<table>
<thead>
<tr>
<th>Project</th>
<th>IEEE 802.20 Working Group on Mobile Broadband Wireless Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Summary of 802.20 Proposals and Relationships Between Them</td>
</tr>
<tr>
<td>Date Submitted</td>
<td>2007-03-14</td>
</tr>
</tbody>
</table>
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| Re: | C802.20-07-27: Technology Proposals in 802.20 |
| Abstract | This contribution presents an analysis of the full and partial proposals submitted to the March 2007 802.20 meeting, and their relationships. A plan for moving 802.20 forward is also presented. |
| Purpose | For consideration of 802.20 in its efforts to incorporate inputs from the presenters responding the 802.20 call for additional proposals. |
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Summary of 802.20 proposals and relationships between them

Jim Tomcik
C802.20-07-27

March 14, 2007
Proposals Received

- **Complete Proposal**
  - Jette-1: Harmonization with UMBFDD

- **Partial Proposals**
  - Tee-1: 07-19 Channel Multiplexing
  - Tee-2: 07-16 (and 3 others contributions) LDPC Codes
  - Tee-3: 07-18 Flexible Quasi Guard Subcarriers
  - Tee-4: 07-20 IRA Codes for Short Blocks
  - Yoon-1: 07-23 Silence Interval Offsets
  - Yoon-2: 07-23 SSACH – (Also known as PDCAM?)
  - Yoon-3: 07-23 SSCHACKCH
  - Yoon-4: 07-23 Flexible LDPC Code
  - Yoon-5: 07-23 MIMO
  - Yoon-6: 07-23 Interlace Switching
  - Tomcik-1: 07-21 RF Performance Parameters
Relationships between Proposals

Note: No Scale Implied – Only Relationships

Key
Green: Substantially Included with Proposal
Yellow: Could become included
Red: Not included

Harmonization Under Discussion Elsewhere
Concepts Similar Details Different

Not part of Jette-1
Tee-3
Tomcik-1
Tee-4
Relationships to the Draft

Note: No Scale Implied – Only Relationships

Key
Green: Substantially Included with Proposal
Yellow: Could become included
Red: Not included

Harmonization Under Discussion Elsewhere
Concepts Similar Details Different

Not part of Jette-1

Current 802.20 Draft

Jette-1

Tee-1

Yoon-1

Yoon-2

Yoon-3

Yoon-4

Yoon-5

Yoon-6

Tee-2

Tee-3

Tee-4

Tomcik-1
Suggested plan for 802.20 Proposals

- Harmonize 802.20 FDD with Jette-1
  - Substantially Satisfies Yoon-1, Yoon-2, Yoon-3, Yoon-5, Yoon-6
- Accept Tee-1 with details as specified in Jette-1
  - Satisfies Tee-1 functionality
- **Defer** Tee-2 and Yoon-4
  - Until LDPC Harmonization Completes, then harmonize result in ballot
- Accept Tomcik-1 (!!)
- Tee-4 not included currently
  - To be addressed in Letter Ballot Comments
  - No rate-compatible design provided.
  - No performance results on fading channels

- Harmonize 802.20 TDD Wideband Mode as needed
What about TEE-3???

• The flexibility proposed in TEE-3 could also be considered included without additional work!
  – Why this is so…
    • “Multicarrier mode” does not apply to Jette-1, but…
    • There is “multicarrier operation” in Jette-1
    • If the service provider transmits each carrier at an appropriate center frequency and configures it with different number of guard subcarriers, then ….  
    • Service provider can achieve a flexible carrier spacing and guard subcarrier flexibility

• Tee-3 is satisfied in spirit!
Proposed final status of the Draft

Note: No Scale Implied – Only Relationships

Key
Green: Substantially included with Proposal
Yellow: Could become included
Red: Not included
Orange: Harmonization Result
Turquoise: Satisfied “in Spirit”

802.20

Yoon-1

Yoon-2

Yoon-3

Yoon-4

Yoon-5

Yoon-6

Tee-1a

Jette-1

Harmonized LDPC Support

LDPC Harmonization Result

TDD Modes

Tomcik-1

Concepts and Details as in Jette-1