The 2nd Workshop
NSF Research Coordination Network on Millimeter-Wave Wireless

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https://mmwrcn.ece.wisc.edu

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Panel 1: State of mmW Technology and Outlook: A View from Industry

Theme: Updates and discussion on technology advances, use cases, business models, regulations, and standardization.

Panelists: Amitava Ghosh (Nokia Bell Labs), Ashwin Sampath (Qualcomm), Ian Wong (National Instruments), Boon Loong Ng (Samsung), Tommy Svensson (Chalmers)

Format: Moderator opening remarks (5 min); panelists opening remarks (3-5 minutes each), followed by panel discussion and audience questions.

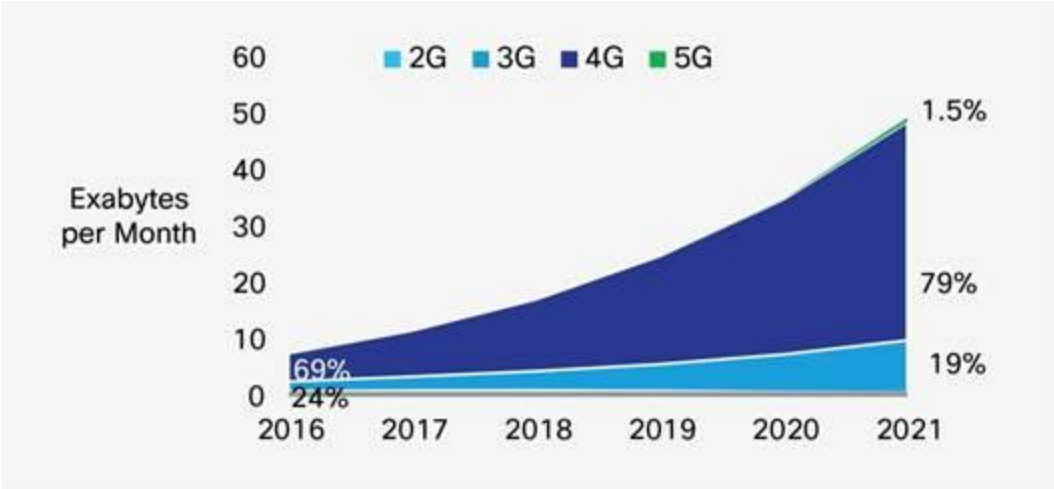
Panel 1: State of mmW Technology and Outlook: A View from Industry

- What is the biggest advancement in the last 6-12 months?
- What is the biggest new challenge that has emerged in the last 6-12 months?
- What is the first use case that is going to take hold? And when? Fixed wireless?
- Any particular issues regarding < 40 GHz vs > 40GHz?
- Any particular comments on 5G NR Standards?
- How can industry and academia collaborate through this RCN for advancing mmW research and technology through the NSF PAWR initiative?

Additional Questions

- Sampath: A discussion around doing more OTA testing with mobility, environment dynamics, multiple users, multiple base stations etc. would be useful.
- While mmw technology shows considerable promise, the question on how well does it perform in a large scale, realistic deployment has only been studied to limited extents. Qualcomm demo video shows some experiments that QC has done.

Cisco Visual Networking Index 2017: Forecast Update, 2016–2021



- By 2021: **5G** will be **0.2 percent of connections** (25 million), but **1.5 percent of total traffic**.
- By 2021: a **5G connection** will **generate 4.7 times more traffic** than the average 4G connection.
- **Global mobile data traffic** will increase **sevenfold** between 2016 and 2021
- **Mobile network connection speeds** will increase **threefold** by 2021. The average mobile network connection speed (6.8 Mbps in 2016) will reach 20.4 megabits per second (Mbps) by 2021.