<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>Draft Meeting Minutes, 802.20 Interim Meeting - Session #28, Taipei, Taiwan, January 14-17, 2008.</td>
</tr>
<tr>
<td>Date Submitted</td>
<td>2008-01-22</td>
</tr>
<tr>
<td>Source(s)</td>
<td>Donald Gillies, Recording Secretary for the session</td>
</tr>
<tr>
<td></td>
<td>QUALCOMM, Incorporated</td>
</tr>
<tr>
<td></td>
<td>5775 Morehouse Drive</td>
</tr>
<tr>
<td></td>
<td>San Diego, CA, 92121</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:dgillies@qualcomm.com">dgillies@qualcomm.com</a></td>
</tr>
<tr>
<td>Re:</td>
<td>802.20 Session #28</td>
</tr>
<tr>
<td>Abstract</td>
<td>Draft of the Minutes of the Session #28.</td>
</tr>
<tr>
<td>Purpose</td>
<td>Minutes of the Session.</td>
</tr>
<tr>
<td>Notice</td>
<td>This document has been prepared to assist the IEEE 802.20 Working Group. 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.</td>
</tr>
<tr>
<td>Release</td>
<td>The contributor grants a free, 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 802.20.</td>
</tr>
</tbody>
</table>
Mark Klerer, Vice-Chair.
Don Gillies, Recording Secretary.

Monday, January 14, 2008

The AM2 Session convened at 11:28 A.M.

Due to absence of the 802.20 Chair, Mark Klerer, the Procedural Vice Chair chaired this session. It was also noted that the Liaison Vice Chair was not in attendance.

19 people were in attendance in this first session, including the chair of the session.

As the new attendance system is broken, we are falling back to using the old attendance system.

As the Wednesday social has been cancelled, the chair would like to have a Wednesday evening session. We will have an easy day today as we are stopping at 5:30 today. Tuesday and Wednesday are the only days we have to work late. Right now we expect to see some 500 plus comments when the ballot closes on Tuesday. Some of the comments will be redundant (as some voting entities have sent in similar comments).

Since the ballot has not yet closed the Vice-Chair has not yet consolidated the comments; he will start preparing the consolidated spreadsheets tonight, hoping that no significant comments arrive tomorrow.

The Vice-Chair put up the meeting agenda as published by the 802.20 Chair, Arnie Greenspan.

The Vice-Chair put up the IEEE patent policy slides and read the words from all five slides. The slide set is available at:

http://standards.ieee.org/board/pat.pat-slideset.ppt

In response to the IP call Jim Tomcik and Radhakrishna Canchi made the following statements:

Jim Tomcik, Qualcomm, “Qualcomm may have intellectual property underlying a contribution that, if adopted, could be essential to the practice of the standard. If we do we will timely comply with all IEEE requirements regarding IPR and disclosure. Qualcomm has filed a LOA and it is posted to the IEEE website.”

Radhakrishna Canchi, Kyocera, "Kyocera Corp. may have IPR (Intellectual Property Rights) related their proposal to IEEE 802.20 Project that, if adopted, could be essential to the practice of Standard. Kyocera will comply with IEEE patent policy." Kyocera has not yet filed a letter of assurance with IEEE as the draft letters are still undergoing internal legal review.
Based on the member introductions, the Vice-Chair announced that 7 voting entities were in attendance, and so we need one more voter in attendance to have a quorum. Even in the absence of a quorum the group can continue its work and we will work by consensus and vote to approve our results at the next meeting or other appropriate method (e.g., email approval).

Are there any objections to approving Atlanta minutes? No objections.  
**Resolved**, the Atlanta minutes were approved by unanimous consent.  *This vote will be reaffirmed at the March Plenary.*

The ball will close at 1 minute to midnight tonight New Jersey time. This is 1 P.M. on Tuesday, Taipei time. At this point it looks like the approval rate will be somewhere between 75-90%, depending upon future votes.

The Vice-Chair proposed that we vote to extend the agenda into Wednesday evening, but a member from the floor objected, asking that it be deferred as other voting members might arrive. It was pointed out that we don’t need a quorum to change our agenda. The idea to extend the Wednesday evening session was tabled.

Jerry Upton, moved that we tentatively extend the session 120-150 minutes into Tuesday evening. Chair, are there any objections? No objections.  
**Resolved**, Agenda is amended to say there will be a tentative Tuesday evening session.

The Vice-Chair said we had come to the end of the morning, were there any other motions?

There was discussion about starting the Tuesday morning session at 9:30 a.m. to allow the Vice-Chair extra time to prepare for the Tuesday meeting, assuming more ballots would be submitted. There were no Objections.  
**Resolved**, the AM2 session on Tuesday will begin at 9:30 A.M. (Note that this was later amended to a start time of 1 PM to wait until the Sponsor Ballot had formally closed).

A second motion from the floor proposed that we discuss additions to the 802.20 Policies & Procedures at the Monday PM2 session, see the associated contribution on the website entitled C802.20-08/01. There were no objections.  
**Resolved**, the agenda was amended to discuss the C802.20-08/01 in the Monday PM2 session.

The AM2 Session Adjourned at 12:09 P.M.

The PM1 Session Opened at 1:54 P.M.

The first order of business was discussion of a Project Authorization Request (PAR) for a minimum performance specification. The Vice-Chair displayed the PAR proposal previously discussed and available from the 802.20 website (802.20 - 07/06r and 802.20 - 07/06r1). Discussion began with the scope section of this document.

One member said that a minimum performance spec was not part of inter-operability, but then again we agreed to do this PAR to satisfy some ballot comments. The term "inter-operability" appears in the scope section of this PAR.

Another member said it was a natural follow-on to the 802.20 work, and would give manufacturers guidance on how to design terminals.
The Vice-Chair said that the scope section of the future standard document will have to be the same scope section verbatim from the PAR proposal. One should keep this in mind, and also remember that the 5-line limit on the scope section has now been waived. The “purpose” clause is still an optional clause of the standard.

Another member said the scope statement should be limited - basic but reasonably broad because you don’t want to restrict yourself too much.

There was a suggestion to delete the last two sentences of the proposed scope, concerning single-receive chains and testing of non-diversity terminals. These sentences were seen as adding needless constraints on the PAR.

There was a desire to change the 2nd sentence to be more precise, substituting the term "specified" rather than "recommended".

Discussion moved to the purpose and need for the project. This sort of a PAR is new to the 802 project, and it was proposed that we add some explanatory text to indicate that this type of work is standard in the world of cellular systems.

There was an objection to the purpose text because we are guaranteeing more than inter-operability; we want to guarantee a certain level of performance.

The Vice-Chair helped to draft the revised text, “The purpose of this standard is to specify minimum performance characteristics for 802.20 implementations. Service providers deploying equipment meeting this specification can expect to meet a particular service level with user terminals that also comply with this specification.”

There were minor revisions to the number of parties interested in this standard.

It was proposed that ARIB was a possible adopter for the minimum performance specification standard. This topic was deferred.

This first PAR was revised, and the Vice-Chair asked if someone from the audience wished to shepherd this PAR. There were no volunteers. Subsequently Mr. Upton agreed to prepare the PAR text.

Attention turned to the 2nd PAR, "A standard for conformance of 802.20 systems."

Jim Tomcik has taken ownership of this PAR proposal. The Vice-Chair read the PAR proposal, and only minor changes were requested by the audience.

In particular, we reduced the number of members expected to work on a PICS (protocol interoperability conformance specification) spec from 150 down to 50 people. It was thought that typically only about 7 people usually take an active role in this type of work.

The PM1 Session adjourned at 3:10 P.M.

The PM2 Session resumed at 3:55 P.M.

The Vice-Chair began by recognizing Jerry Upton, who submitted a contribution
dealing with updates to 802.20 policies & procedures (P&P). The current 802 overall P&P is in a state of flux, and we are supposed to follow their lead, which overrides any conflicting procedures in our own P&P. Some groups like 802.11 have been forced to revise their P&P after every meeting because the 802 P&P is in a state of flux. The standards board is changing how they want to lay out stuff. The proposal is to minimize our own P&P by saying that we operate in accordance with the current version of the 802 P&P, with only specific exceptions being noted. Tentatively the only exception identified is Appendix A in the 802.20 P&P dealing with election procedures.

There was general acceptance of this proposal. The Vice-Chair asked if there were any objections? There were none.

Resolved, The 802.20 P&P will be updated to say that we conform to the 802 P&P.

Mr. Upton agreed to prepare an updated draft P&P in accordance with the above agreement.

The Vice-Chair stated that the ballot will not close until 12:59 P.M. Taipei time on Tuesday. In the absence of official sanction from the IEEE, it is advisable to delay our work until the ballot officially closes at 1 P.M. tomorrow.

Unless there are objections, the Vice-Chair would like to start at 1 P.M. tomorrow.

Question: would the Vice-Chair like to start now with any editorial comments? Answer: the Vice-Chair would not want to be in the position of selecting comments. It is much safer not gambling and following traditional processes.

Were there any objections to changing the Tuesday start time? There were none.

Resolved, The agenda was amended with the Tuesday start time set for 1 P.M. Taipei.

The PM2 Session Adjourned at 4:12 P.M.
Tuesday, January 15, 2009

The PM1 Session resumed at 1:30 P.M.

Mark Klerer, meeting Vice-Chair, was presiding.

The online sign-in system had lost its records, so a paper attendance sheet was circulated. While this was circulating, the Vice-Chair worked to tabulate votes and coalesce all of the comments into a format suitable for discussion in the meeting.

There were 19 people present in the room.

The editor put up the ballot results.
Out of 70 voter blocks, 59 ballots were returned, for a return rate of 84.3%

The results were:
Approve: 39, Disapprove: 11, Abstain: 8

* Abstention rate: 13.6%
* Approval rate: 78%

NOTE: This is an unofficial tally, computed by the vice-chair from the individual ballots in accordance with the previously published guidelines and bloc assignments. This section will be replaced with a section containing the official 802.20 Oversight Committee audited ballot results.

One vote was returned as a "no vote with no comment", so it did not influence any figure other than the ballot return rate. The approval rate is subject to possible revision, as there was a mapping from voters to voting entities, and there is always a possibility that the editor made a minor mistake in calculating voting block outcomes.

There are roughly 650 to 700 comments total.

The precise number of comments was afterward determined to be 701 comments. In the myBallot system the number of comments submitted was 451 the breakdown was, 287 comments classified as "editorial", 32 that were classified as "general" and 131 classified as "technical". This enumeration included one "technical" comment submitted by Qualcomm; this comment had an associated attached file that turned out to include an embedded spreadsheet containing 251 individual comments; of these comments 70 were classified as "editorial" and 181 as "technical". In sum total the meeting processed all 701 comments of which 357 were "editorial", 32 "general" and 312 were technical.

The editor circulated 3 memory sticks containing the ballot comments.

This memory stick included 2 spreadsheets, a main spreadsheet, and a Qualcomm spreadsheet that was submitted as part of a single comment submission. The memory stick also included several attached files submitted with the comments.
Because of the late close of ballot, unlike in previous meetings, editorial comments were deferred one-by-one in this meeting.

Since the session dealt with Sponsor Ballot Comment resolution, the results of the resolution process are contained in the official Ballot Comment Resolution document. The status is contained in the “Resolution Status” column and the details (if required) can be found in the “Resolution Detail Column”. This document will become a part of the Sponsor Ballot Recirculation Package.

The PM1 Session recessed at around 3:30 P.M.

The PM2 Session resumed at around 4:00 P.M.

The PM2 Session recessed at 6:10 P.M.

The EVE1 Session resumed at 6:52 P.M.

The session continued the Comment Resolution discussion.

The EVE1 Session ended at 9:11 P.M.
Wednesday, January 16, 2008

The AM1 Session began at 8:40 A.M.

According to an email from Arnie Greenspan, the IEEE will allow us to hold an interim meeting to complete comment review (if we are not done) and to check conformance to the IEEE 802 formatting standards, in Piscataway, NJ, to be held on February 18, 2008, followed by a 15-day recirculation prior to the March 17 plenary session. It would not be allowable to rediscuss technical comments at such an interim-interim meeting.

The dates are flexible, within limits. There was some discussion on this subject, but only a very small number of attendees were interested to attend.

The editor has received guidance about what belongs in the status column of the resolution spreadsheet: Agree, Disagree, Out of Scope, Principle (addresses the spirit of the comment), or Unresolvable (e.g. too broad or vague or cannot contact the commenter for elaboration).

The session then continued with the sponsor ballot comment resolutions.

The AM1 Session adjourned at 10:01 A.M.

The AM2 Session resumed at 10:32 A.M.

The session continued with the sponsor ballot comment resolutions.

The AM2 Session adjourned at 12:22 P.M.

The PM1 Session convened at 1:54 P.M.

The session continued with the sponsor ballot comment resolutions.

Discussion turned to TDD comments. It was noted that the Motorola affiliated comments indicate that an alternate solution may also be acceptable to them. It was also noted that some communication had taken place between Qualcomm and Motorola, and that the Qualcomm solution may be acceptable to Motorola. Based on these considerations it was decided to base the TDD revision on the Qualcomm comments anticipating that this would in principle accommodate the Motorola comments.

The PM1 Session Recessed at 3:20 P.M.

The PM2 Session resumed at 3:48 P.M.

The session continued with the sponsor ballot comment resolutions.
The PM2 Session adjourned at 6:07 P.M.

The EVE1 Session began at 6:51 P.M.

The session continued with the sponsor ballot comment resolutions.

Concerning the comments dealing with Chapter 9, Route Control Protocol, the working group believed that the 4-state state machine is clearer than the proposed 3-state model. The proposed 3-state model appears to have hidden states (such as "deleted" or "pre-created") which may confuse users of the standard and hinder timely implementation. It was, therefore, decided to accept the comments (by Qualcomm), that fixed the current protocol associated with the 4-state model. It was anticipated that this should, in principle, satisfy the Motorola concerns without needing to adopt the 3-state model in their proposal.

The EVE1 Session Adjourned at 10:05 P.M.
Thursday, January 17, 2008.

The AM1 Session began at 8:50 A.M.

The session continued with the sponsor ballot comment resolutions.

The AM1 Session recessed at 10:05 A.M.

The AM2 Session resumed at 10:37 A.M.

The session continued with the sponsor ballot comment resolutions.

The AM2 Session recessed at 12:19 P.M.

The PM1 Session resumed at 1:32 P.M.

The session continued with the sponsor ballot comment resolutions.

The PM1 Session recessed at 3:03 PM.

The PM2 Session began at 3:42 PM.

The session concluded the sponsor ballot comment resolutions.

Editorial comments were reviewed, 10 rows at a time, in the main and in the Qualcomm spreadsheets. The dispositions were entered into the spreadsheets.

A motion, "The WG affirms the resolution of comments that occurred during the Jan. 2008 session for the initial sponsor ballot."

Moved by Jerry Upton.
Seconded by Fran O'Brien.

Alcatel Lucent Y
LM Ericsson Y
Kyocera Y
Niigata University Y
Qualcomm Y
Steepest Ascent Ltd Y
Strathclyde University Y

Other voting entities present? None.

Vote is 7-0-0.

Resolved, the WG affirms the resolution of comments during the Jan. 2008 session of 802.20.
Motion, "The WG recommends the 802.20 Vice-Chair take the necessary and timely steps for a recirculation of the Sponsor Ballot to ensure the recirculation is completed at the March Plenary Session."

Moved by Jerry Upton.
Seconded by Radhakrishna Canchi

Alcatel Lucent Y
LM Ericsson Y
Kyocera Y
Niigata University Y
Qualcomm Y
Steepest Ascent Ltd Y
Strathclyde University Y

Other voting entities present? None.

Vote is 7-0-0.

Resolved, the WG recommends the 802.20 Vice-Chair take the necessary and timely steps for a recirculation of the Sponsor Ballot to ensure recirculation is completed at the March Plenary Session.

The Vice-Chair thanked the audience for staying late in the PM2 session.

Question, can we discuss the Piscataway meeting? The answer is yes. The editor suggested that in light of our having completed the ballot comment resolution, we decline the offer to review the editorial changes at that meeting. The Vice-Chair did not believe it could be called earlier. If it is held later, the recirculation cannot be held.

The meeting would be all day on some day of the week of Feb 18th, 2008. Is any entity in favor of the meeting? None. Who is opposed? LM Ericsson. After the straw poll there was no consensus to hold the meeting.

The Vice-Chair will try to get the recirculation started as soon as possible.

Motion to adjourn? Jim Tomcik, so moved. Any objections? Motion carried unanimously.

The PM2 Session closed at 4:49 PM on Thursday, January 17, 2008.

The next meeting, a Plenary Session, will be held in Orlando, Florida, 16-21 March 2008, at the Caribe Royale, Orlando, FL, USA.
## ATTACHMENT A

**List of Attendees**

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bravin</td>
<td>Nancy</td>
<td></td>
</tr>
<tr>
<td>Canchi</td>
<td>Radhakrishna</td>
<td></td>
</tr>
<tr>
<td>Chao</td>
<td>Cheng-Chih</td>
<td></td>
</tr>
<tr>
<td>Chung</td>
<td>Chou Ching</td>
<td></td>
</tr>
<tr>
<td>Epstein</td>
<td>Mark</td>
<td></td>
</tr>
<tr>
<td>Garcia-Alis</td>
<td>Daniel</td>
<td></td>
</tr>
<tr>
<td>Gilb</td>
<td>James *</td>
<td></td>
</tr>
<tr>
<td>Gillies</td>
<td>Donald</td>
<td></td>
</tr>
<tr>
<td>Gowaikar</td>
<td>Radhika</td>
<td></td>
</tr>
<tr>
<td>Ishida</td>
<td>Kazuhito</td>
<td></td>
</tr>
<tr>
<td>Ji</td>
<td>Tingfang</td>
<td></td>
</tr>
<tr>
<td>Kadous</td>
<td>Tamer</td>
<td></td>
</tr>
<tr>
<td>Kitahara</td>
<td>Minako</td>
<td></td>
</tr>
<tr>
<td>Klerer</td>
<td>Mark</td>
<td></td>
</tr>
<tr>
<td>McMahon</td>
<td>Anthony</td>
<td></td>
</tr>
<tr>
<td>O’Brien</td>
<td>Francis</td>
<td></td>
</tr>
<tr>
<td>Pearson</td>
<td>Orlett</td>
<td></td>
</tr>
<tr>
<td>Ragsdale</td>
<td>James</td>
<td></td>
</tr>
<tr>
<td>Sasaki</td>
<td>Shigenobu</td>
<td></td>
</tr>
<tr>
<td>Talbot</td>
<td>Stephan *</td>
<td></td>
</tr>
<tr>
<td>Tomcik</td>
<td>James</td>
<td></td>
</tr>
<tr>
<td>Upton</td>
<td>Jerry</td>
<td></td>
</tr>
</tbody>
</table>

* Less than 75% attendance