

Project	<b>IEEE 802.20 Working Group on Mobile Broadband Wireless Access</b> < <a href="http://grouper.ieee.org/groups/802/20/">http://grouper.ieee.org/groups/802/20/</a> >	
Title	<b>802.20 in the Context of the 802 Wireless Projects</b>	
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Re:	MBWA Call for Contributions	
Abstract	This contribution provides an overview of how the different 802 wireless projects relate to each other.	
Purpose	To be presented as consensus opinion at the joint session on Tuesday 2003-5-13.	
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# 802.20 in the Context of the 802 Wireless Projects

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May 5, 2003



# MBWA and Today's IEEE 802 Wireless WGs

	802.11	802.15	802.16	802.20
Spectrum	Unlicensed	Unlicensed	Licensed Unlicensed	Licensed
Freq. Bands	2.4 Ghz, 5Ghz	Various depending on application	10-66 GHz 2-11 GHz	Below 3.5 GHz
Range (Typical Cell-Size)	Local Area	Personal Space	Metropolitan Area Access	Metropolitan Area Access
Mobility Support	Portability Local Roaming	Personal Space	Fixed (For mobility see following slides)	Vehicular Speed Mobility Inter-Metro Roaming
Station Power	Battery	Battery	Mains	Battery
LOS/NLOS	NLOS	NLOS	LOS (10-66 GHz) NLOS (2 -11 GHz)	NLOS
Group Charter	PHY and MAC for LAN	PHY and MAC for PAN	PHY and MAC for Fixed Pt.-Mpt. Wireless Access	PHY and MAC for Vehicular Speed Mobile Access Networks

# Relationship between 802.16e and 802.20 Activities

Dimension	802.16e	802.20
End-user	<p>High data rate fixed wireless user with adjunct mobility service</p> <p>Symmetric data services</p> <p>End-user devices for fixed subscribers (CPE) and PC Cards for mobile devices</p> <p>Support of low-latency data and real time voice services</p>	<p>Fully mobile, high throughput data user</p> <p>Symmetric data services</p> <p>End-user devices initially PC Card enabled data devices</p> <p>Support of low-latency data services</p>
Service Provider	<p>Evolving off Fixed Wireless service providers and WISPs adding mobility as enhancement to service offering</p> <p>Local/Regional mobility and roaming support</p>	<p>Wireless Data Service provider – Greenfield start or evolving Cellular carrier</p> <p>Global mobility and roaming support</p>

# Relationship between 802.16e and 802.20 Activities

Dimension	802.16e	802.20
Technology	<p>Extensions to 802.16a MAC &amp; PHY</p> <p>Optimized for and backwards compatible with fixed stations</p> <p>Licensed bands 2-6 GHz</p> <p>Typical Channel BW &gt;5 MHz</p> <p>Packet oriented architecture</p> <p>Channelization and control for multimedia services with QoS</p> <p>High efficiency data uplinks and downlinks</p> <p>Low Latency architecture</p>	<p>New PHY &amp; MAC layers optimized for packet data and adaptive antennas</p> <p>Optimized for full mobility</p> <p>Licensed bands below 3.5 GHz</p> <p>Typical Channel BW &lt; 5 MHz</p> <p>Packet oriented architecture</p> <p>Channelization and control for mobile multimedia services with QoS.</p> <p>High efficiency data uplinks and downlinks</p> <p>Low latency data architecture</p>