

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >	
Title	IEEE 802.16m Relay frame structure with legacy support	
Date Submitted	2008-03-16	
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Re:	IEEE 802.16m-08/118r1, "Proposed 802.16m Frame Structure Baseline Content Suitable for Use in the 802.16m SDD". Target topic: "Proposed 802.16m Relay Frame Structure".	
Abstract	Proposal for IEEE 802.16m Relay frame structure	
Purpose	Discuss and accept the proposal into the baseline SDD document	
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IEEE 802.16m Relay frame structure

1 Introduction

Relay support in frame structure is described in the document **Error! Reference source not found.** developed by the Frame structure Rapporteur group. However, it does not address the support for 16j Relay station. Additionally 802.16 WG has setup a 16jm Ad-hoc group to define the scope of relay station within 802.16m TG and possible support for 802.16j RS. 16jm ad-hoc group is looking at different attributes and we believe that there are some attributes that have direct impact on the frame structure.

In this contribution, we propose an alternative flexible and backward compatible frame structures for 802.16m with relay support.

1 Frame structure with relay support

16m frame structure should enable the support of 16m RS and 16j RS in order to provide services to both 16m and 16e MSs attached to those relays. Support of Relay in the 16m frame structure is described in Figure 1.

When legacy support is enabled in 16m BS, 16e zone can be configured within DL/UL subframe of 16m BS in order to support 16e MSs. In that case, support for 16j RS should be provided in the legacy zone of the frame structure while the support for 16m RS should be provided in the 16m zone of the frame structure. A separate zone is configured for communication between BS and RS.

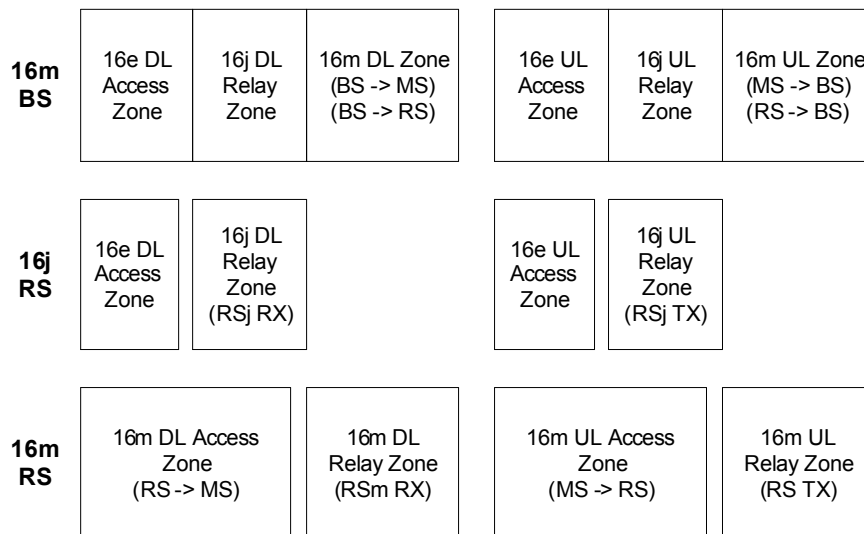


Figure 1: Example 16m Frame structure with both 16j and 16m Relay Support

Figure 2 shows the frame structure with only 16m relay support and figure 3 shows the frame structure with only 16j relay support.

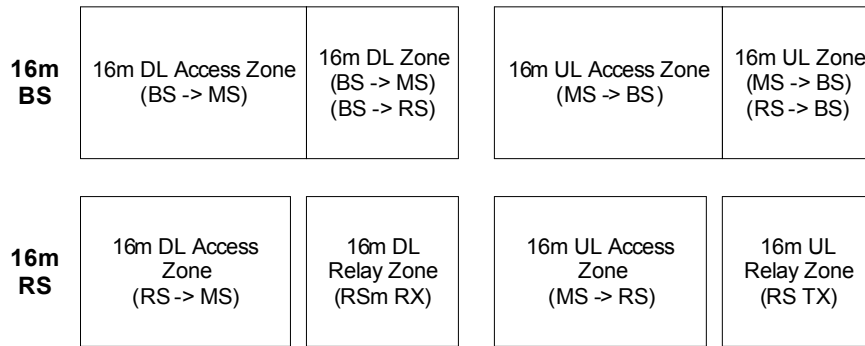


Figure 2: Example 16m Frame structure with 16m relay Support

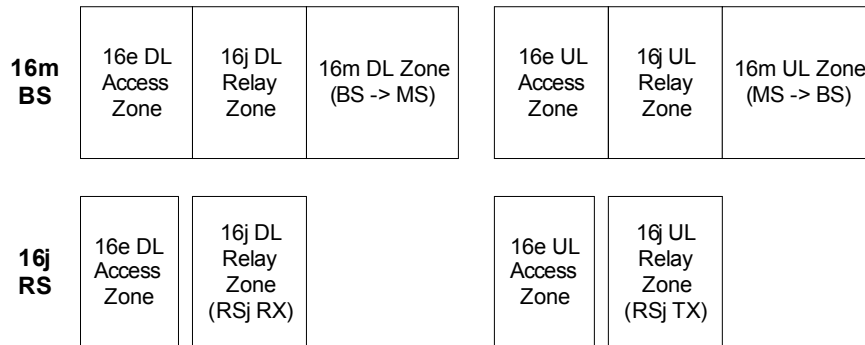


Figure 3: Example 16m Frame structure with 16j Relay Support

2 Summary

This contribution proposes frame structure to provide relay support.

3 Proposed Text Changes for SDD

[Insert the following section in 16m SDD]

11.4.4 Relay Support in Frame Structure

Support of Relay in the 16m frame structure is described in Figure zzz. When legacy support is enabled in 16m BS, 16e zone can be configured within DL/UL subframe of 16m BS in order to support 16e MSs. In this case, support for 16j RS shall be provided in the legacy zone of the frame structure while the support for 16m RS shall be provided in the 16m zone of the frame structure.

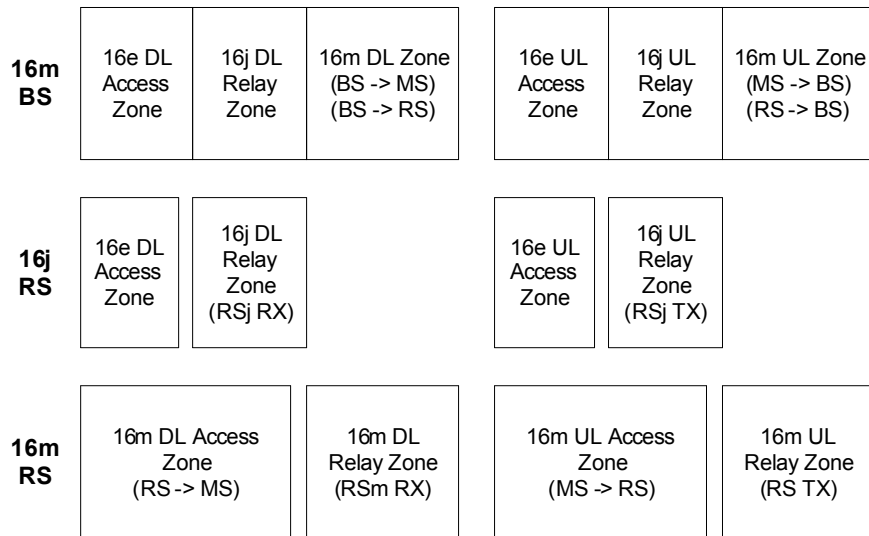


Figure zzz: frame structure with both 16j and 16m relay support

4 Reference:

- [1] C80216m-08/118 – “Proposed 802.16m Frame Structure Baseline Content suitable for use in the 802.16m SDD”
- [2] DRAFT Standard for Local and metropolitan area networks, Part 16: Air Interface or Broadband Wireless Access Systems, P802.16Rev2/D2 (December 2007).