Title: Consolidation proposal according to 4 frame structure

Document Number: IEEE S802.16h-07/054

Date Submitted: May 4, 2007

Source:

+86 755 28973547	wuxuyong@huawei.com
	+86 755 28973547

Purpose:

Show some basic example to help illustration for the according contribution in word.

Notice:

This document has been prepared to assist IEEE 802.16. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change

in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein. Release:

The contributor grants a free,b irrevocable license to the IEEE to incorporate material contained in this contribution, and any modifications thereof, in the creation of an IEEE Standards publication; to copyright in the IEEE's name any IEEE Standards publication even though it may include portions of this contribution; and at the IEEE's sole discretion to permit others to reproduce in whole or in part the resulting IEEE Standards publication. The contributor also acknowledges and accepts that this contribution may be made public by IEEE 802.16.

IEEE 802.16 Patent Policy:

The contributor is familiar with the IEEE 802.16 Patent Policy and Procedures <<u>http://ieee802.org/16/ipr/patents/policy.html</u>>, including the statement "IEEE standards may include the known use of patent(s), including patent applications, provided the IEEE receives assurance from the patent holder or applicant with respect to patents essential for compliance with both mandatory and optional portions of the standard." Early disclosure to the Working Group of patent information that might be relevant to the standard is essential to reduce the possibility for delays in the development process and increase the likelihood that the draft publication will be approved for publication. Please notify the Chair <<u>mailto:chair@wirelessman.org</u>> as early as possible, in written or electronic form, if patented technology (or technology under patent application) might be incorporated into a draft standard being developed within the IEEE 802.16 Working Group. The Chair will disclose this notification via the IEEE 802.16 web site <<u>http://ieee802.org/16/ipr/patents/notices</u>>.

This slide is for illustration helping the word contribution C80216h-07/054,

Pls show it while going through the word contribution.

Starting case - System1(Legend)



System 2 come



1) S2 find S1 with master F1, and F2/F3 are used not as master, it negotiate the frame usage with S1;

- 2) S1 give up the usage of F2 and interleave the assignment of F3 usage with S2;
- 3) S2 take the offer and make F2 as its master, with OCSI2.

Useful frame block count: Before : S1 uses 4 frame; Add up to 4 After : S1/S2 use 2.5 frame each; Add up to 5 *The 0.5 came from interleaving assignment of F3.

System 3 come



1) S3 find S1/S2 with Master F1/F2, and F3 not used as master, it negotiate the frame usage with S1/S2;

2) S1/S2 give up the interleave usage of F3;

3) S3 take the offer and make F3 as its master, with OCSI3.

Useful frame block count: Before : S1/S2 use 2.5 frames each; Add up to 5 After : S1/2/3 use 2 frames each; Add up to 6

System 4 and 5 come



1) S4 find S1 with Master F1 and F2/F3 are blank;

2) S4 inform S1;

3) S4 take the blank and make F3 as its master, with OCSI3; Similar case as S5.

Useful frame block count: Before: S1/2/3 use 2 frames each; Add up to 6 After : Additional S4/S5 use 3 frame each; Add up to 12

System 6 start problem



- 1) S6 find 3 neighbor S1 S4 S5 with Master 1/3/2, No frame is used not as master.
- \ast S6 check the ALTSF flag for each of Sl/S4/S5, and find S4/S5 do have ALTSF

System 6 start solution A



- 1) S6 check the ALTSF flag for each of Sl/S4/S5, and find S4/S5 do have ALTSF;
- 2) S6 chooses S4 to negotiate, let S4 to move its master from F3 to F2, and abandon the usage of F3;
- 3) S4 provide the offer and S6 get a blank F3 for master usage.

Useful frame block count: Before : S1/2/3 use 2 frames each; Add up to 6 Additional S4/S5 use 3 frame each; Add up to 12 After : S4 change from 3 to 2, S6 have 2; Add up to 13

System 6 start solution B



- 1) S6 check the ALTSF flag for each of SI/S4/S5, and find S4/S5 do have ALTSF;
- 2) S6 chooses S5 to negotiate, let S5 to move its master from F2 to F1, and abandon the usage of F2;
- 3) S5 provide the offer and S6 get a blank F2 for master usage.

Useful frame block count: Before : S1/2/3 use 2 frames each; Add up to 6 Additional S4/S5 use 3 frame each; Add up to 12 After : S5 change from 3 to 2, S6 have 2; Add up to 13

Conclusion

- 1) In these basic case, 4 frame structure may fit for network coexistence enhancement.
- 2) According to 4 frame structure requirement, CSI scheduling mechanism should be updated according to the main contribution.