

# Benefits of IP-OFDMA

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# Background

- Circular Letter 8/LCCE/95
  - Benefits
  - Harmonization
  - Enhanced Performance Capabilities

# Benefits

- Based upon Orthogonal Frequency Division Multiple Access
- Optimized for support of high-throughput, real-time data applications.
- Designed to support an advanced all-IP core network
  - Facilitate a rapid low-cost rollout of new applications Interworking with some existing IMT-2000 networks.
- Low latency, advanced security, Quality of Service (QoS)
- Strong interest from operators including developing countries
- 5 or 10 MHz channel widths offer additional flexible spectrum utilization,
  - High spectrum efficiency
  - Increasing channel/sector throughput.

# Harmonization

- Liaison between WiMAX Forum and 3GPP
  - “to ensure compatibility of and interoperability of 3GPP systems with broadband wireless access networks (IEEE 802.16).”
- IP Multimedia Subsystem (IMS) is convergence point for the proposed RTT and 3GPP and 3GPP2 IMT-2000 systems
  - IP-OFDMA: Approved as IP-Connectivity Access Network (IP-CAN) for IMS core networks.
- 3GPP approved work on new technical specification for “Architecture Enhancements for Non-3GPP Access.”
  - Will enable even further harmonization of IP-OFDMA and 3GPP systems in terms of seamless mobility, unified policy/ charging architecture, and services.

# Enhanced Performance Capabilities

- Market trends indicate strong support for radio interfaces based upon Orthogonal Frequency Division Multiplexing (OFDM) technologies
  - 3GPP and 3GPP2
- Active participants in ITU-R Working Party 8F and fully intend to continue to participate