100 Gbps Radio-over-Fiber Links at the W-Band

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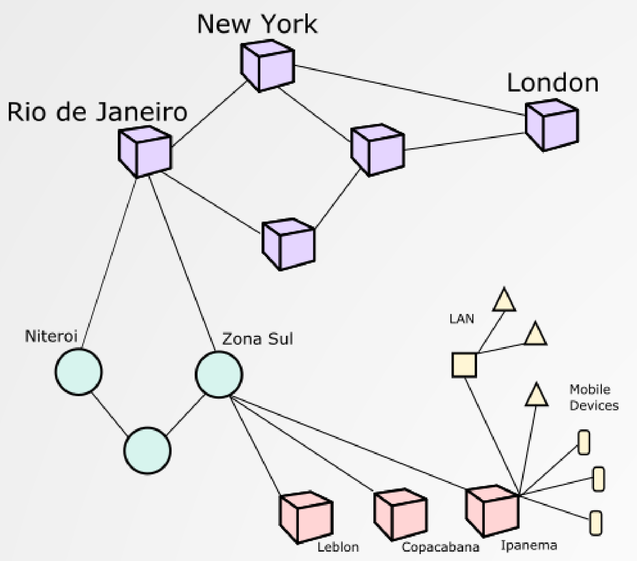
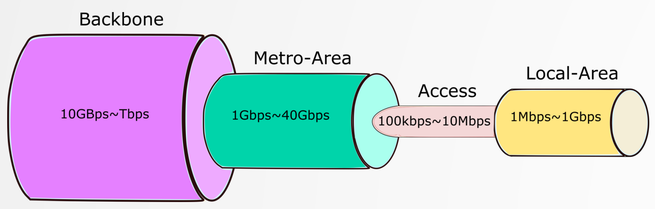
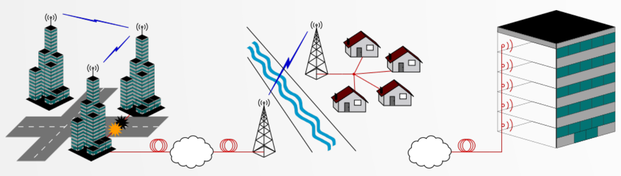
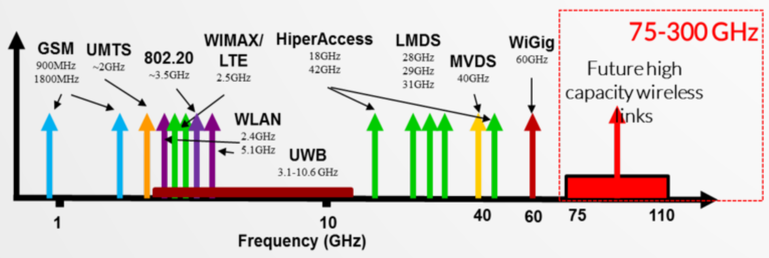
Bottleneck in Access Network & Convergence of Optical and Wireless Access

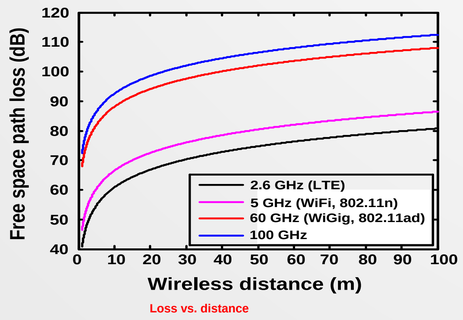




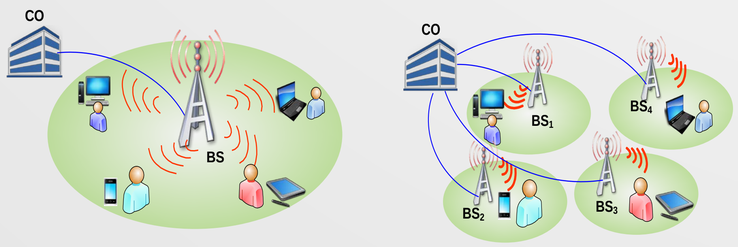


Photonic Generation of RF Millimeter-Waves

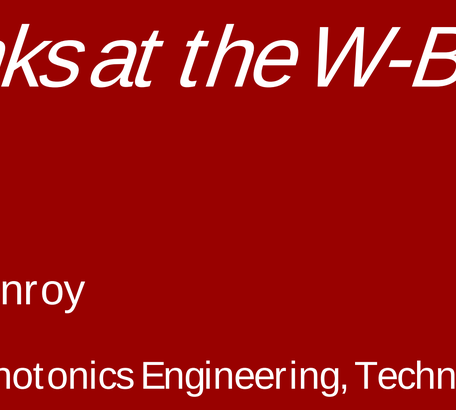


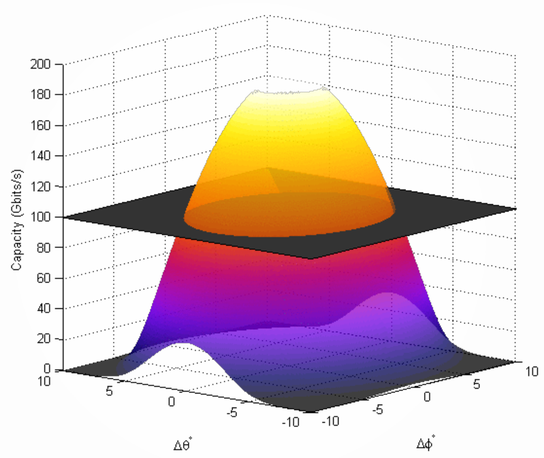


Loss vs. distance

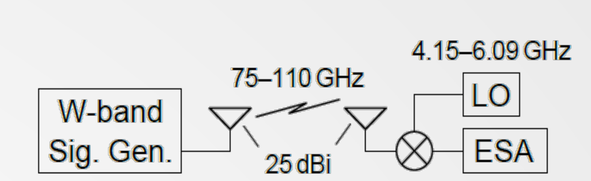


Channel Capacity & Antenna Directivity





Characterization of Channel Small-Scale Effects



RoF Experimental Setup

Distances:20m-70m

Rate: NRZ 2.5 Gbps

Wireless Carrier Frequencies: 75 GHz – 87 GHz