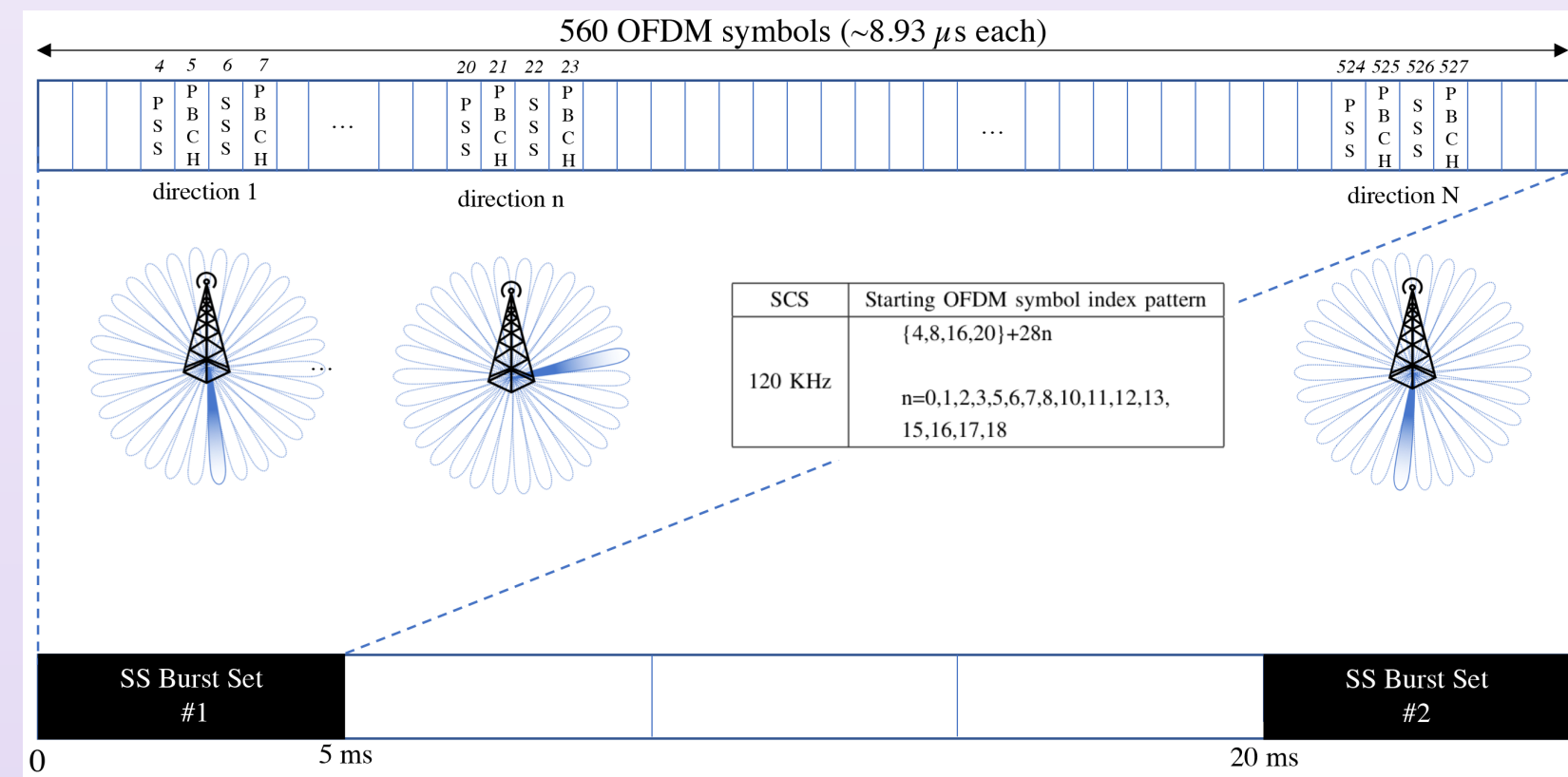
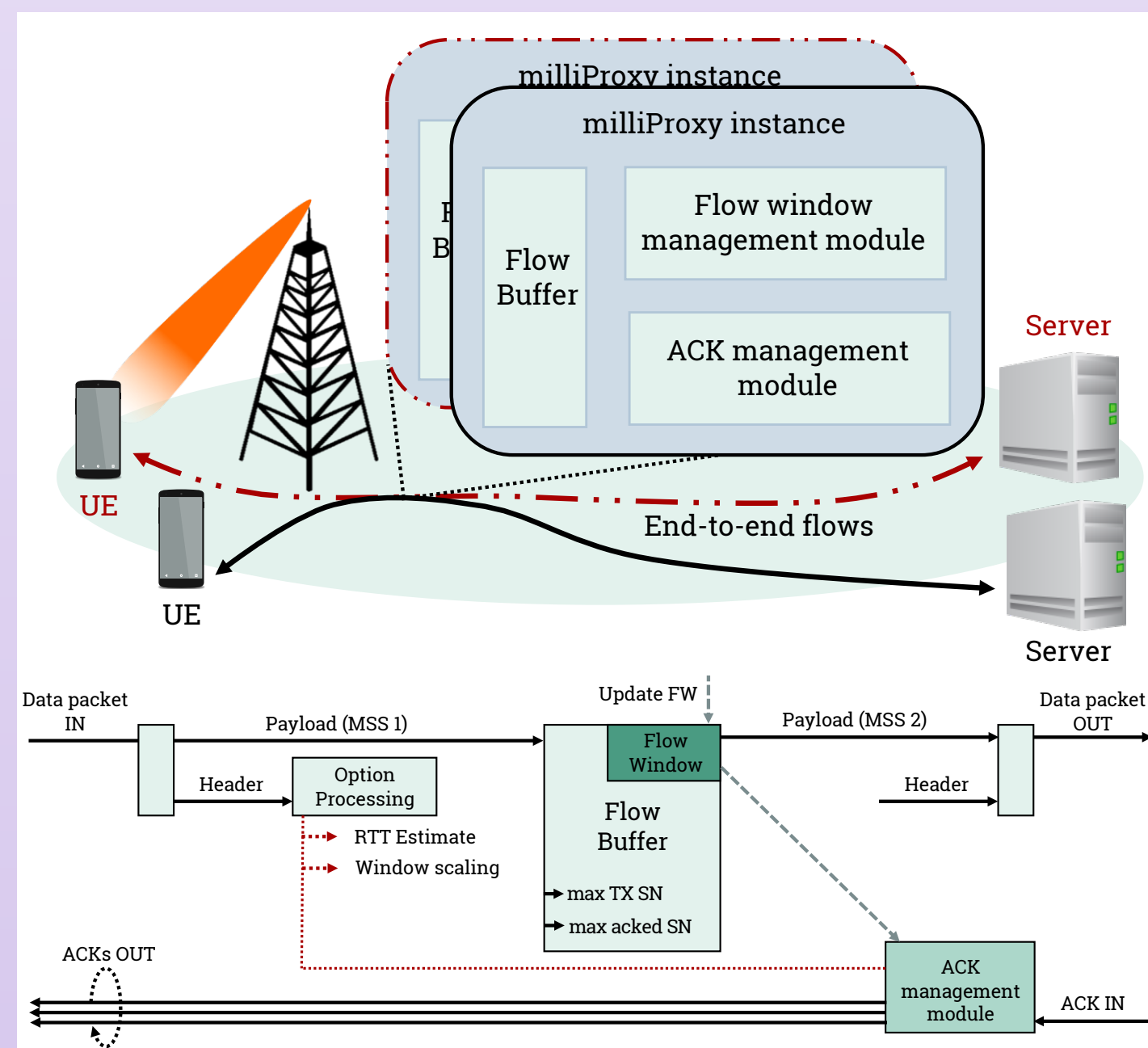


NEW ARCHITECTURES

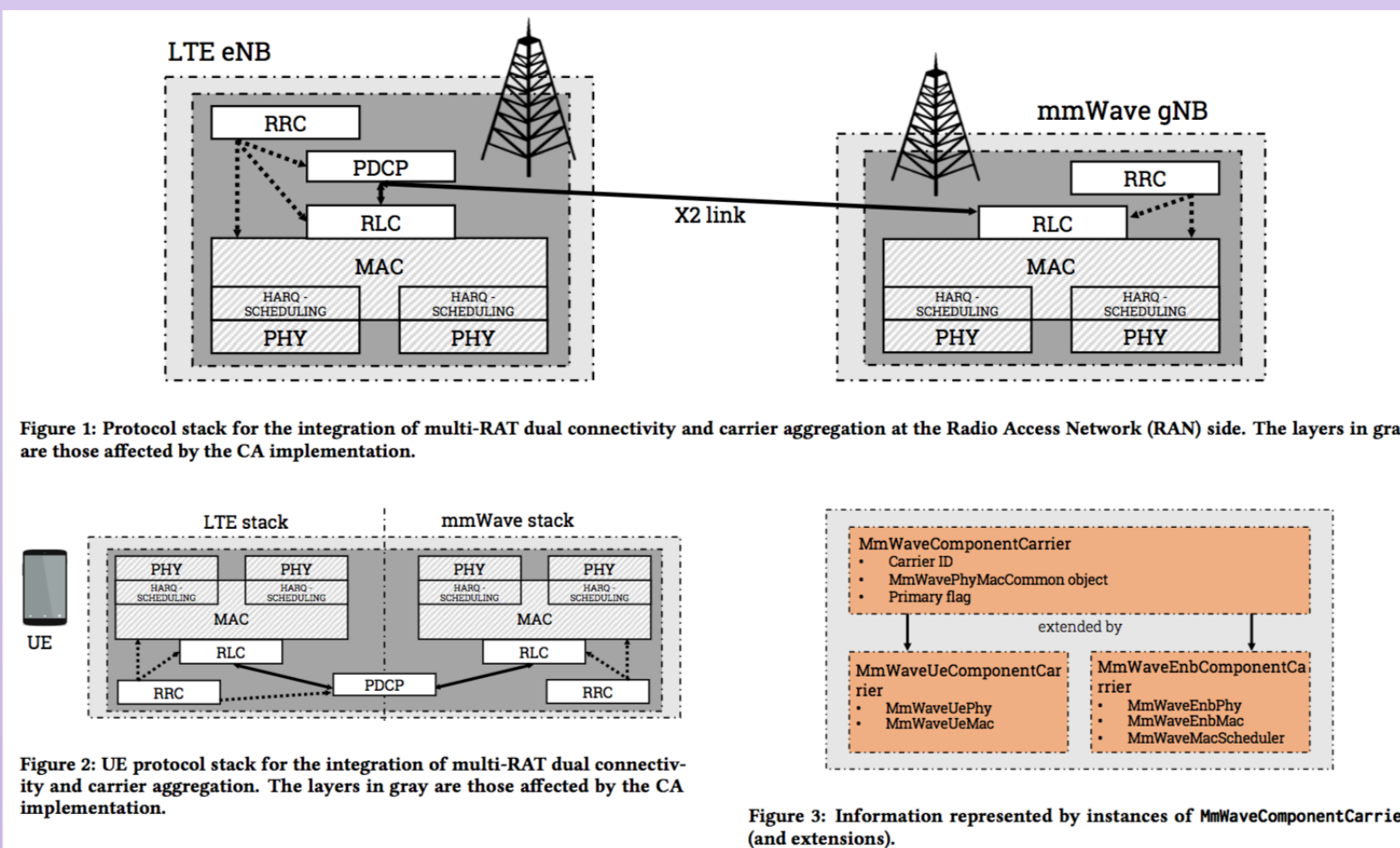
3GPP NR SS blocks [1]



milliProxy* [2]

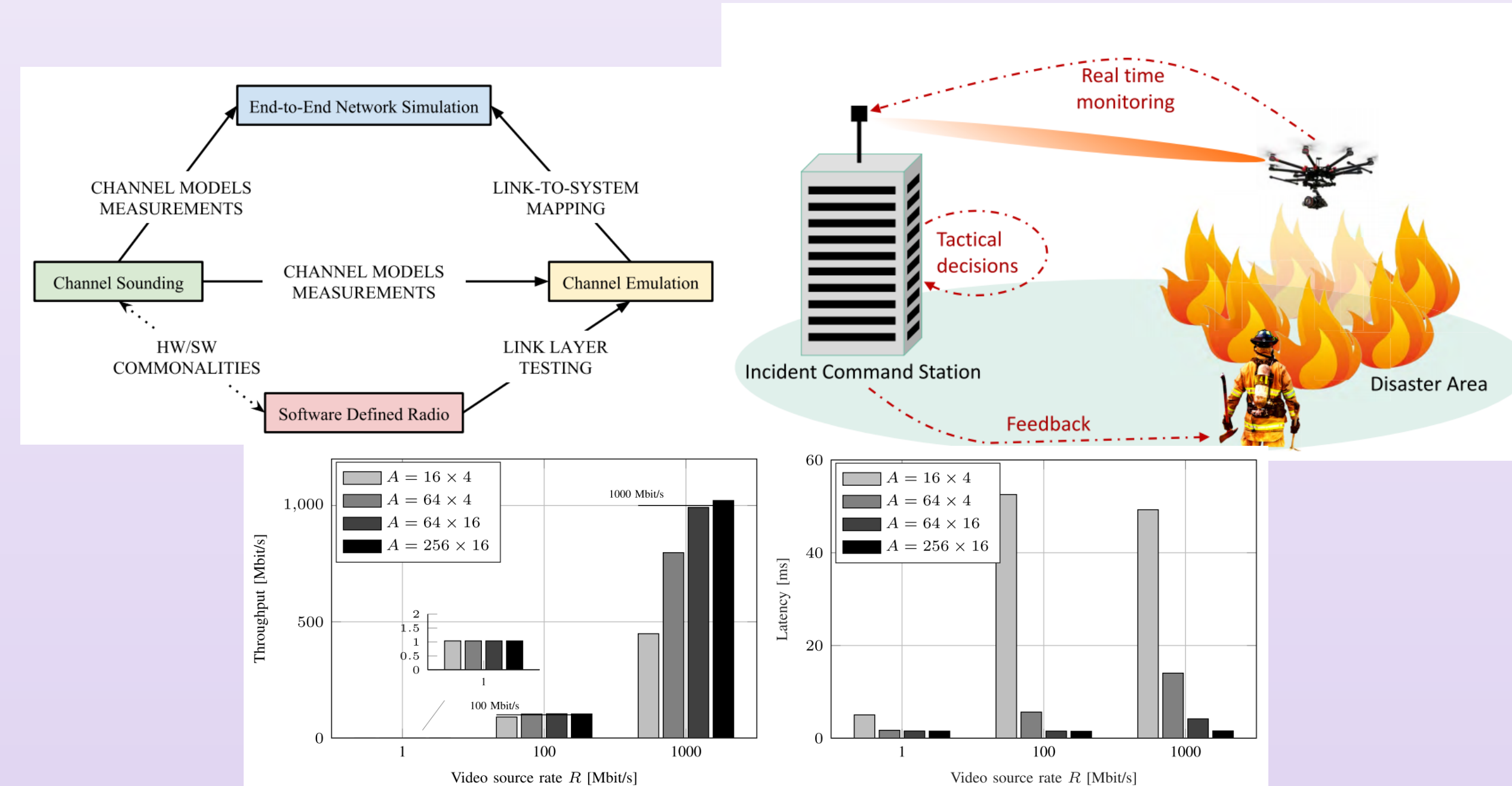


Carrier Aggregation [3]

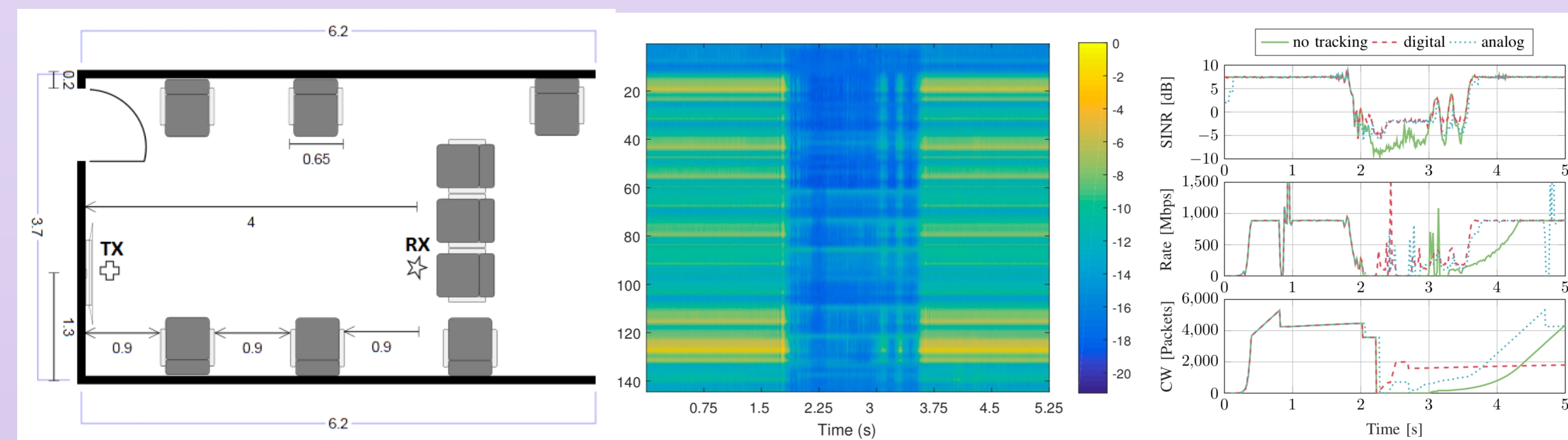


NEW RESULTS

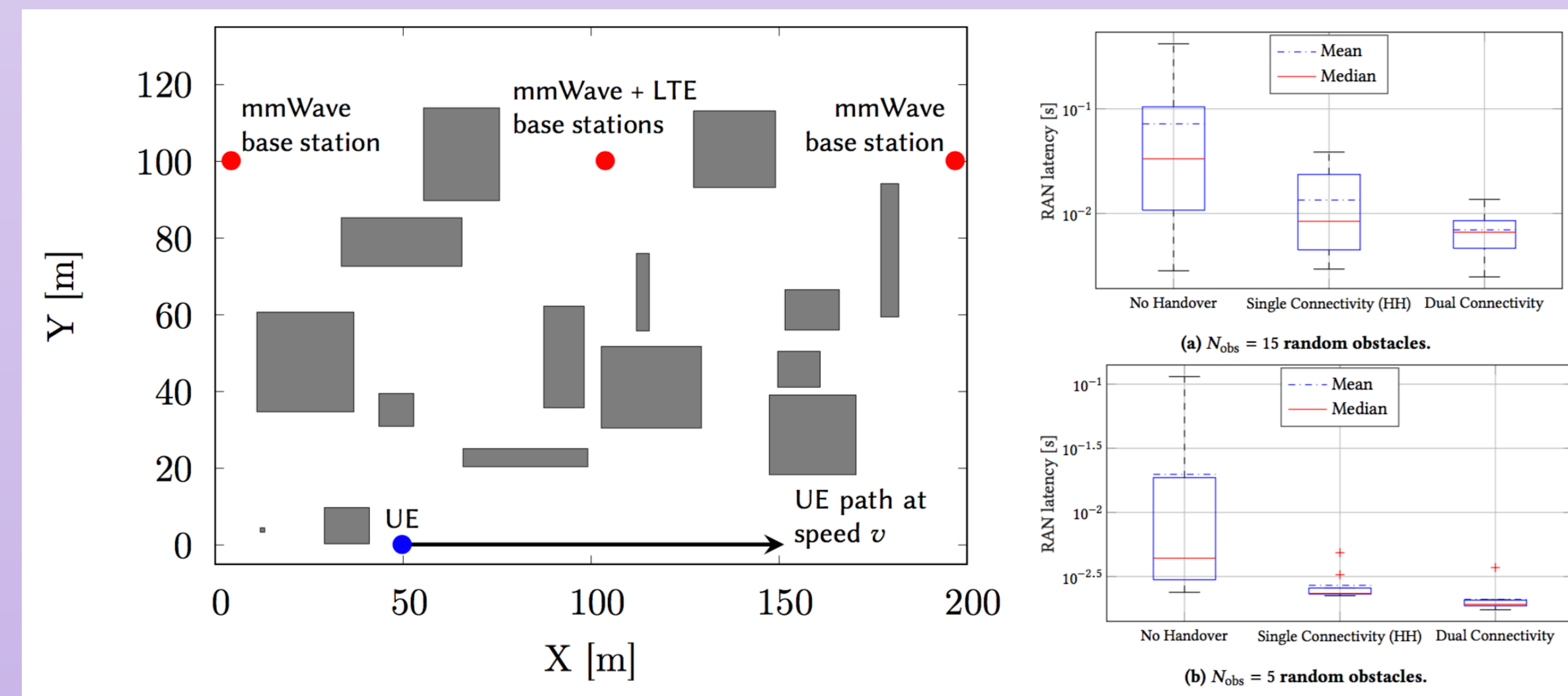
NIST Public Safety [4, 5]



Measurement Data with Beam tracking [6]



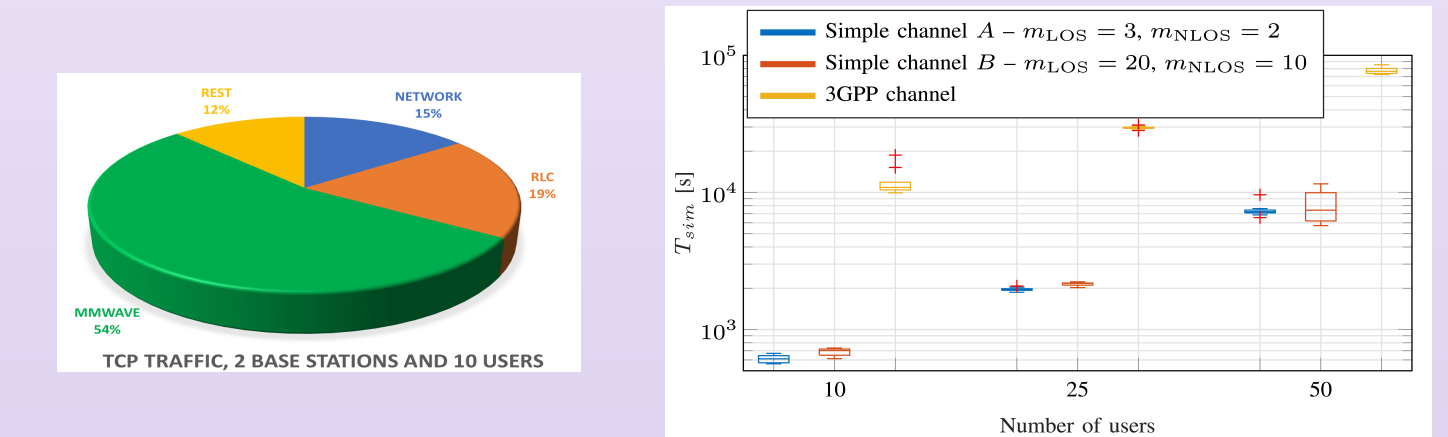
TCP mobility* [7]



NEXT STEPS

Integration with the ns-3 App Store

Channel model optimization [8]



Relaying*

Vehicular and drone communication



References

- * Check out the “Integrated Access and Backhaul at mmWave Frequencies” and “Improving TCP performance on mmWave cellular networks” posters for more info!
- [1] C. Herranz et al., “End-to-end Performance of mmWave Directional Synchronization”, submitted to ACM MSWiM 2018.
- [2] M. Polese et al., “milliProxy: a TCP Proxy Architecture for 5G mmWave Cellular Systems”, Asilomar 2017.
- [3] T. Zugno et al., “Integration of Carrier Aggregation and Dual Connectivity for the ns-3 mmWave Module”, WNS3 2018
- [4] M. Mezzavilla et al., “Public Safety Communications above 6 GHz: Research and Opportunities”, IEEE Access 2018.
- [5] M. Polese et al., “mmWave for Future Public Safety Communications”, i-TENDER 2017.
- [6] C. Sleizak et al., “Understanding End-to-End Effects of Channel Dynamics in Millimeter Wave Cellular”, IEEE SPAWC 2018.
- [7] M. Polese et al., “Mobility Management for TCP in mmWave Networks” *Proceedings of the 1st ACM Workshop on Millimeter-Wave Networks and Sensing Systems 2017*. ACM, 2017.
- [8] M. Polese, M. Zorzi, “Impact of Channel Models on the End-to-End Performance of mmWave Cellular Networks”, IEEE SPAWC 2018