

5G Networks for Massive IoT

Future 5G networks will accommodate an explosive data traffic leading to a spectrum crunch. Therefore, sustained research and development focus on creating a 5G environment that can meet market demands: virtually zero latency, 1Gbps data rate, 10-100 devices, Machine to Machine (M2M) ultra low cost technology and a portfolio of applications.

In 5G network, the Internet of Things revolution is a key enabler of the connectivity vision by delivering M2M and machine-to-person communications on a massive scale. With new standards targeting the connectivity requirements of Massive IoT applications, cellular networks can deliver reliable, secure and diverse IoT services using existing network infrastructure

To meet the Massive IoT segment requirements, 3GPP has taken evolutionary steps on both the network side and the device side. No single technology or solution is ideally suited to all the different potential Massive IoT applications, market situations and spectrum availability. We will be addressing the main solutions focusing on Low-Power Wide-Area (LPWA) technologies, LTE-M and Narrowband IoT (NB-IoT). The presentation will shed the light on the 5G networks challenges and describe the solutions proposed in the research and development sector.