School of Business, Center for Business & Public Policy, 640 Massachusetts Avenue NW, Washington, DC 20001

Description

Software Defined Networking and Network Function Virtualization
- A Primer on What They Mean for 5G and Beyond

Overview:

Software Defined Networking (SDN) and Network Function Virtualization (NFV) promise to increase scalability and supported use cases of communications/broadband networks; make automating network functions much easier; and allow for simpler provisioning and management of networked resources, whether at the core or at the edge. A variety of networking trends have played into the central idea of SDN and NFV. Distributing computing power from core to edge, adopting cloud computing, and supporting Internet of Things environments can each be made easier and more cost efficient using SDN and NFV.

For these reasons, SDN and NFV are critical components to the design and construction of 5G networks. Also, SDN and NFV can lower barriers to entry and help to ensure a sustainable and diverse ecosystem of network suppliers. As 5G networks are architected to use software that operates on commercial off-the-shelf (COTS) computing platforms using well-defined interfaces, a greater number of vendors, each concentrating on a subset of these extraordinarily complex networks, will be able to participate and compete in the supply chain.

Standards for 5G technology, as well as work of the Open Radio Access Network (O-RAN) and Open Network Automation Platform (ONAP), are working to address these challenges. This workshop will discuss developments around O-RAN and will address the following questions: How they may help address the 5G supply chain challenges, government policies that might accelerate this new future of wireless networking? What

other ways might U.S. innovation be engaged to address one of the most important technology issues that has ever faced this nation?

Agenda:

9:30 a.m. - 10:00 a.m. Registration

10:00 a.m. - 10:20 a.m. Opening Keynote Remarks by Cristina Rodriguez, Vice President, Data Center Group, General Manager, Wireless Access Network Division, Intel

10:20 a.m. - 11:15 a.m. Technology Panel Discussion. What are the precise technical aspects of software-based networking including Software Defined Networking (SDN) and Network Function Virtualization (NFV), what are the relevant standards and their status, what vendors are involved, how applicable is the technology to both 4G and 5G, how is security improved or does a software basis introduce new vulnerabilities, how are new 5G features such as network slicing enabled, why is edge computing so important, how is AI incorporated, and what does a software emphasis mean for the future of wireless technology?

Panelists:

- Moderator: **Peter Rysavy,** President, Rysavy Research
- **Ken Gray**, Senior Director, Cisco (Author of SDN: Software Defined Networks and Network Function Virtualization.)
- **Rodrigo Morales**, Head of NFV Infrastructure, Ericsson North America, Ericsson
- **Cristina Rodriguez**, Vice President, Data Center Group, General Manager, Wireless Access Network Division, Intel
- **Sanjay Udani, Ph. D,** Technologist, VP Public Policy, Verizon

11:15 a.m. - 12:00 p.m. Policy Panel Discussion. The discussion will explore the market and policy implications of more flexible networks in which the intelligence is built into the software rather than the hardware. If NVF and SDN lead to faster innovation cycles, what can the consumer product and services market start to look like? Will these evolving network technologies present new opportunities for entrepreneurs to gain a foothold in the supply chain for 5G networks? Can developments in NFV and SDN position the US in a relatively stronger position to lead the push in 5G compared to global competitors? Will spectrum remain the biggest driver of capacity or can NVF and SDN create more capacity in the absence of more spectrum?

Panelists:

- Moderator: **Carolyn Brandon**, Senior Industry and Innovation Fellow, Georgetown Center for Business and Public Policy
- **Chris Boyer,** Vice President, Global Public Policy, AT&T
- **Doug Brake**, Director, Broadband and Spectrum Policy, Information Technology and Innovation Foundation
- **Roger Entner**, Founder and Lead Analyst, Recon Analytics
- **Shane Tews**, Visiting Fellow, American Enterprise Institute
- **Dr. Nicol Turner-Lee,** Fellow, Governance Studies, Center for Technology Innovation, Brookings Institution