Project	**IEEE 802.20 Working Group on Mobile Broadband Wireless Access** **<http://grouper.ieee.org/groups/802/20/>**
Title	**Bridging Support by 625k-MC Mode**
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Re:	PAR IEEE 802.20b IEEE Standard for Local and Metropolitan Area Networks - Virtual Bridged Local Area Networks - Amendment: Bridging of 802.20
Abstract	This contribution proposes the text for MAC Bridge Architecture Support by IEEE 802.20 625k-MC mode
Purpose	This is a work in progress towards a draft standard on Amendment: Bridging of 802.20, and is for review, consideration, discussion and approval 802.20 WG
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Patent Policy	The contributor is familiar with IEEE patent policy, as outlined in Section 6.3 of the IEEE-SA Standards Board Operations Manual <http://standards.ieee.org/guides/opman/sect6.html#6.3> and in *Understanding Patent Issues During IEEE Standards Development* <http://standards.ieee.org/board/pat/guide.html>.

6. Support of the MAC Service

6.5 Support of the Internal Sublayer Service by specific MAC procedures

Insert the following as new Subclause 6.5.7 [This document amends IEEE Std 802.1D™-2004.].

6.5.7. Support by IEEE Std 802.20 (MBWA)

6.5.7.1 Support by Wideband mode of IEEE Std 802.20 (MBWA)

Provide Wideband Mode Text Here

6.5.7.1.1 Support for Internal Sublayer Service under Wideband Mode of IEEE Std 802.20

Provide Wideband Mode Text Here

6.5.7.2 Support by 625k-MC mode of IEEE Std 802.20 (MBWA)

The Mobile Broadband Wireless Access Method for 625k-MC mode is specified in Clause 5.5, Clause 18 through Clause 31, and Annex A of IEEE Std. 802.20. Clause 19 of the standard specifies 625k-MC Mode MAC Frame structure. Clause 23 specifies the MAC Protocol Sublayer function to implement the 625k-MC mode MAC service. Clause 25 specifies Layer 3 (L3) protocol and Clause 26 defines all the primitives used in 625k-MC Mode.

The L3 protocol layer is made up of components with distinct roles in supporting a connection across the air interface. The L3 Connection management (CM) module provides an application level interface to the Layer 4. The L3 protocol creates logical connections to transport higher layer L4 data packets. The L3 Registration Management (RM) module takes the L4 data packets provided by L4 (through L3 CM) and converts them into a form that can be sent over the air interface. On the receiving side, L3 RM converts packets received from the air interface back into network packets before giving them to L3 CM.

Clause 26 defines L4 to L3 CM Interface Primitives for the service access point that shall be provided by L3 CM for the use of L4. Clause 26 defines L3 CM to L4 Interface Primitives for the service access point provided by L4 for the use of L3 CM.

For packets entering air interface (wireless medium) either from BS network or End User Device (EUD), L3 shall accept L4 data and L4 control packets and shall generate L3 control packets of its own, and shall then send them to L2 RLC. For packets leaving air interface (wireless medium) for BS network or EUD, L3 shall accept byte streams from L2 RLC, shall determine whether the packet is a data packet, an L3 control packet, or an L4 control packet, and shall route the L4 control and data packets to Layer 4. Layer 4 includes support for different IEEE802.3 packet based protocols.

6.5.7.2.1 Support for Internal Sublayer Service under 625k-MC Mode of IEEE Std 802.20

The **frame_type**, **destination_address**, **source_address**, **mac_service_data_unit** and **user_priority** parameters of the M_UNITDATA primitive are encoded as described in 6.5.1. and presented as an ISS supported IEEE802.3 MAC to the layer L4. The layer 4 triggers the L3 protocol of 625k-MC. The L3 CM module state machine shall respond to requests from the L4 for virtual connections across the air interface, and requests registrations from the L3 RM to allow the virtual connections to use physical channels (streams).

The value of **operPointToPointMAC** (6.4.3) shall be TRUE.

The value of MAC_Enabled shall be determined by the procedure described in 6.5.1.

Initially, the value of **MAC_Operational** shall be FALSE. After the UT has registered with the BS, authenticated, and performed capabilities negotiation, and after the stream is established to carry 802 frames, then the value of the **MAC_Operational** parameter shall be determined by the procedure described in 6.5.1. Frame size limits are determined by IEEE Std 802.3™.