

Project	IEEE 802.20 Working Group on Mobile Broadband Wireless Access < http://grouper.ieee.org/groups/802/20/ >	
Title	Critical Failures the IEEE 802.20 Technology Selection Process Document	
Date Submitted	2006-11-15 (Nov 15, 2006)	
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Re:	Discussion on critical failures with the IEEE 802.20 Technology Selection Process	
Abstract	There are a number of critical failures with the IEEE 802.20 Technology Selection Process document (PD-10). These failures limited participation in the development of the standard.	
Purpose	Request the 802.20 work group to open the 802.20 Technology Selection Process Document and allow these failures to be corrected.	
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Issues with the Technology Selection Process Document (802.20-PD-10)

The Technology Selection Process document (TSP) has 3 significant faults:

- It is designed to significantly limit consolidation and consensus building.
- The TSP does not fairly consider Partial Proposals which could be quickly eliminated from consideration.
- There is a significant burden on anyone attempting to submit a proposal.

Issues that Limited Consolidation and Consensus Building

In other SDOs or Partnership Projects, they tend to either:

- Develop a complete proposal by building methodically upon components or partial proposals (ie: include the best coding scheme – possibly from contributor-x, adopt a channel structure from contributor-y, etc). This process allows a fair and open process for development of a standard and is quite collaborative.
- Another method is to allow contributors to submit complete proposals – where contributors are given sufficient time to finalize their proposal and perform the necessary simulations. Using this “complete proposal” method – other SDOs and Partnership Projects will select a general framework, and then allow components (partial proposals) to be submitted to enhance the framework. This process also allows a more collaborative process to develop a standard.

The 802.20 TSP tended to use the complete proposal method; however, eliminated components in the very early stages (see Partial Proposal issues below). Its process was designed to very rapidly select a complete proposal and adopt that proposal.

The 802.20 TSP (section 3.4.1, Initial Selection Voting, #1) eliminated from consideration proposals that did not receive at least 35% support. Most other 802.xx TSPs allowed proposals with > 25% support to be considered. *Note: It is interesting to note that early versions of the 802.20 TSP used a 25% threshold, which was changed to 35% at the last minute under questionable circumstances – see Other Independent Findings and Backup.*

Note: All complete & partial that were submitted did receive about 80% support in the 1st meeting (Nov 2005); however, the process discouraged members from even submitting proposals.

The process followed in 802.20 was to request proposals (both complete proposals and partial proposals) and quickly downselect and discard proposals. This process was extremely restrictive, led to some participants not submitting proposals, and prevented a fair and open process.

Another major failure with the 802.20 TSP further expedited the process and prevented the newly established members in 802.20 from having input on the Draft Standard. Extracted from the TSP (section 3.4.1, Approval of Initial Specification Draft):

9. *Having attained 75% support, the prevailing proposal will be adopted as the initial technical specification of IEEE 802.20 without further vote.*
10. *The IEEE 802.20 Editor shall prepare Draft 1.0 from this technical specification. The Draft 1.0 shall be forwarded to the working group for letter ballot.*

The effect of these parts, especially the phrase *without further vote*, denied the working group a vote on the draft standard as it went forward in the letter ballot process. The technical specification was adopted as in step 9.

Issues that Prevented Component Proposals from being Fairly Considered

Partial proposals could be quickly eliminated from consideration – even prior to selecting a full proposal.

The 802.20 TSP (section 3.3.3, item D): *Any remaining partial proposals, after the Initial Selection Voting, that are not merged with a complete proposal shall not be considered further during the selection process.*

This limitation forced Toshinori Suzuki, Hiroyasu Ishikawa, Yasuyuki Hatakawa (KDDI R&D Labs) to withdraw their Rotational OFDM proposal when they could not merge within the proposal after the Initial Selection Voting (see Appendix A).

This limitation and an extremely aggressive schedule also limited the efforts from Hee Soo Lee, Dong Seung Kwon, Jae Young Ahn and Seung Ku Hwang (ETRI). Their issues were sent in a memo to Bob O'Hara and the 802 EC members on March 9, 2006 and included in Appendix C.

Proposal Submission Issues:

Submission of a complete proposal was done in a manner to extremely limit the number of proposals. Proposal submitters were given only 32 days to submit a complete proposal package which was to include:

1. A Summary Classification Statement
2. Technology Overview: The Technology Overview shall consist of a Technology Overview Document, and a Technology Overview Presentation.
3. A proposed Draft Technology Specification
4. A Systems Requirements Compliance Report
5. Technology Performance and Evaluation Criteria Report
6. Technology Performance Presentation

Using as an example, the QFDD proposal package was 915 pages in length (includes: C802.20-05-58, -59, -60, -61, -62, -68, & -69). Again – proponents were expected to submit complete proposals within 32 days of the Call for Proposals. Other IEEE Work Groups historically allocate much more time for proponents to submit proposals.

The following full proposals were submitted:

- Jim Tomcik (Qualcomm) - QFDD Technology (C802.20-05-58, -59, -60, -61, -62, -68, & -69)
- Jim Tomcik (Qualcomm) - QTDD Technology (C802.20-05-63, -64, -65, -66, -67, & -68)
- Radhakrishna Canchi, Kazuhiro Murakami, Minako Kithara (Kyocera) - BEST-WINE Technology Proposal (C802.20-05-75, -76, -77, -78, -79)

The following partial proposals were submitted:

- Toshinori Suzuki, Hiroyasu Ishikawa, Yasuyuki Hatakawa (KDDI R&D Labs) - Rotational OFDM Transmission Scheme (C802.20-05-70)
- Heesoo Lee (ETRI) Technology Proposal (C802.20-05-71, -72, -73, -74)
- Michael Youssefmir (Arraycomm) Multi-antenna Support for Air Interface Spec. (C802.20-05-80)

Other Independent Findings

Feedback from the IEEE LMSC Appeal Panel (March 31, 2006), “In the Matter of the appeal of Mollenauer, Oprescu, and Wieczorek Concerning Decisions of the IEEE 802.20 Working Group Chair” (included in Appendix B) further confirms the issues noted above, some of their findings are included below:

It is noted that the 802.20 TSP is based on the TSP from 802.11n. and that in fact, the Call For Proposals (CFP) in 802.11n was open for almost 90 days before proposals were formally evaluated. This can be corroborated from document 11-03-0858-06-000n-draft-802-11n-callproposal.

The only Working Group document that indicates any form of firm schedule is the TSP. While the final TSP document contained a clause that effectively changed the approved schedule, the nature in which it was introduced is not consistent with an open and transparent process that serves the public interest. Furthermore, the testimony of the chair with regard to significant changes to the TSP is not consistent with the facts as evidenced by the change in section 3.4.1. (and changes in other sections).

Nonetheless, given the statements made by the Working Group Chair at the hearing, it appears that the chair did not fully and fairly disclose the nature and amount of changed content in the document. Apparently, Mr. Klerer's presentation on a related document (46r1) immediately after the Chair's presentation did not highlight any of the key changes either. The position of Chair produces an aura of authority and trust for the Chair's statements. Ideally, the Working Group members should have verified for themselves what the changes were before they approved the document but that does not override the Chair's duty to state clearly the nature of any material changes that he had made. There is no record indicating that this occurred. The chair's denial at the hearing that the proposal contained a material change convinces us that no full and fair disclosure was made to the Working Group members.

The majority of the panel finds that the vote on accepting the TSP document is invalid.

Summary

The TSP along with the elements described above discouraged participation. When combined with an abbreviated call for proposals, it had the combined effect of limiting participation in the development of the standard, put an onerous burden on anyone attempting to submit a complete proposal, quickly discarded some excellent partial proposals and hastened to select a Complete Proposal.

It should be noted that both Dan Gal (Lucent), Rene Struik (Certicom), and Al Wiczorek (Motorola) each indicated intent to submit proposals; however, opted to not submit for various reasons.

Issues with the TSP, concern over possible dominance, and the extremely short interval to prepare all necessary supporting material significantly discouraged a number of contributors from submitting either complete or partial proposals. I would highly recommend to the chair and 802 leadership that we need to re-open the TSP and proceed with the work in 802.20 with an updated and approved TSP.

Al Wiczorek, Val Oprescu, Al Jette and Jim Mollenauer (all representing Motorola) had been working on technology that could be applied to 802.20 and believed that the proposal would not be treated fairly, and considering the IEEE rules for copyright – we decided to withhold the proposal. Since then, some of the ideas have been submitted to 3GPP and 3GPP2 for their evolution. If we believe 802.20 can proceed with a fair and open process, and address our concerns, we would consider presenting either a complete proposal or a partial proposal to the process.

I request to the chair to fix the TSP and create a fair & open process.

Appendix A:

Email from Hiroyasu Ishikawa to 802.20 email list:
From: Hiroyasu Ishikawa [<mailto:ishikawa@KDDILABS.JP>]
Sent: Wednesday, January 11, 2006 10:10 PM
To: STDS-802-MOBILITY@listserv.ieee.org
Subject: [802-20-GENERAL:] Next IEEE802.20 meeting

Dear all,

I am Hiroyasu Ishikawa of KDDI R&D Laboratories. It was our pleasure to present our rotational OFDM technology to the last IEEE802.20 meeting in November.

After the last meeting, we put a great deal of effort into merging our partial proposal to the complete system proposal but we could not reach a settlement by the submission deadline of the merged proposal.

KDDI R&D Laboratories has decided not to continue the participation in the IEEE802.20 standardization at this moment. If further discussion on our partial proposal will happen in the next meeting, please treat it as withdrawn.

We would like to send our wishes for the success of IEEE802.20 standardization.

Sincerely yours,

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Hiroyasu Ishikawa, Ph. D.
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Appendix B:

Appeal Panel Decision in Mollenauer, Oprescu, Wiczorek included:



Appendix C

Memo from Hee Soo Lee, Dong Seung Kwon, Jae Young Ahn and Seung Ku Hwang (ETRI) identifying issues with the 802.20 schedule and selection process.



Backup – Procedural Problems with the 802.20 TSP

It should be noted that the document was approved in haste – as is recorded in the Sept 2005 Meeting summary: “A member (who requested his name in the minutes- Riku Pirhonen) questioned the speed of the document approvals and questioned whether there were enough members in the room to make decisions on a call for proposals.”

It was my understanding that 802.20 had 81 voting members in Sept 2005 and thus would require 41 members for quorum. The motion to approve the TSP occurred late on the Thursday and was approved: “motion passes 25 yes, 1 no”. Thus, it is unlikely quorum was present when this document was approved.

Also – the chair presented a new version of the TSP at the Sept (contribution 57) – as a late contribution on Thursday afternoon. Again – apparently without quorum the group approved to consider the contribution – with some concern (18 yes, 2 no). The chair then made revisions to the late contribution during the meeting and presented a revised late contribution (contribution 57r1) which was approved.

The process used to approve the TSP was formally raised by:

- Radhakrishna Canchi & Kazuhiro Murakami (Kyocera) – ref: <http://grouper.ieee.org/groups/802/mbwa/email/msg00728.html>
- Joanne Wilson (Arraycomm) – ref: <http://grouper.ieee.org/groups/802/mbwa/email/msg00729.html>
- James Mollenauer, Val Oprescu, & Al Wiczorek (Motorola).

However; since raising the issue, Joanne Wilson (Arraycomm); Radhakrishna Canchi & Kazuhiro Murakami (Kyocera) have since decided to not pursue the issue further.