



International Network Generations Roadmap

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Deployment



An IEEE 5G and Beyond Technology Roadmap
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This edition of the INGR is dedicated to the memory of Earl McCune Jr., who left us tragically and too soon on 27 May 2020. Earl was a microwave/RF guru, brilliant technologist, major industry/IEEE contributor, global visionary, keen skeptic, and all around fantastic human being. He was a major contributor to the INGR's early work on energy efficiency, millimeter-wave, and hardware. He worked for a technologically advanced yet more energy efficient world, and the contents of the INGR are a tribute to that vision. Rest in peace, Earl!



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ABSTRACT

Wireless technologies have become a fundamental part of our daily life in the 21st century. They connect us to each other and to rich sources of information. They give us the ability to make efficient use of our time, allow us to have remote control over other technologies in our life, and make our lives better in innumerable ways. In order to function, our wireless devices need to connect to cellular sites that provide good coverage both outdoors and indoors. Thus the success of any wireless network is predicated on successful deployment of equipment and systems. As the number of users grows, and the amount of data transferred increases, the laws of physics and information theory require placement of wireless sites closer to populated areas – creating new challenges for both carriers, site developers, and local governments. Wireless communications facilities cannot be deployed in a vacuum – communication across the product development chain and between private and public entities is critical to enabling practical solutions.

This chapter overviews stakeholder perspectives both public and private, and begins to examine ways to ensure that all stakeholder perspectives are communicated and understood.

Key words:

Deployment, wireless communications facility, site, acquisition, carrier, municipal, local government, product management, marketing requirements, engineering requirements, regulatory, legislative, consensus, 4G, 5G, 6G

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