Attached : IEEE Meeting Minutes Guideline Slide (display by Chair, day #1)

IEEE 802.20 Meeting Notes
San Francisco, California
July 16-19, 2007

Arnie Greenspan, 802.20 Chair
Mark Klerer, Vice-Chair.
Jim Mollenauer, Vice-Chair.
Don Gillies, Recording Secretary.

Monday, July 16, 2007
==========
The PM1 Session began at 1:30 pm.
Attendance was roughly 57 persons (rough headcount by recording secretary).

The chair put up the IEEE Patent Policy slides to view, and read aloud slides #1, #2, #3, #4, #5. There were 3 announcements in response to the IEEE Patent Policy slides.

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.”

Joanne Wilson, CompassRose International / Kyocera, “Joanne is aware because ArrayComm has a letter of assurance posted to the ANSI and ATIS for the HC-SDMA standard that is proposed for inclusion in the 802.20 standard. Joanne would work with Arnie Greenspan to request a letter of assurance from ArrayComm for their patents that are essential to the HC-SDMA standard, and thus to 802.20.”

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."

The chair asked everyone in the room to identify themselves and their affiliations.

The chair reiterated that the confirmation of Mark Klerer and Jim Mollenauer was moved and seconded in a previous meeting by the standards board, but the nomination was not clear in earlier meeting minutes. In order to put this issue to bed once and for all, the chair asked for a 2nd motion,

“To approve Mark Klerer as Procedural Vice-Chair of 802.20 and Jim Mollenauer as Liaison Vice-Chair.”

Jerry Upton moves to approve the motion.
Nancy Bravin seconded the motion.

Discussion ensued and there were questions from the audience of how this error in the minutes occurred. There was a call to question and the result of the vote was:

44 yes votes
0 no votes
5 abstentions.

The next subject was an affirmation vote on how we handle minutes.

In Montreal, we had a motion stating that we were spending too much time in trying to capture minutes in too much detail. The IEEE Meeting Minutes guidelines on detail were displayed for everyone to see.

Jim Ragsdale, “move to simplify the meeting minutes following the IEEE guidelines on detail and recording per the IEEE Standards Companion”

Seconded by Nancy Bravin.

The IEEE Standard is that if someone asks for something to be captured, then the chair can rule on whether it’s captured or not.

An amendment, “, and in addition treat procedural motions following the guidelines for technical motions.” was not accepted.

A requester stated that he preferred detailed minutes.

Jerry Upton, called the question.
43 in favor
3 against
3 abstentions.

The chair asked for a vote to affirm the Orlando minutes, as there was no quorum in Montreal to approve the minutes.

Mark Klerer moved to approve the 802.20 - 07/09r2 Orlando Minutes
Nancy Bravin seconded the motion.

For the first comment on the minutes, it was pointed out that in meeting minutes we decided that the secretary should not summarize contributions in the IEEE meeting minutes. The mere act of paraphrasing a contribution is perilous. The R1 minutes are missing details on pro’s and con’s of some proposals that are thought important from Orlando. The chair asked for a one-sentence summary of what is missing that was lost from the R1 minutes. The commenter was asked to go away and return later with detailed revisions of what was lost from R1. The commenter was given until the next day to do so.

A second commenter said
1. The minutes should be revised to have the Appendices at the end of the minutes. The current PDF has the Appendices at the beginning and this can create confusion with a reader of the minutes.
2. On page 5 the last sentence before the lunch recess should be revised as follows. In current version - - “The chair announced that copyright permission had been received from TIA, the body representing 3GPP2.” Proposed revision - - “The chair announced

that copyright permission for the previous draft had been received from TIA, the body holding the copyright for the documents submitted to 3GPP2."

There was no discussion on points (1) and (2) and the chair states that since there are no objections, we will implement changes (1) and (2) in the Orlando minutes.

There was disagreement over a third point (3). The issue is that there is a presentation slide ("A Way Forward") entered into the minutes by the secretary that the commenter objected to, partly because it broke tradition and named proposers. The author of the slide was unwilling to turn it into a contribution to resolve the issue. To single out this one view in the minutes gives false credence to that point of view. It was proposed that all the information from the graphic should be removed from the minutes and would not be posted as a contribution, therefore it would be lost. It was also proposed that the chair make it into a chair contribution. There were objections that the diagram should not be lost from both the minutes and from the contributions. The author of the graphic was unperturbed with the idea that it might be lost from the minutes.

The PM1 Session recessed at 3:05 p.m.
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The PM2 Session resumed at 3:27 p.m.

The chair stated that there was a chair decision to remove a name reference from the controversial presentation slide in the Orlando minutes.

As this is taking a long time, we will table the motion to approve the Orlando minutes, as the chair would like to give time for the first commenter to collect a summary of R1 changes desired in the minutes.

There was a proposal that all slides presented in the future will not be displayed unless the commenter agrees to immediately submit them as a contributions.

Discussion of Orlando minutes was tabled.

Chair asked for a motion to approve the Montreal minutes.

Nancy Bravin moved to approve the minutes.
Rob Preece seconded the motion.

Discussion on Proposed changes to the Montreal minutes.
(a) MON PM1: Did the chair actually present introductory slides twice? The chair confirms that he did present the introductory slides in the morning.
(b) TUE PM2: The commenter said that the spec was only sufficient for vendors building both sides of the system in tandem, the commenter wanted a much more specific quote, i.e.: "It was suggested that a previous contribution by Jim Tomcik was not sufficient for vendors building one side of the system only."
(c) "instructional video" -> "informative video".
(d) Original text was "As there was no text associated with this comment, the editor *with the concurrence of the submitter* agreed that it should be left unresolved. The resolution was that it should now say, ". the editor said that it should be left unresolved" (i.e. text in italics will be removed).
(e) In the introduction of the minutes comments for Orlando minutes, minutes should not

say that we did not have enough time to discuss both contributions, only the first one was discussed, including a pointer to the comments. This should be added to the end of the Montreal meeting minutes, "Due to lengthy discussion of C802.20-7/30 and time limitations, Contribution C802.20-07/32 "Suggested Edits to the Draft IEEE 802.20 Minutes from the March 2007 Meeting" were not discussed."

The chair asked for a motion to approve the Montreal minutes. There was a complaint that the edited minutes should be displayed and discussed for tomorrow.

Call to question,
40-odd in favor
1 objection
2 abstain

In accordance with a presentation-proposal by BWA/ARIB in the previous meeting, the chair asked for a motion to approve the Liaison between the Japan Broadband Wireless Access (BWA) Subcommittee for Radio Industries of Japan (ARIB). Motion made and seconded.

44 approve
0 disapprove
1 abstention

Chair made his opening statements. Some excerpts are, "The only remaining concerns by 802 oversight committee concern a dominance by one company which has 32% of the voting membership. At some meetings this company has had 65% of the voting quorum. This number is close enough to cause concern. There is another group that comprises 28% of the voting membership, which is large enough to block progress in some meetings."

"After analyzing votes on this committee, is was found that there are members who have never voted negatively on matters of consequence, and members who have never voted positively on matters of consequence. The oversight committee has observed that these members have tunnel vision."

"Members should not be here to vote all positively or all negatively. Many of you have complained about the chair favoring one side or another. The goal of the chair is to move the standard forward. The chair is doing his best to provide a Switzerland level of neutrality at the expense of his retirement and golf game scoring. Bad behavior on one side as justified by supposed bad behavior on the part of the other side will not be tolerated by the chair."

The chair asked for a straw vote: “If your comments were adequately resolved as part of the comment resolution process, how many would vote to approve the standard?”, nearly everyone said yes, 2 abstentions, none against.

The PM2 Session recessed temporarily at 4:00 p.m. due to chair business.
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The PM2 Session resumed at 4:25 pm.

The editorial chair asked initially only for discussion on editorial items – items with

nontrivial contents in "column j" ("Editors Comments/Resolution".)

seqno 29 : On the issue of device inter-operability, a text clarification for interoperability was requested, but problems were pointed out on whether the proposed text would require both FDD mode and TDD mode to be implemented together to allow interoperability. Editor suggested that duplexing schemes should also be mentioned in addition to FDD/TDD. It is probably better to indicate that each duplexing scheme is a mode, which creates 3 modes (WB-FDD, WB-TDD, NB-625k).

seqno 43 : accepted.

seqno 44 : layer and sublayer are redundant and should simply be omitted.

seqno 56 : forward and reverse link channels are not fully explained, editor mentions that they are in figure 95 and table 144, commenter states that he is drafting an appendix for this information.

seqno 62 : resolution was to follow the editors suggestion and remove SilenceIntervalOffset as it is now redundant. There were 5 occurrences in the text and 2 or 3 occurrences in the MIB.

seqno 69 : resolution is to use the picture, but include “LSBs” (plural) in the arrow labels, as the least significant bit is typically a unique part of a binary field, but these fields hold several LSBs from many other fields.

seqno 99 : wording on "Inverted sequences.." is incorrect in both UMB and 3GPP2, the submitter would like more time to think about the chair’s suggested changes to correct the spec.

seqno 112 : change “Orthogonal Frequency Division Multiplexing” with “OFDM” to save ink throughout, accepted.

seqno 141 : editor’s proposed changes are accepted.

seqno 145 : delete reference to [3] and change to reference to Section 4.7, as we are all one document here (unlike UMB) and no external references are needed.

seqno 154 : the word “indexed N” will be changed to “index N” throughout and missing references will be added to achieve uniformity.

seqno 163 : editor’s proposed changes are accepted.

seqno 223 : commenter believes locations of f and f_avail are swapped, but editor believes them to be correct, the submitter will think about whether this is correct.

seqno 240-243 : submitter reminded the group that we were going to create a reference document with all 3GPP2-specific reference information to make 802.20 self-contained. The issue is tabled as further discussion is needed.

seqno 300 : suggested that we simplify the table presentation by transposing states to the Y axis and using X’s for which protocols are active in which states, accepted.

seqno 302 : 303, 305-308, concerning message description tables for Channels / Addressing / RLP / (and soon to be proposed by-the-chair Authentication), the table/boxes of the message information sections seem to be distorted. The resolution is, the overview of these blocks/tables will be moved to 1.4, terminology, and we should make a pass through the document to make all of them consistent, and be sure that all messages include these blocks/tables.

seqno 309 : ALMP subscript issues, no resolution.

seqno 359 : first of all the [01] notation looks like a document reference, and a better notation should be chosen. In conversations between the secretary and the commenter and chair, it seems that the first three references are also inconsistent with the fourth, i.e. [11], [01], and [10] are inconsistent with the 4th, [0, 0] and the format of the 4th should probably be followed, since these are bit-pairs being specified.

The editorial chair stated that tomorrow we will start with the physical layer technical comments.

The chair reminded everyone that the Evening Session was cancelled to allow 802.20 members to attend evening tutorials.

The PM2 Session recessed at 6:25 pm.
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The AM1 Session opened at 8:30 on Tuesday, July 17, 2007

After a meeting of the 802 executive committee yesterday evening, it was decided that,

"Effective immediately all votes and ballots in the 802.20 working group shall be conducted on the basis of entity affiliation with one vote per entity. Entities and affiliation shall be as determined by the 802 EC 802.20 Operating Committee (OC), based on members declarations of their primary affiliation and other information available to the OC."

The vote of the OC was 7 in favor, none opposed.

The chair has a pretty good idea what the consultancy affiliations are - anyone wishing to know their consultancy affiliation can check with the chair.

Attendees asked the following questions of the Chair.
Will there be some action taken by the EC or the standards board relative to modifying the PAR? The PAR must be modified to say that voting is entity-based?
Do we no longer follow the 802 PNP rules? There is a desire to have an interpretation of what rules we follow and what ones we don't during a vote.

The AM1 Session recessed temporarily at 8:40 am for discussion
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The AM1 Session resumed at 9:00 am.

The chair asked for each voting entity to register a voter.

Voting representatives and secondaries were as follows
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Qualcomm, Jim Tomcik, Mark Epstein
Kyocera , Radhakrishna Canchi, Kazhuhiro Murakami
Ericsson, Jim Ragsdale, (no secondary)
Broadcom, Victor Hou, Tom Kolze
Samsung, Anna Tee, Changhoi Koo
Motorola, Val Oprescu, Jim Mollenauer
Alcatel Lucent, Francis O'Brien, Peretz Feder
Advanced Network Technical Solutions, Donald McMillan, (no secondary)
Steepest Ascent, Daniel Garcia-Alis, Graham Freeland
Nokia Siemens (NSN), Riku Pirhonen, (no secondary)
NEC, Masaaki Yuza, (no secondary)
NTT Docomo, Fujio Watanabe, (no secondary)
Arosco, Arnie Greenspan (tie breaking?)

Voting Entities registered later in Session AM2
Institute Miyagi Prefecture, Hiroshi Oguma (no secondary)
Niigata University, Sigenobu Sasaki, (no secondary)
Intel, Hassan Yaghoobi, (no secondary)
NTT, Tetsuya Nakamura, (no secondary)
AT&T (was Cingular), David Shively, (no secondary)

Voting Entities registered in Session AM1, Wednesday July 18, 2007
Fujitsu, Kenichi Nakamura, (no secondary)
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The chair stated that currently Quorum is 52 attendees.

The attendee list includes potentially 59 voting entities, although only 13 were registered in this AM1 meeting.

The Editor took over the meeting at 9:20, and stated that an evening session would be scheduled if there was insufficient progress on the spreadsheet comments list. (Please note the official record of comment resolutions is the Editor’s spreadsheet and not the session minutes. The minutes should match, but in a disagreement the Editor’s notes prevail.)

seqno 27 : IOS is the access network standard in 3GPP2 and currently we use some of this text and nomenclature because we have harmonized with UMB. This is a little bit above the PAR. A reference to IOS is probably inappropriate at this point. If we reference ourselves to IOS then we lock ourselves into 3GPP2 access network; if we want to be generic then we should not reference IOS. there was an objection to the use of the term "Inter-AN" in the pictures and text. No resolution.

seqno 28 : QoS is not described much or introduced much in the spec. This contribution provides an enhanced overview to include in the introduction. The editor would like to put this before the terminology section as part of the architectural overview. Question: is the operation of the QoS system described in the spec? No, the spec describes enough to negotiate attributes for Diffserv or Intserv QoS, but operation of QoS is policy and is out of scope in the air interface. This contribution was accepted.

seqno 59 : make PHY chapter follow the standard format of other chapters, including about 15 subsections that are part of every protocol. Moreover, "Primitives and Public Data" should be collected into one subsection throughout the document, accepted.

seqno 60 : concerns adding a whole bunch of missing definitions, accepted.

seqno 63 : adds the CRCs for various messages, into Table 114, including where these PHY constants are defined, accepted.

seqno 64 : accepted.

The AM1 Session adjourned at 10:10 am
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The AM2 Session began at 10:40 am

The chair asked for a motion to approve the agenda, as the secretary has pointed out this was not done so far.

Broadcom moves to approve the agenda
Kyocera seconded the motion

13 in favor, 1 absent.

The Editor took the floor to continue the editing process.

seqno 68 : accepted.

At this point we turned to a discussion about process. Several comments are technical, don't we require a separate vote on each technical comment ?? The chair prefers one vote on technical edits at the end. It was proposed to ask for objections (from anyone) at the end of each technical comment. The editor asked that for each technical comment, voting entities should raise an objection to signify if you do not agree with the technical comment.

seqno 70 : PilotID is introduced which includes PilotPN and a synchronous bit. Question : would PilotPN disappear completely? Answer : No, it cannot disappear. There was a request to defer this until the new figure was produced for inspection by voting entities.

seqno 71 : Sector Seed should be restated in terms of PilotID.

seqno 73 : The resolution is that the spec will say for each reserved field, simply, "These bits are reserved", and indicate behavior for reserved fields in the introduction. There will no longer be a note in each reserved field stating that it must be set to zero.

seqno 74 : accepted.

seqno 75 : hashing 32 and 64 bits, accepted.

seqno 76 : We should probably define "DFT Matrix" somewhere, this section seemed like a good place to do it, accepted.

seqno 78 : packet splitting function, (spreadsheet has some typos, will be fixed) - accepted.

seqno 79 : accepted.

seqno 80 : The comment contributor thanks the editorial chair for help to improve the contribution, and accepts the editor's suggested improvements. accepted.

seqno 82 : accepted

seqno 85 : accepted

seqno 86 : accepted

seqno 87, 88 : add missing channels to section text to be consistent with table.

seqno 89 : accepted.

seqno 91 : accepted.

seqno 92 : accepted.

seqno 93 : accepted.

seqno 95 : accepted

seqno 96 : accepted

seqno 97 : accepted

seqno 98 : applicability sentence is incomplete, accepted.

seqno 99 : accepted.

The AM2 Session recessed at 12:08 p.m.
==========
The PM1 Session began at 1:40 p.m.

The previous recording secretary presented marked-up changes to the minutes of the Orlando meeting. A suggestion from the floor was that the previous recording secretary should make a cleaned-up change bar-free version of the minutes for review on the web page tonight. The chair and previous recording secretary agreed to do this.

The Editor took the floor to discuss further technical comments.

seqno 100 : updating channel lists to include every relevant channel, accepted.

seqno 101 : silly sentence indicating that other (unstated) modulations are possible - to be removed, accepted.

seqno 102,104 : questioning the value of theta, comment 102 provides text to indicate

where theta can be found, a comment from the floor is that there is missing some text in the broadcast parameters section, text is only present in latest UMB 2.0 spec (but not our draft), action item for Tingfang Ji to provide text to allow the editor a fix this problem in the specification, by Wednesday noontime.

seqno 103 : accepted.

seqno 106 : extraneous formula to be removed, accepted.

seqno 107 : table error has errors in bits in left columns ; new table provided. Action, editor will try to diff-mark table changes ; accepted.

seqno 109 : Note that seqn's (106, 107, 108, 109) are basically companion errors. accepted.

seqno 110 : accepted.

seqno 113 : accepted.

seqno 114 : accepted.

seqno 117 : accepted.

seqno 118 : accepted.

we currently have a "mix" in the document saying "where this variable is blah blah blah" and sometimes "here this variable is blah blah blah". Action item to the editor who will try to fix all to be consistent.

seqno 119 : the formula is the same as seqno 117, as the contributor is out of the room we will mark it for the same disposition as seqno 117.

seqno 120 : we will use a multiplication symbol to make it more clear, and note that P_REFERENCE (subscript) will make the preamble power reference clear.

seqno 122 : a missing figure will be added, accepted.

seqno 123 : accepted.

The chair announced that cookies had just been made available outside.

The PM1 Session adjourned at 2:29 pm.
==========
The PM2 Session began at 2:56 pm.

seqno 124 : accepted

seqno 125 : include a formula to calculate the TDD start-time of k'th OFDM symbol, accepted.

seqno 126 : accepted

seqno 127 : accepted

seqno 128 : accepted

seqno 129 : editorial chair asked if one member was in the audience to comment ; since that member was not present the comment was accepted.

seqno 130 : accepted

seqno 132, 133 : deferred as the commenter is out-of-the-room.

seqno 139 : accepted

seqno 140 : accepted.

seqno 144 : accepted

seqno 146 : accepted.

seqno 147 : accepted.

seqno 148 : accepted.

seqno 149 : these paragraphs will move and (action) The editorial chair will try to provide an indication of how they have moved as a markup would not indicate the movement. accepted.

seqno 150 : accepted.

seqno 153 : accepted with minor changes
seqno 155 : accepted

seqno 156 : accepted

seqno 158 : accepted

seqno 160 : accepted.

seqno 162 : accepted.

seqno 163 : accepted.

seqno 164 : accepted.

seqno 165 : accepted.

seqno 172-176 : accepted

seqno 178-180 : accepted.

seqno 182 : accepted.

(action) the Editorial Chair has agreed to fix dashes, indents, and formatting marks for different indent levels.

seqno 183 : accepted.

seqno 185 : becomes moot in light of comment 184, accepted.

seqno 186,187 : accepted, even though contributor is not in the room.

seqno 188 : for further study (action) any volunteer to work ?

seqno 191 : becomes moot as a result of introduction of "partial tiles".

seqno 192 : accepted.

seqno 195 : accepted

seqno 197/198 : Issue is whether "may be modulated by an exponential sequence" should be changed "shall"; the problem is that to send an off state (off state) acknowledgement this is not an exponential sequence, one possible compromise is to say "shall" when sending an ack, and explicitly give the sequence (null sequence) for transmission of "0". The result is that it will be accepted as "shall" with the elaboration that off state is modulated with a null sequence.

seqno 199 : accepted.

seqno 200 : accepted

seqno 201 : accepted.

seqno 202, 203 : accepted

seqno 205 : accepted

seqno 207, 208 : accepted.

seqno 209, 210 : accepted.

seqno 211 : accepted

seqno 212 : accepted.

seqno 213-220 : accepted.

The PM2 Session recessed at 6:03 pm, with a reminder to reconvene at 8:00 pm.
==========
The EVENING Session resumed at 8:00 p.m.

Jim Mollanauer serving as recording secretary for this session.

The Editor continued with physical layer comment resolution.
Please see Comment Resolution spreadsheet for resolution of individual sequence numbered items.

The EVENING Session recessed at 11:00 p.m.
==========
The AM1 Session resumed at 8:35 a.m. on Wednesday July 18, 2007

The chair noted that the revised version of the Orlando minutes have become available, and they will be posted this morning to the website, but we will delay voting to approve or disapprove the minutes until later in order to give people a chance to review the minutes.

The chair reminded everyone to sign in.

The Editor took the floor.

The processing of comments will be reordered to accommodate some members that must leave early and because some other comments are contentious and are best left to the end of the meeting in the interest of finishing as many comments as possible in this meeting.

seqno 282 : accepted.

seqno 283 : discussion will occur after 2pm today. This comment concerns the inclusion of a performance spec within the main 802.20 document.

seqno 285 : accepted.

seqno 286-296 : accepted.

seqno 20 : Contribution C802.20-07-36.pdf was presented.

During Q&A a questioner pointed out the presentation promoted the BRCH and DRCH multiplexing design, which is already part of the ballot draft. The presenter agreed that the multiplexing was already in the draft, but the simulation was based on a flexible tile structure which was not supported by the draft. There was additional discussion on what performance results would be required to motivate the flexible tile structure.

The questioner asked: does using the flexible tile structure cause a DRCH loss?? The answer was yes. If we want to put in this proposed scheme, we want to show the gain of flexible tiles vs. the present standard. The answer is, the gain is a reduction of pilot structure, so no pilot tones are needed, which is in the case of a 1TX/2RX structure, where it is not really necessary to use all of the pilot tones (because of only 1 transmit antenna). In this case, there were no pilot tones on the tile, v.s. 18/24 pilot tones in the current 802.20 structure. The advantage is quite significant in terms of symbols used for pilot tones that can now be used for data. For a fair comparison we should compare the flexible tile structure with no pilots to the plain BRCH structure in the specification, and presumably there would be a performance loss. A response was claimed that you cannot say that you have a scheme with zero pilot overhead, because then you cannot

decode packets. If you are questioning about channel estimation of this type of pilot vs. the common pilot, simulation results were not available here. If you use the flexible / staggered pilot, the pilot performance should be sufficient, at least for 3km/hr, if you look at other standards such as 3GPP/LTE, dedicated pilots probably have more advantages for precoding, in this SISO case or 1TX/2RX, you cannot take much advantage of pilot tones.

The Editor proposed to leave the comment open and to allocate a 3 week period to agree on a desirable simulation scenario. In addition, all design changes (such as hopping sequences, channel tree impact, LAB encodings, etc.) and impacts to the specification should be assessed and summarized at the end of the 3-week time period. All others are welcome to make additional suggestions to the two people to improve the evaluation and design impacts of the flexible tile structures. In addition the editor requested that all information would be sent to the email reflector.

seqno 21, the chair asked the comment submitter if the Multicarrier (MC) mode was still germane. Slides [Contribution 802.20-07/18] were shown, and advantages were summarized by the presenter. MC services can be provided by stacking carriers, and lower-bandwidth users can be supported. A questioner from the floor stated that MC is currently supported in the draft. You are allowed to aggregate traffic over multiple carriers in the current draft. The current draft allows not only system capacity increase, but peak rate increase, at the RLP level. The presenter asked if a 20 MHz bandwidth base station could support user terminals that only have a 5 Mhz bandwidth. The presenter asked about how this is supported - how do quasi-guard carriers implement this feature? The presenter asked for how the present standard implements multiple carriers and narrow bands. The presenter is proposing to reduce the number of guard carriers between bands in the 802.20-07/18 proposal. The chair summarized that this seems to be the nub of the debate.

The Editor proposed to leave the comment open for some offline discussions to resolve technical issues with the comment. As today is July 18th, the chair stated that a plan for resolution should be completed for both proposals by August 8th.

seqno 231 :

seqno 350 : deferred.

seqno 344 : 26 pages of changes [BroadcastLowerMAC in the PLB2 comments package] for a new broadcast message are inserted. The changes are so extensive that these pages will completely replace existing pages of the document. Some of this is aligning the chapter structure with the 802.20 specification.

seqno 56 : action : Victor Hou to provide a set of channels and text by the end of the day to include in the overview.

seqno 58: The QoS changes are extensive, and (action : Mark Klerer) we need to change the overview to reflect the fact that the RL MAC QoS protocol will disappear.

Session AM1 recessed at 10:15 am
==========
Session AM2 resumed at 10:50 a.m.

seqno 345 : accepted.

seqno 17 : accepted, list missing

seqno 19 : deferred

seqno 49 : ROHC support attachment contribution, accepted (action : Mark Klerer to provide figure and text enhancements to the introductory section to mention ROHC support.)

seqno 50 : EAP support attachment contribution, accepted.

seqno 70 : As the figure has been displayed for Figure 70, this one will be marked accepted.

seqno 133 : resolution is deferred until commenter returns to the session.

seqno 178 : discussed last evening ~ but in looking at it, the 1st 3 sentence should be deleted, not just the 1st 2 sentences. accepted.

seqno 188 : the editorial chair will volunteer to look for information at lunchtime.

seqno 271-273 : reference creation is scheduled for discussion.

seqno 284 : discussion scheduled for after 2pm on Wednesday.

seqno 317-335 : All session control chapter changes, all accepted.

The AM2 Session recessed at 12:10 p.m.
==========
The PM1 Session resumed at 1:41 p.m.

seqno 335 - 343 : accepted.

seqno 15 : Additional discussion on protocol fields that contain fields like "0 or N" for field sizes. The commenter feels that a zero-length field makes no sense. The commenter suggests is agreeable that maybe a star by the Field name would be acceptable for optional fields. Another commenter complained that we had a resolution to harmonize by UMB and this type of change adds little value.

seqno 346-347 : accepted.

seqno 348 : To clarify, a terminal at the very least must support modclass 0. Chapter 16 states that a mobile must support all the modulation classes. For conformance testing a decision was made that you have to support at least class 0 to allow testing. In reality, supporting only modclass 0 is not enough to say you are fully compliant with the spec. What happens if someone makes a limited VOIP terminal without doing high data throughput? We don't want the spec to say that minimal pieces of equipment must support the most powerful operating mode. We don't want to provide a certification level in the spec, because that's what WiMax type forums are for, etc., it's not what IEEE802

is for.

The PM1 Session recessed at 2:45 p.m.
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The PM2 Session resumed at 3:30 p.m.

seqno 264 : There was a request for receiver sensitivity for each constellation. A responder said that in 3GPP these are typically available 6 months to a year after the spec is written according to implementation experience, and that at this point only simulation results are available to be used, and these results might be too large or too small at this moment. A responder said that we should give manufacturers a chance to provide input to the minimum performance spec. Another responder said that precise requirements are equipment requirements and its how manufacturers distinguish their own products.

The chair recommends that disagreeing parties get together and decide how to close this issue. (implementation losses)

A comment attachment (Comments on 802.20 draft oh-two-m.Rev0) was shown that describes inter-operability and performance specifications from different standards.

The chair would like to separate the performance issue from the inter-operability issue. The chair is thinking of going through 802.16 and ask what we think can be done, should be done, and might be done. Concerns were raised about cluster variance and EVM, MER, phase noise in transceiver systems, and symbol timing jitter, etc. It was pointed out that the typical CDMA performance document has more stringent requirements than 802.16. On the other hand, some of the CDMA requirements are not sufficiently detailed to apply to the 802.20 OFDMA system. Spurious emissions is also on the list.

Contribution C802.20-07/21r1 was displayed and explained by the contributor. The chair proposed the following way forward. The information from this contribution C802.20-07/21r1 is in the draft, and any additional parameters are for further study. EVM, phase noise, and additional parameters (see above) are for further study as resolution in the comments resolution process.

seqno 287-296 : Result is, "The need for this section is for further study" will replace the references [10] to the CDMA 2000 specification document.

seqno 188 : add references to sections 5.2.1.3.4.2 & 5.2.1.3.4.3.

seqno 102, 105 : The chair displayed BroadcastControlMessage.doc which includes rotational angle information, and suggested change is to include this message as part of chapter 10.

seqno 133 : resolution is to see proposed new text to be added as part of seqno 130.

seqno 21 : resolution is, MC mode is already in the spec and is mature, the contributor will withdraw the comment but reserves the right to raise it again pending review of the spec.

seqno 351, 352 : The chair displayed "KC Proposal to Resolve 351 352-final.doc" to

replace all the text in Chapter 17, and it was accepted.

Since this is going into the spec it will not become a contribution, and will be reflected in the next revision of Chapter 17, and (action: Mark Klerer) will get attached to next round of ballot resolution. The supplemental file will be included in a new comments ballot package.

seqno 27, 28 : We will change the name "Inter-Access Network Protocol" to "Route Tunneling Interface".

JoAnne Wilson made a motion to recess for this evening.
Nancy Bravin seconded the motion.

The PM2 Session recessed at 5:48 p.m.
==========
The AM1 Session resumed at 8:30 am on Thursday, July 19.

Fujitsu stated who was their registered voter for this meeting. (see minutes from first session for details.)

The chair asked if we were ready to approve the Orlando minutes.

A commenter stated that one change agreed to was missing, item (2). The chair agreed that what we will vote for is the minutes, reflecting change item (2) from AM1 Session on Monday July 16.

A typo "file" should be "tile" was also agreed

On page 6, under heading of "Summary of 802.20 proposals", "Other Proposals" => "The LDPC Proposals"

The date on the cover sheet is "June 6th", but today's date should be recorded on the cover sheet.

Nancy Bravin moved to approve the modified Orlando minutes
Jerry Upton seconded the motion.

Discussion on the motion, if one looks at the text on page 6, along with text on Wednesday afternoon, it says, "discussion on overlap diagram in appendix 3 continued." The diagram along with the text is inaccurate, which lead the proposer to suggest we eliminate both from the minutes. An alternate suggestion is to put another diagram in, and indicate it is an alternative view. Another suggestion was to simply add, "A member showed an alternate view as depicted in appendix 3". The minutes were displayed and the following proposed edits put up to view,

"Discussion on the Venn diagram in contribution 07/27 continued. A member showed an alternative view as shown in the diagram in appendix 3."

Samsung electronics, yes
Steepest ascent, yes
Alcatel lucent, yes

Ericsson, yes
Qualcomm, yes
Kyocera, yes
Motorola, yes
Instititute of Miyagi Prefecture, yes

Advanced network technical solutions, abstain
NEC, abstain
Broadcom, abstain
Fujitsu, abstain

Nokia, absent
AT&T, absent
Intel, absent
DoCoMo, absent
Niigata Univ., absent

Vote is 8-0-4, which approves the Orlando minutes.

The Editor's computer is not working and so the chair proposed that we break until 10:30.

Potential meeting locations for the March 2009 plenary were shown. The straw vote was , 1 in favor of Geneva, 55 in favor of Rome..

The AM1 Session recessed at 9:21 a.m.
==========
The AM2 Session resumed at 10:33. a.m.

It wasdecided that people will watch their emails, and half an hour after the updated letter ballot spreadsheet has been posted to reflector, we will reconvene. If the spreadsheet is posted earlier in any event we will reconvene at 2:00 pm.

On this issue there was a straw-poll vote: 31 in favor, 0 against, and 0 abstained.

Chair asked for a motion to amend the agenda, extending the agenda to continue as necessary, extending the adjournment time up to midnight on Thursday if necessary.

Motion moved by Nancy Bravin
Seconded by Joanne Wilson.

Role Call Vote
Samsung electronics, yes
Steepest ascent, yes
Alcatel lucent, yes
Qualcomm, yes
Kyocera, yes
Motorola, yes
Instititute of Miyagi Prefecture, yes
NEC, yes
Broadcom, yes

Nokia, yes
AT&T, yes
DoCoMo, yes

Advanced Network Technical Solutions, no

Ericsson, abstain

Fujitsu, not present
Niigata U, not present
Intel, not present

Vote was 12 in favor, 1 against, 1 abstain (3 not present).

There was a discussion on the Letter Ballot instructions assuming an approval later today.
It was agreed the Chair should post the entities that are voters for the ballot. Each entity that does not yet have a designated voter will need to send an email stating who istheir voter and alternate voter to the Chair.

There will be as many ballots as there are voters. Instructions will go out to the reflector. Each designated entity voter is responsible to submit comments for all the individuals affiliated with that entity. There will be only one official ballot per entity

The next ballot will last 40 days. It is expected the ballot would start on August 3 and close at midnight on Sept. 11. All ballot comments would be posted as received. The Hawaii interim meeting starts September 17th.

A complaint that September 14th is too late for people to look before hopping on the airplane was. So, there was a request for the Editor to get comments compiled and posted on September 12th. There was a suggestion that the Editor compile the comments incrementally and post them as soon as they are received. Other operations such as sorting can still continue after they are posted.

Summary
- ballot starts on August 3rd
- ballot + comments will be posted as they appear
- ballot will close midnight eastern on September 11th
- editor will attempt to post them on September 12th
- meeting will convene on September 17th.

The chair thanked the audience for their attendance this morning.

The AM2 Session recessed at 11:05
==========
The PM1 Session resumed at 2:00 p.m.

The Chair opened by reporting on the IMT-Advanced meeting that was held on Tuesday. The IEEE 802 input resulting from the conference calls in April and May was presented on May 15. This was one of 6 proposed revisions to the draft text. Some progress was made at the May ITU WP8F meeting in defining the items to appear in the requirements;

values will be filled in later. A member added detail, indicating that the document is expected to be done at the end of 2008; the next WP8F meeting will be in January 2008. 802.18 will lead discussions of how IEEE 802 will proceed in the fu-ture with respect to IMT-Advanced.

Pending availability of the draft, the following motions were drafted:

Move to accept the editor's output as draft 1.0m.

Move to authorize a 40-day Working Group Letter Ballot of 802.20 draft 1.0m, asking "Do you approve the 802.20 draft 1.0m for forwarding to sponsor ballot?

It was agreed by all that the draft was available at approximately 3:06 PM. To give people the necessary 4 hrs of time to review the draft and make certain their comments and concerns had been addressed by the editor, the meeting was recessed until 6 PM.

The PM1 Session recessed at 3:15 p.m.
==========
The EVE Session resumed at 6:00 p.m.

The working group reconvened and waited for expiration of the 4-hour availability period before a vote could be taken. Finally, the motion to approve the editor's output as draft 1.0m was moved by Jerry Upton and seconded by Ayman Naguib. The motion was approved 13-0-2. The abstentions were by Fujitsu and NTT MCL.

The second motion, to initiate a letter ballot, was moved by Nancy Bravin and seconded by Ayman Naguib. The vote was 12-0-2, with Fujitsu and NTT MCL abstaining.

The July Plenary Session adjourned at 7:20 p.m by unanimous consent

Appendix 1: July 2007 - Attendance Credits and Voter Status										
Last Name	**First Name**	**Jan07 Voters**	**Mar07 Voters***	**Mar06**	May06	**Nov 06**	Jan07	**Mar 07**	May 07	**July 07**
Agis	Edward	M	M	1	1	1				
Agrawal	Avneesh	M	M	1						
Ahmadi	Sassan	M	M	1	1	1				
Ahn	Jae Young	M	M	1	1					
Alamouti	Siavash	M	M	1	1					
Ali	Murtaza	M	M	1						
Alphonse	Jean	M	M	1						
Arefi	Reza	M	M	1	1					
Bajaj	Rashmi	M New	M New	1		1				
Barriac	Gwen	M	M	1			1	1	1	1
Bavafa	Moussa	M	M	1	1	1			1	
Bernstein	Jeffrey	M	M	1		1	1	1	1	
Bims	Harry	No	No							
Bravin	Nancy	M	M	1		1	1	1	1	1
Budianu	Petru	No	No						1	1
Bussey	Chris	M	M	1		1	1	1	1	1
Cai	Sean	M	No	1						
Canchi	Radhakrishna	M	M	1	1	1	1	1	1	1
Carlo	Jim	M	M	1						
Carneiro	Edson	M	No	1				1	1	1
Carson	Peter	M	M	1			1	1		
Castell	Harold P.	M	M	1		1		1		1
Chae	Suchang	M New	M New	1	1					
Chen	Yao	No	No		1					
Cho	Juphil	M	M	1		1				
Choi	Hyoungjin	M New	M New	1						
Choi	Yang-Seok	M	M	1	1					
Chong	Chia-Chin	M New	M New		1		1			
Chun	Jin Young	M	M	1						
Chung	Jaeho	M	M	1		1				
Cleveland	Joseph	M	M			1				
Collins	Robert	No	No							
Comstock	David	M New	M New	1	1					
Dean	Chris	M	M	1		1	1	1	1	1
Dhaliwal	Upkar	No	No							
Dodd	Donald	M	M	1						
Dorward	Lynne	M	M	1				1		
Dunn	Doug	M	M	1		1	1	1		
Eilts	Henry	M	M	1	1	1				
Epstein	Mark	M	M	1	1	1	1	1	1	1
Feder	Peretz	M	M	1						1
Ferguson	Alistair	M	M	1						
Fong	Mo-Han	No	No							
Freeland	Graham	M	M	1		1	1	1		1
Gal	Dan	M	M	1						
Garcia-Alis	Daniel	M	M	1		1	1	1		1
Garg	Deepshikha	M	M	1		1		1		

July 2007 - Attendance Credits and Voter Status										
Last Name	First Name	Jan07 Voters	Mar07 Voters*	Mar06	May06	Nov 06	Jan07	Mar 07	May 07	July 07
Gillies	Donald	M	M					1	1	1
Gomes	Eladio	M	M	1		1		1		1
Gore	Dhananjay	M	M	1		1	1		1	
Gorodetsky	Svetlana	M	M	1		1		1	1	1
Gowaikar	Radhika	No	No						1	1
Gorokhov	Alexei	M	M	1		1	1			
Greenspan	Arnie	M	M			1	1	1	1	1
Guo	Qiang	M	M	1	1					
Haug	John	No	No				1			
Hou	Victor	M	M	1	1	1	1	1	1	1
Hu	Rose	M	M	1	1	1				
Hu	Teck	M	No	1	1					
Humbert	John	M New	M New							
Huo	David	M	M	1			1			
Hur	Yerang	M New	M New	1	1					
Ibbetson	Luke	M	M	1		1				
Iimuro	Kazuyoshi	M	M	1		1	1			1
Ikeda	Yutaka	No	No			1				
Ishida	Kazuhito	No	M New				1	1	1	
Jeong	Byung-Jang	M	M	1		1				
Jette	Alan	M	M	1	1	1	1	1	1	
Ji	Baowei	M	M	1	1	1				
Ji	Tingfang	M	M	1		1	1	1	1	1
Jones	Dennis	M	M	1				1	1	1
Joo	Pan Yuh	No	No		1					
Kadous	Tamer	M	M	1		1	1			
Kalhan	Amit	M	M	1		1	1	1	1	
Kanai	Takeo	No	No			1				
Kang	Hyunjeong	M New	M New	1						
Katayama	Masahide	No	No			1				
Khademi	Majid	M	M	1		1			1	1
Khandekar	Aamod	M	M	1		1	1	1		
Khatibi	Farrokh	M	M	1		1	1	1	1	1
Kiernan	Brian	M	M	1	1					
Kim	Hyeon Soo	M	M	1	1	1				
Kim	Jae-Ho	M New	M New	1	1					
Kim	Peter J.W.	M New	M New	1						
Kim	Tae Young	M	M	1	1	1	1			
Kim	Yong Ho	M	M	1		1				
Kim	Young-Ho	M New	M New	1	1		1			
Kim	Young Kyun	M	No	1						
Kim	Youngsoo	M	M	1	1	1				
Kimura	Shigeru	M	M	1		1				
Kitahara	Minako	M	M	1		1	1	1	1	1
Kitamura	Takuya	M New	M New		1					
Klerer	Mark	M	M	1	1	1	1	1	1	1
Knisely	Douglas	M	M	1	1	1		1		

July 2007 - Attendance Credits and Voter Status										
Last Name	**First Name**	**Jan07 Voters**	**Mar07 Voters***	**Mar06**	May06	**Nov 06**	Jan07	**Mar 07**	May 07	**July 07**
Kolze	Tom	M	M	1	1	1		1	1	
Koo	Changhoi	M	M	1	1	1				
Koplyay	Ferenc	M New	M New	1	1					
Kujawski	Fred E.	No	No			1				
Kwon	Dong Seung	M New	M New		1					
Kwon	Young Hyoun	M	M	1						
Lalaguna	Pablo	M	M	1		1				
Lawrence	Lisa	M	M	1				1	1	
Lee	Heesoo	M	M	1	1	1	1	1	1	
Lee	Jungwon	M New	M New	1						
Lee	Mihyun	M	M	1		1	1			
Lee	Sungjin	M New	M New	1						
Lee	Wook-Bong	M	M	1	1					
Li	Jun	M New	M New		1					
Li	Thomas	No	No		1					
Li	Yingyang	M	M	1	1	1				
Li	Yong	No	No						1	
Lim	Hyoung Kyu	M	M	1	1					
Lin	Jiezhen	M	M	1	1					
Liu	Walter	M New	M New	1	1					
Lu	Jianmin	No	M New		1					
Ma	Steven	M	M	1	1					
Maez	Dave	No	No							
Martynov	Irina	M	M	1		1	1	1	1	1
Martynov	Michael	M	M	1		1	1	1	1	1
McGinniss	David	M New	M New	1						
McMahon	Anthony	M	M	1		1	1	1		
McMillan	Donald	M	M	1		1				1
Miyazono	Max	M	M	1		1		1	1	1
Mollenauer	James	M	M	1	1	1		1	1	1
Murakami	Kazuhiro	M	M	1		1		1		1
Murphy	Peter	M	M	1						
Naaman	Laith	M New	M New	1						
Nabar	Rohit	M	M	1		1				
Nagai	Yukimasa	M New	M New	1						
Nagaraj	Shirish	No	No					1		
Naguib	Ayman	M	M	1			1		1	
Naidu	Mullaguru	M	M	1		1	1	1	1	1
Nakamura	Kenichi	M	M	1		1				1
Nakamura	Tetsuya	M	M	1		1	1		1	1
Nakano	Shinji	M	M	1		1	1			
Nguyen	Nha	M	M	1		1	1	1	1	1
Noh	Taegyun	M	M	1	1	1				
Novick	Fred	M	M	1		1		1		1
O'Brien	Francis	M New	M				1	1	1	1
Odlyzko	Paul	M	M	1	1					
Oguma	Hiroshi	M	M	1	1	1				1

July 2007 - Attendance Credits and Voter Status										
Last Name	**First Name**	**Jan07 Voters**	**Mar07 Voters***	**Mar06**	May06	**Nov 06**	Jan07	**Mar 07**	May 07	**July 07**
Oh	Changyoon	M New	M New	1	1					
Panicker	John	M New	M New	1	1					
Park	Chul	M	M	1	1	1				
Park	DS	M	M	1	1	1				
Park	Jeongho	M	M	1	1	1				
Park	Sung-Eun	No	No							
Park	Won-Hyoung	M	M	1	1					
Patel	Chirag	No	No						1	1
Patzer	Steve	M	M	1	1					
Pfann	Eugen	M	M	1		1	1	1		
Pirhonen	Riku	M	M	1	1	1		1		
Pittampalli	Eshwar	M New	M New							
Poisson	Sebastien	M	M	1		1		1	1	1
Prakash	Rajat	M	M	1	1	1	1			
Preece	Rob	M	M	1		1	1	1	1	1
Puthenkulam	Jose	M	M	1	1					
Qian	Xiaoshu	M	M	1	1					
Ragsdale	James	M	M	1	1	1		1	1	1
Rajadurai	Rajavelsamy	M New	M New	1	1					
Rajkumar	Ajay	M	M	1	1					1
Sampath	Hemanth	M	M	1		1	1		1	1
Sano	Masato	M	M	1		1	1			
Santhanakrishnan	Anand	M New	M New	1	1					
Sasaki	Shigenobu	M	M	1	1	1				1
Seo	Bangwon	M	M	1	1	1				
Shields	Judy	M	M	1				1	1	
Shively	David	M	M	1		1		1		
Shono	Takashi	M	M	1	1	1				
Sider	Justine	No	No							
Sihn	Gyung Chul	M	M	1	1	1				
Sivanesan	Kathiravetpillai	M	M	1		1				
Song	Young Seog	M	M	1	1	1				
Sorensen	Henrik	M New	M New	1						
Springer	Warren	M	M	1						
Srinivasan	Roshni	M	M	1	1	1	1			
Staver	Doug	M	M	1				1	1	1
Stuby	Richard	M	M	1	1	1		1		
Suh	Mark	M	M	1	1	1	1	1		
Sun	Jing	No	No						1	1
Surcobe	Valentin	M	M	1	1	1		1	1	1
Suzuki	Tomohiro	M	M	1		1	1	1	1	
Tan	Teik-Kheong	No	No			1				
Teague	Harris	M	M	1		1	1	1		
Tee	Lai-King Anna	M	M	1	1	1	1	1	1	
Tomcik	James	M	M	1	1	1	1	1	1	1

July 2007 - Attendance Credits and Voter Status										
Last Name	**First Name**	**Jan07 Voters**	**Mar07 Voters***	**Mar06**	May06	**Nov 06**	Jan07	**Mar 07**	May 07	**July 07**
Ulupinar	Fatih	M	M	1						
Upton	Jerry	M	M	1	1	1	1	1	1	1
Vaidya	Rahul	M New	M New	1	1					
Valbonesi	Lucia	M	M	1	1				1	
Valls	Juan Carlos	M	M	1		1	1	1	1	1
Vijayan	Rajiv	M	M	1		1	1	1		
Vivanco	Silvia	M	M	1		1	1	1	1	1
Wasilewski	Thomas	M	M	1		1		1		
Watanabe	Fujio	M New	M New					1		
Wieczorek	Alfred	M	M		1			1		
Wilson	Joanne	M	M	1	1	1	1			1
Wu	Geng	M New	M New	1	1					
Yaghoobi	Hassan	M	M	1	1					1
Yallapragada	Rao	M	M	1		1	1	1		
Yeh	Choongil	M	M	1	1	1				
Yin	Hujun	M	M	1	1					
Yoon	Young	No	No						1	
Youssefmir	Michael	M	M	1		1				
Yuda	Tetsuya	M	M	1						
Yun	Jungnam	M New	M New	1	1					
Yuza	Masaaki	M	M			1				1
Zhang	Xin	No	No							1
Zhou	Yan	No	No							1
Zhu	Peiying	M New	M New	1						
			Affiliation needed before attendance can be granted							
			Affiliation received after 11 March 2007							
			Voting membership may be lost if next Plenary not attended							
Wang	Michael									1
			Dropped as a result of attendance							

Appendix - 2: 802.20 Declarations of Affiliation

	Last Name	First Name	Employer	Affiliation	Ultimate Parent of Employer	Ultimate Parent of Affiliation	URL1
1	Agis	Ed	Intel Corporation	Same	Not Applicable	Not Applicable	www.intel.com
2	Agrawal	Avneesh	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	www.qualcomm. com
3	Ahmadi	Sassan	Intel Corporation	Intel Corporation	Intel Corporation	Intel Corporation	www.intel.com
4	Ahn	Jae Young	ETRI	Same	N/A	N/A	www.etri.re.kr
5	Alamouti	Siavash M.	Intel Inc.	Same	N/A	N/A	www.intel.com
6	Ali	Murtaza	Texas Instruments, Inc.	Same	Not Applicable	Not Applicable	www.ti.com
7	Alphonse	Jean R.	Lucent Technologies	Same	Not Applicable	Not Applicable	www.alcatel-lucent.com
8	Alsaleh	Haggar	Consultant	Same	Not Applicable	Not Applicable	
9	Arefi	Reza	Intel Corporation	same	same	same	www.intel.com
10	Bajaj	Rashmi	France Telecom R&D	same	Orange Ftgroup	OrangeFTGroup	www.francetelecom.com/en
11	Barriac	Gwen	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	www.qualcomm. com
12	Bavafa	Moussa	Broadcom Corporation	Same	Not Applicable	Not Applicable	www.broadcom.com
13	Bernstein	Jeff	Telecommunications Management Group, Inc.	QUALCOMM, Incorporated	Not Applicable	Not Applicable	www.tmgtelecom.com
14	Bims	Harry	Protocomm Systems, LLC	Apple Inc.	Not Applicable	Not Applicable	www.protocommsystems.com
15	Bravin	Nancy	Self	Qualcomm	Not Applicable	Qualcomm	www.qualcomm. com
	Budianu	Petru Cristian	Qualcomm	Same	Not Applicable	Not Applicable	www.qualcomm. com
16	Bussey	Chris J.	Bussey Consulting Services, Inc.	Qualcomm	Chris J Bussey	Not Applicable	www.qualcomm. com
17	Cai	Sean	ZTE USA Inc.	Same	ZTE Corp	Not Applicable	www.zteusa.com
18	Canchi	Radhakrishna	Kyocera Telecommunications Research Corporation.	Same	Kyocera Corporation.	Kyocera Corporation	www.ktrc-na.com
19	Carlo	Jim	J.Carlo Consulting LLC	Huawei Technology	Not Applicable	Not Applicable	www.huawei.com
20	Carneiro	Edson	EPEC Solutions Inc.	Qualcomm Brazil	Not Applicable	Qualcomm	www.epecsolutions.com
21	Carson	Peter	Qualcomm, Inc.	Same	Not Applicable	Not Applicable	

802.20 Declarations of Affiliation

	Last Name	First Name	Employer	Affiliation	Ultimate Parent of Employer	Ultimate Parent of Affiliation	URL1
22	Castell	Harold P.	Bussey Consulting Services, Inc.	Qualcomm	Chris J Bussey	Not Applicable	www.qualcomm. com
23	Chae	Suchang	ETRI(Electronics and Telecommunications Research Institute)	Same	Not Applicable	Not Applicable	www.etri.re.kr
24	Chen	Yao	Beijing Samsung Telecommunication	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
25	Cho	Juphil	Kunsan National University	Same	Not Applicable	Not Applicable	www.kunsan.ac.kr
26	Choi	Hyoungjin	TTA	same	Not Applicable	Not Applicable	www.tta.or.kr
27	Choi	Yang-Seok	Intel Corporation	Same	NA	NA	www.intel.com
28	Chong	Chia-Chin	DoCoMo USA Labs	Same	NTT DoCoMo	N/A	www.docomolabs-usa.com
29	Chun	Jin Young	LGE	Same	Not Applicable	Not Applicable	www.lge.com
30	Chung	Jaeho	KT Corporation	Same	Not Applicable	Not Applicable	www.kt.co.kr
31	Cleveland	Joseph	Self-Employed	Same	Not Applicable	Not Applicable	
32	Comstock	David	Huawei Technologies Co,Ltd	Same	Not Applicable	Not Applicable	www.huawei.com
33	Crozier	Eugene	SR Telecom Inc	Same	Not Applicable	Not Applicable	www.srtelecom.com
34	Dean	Christopher	Telecommunications Management Group, Inc. (TMG)	Qualcomm, Inc.	Not applicable	Not applicable	www.tmgtelecom.com
35	Dhaliwal	Upkar	Future Wireless Technologies, L.P.	Same	Not Applicable	Not Applicable	www.futurewirelesstech.com
36	Dodd	Don	Morningstar Mergers	same	N/a	N/a	Mstarmgt@aol.com
37	Dorward	Lynne	TMG Inc./LADCOMM Corporation	Qualcomm, Inc.	Not applicable	Not applicable	www.ladcomm.com*
38	Dunn	Doug	Kyocera Telecommunications Research Corporation	Same	Kyocera Corporation	Kyocera Corporation	www.ktrc-na.com
39	Eilts	Hank	Texas Instruments, Inc.	Same	Not Applicable	Not Applicable	www.ti.com
40	Epstein	Mark	Qualcomm	same	NA	NA	www.qualcomm.com
41	Feder	Peretz	Lucent Technologies	Bell Laboratories	Lucent Technologies	NA	www.lucent.com
42	Ferguson	Alistair	Selbourne Associates	Same	Not Applicable	Not Applicable	
43	Fong	Mo Han	Nortel	Same	Not Applicable	Not Applicable	www.nortel.com

802.20 Declarations of Affiliation

	Last Name	First Name	Employer	Affiliation	Ultimate Parent of Employer	Ultimate Parent of Affiliation	URL1
44	Freeland	Graham	Steepest Ascent Ltd	same	Not Applicable	Not Applicable	www.steepestascent.com
45	Gal	Dan	Lucent Technologies	same	Not Applicable	Not Applicable	www.lucent.com
46	Garcia-Alis	Daniel	Steepest Ascent Ltd	same	Not Applicable	Not Applicable	www.steepestascent.com
47	Garg	Deepshikha	Kyocera Telecommunications Research Corporation.	Same	Kyocera Corporation.	Kyocera Corporation	www.ktrc-na.com
48	Gil	Gye-Tae	KT	Same	Not Applicable	Not Applicable	www.kt.co.kr/kthome/eng/index.jsp
49	Gillies	Donald	Qualcomm Incorporated	Same	Not Applicable	Not Applicable	www.qualcomm.com
50	Gomes	Eladio Rodrigues	EPEC Solutions Inc.	Qualcomm Brazil		Qualcomm	www.epecsolutions.com
51	Gore	Dhananjay	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	www.qualcomm. com
52	Gorodetsky	Svetlana	Gorodetsky Consulting	Qualcomm Inc.	Not applicable	Not applicable	
53	Gorokhov	Alex	Qualcomm Inc.	Same	Not Applicable	Not Applicable	www.qualcomm.com
54	Gowaikar	Radhika	Qualcomm Inc.	Same	Not Applicable	Not Applicable	www.qualcomm.com
55	Greenspan	Arnie	AROSCO Inc.	Same	Not Applicable	Not Applicable	
56	Guo	Qiang	Motorola, Inc.	Same	Not Applicable	Not Applicable	www.motorola.com
57	Haug	John	Motorola, Inc.	Same	Not Applicable	Not Applicable	www.motorola.com
58	Hou	Victor	Broadcom Corporation	Same	Not Applicable	Not Applicable	www.broadcom.com
59	Hu	Rose	Nortel Networks	Same	Not Applicable	Not Applicable	www.nortel.com
60	Hu	Teck	Siemens Network LLC	Same	Siemens AG	Siemens AG	www.siemens.com
61	Humbert	John	Sprint Corporation	Same	Not Applicable	Not Applicable	www.sprint.com
62	Huo	David	Lucent Technologies	Same	Not Applicable	Not Applicable	www.lucent.com
63	Hur	Yerang	POSDATA Co. Ltd.,	Same	Not Applicable	Not Applicable	www.posdata.co.kr
64	Ibbetson	Luke	Vodafone Group Services Limited	same	not applicable	Not Applicable	www.vodaphone.com
65	Iimuro	Kazuyoshi	Kyocera corporation	Same	Not Applicable	Not Applicable	www.kyocera.co.jp
66	Ikeda	Yutaka	Sharp Corp	same	not applicable	not applicable	www.sharp-world.com
67	Ishida	Kazuhito	Qualcomm Inc.	same	Not applicable	Not Applicable	www.qualcomm.com

802.20 Declarations of Affiliation

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68	Jeong	Byung Jang	ETRI	Same	Not Applicable	Not Applicable	www.etri.re.kr
69	Jette	Al	Motorola, Inc.	Same	Not Applicable	Not Applicable	www.motorola.com
70	Ji	Baowei	Samsung Telecommunications America, LLP	Same	Samsung Electronics Company	Not Applicable	www.samsungtelecom.com/
71	Ji	Tingfang	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	www.qualcomm. com
72	Jones	Dennis	Taliesen North Consulting	Qualcomm	Not Applicable	Not Applicable	
73	Joo	Panyuh	Samsung Electronics	Same	Samsung Electronics	Not Applicable	www.samsung.com
74	Kadous	Tamer	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	www.qualcomm. Com
75	Kalhan	Amit	Kyocera Telecommunications Research Corporation	Same	Kyocera Corporation	Kyocera Corporation	www.ktrc-na.com
76	Kanai	Takeo	Symbies, Inc.	Softbank BB Corp.	N/A	N/A	www.symbies.com/
77	Kang	Hyunjeong	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
78	Katayama	Masahide	Kyocera Corp	same	not appliciable	Not Applicable	www.kyocera.co.jp
79	Kawabata	Hiro	Qualcomm	Same	not Applicable	Not Applicable	www.qualcomm.com
80	Khademi	Majid	Khademi Consulting	Qualcomm	Not Applicable	Not Applicable	www.qualcomm. com
81	Khandekar	Aamod	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	www.qualcomm. com
82	Khatibi	Farrokh	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	www.qualcomm.com
83	Kiernan	Brian	Interdigital Communications Corp	same	not applicable	Not Applicable	www.interdigital.com
84	Kim	Hyeon Soo	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
85	Kim	Jae-Ho	ETRI	Same	Not Applicable	Not Applicable	www.etri.re.kr
86	Kim	Peter	TTA	same	Not Applicable	Not Applicable	www.tta.or.kr
87	Kim	Taeyoung	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
88	Kim	Yong Ho	LGE	Same	Not Applicable	Not Applicable	www.lge.com
89	Kim	Young Ho	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com

802.20 Declarations of Affiliation

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90	Kim	Young Kyun	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
91	Kim	Youngsoo	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
92	Kimura	Shigeru	Kyocera Corp.	Same	Not Applicable	Not Applicable	www.kyocera.co.jp
93	Kitahara	Minako	Kyocera Corp.	Same	Not Applicable	Not Applicable	www.kyocera.co.jp
94	Kitamura	Takuya	Fujitsu Limited	Same	Not Applicable	Not Applicable	www.fujitsu.com
95	Klerer	Mark	QUALCOMM Flarion Technologies	Same	QUALCOMM, Incoroporated	Not Applicable	www.qualcomm.com/qft/
96	Knisely	Douglas	Airvana, Inc.	Same	Not Applicable	Not Applicable	www.airvana.com
97	Kolze	Tom	Broadcom	same	Not applicable	Not applicable	www.broadcom.com
98	Koo	Changhoi	Samsung Telecommunications America, LLP	Samsung Electronics	Same	Same	www.samsungtelecom.com
99	Koplyay	Ferenc	Freescale Semiconductor	Same	N/A	N/A	www.freescale.com
100	Kujawski	Fred	AirCell Inc.	Same	Not Applicable	Not Applicable	www.aircell.com
101	Kwon	Dong-Seung	ETRI	same	Not applicable	Not applicable	www.etri.re.kr
102	Kwon	Young-Hyoun	LGE	Same	Not Applicable	Not Applicable	www.lge.com
103	Lalaguna	Pablo	MedStar Systems, LLC	Qualcomm		Qualcomm	www.medstarsystems.com
104	Lawrence	Lisa	CTCI	Qualcomm	Same	Same	www.ctci.ca
105	Lee	Heesoo	ETRI	Same	Not Applicable	Not Applicable	www.etri.re.kr
106	Lee	Jungwon	Marvell Semiconductor Inc	Same	Marvell Technology Group, Ltd	Not Applicable	www.marvell.com
107	Lee	Mihyun	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
108	Lee	Sungjin	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
109	Lee	Wook-Bong	LGE	Same	Not Applicable	Not Applicable	www.lge.com
110	Li	Jun	Nortel Networks, Inc.	Same	Nortel Networks, Inc.	Not Applicable	www.nortel.com
111	Li	Thomas	Huawei Technologies Co,Ltd	Same	not applicable	Not Applicable	www.huawei.com

802.20 Declarations of Affiliation

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112	Li	Yingyang	Beijing Samsung Telecommunication	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
113	Li	Yong	Qualcomm Inc	Same	Not Applicable	Not Applicable	www.qualcomm.com
114	Lim	Hyoung Kyu	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
115	Lin	Jiezhen	Siemens Network Ltd, Beijing	Siemens Ltd., China	Siemens AG	Siemens AG	www.siemens.com.cn
116	Liu	Walter	FutureWei Technologies, In	Same	Huawei Technologies Co.,Lt	N/A	www.futurewei.com
117	Lo	Titus	Neocific, Inc.	Same	N/A	N/A	
118	Lu	Jianmin	FutureWei Technologies, In	Same	Huawei Technologies Co.,Lt	N/A	www.futurewei.com
119	Ma	Steve	Freescale Semiconductor	Same	N/A	N/A	www.freescale.com
120	Maez	David	Navini Networks	Same	Not Applicable	Not Applicable	www.navini.com
121	Martynov	Irina	Belgud International	Qualcomm		Qualcomm	
122	Martynov	Michael	Belgud International	Qualcomm		Qualcomm	
123	McGinniss	David S.	Sprint Nextel	Same	Not Applicable	Not Applicable	www.sprint.com
124	McMahon	Anthony	Institute for System Level Integration	Strathclyde University	Not applicable	Not applicable	www.sli-institute.ac.uk
125	McMillan III	Donald C.	Advanced Network Technical Solutions, Inc.	Same	N/A	N/A	www.antsinc.com
126	Miyazono	Max	Qualcomm Inc	Same	Not Applicable	Not Applicable	www.qualcomm.com
127	Mollenauer	Jim	Technical Strategy Associates	Motorola Inc.	Not applicable	Not Applicable	www.Technicalstrategy.com
128	Murakami	Kazuhiro	Kyocera Corporation	Same	Not Applicable	Not Applicable	www.kyocera.co.jp
129	Murphy	Peter A.	Intel Corp.	Same	Not applicable	Not applicable	www.intel.com
130	Naaman	Laith	Intel Corp.	Same	Not Applicable	Not Applicable	www.intel.com
131	Nabar	Rohit	Marvell Semiconductor Inc	Same			www.marvell.com
132	Nagai	Yukimasa	Mitsubishi Electric	Same	Not Applicable	Not Applicable	www.mitsubishielectric.co.jp/
133	Nagaraj	Shirish	Motorola	Same	Not Applicable	Not Applicable	www.motorola.com
134	Naguib	Ayman	Qualcomm Inc.	Same	Not Applicable	Not Applicable	www.qualcomm.com

802.20 Declarations of Affiliation

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135	Naidu	Mullaguru	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	www.qualcomm. com
136	Nakamura	Kenichi	Fujitsu Limited	Same	Not Applicable	Not Applicable	www.fujitsu.com/global/
137	Nakamura	Tetsuya	NTT MCL Inc.	same	NTT Corp.	Not Applicable	www.nttmcl.com
138	Nakano	Shinji	Kyocera Corp.	Same	Not Applicable	Not Applicable	www.kyocera.co.jp
139	Navidi	Pierre	XG Stream Ltd	OAK GLOBAL SA	Not Applicable	Not Applicable	
140	Ngo	Chiu	Samsung Electronics	Same	N/A	N/A	www.samsung.com
141	Nguyen	Nha	Bussey Consulting Services, Inc.	Qualcomm	Chris J Bussey	Not Applicable	www.qualcomm.com
142	Noh	Taegyun	ETRI	Same	Not Applicable	Not Applicable	www.etri.re.kr
143	Novick	Fred	Bussey Consulting Services, Inc.	Qualcomm	Chris J Bussey	Not Applicable	www.qualcomm.com
144	O'Brien	Francis E.	Lucent Technologies	Same	Lucent Technologies	Not applicable	www.lucent.com
145	Odlyzko	Paul	Motorola	same	Not Applicable	Not Applicable	
146	Oguma	Hiroshi	Industrial Technology Institute Miyagi Prefecture Government	Tohuku University	Not Applicable	Not Applicable	www.mit.pref.miyagi.jp
147	Oh	Changyoon	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
148	Oprescu	Val	Motorola, Inc.	Same	Not Applicable	Not Applicable	www.motorola.com
149	Palanivelu	Arul	Marvell Semiconductor Inc	Same			www.marvell.com
150	Panicker	John	NORTEL	Same	Not Applicable	Not Applicable	www.nortel.com
151	Park	Chul	ETRI(Electronics and Telecommunications Research Institute)	Same	Not Applicable	Not Applicable	www.etri.re.kr
152	Park	DS	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
153	Park	Jeongho	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
154	Park	Sung-Eun	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
155	Park	Won-Hyoung	SK Telecom	Same	Not Applicable	Not Applicable	www.sktelecom.com

802.20 Declarations of Affiliation

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	Patel	Chirag S.	Qualcomm	Same	Not Applicable	Not Applicable	www.qualcomm.com
156	Patzer	Steve	Intel Corp.	SAME	Not Applicable	Not Applicable	
157	Pfann	Eugen	University of Strathclyde	same	not applicable	not applicable	www.strath.ac.uk
158	Pirhonen	Riku	Nokia Siemens Networks	Same	Nokia	Not Applicable	www.nokiasiemensnetworks.com
159	Pittampalli	Eshwar	Lucent Technologies	Same	Not Applicable	Not Applicable	www.lucent.com
160	Poisson	Sebastien	Oasis Wireless Inc	Qualcomm	N/A	N/A	www.oasiswireless.net
161	Prakash	Rajat	Qualcomm Inc	Same	Not Applicable	Not Applicable	www.qualcomm.com
162	Preece	Rob	Bussey Consulting Services, Inc.	Qualcomm	Chris J Bussey	Not Applicable	www.qualcomm.com
163	Puthenkulam	Jose	Intel Corporation	Same	Not Applicable	Not Applicable	www.intel.com
164	Qian	Xiaoshu	Intel Corporation	Same	N/A	N/A	www.intel.com
165	Ragsdale	Jim	Ericsson Inc	Telefon AB - L.M. Ericsson	Telefon AB - L.M. Ericsson	same	www.ericsson.com/us
166	Rajadurai	Rajavelsamy	Samsung India Software Operations Private Limited	Same	Samsung Electronics Company	Same	www.samsungindiasoft.com
167	Rajkumar	Ajay	Lucent Technologies Inc.	Same			www.lucent.com
168	Sampath	Hemanth	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	
169	Sano	Masato	Kyocera Corp.	Same	Not Applicable	Not Applicable	www.kyocera.co.jp
170	Santhanakrishnan	Anand	Stevens Institute of Technology	Same	Not Applicable	Not Applicable	www.stevens.edu
171	Sasaki	Shigenobu	Niigata University	Same	Not applicable	Not Applicable	www.niigata-u.ac.jp
172	Seo	Bangwon	ETRI	Same	Not Applicable	Not Applicable	www.etri.re.kr
173	Shields	Judy	LADCOMM	Qualcomm	NA	NA	
174	Shively	David	Cingular Wireless	Same	AT&T / BellSouth	Same	www.cingular.com
175	Shono	Takashi	Intel K.K.	Same	Intel Corporation	Same	www.intel.co.jp

802.20 Declarations of Affiliation

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176	Sihn	Gyung-Chul	ETRI	Same	Not Applicable	Not Applicable	www.etri.re.kr
177	Sivanesan	Kathiravetpillai	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
178	Song	LeiLei	Marvell Semiconductor Inc	Same			www.marvell.com
179	Song	Young Seog	ETRI	same	Not applicable	Not applicable	www.etri.re.kr
180	Sorensen	Henrik	Agere Systems	Same	Not applicable	Not Applicable	www.agere.com
181	Springer	Warren	Springer Associates	Same	Not Applicable	Not Applicable	
182	Srinivasan	Roshni	Intel Corporation	Same	Not Applicable	Not Applicable	www.intel.co
183	Staver	Doug	3581969 Canada Inc.	Same	Not Applicable	Not Applicable	
184	Stuby	Rick	Agere Systems	Same	Not Applicable	Not Applicable	www.agere.com
185	Suh	Mark	Samsung Telecommunications America	Same	Samsung Electronics Company	Not Applicable	www.samsungtelecom.com
186	Sun	Jing	Qualcomm	Same	Not applicable	Not Applicable	www.qualcomm. com
187	Surcobe	Valentin	Motorola	same	Not applicable	Not Applicable	www.motorola.com
188	Suzuki	Tomohiro	Kyocera Corp.	Same	Not Applicable	Not Applicable	www.kyocera.co.jp
189	Tan	Teik-Kheong (TK)	NXP Semiconductors	Same	Not Applicable	Not Applicable	www.nxp
190	Teague	Harris	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	www.qualcomm.com
191	Tee	Anna	Samsung Telecommunications America	Same	Samsung Electronics Co., Ltd.	Not Applicable	www.samsungwirelss.com
192	Tomcik	Jim	Qualcomm,	Same	Not Applicable	Not Applicable	www.qualcomm.com
193	Ulupinar	Fatih	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	www.qualcomm.com
194	Upton	Jerry	Self, JUpton Consulting	Qualcomm and Self	NA	Qualcomm, Inc. and Self	
195	Vaidya	Rahul	Samsung India Software Operations Private Limited	Same	Samsung Electronics Company	Same	www.samsungindiasoft.com

802.20 Declarations of Affiliation

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196	Valbonesi	Lucia	Motorola, Inc.	Same	Not Applicable	Not Applicable	www.motorola.com
197	Valls	Juan Carlos	Telecommunications Management Group	Qualcomm, Inc.	Not applicable	Not applicable	www.tmgtelecom.com
198	Vijayan	Rajiv	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	www.qualcomm.com
199	Vivanco	Silvia	Telecommunications Management Group	Qualcomm	Not applicable	Not applicable	www.tmgtelecom.com
200	Ward Jr	Robert M	Northrop Grumman	Same	N/A	N/A	
201	Wasilewski	Tom	Qualcomm Incorporated	Same	Not Applicable	Not Applicable	www.qualcomm.com
202	Watanabe	Fujio	DoCoMo Communications Laboratories USA, Inc.	Same	NTT DoCoMo USA, Inc.	Not Applicable	www.docomolabs-usa.com
203	Wieczorek	Al	Motorola, Inc.	Same	Not Applicable	Not Applicable	www.motorola.com
204	Wilson	Joanne	ArrayComm, LLC	Same	Ygomi, LLC	Ygomi, LLC	www.arraycomm.com
205	Wu	Geng	Nortel Networks.	Same	Not Applicable	Not Applicable	www.nortel.com
206	Xiaoshu	Qian	Intel Corp	Same	N/A	N/A	www.intel.com
207	Yaghoobi	Hassan	Intel Corporation	Same	Not Applicable	Not Applicable	www.intel.com
208	Yallapragada	Rao	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	www.qualcomm.com
209	Yeh	Choong il	ETRI	same	Not applicable	Not applicable	www.etri.re.kr
210	Yin	Hujun	Intel Corp.	Same	N/A	N/A	www.intel.com
211	Yoon	Young	LG Electronics Mobile Research LLC	Same	LG Electronics Inc.	Not Applicable	www.lge.com
212	Youssefmir	Michael	Self	ArrayComm		Ygomi Group	www.arraycomm.com
213	Yuda	Tetsuya	Kyocera Corp.	Same	Not Applicable	Not Applicable	www.kyocera.co.jp
214	Yun	Jungnam	POSDATA Co. Ltd.,	Same	Not Applicable	Not Applicable	www.posdata.co.kr
215	Yuza	Masaaki	NEC Infrontia Corp.	same	NEC Corp.	Not Applicable	www.necinfrontia.co.jp
216	Zhang	Xin	Qualcomm	Same	Not Applicable	Not Applicable	www.qualcomm.com
217	Zhou	Yan	Qualcomm	Same	Not Applicable	Not Applicable	www.qualcomm.com

802.20 Declarations of Affiliation

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218	Zhu	Peiying	Nortel	Same	Not Applicable	Not Applicable	www.nortel.com
219							
220							

Guidance on Minutes from the *IEEE Standards Companion*

Minutes of meetings

Minutes should be taken at every meeting, preferably by a secretary, as mentioned earlier. The list to the right states what minutes should include. What minutes should not be is a blow-by-blow inclusion of every speaker's words. Many minutes are far too detailed, and in so being they are a deterrent to their usefulness to many readers (who simply won't want to be bothered with trying to get through pages and pages of minutes). Minutes should also include a separate list of action items as assigned by the chair. The chair should use action items to make certain that the work is delegated among various committee members, relieving the burden on only a few members. Placing a time deadline on action items is also useful, as it will help the working group members to prioritize this work.

What should be in minutes?

1) Name of group
2) Date and location of meeting
3) Officer presiding, including the name of the secretary who wrote the minutes
4) Attendance
5) Call to order, chair's remarks
6) Approval of minutes of previous meeting
7) Approval of agenda
8) Technical topics
    a. Brief summary of discussion, pros and cons, and conclusions
    b. Motions and actions items with name and due date
    c. Copies of handouts
    d. Do not include names, except for movers and seconders of motions unless a roll-call vote is ordered
9) Subcommittee reports
10) Next meeting--date and location

http://standards.ieee.org/guides/companion/part1.html#minutes