

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >	
Title	Discussion on the criteria of mandatory feature within 16h draft.	
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Re:	80216h-06_059: IEEE 802.16 Working Group Working Group Letter Ballot #24 (2006-10-11)	
Abstract	Discussed the criteria of mandatory feature and give a template/example of the feature map to facilitate the mandatory discussion	
Purpose	To consolidate the working document.	
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Discussion on the criteria of mandatory feature within 16h draft

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Overview

In order to make decision on what to be mandatory or critical or optional, we'd better study on the criteria of what should be mandatory, before the verdict on any specific mechanism or feature. This was discussed on last meeting and was agreed according to Resolution of the group. "AI: Mariana - Ad-Hoc for defining what is the mandatory method that all BS and SS must support. To include the criteria for defining the mandatory features"

I think it's necessary to do so, to make it easy to have consensus within not only in TG but also in WG and SB.

Here is some example of some dimension to be considered, we can separate two portions in two charts, one for mechanism among 16 systems, and another is for feature between 16 and non-16 systems.

In these two charts, the four dimensions are to be considered with some principal, so that we can logically think about choosing the mandatory feature. Besides, the dimensions and the items within each dimension should be discussed and have consensus before going further.

Then we should list also the features we have within current draft to form a function tree. By using this tool, we should be easy tracing the relation between the scope and each feature, but also be easy to find some integrity defect in current 16h solution.

<p>Scope: This amendment specifies improved mechanisms, as policies and medium access control enhancements, to enable coexistence among license-exempt systems based on IEEE Standard 802.16 and to facilitate the coexistence of such systems with primary users.</p>

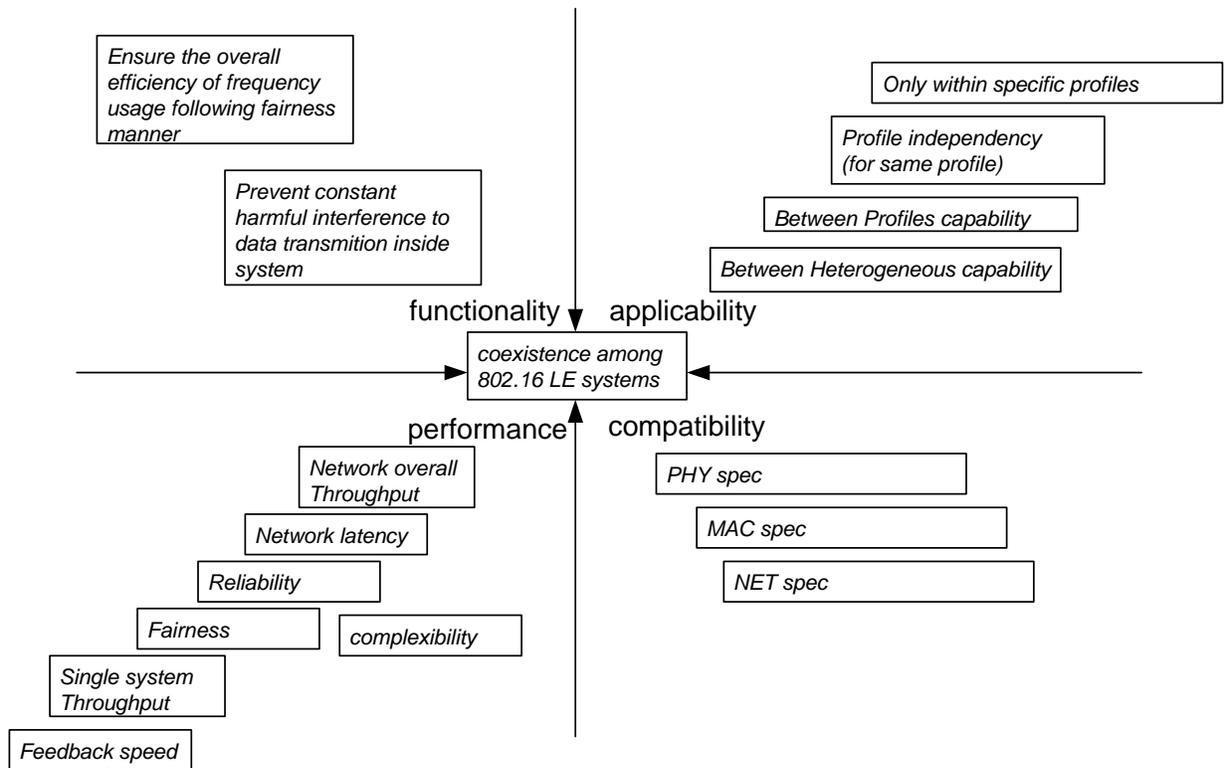


Figure1: factors to be consideration for coexistence among 16 LE systems.

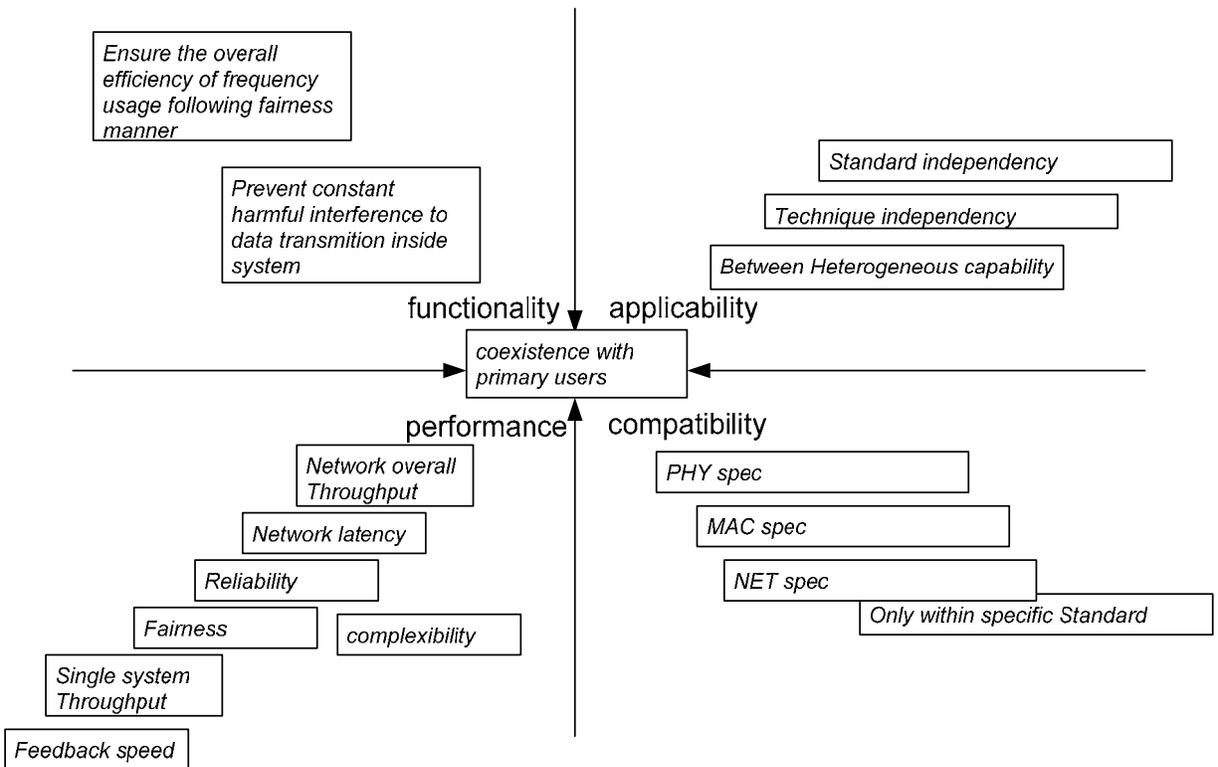


Figure2: factors to be consideration for coexistence with primary users.

Nevertheless, we need to summarize all the functions within current document, here is an initial example without integrity. We may follow the manner to continue on the summarization and start the verdict when we have consensus on the criteria of the mandatory or critical criteria.

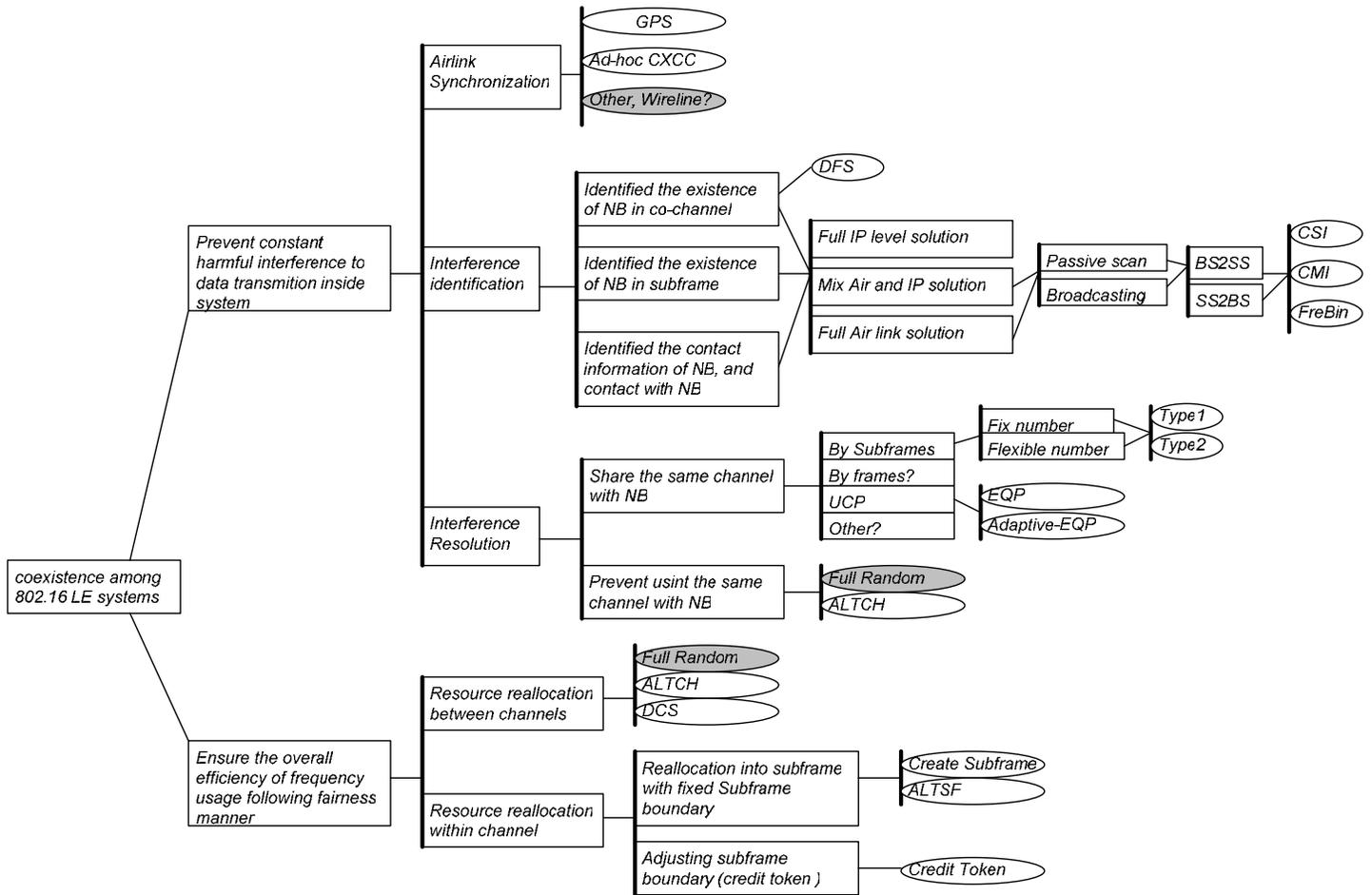


Figure 3. Example of function tree of coexistence among 16 LE systems

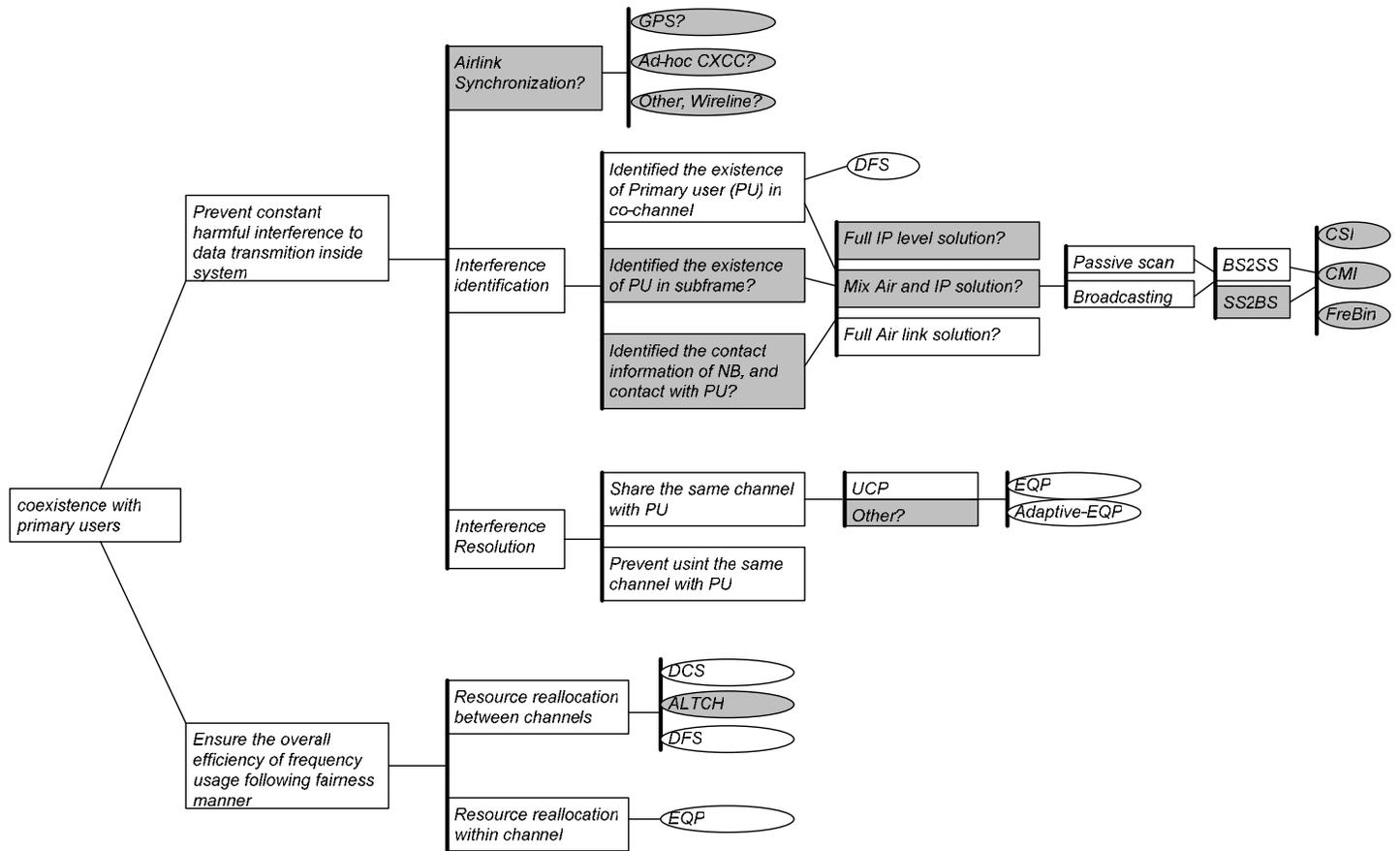
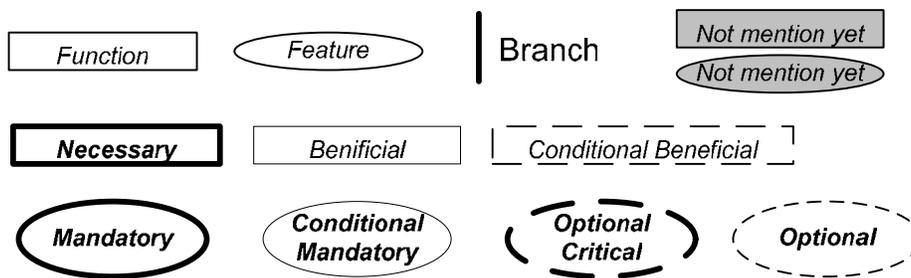


Figure 4. Example of function tree of coexistence among 16 LE systems

Reference:

- [1] IEEE P802.16h/D1: Working Document for P802.16h (2006-08-01)
- [2] 80216h-06_059: IEEE 802.16 Working Group Working Group Letter Ballot #24 (2006-10-11)
- [3] IEEE 802.16-2004: IEEE Standard for Local and metropolitan area networks Part 16: Air Interface for Fixed Broadband Wireless Access Systems (2004-10-01)
- [4] IEEE 802.16e-2005: IEEE Standard for Local and metropolitan area networks Part 16: Air Interface for Fixed and Mobile Broadband Wireless Access Systems Amendment 2: Physical and Medium Access Control Layers for Combined Fixed and Mobile Operation in Licensed Bands and Corrigendum 1 (2006-02-28)

Proposed Solution:***Before discuss on specific single feature, we need:*****Criteria Consensus:*****1) Discuss on the criteria of mandatory and have consensus, the criteria should be executable to most case.*****List Candidate:*****2) List all existing functions with logical relationship with the scope. (without feature)******3) List all existing feature for each function.*****Result Category:*****4) List all levels of function: necessary function, beneficial function, conditional beneficial function.******5) List all the possible result for the verdict: mandatory, conditional mandatory, optional critical, optional?*****Verdict:*****6) Discuss on necessary functions and have consensus.******7) Verdict on the only feature for necessary functions.******8) Verdict on the only feature for beneficial functions.******9) Verdict on the only feature for conditional beneficial functions.******10) Verdict on features for necessary functions with substitutions.******11) Verdict on features for beneficial functions with substitutions.******12) Verdict on features for conditional beneficial functions with substitutions.*****Integrity and not mention discussion*****13) Discuss on the potential function not mention yet and the defect in integrity.***