Project	**IEEE 802.20 Working Group on Mobile Broadband Wireless Access** <**http://grouper.ieee.org/groups/802/20/**>	
Title	**802.20 in the Context of the 802 Wireless Projects**	
Date Submitted	**2003-05-12**	
Source(s)	Mark Klerer Flarion Technologies 135 Route 202/206 South Bedminster, NJ 08817	Voice: +1-908-997-2069 Fax: +1-908-997-2050 Email: mailto:m.klerer@flarion.com
Re:	MBWA Call for Contributions	
Abstract	This contribution provides an overview of how the different 802 wireless projects relate to each other. It is a modification of C802.20-03/38 in response to input from members of the 802.20 WG	
Purpose	To be presented at the PSC meeting on Tuesday 2003-5-13.	
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802.20 in the Context of the 802 Wireless Projects

Mark Klerer

May 12, 2003

802.20 and other IEEE 802 Wireless WGs

	802.11	802.15	802.16 (Excluding 802.16e)	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
Access Type	Local Area	Personal Space	Metropolitan Area Access fixed point-to-multipoint & mesh	Ubiquitous Metropolitan Area Access
Mobility Support	Portability	Personal Space	Fixed	Vehicular Speed Mobility
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

Dimension	802.16e	802.20
End-user	Mobile wireless user Support of low-latency data and real time voice services	Fully mobile, high throughput data user Support of low-latency data services
Service Provider	Evolving off Fixed Wireless service providers and WISPs adding mobility as enhance-ment to service offering Local/Regional mobility and roaming support	Wireless Data Service provider – Greenfield start or evolving Cellular carrier Global mobility and roaming support
Technology	Extensions to 802.16a MAC & PHY supporting packet data and advanced antenna systems Mobility support while maintaining backward compatibility with 802.16a Licensed bands 2-6 GHz	New PHY & MAC layers optimized for packet data and antenna technologies Optimized for full mobility Licensed bands below 3.5 GHz