Project	**IEEE 802.20 Working Group on Mobile Broadband Wireless Access** <**http://grouper.ieee.org/groups/802/20/**>		
Title	**Comment on 802.20 Requirements Document Rev 7**		
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Re:	MBWA Call for Contributions		
Abstract	This document provides comments on 802.20 Requirements Document Rev 7.		
Purpose	Contribute to the development and final approval of the 802.20 Requirements Document		
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Comments and Changes on Document Rev 7

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1   Introduction

This contribution has 2 changes which are broadcasting/multicasting capabilities and repeater delays. And there is a comment on channel bandwidths issue.

2   Comments

■   3.1 System Architecture

Current Text:
"The AI shall support a layered architecture and separation of functionality between user, data and control planes. The AI must efficiently convey bi-directional packetized, bursty IP traffic with packet lengths and packet train temporal behavior consistent with that of wired IP networks. The 802.20 AI shall support high-speed mobility."

Proposal:
Add broadcasting/multicasting capabilities as follows
" The AI shall support a layered architecture and separation of functionality between user, data and control planes. The AI must efficiently convey bi-directional packetized, bursty IP traffic with packet lengths and packet train temporal behavior consistent with that of wired IP networks. The 802.20 AI shall support high-speed mobility. And the AI may support broadcasting and multicasting capabilities over the air which can deliver the same packets to all or multiple users with only one air link. "

Reason:
Now 3G technologies in 3GPP and 3GPP2 have already started to support broadcasting and multicasting capabilities. Because many operators around the world want to provide broadcasting/multicasting service and some are already in commercial states. MBWA system specification can not compete these 3G systems without these capabilities. But these capabilities must be optional and operators can adopt or reject according to their service strategies.

■ **4.1.4 Channel Bandwidths**

Current Text:
The AI shall support channel bandwidths in multiples of 5MHz in downlink and the uplink.

Comment:
This was discussed on the e-mail reflector. We support Mark Klerer's proposal.

Proposal:
Insert another channel bandwidths of 10 MHz/20 MHz in new section or addendum as Mark Klerer suggested.

Reason:
When we will have finished 802.20 standard work and start commercial service, it is possible that some 3G technologies are available which can exceed the performance of MBWA. MBWA must prepare this situation with wider bandwidth advantages.

■ **4.2.3 Performance Under Mobility & Delay Spread**

Current Text:
The system is expected to work in dense urban, suburban and rural outdoor-indoor environments and the relevant channel models shall be applicable. The system shall NOT be designed for indoor only and outdoor only scenarios. The system should support a delay spread of at least 5 micro-seconds.

Proposal:
Add the following sentence.
" And the system should support a delay of repeaters ."

Reason:
Some operators may use repeaters to cover service holes like inbuilding and under ground. In that case, repeaters introduce more delays in addition to delay spread. This must be considered at system design level because it is related to guard interval of OFDM and guard time of TDD.
More explanation is provided in next contribution (c802.20-03-xx).