

Project	<b>IEEE 802.16 Broadband Wireless Access Working Group</b> < <a href="http://ieee802.org/16">http://ieee802.org/16</a> >	
Title	<b>Proposal to Adopt Relay Frame Structure Option 1</b>	
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Re:	TGm SDD: Other IEEE 802.16m-08/040: Call for Comments and Contributions on Project 802.16m System Description Document (SDD)	
Abstract	This contribution proposes that the option 1 frame structure be adopted as the relay frame structure.	
Purpose	For consideration and adoption into the 16m SDD document.	
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# Proposal to Adopt Relay Frame Structure Option 1

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## Introduction

In the 16m SDD there are currently two options in the section 11.4.4 Relay Support in Frame Structure. Option 1 FS maintains the conventional DL and UL paradigms, while Option 2 introduces the concept of a bi-directional zone. Contribution 1058 submitted to the Kobe meeting analyzes the two options in some depth. It concludes that Option 1 is either equivalent to, or better than Option 2 in most cases. Option 2 was found to be better in terms of latency for more than 3 hops under some conditions.

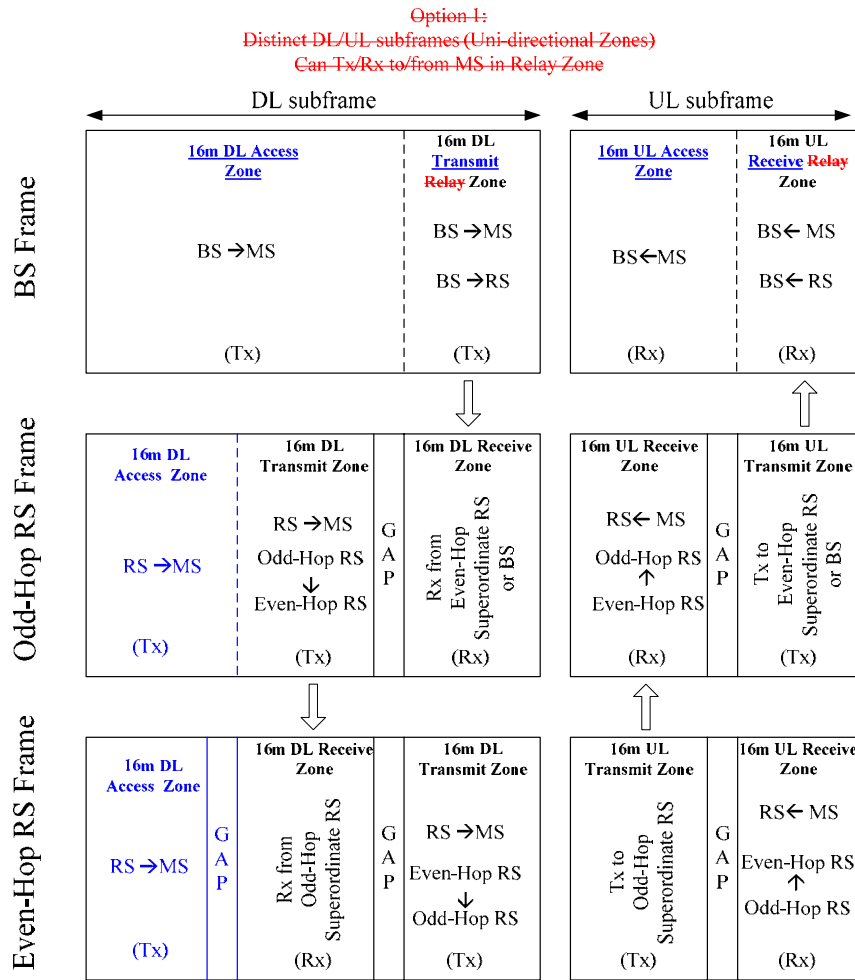
On the basis of the above, Option 1 should be adopted because it is significantly simpler than Option 2.

## Text Proposal

*[Modify the text in section 11.4.4 Relay Support in Frame Structure on page 47 as indicated below]*

~~There are two options for the Relay frame structure. These are captured in Figure 23 and Figure 24. Further study is required to distill a single frame structure from among these two options. The Relay frame structure is illustrated in Figure 23.~~

*[Modify figure 25 on page 48 as indicated below]*



[Modify the caption of figure 25 on page 48 as indicated below]

Figure 23 Relay Frame structure ~~option 1~~

[Modify the text in section 11.4.4 on pages 48 and 49 as indicated below]

- DL Access Zone: An integer multiple of subframes located in the 16m zone of the DL of the 16m BS frame or 16m RS frame, where a 16m BS or a 16m RS can transmit to the 16m MSs. SCH and BCH as well as unicast transmissions may be performed in this zone.

~~DL Relay Zone: An integer multiple of subframes located in the 16m zone of the DL of the BS frame, where a 16m BS can transmit to the 16m RSs and the 16m MSs.~~

- UL Access Zone: An integer multiple of subframes located in the 16m zone of the UL of the 16m BS frame, where a 16m BS can receive from the 16m MSs.
- ~~UL Relay Zone: An integer multiple of subframes located in the 16m zone of the UL of the 16m BS frame, where a 16m BS can receive from the 16m RSs and the 16m MSs.~~
- DL Transmit Zone: An integer multiple of subframes located in the 16m zone of the DL of the 16m BS frame or 16m RS frame, where a 16m BS or RS can transmit to subordinate 16m RSs and the 16m MSs.
- DL Receive Zone: An integer multiple of subframes located in the 16m zone of the DL of the 16m RS frame, where a 16m RS can receive from its superordinate station.
- UL Transmit Zone: An integer multiple of subframes located in the 16m zone of the UL of the 16m RS frame, where a 16m RS can transmit to its superordinate station.
- UL Receive Zone: An integer multiple of subframes located in the 16m zone of the UL of the 16m BS frame or 16m RS frame, where a 16m BS or RS can receive from its subordinate 16m RSs and the 16m MSs.

The 16m DL Transmit Zone is present in the RS frame only if that RS is connected to at least one subordinate RS.

*[Delete figure 26 from page 50]*

*[Delete the text that follows figure 26 on page 50 lines 3-11 and page 51 lines 1-2 up till the end of section 11.4.4]*