IEEE 802.20 Meeting Notes
Kona, Hawaii
September 17-20, 2007

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

Monday, September 17, 2007

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The AM2 Session began at 10:30 A.M.

The chair asked everyone to introduce themselves and state their affiliation. There were roughly 36 people in attendance at the opening session.

After this was completed, the chair said that he has modified the agenda to add an evening session on Monday and Tuesday after dinner. He apologized for that, and recognized that we are here in beautiful Kona, but the first priority is to get the work done. It was proposed that we delay the dinner until very late, and simply work through dinner time. Thus, we would take a short break at 5:30 pm and then continue working until 8 p.m. Another proposal was to reduce both lunch and dinner to one hour only. Another suggestion was to return after the dinner break on Tuesday only. There was diversity in viewpoints.

The chair asked the secretary to note that : we agreed we would not take a dinner break on Monday, and we would work through dinner until 8:00 p.m. On Tuesday we would reassess again, depending on our rate of progress.

A question from the floor asked about the specifics of the last meeting agenda item, saying that we would hold a sponsor ballot vote. This led us to agree that the last meeting agenda item would be rephrased to "determination of the next steps".

Next order of business was vote to approve minutes. As there were some changes (capitalization of names, change of "adjourned" to "recessed" on sessions, and typos etc.), there was a friendly, accepted amendment, allowing the approval of minutes to be reopened once they are posted to the website. There were no objections to the approval of minutes, approved by unanimous consent.

The chair then presented opening slides (802.20-7/22)about how far we had come.

The chair noted that he had been receiving enquires from various media entities concerning 802.20. These enquires followed the form of, “Why does 802.20 exist?, What is unique or special about 802.20? Are the capabilities of 802.20 accomplished in/by other standards? “ The chair noted that he forwarded all such media enquires to the public relations department of the IEEE-SA. However it was necessary and important that the membership of 802.20 be aware of the answers to these questions. He presented what, in his view these answers were.

See (802.20-7/22) for the slides of the chairs opening remarks, the last slide presents the view of the chair concerning these matters.

We then turned attention to the results of letter ballot LB1m.

We received 19 ballots, including 2 late and thus invalid ballots. It was later agreed that the comments from the late/invalid ballots would be accepted. The ballot statistics were

10 yes (including invalid ballots), 4 no, 5 abstain (one with an explanation).This resulted in 71.4% approval including invalid ballots (10/14), 75% excluding invalid ballots (9/12). Return rate was over 50%.

In this meeting in gross terms we have 1785 comments to address, 818 of them are technical, 820 of them are editorial, and 147 are indeterminate.

The chair stated that under the new member-entity voting procedures established after the last meeting, voting members of 802.20 who change affiliation to an entity that currently is not a voting member (e.g. a person going to work for another entity) will have to regain voting rights with their new affiliation according to 802/IEEE rules.. During discussion it was stated that this procedure was intended to avoid "gaming the voting system",. The entire process of establishing membership in 802.20 as an individual, as an entity and as an individual designated voter for an entity was presented in the chair's opening remarks.

The chair stated, "We have accepted and posted some outside comments from non-802.20 members. We wanted everyone to see those comments. We are trying to be as open and fair as possible to all parties."

One of the abstainers objected to the 3GPP2 content in our current draft, and based on that, abstained. One of the "No" voters objected to the 3GPP2 content. The chair stated that comments of that type do not provide us with a fix, nor a correction, nor is it explicit. We as a working group have already agreed to accept the 3GPP2 content submitted by Motorola; thus those comments were non responsive to the ballot instructions.

Further discussion also took place on the rules for Letter Ballots including the limitations resulting from an abstention. We as a working group will try to agree on how to make a change to satisfy the "no" comment. This is true of a working group ballot. You cannot come in after an abstention and come in with new objections. This is a process used to ensure that the process converges to a solution in a reasonable time. A quorum today would be 12 voters. There are people who have not been here for a long time who have contacted the chair to ask to be a voter, but many of these had not appeared as yet at the Monday session.

The chair put up the patent slides for the audience to see, and read all of the slides. They are located at: http://standards.ieee.org/board/pat/pat-slideset.ppt

We have had 2 formal patent disclosures in the previous meeting, and a 3rd person said that ArrayComm may have relevant intellectual property, so we have sent a letter to ArrayComm asking for information but we have not received a response yet. The chair stated that we have 5 companies that have submitted elements of our current draft, and we have not heard from 3 of those companies. Would anyone from those companies

like to stand up and tell us that you are asserting intellectual property rights? There was no response from the floor. At that point, the two members who disclosed property rights before, stepped up to the microphone to make disclosures.

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. We are working on an LOA."

We have received a letter from TIA giving us permission to use a copyrighted work of theirs in our standard. The chair asked if anyone else wanted to disclose intellectual property rights in the standard, and there was no response from the floor.

A member asked that his contribution #37 be reviewed at this time, it involves IMT Advanced. A co-author stepped up to describe a contribution involving IMT advanced. The contribution contains a number of changes that need to be addressed in the 802.20 evaluation document, in order to be eligible to be submitted to the ITU. The channel models should also be resubmitted to 802.18. A number of bullets describe areas that need to be updated. In the first bullets, the document describes both link simulations and system simulations. Originally there was no information on how to bridge results from the link simulation to the system simulation, and this should be improved. Secondly, the "Effective SNR" approach is important, and should be described, including HARQ modeling and how interference is modeled. The second set of bullet items concerns handover modeling. We did some of this modeling in 802.20. In looking at it again we realized that we could do more, and further bullets describe these issues. Real-time video and video telephony models should also be better described. A third overall bullet describes new system wide performance metrics. A fourth overall bullet describes channel models, including a spatial channel model, and also a cluster taped delay model. All these items should be proposed as useful modeling techniques for the IMT Advanced working group.

The chair asked if we wanted to give Michael Lynch a heads-up that we are looking at this and doing this? Seeing no objections, the chair noted that no vote was needed to do this, and the chair will attend the Tuesday evening meeting to make them aware that we are doing this work.

The AM2 session recessed at 12:07 P.M.
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The PM1 session began at 1:36 P.M.

The chair noted that, based on IEEE 802 rules, membership may be lost if 2 of the last 3 working group letter ballots are not returned, or are returned with an abstention other than "lack of technical expertise." This rule may be excused by the working group chair if the individual is otherwise an active participant. Membership may be re-established as if the person were a new candidate member.

After a question from the floor, it was mentioned by the Procedural Vice Chair that the invalid "no" vote was submitted with a mailer timestamp just a minute or two after the submission deadline. The voter stated that the ballot was submitted on time prior to the close of the ballot. The chair stated he would address the question with the voter later.

The editor took the floor at 1:45 pm to address ballot comments.

There are around 800 editorial comments. The editorials are highlighted in green. There are 114 editorials on a second spreadsheet that are not highlighted. There is one ballot from an unaffiliated member and it will be treated separately. The editor would like to accept all the editorial comments at once, as was done last time. Hopefully there are no objections. Members TAKE NOTE: you have until Tuesday evening to make objections to specific editorial comments. A comment classified at E/T or T/E is not classified as editorial. The 147 unclassified comments are not classified as editorial. Only comments marked "E" are classified as editorial comments.

All TDD comments will be considered at the end of the editorial comment session as a block.

The chair then began a process of considering individual comments by ascending sequence number.

==== Note from Secretary and Editorial Chair ====
The secretary tries to record sequence number dispositions (paragraphs beginning with "seqno" below), partly as a backup to the vice-chair, and partly to indicate that he is paying attention, and to demonstrate that the minutes are thorough. Note that some sequence numbers are revisited several times, and the secretary does not always get everything written down. For final comment disposition, the vice-chair's LB1m spreadsheet contains the ultimate disposition.
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seqno 1, suggests that we should not duplicate or "re-play" 3GPP2 work. The chair mentioned that the comment is not explicit as to what to do. The chair said that we had a basic unique standard that we re-opened for editing, and one of the additional inputs from Motorola suggested harmonizing with 3GPP2's UMB. If anything our own work was simply being tweaked. The working group voted to allow that into our standard. A commenter from the floor said that we need to tell the commenter why we have harmonized with 3GPP2's UMB. The chair stated he believed the comment was inappropriate, as they did not tell us what to fix. A floor commenter said that this technology originated in 802.20 and still contains FDD and TDD text that is unique to 802.20. And we need to be able to control our own text. Another commenter said that they felt the comment was out of scope. As long as we are following the standards development rules and regulations there should not be any problem. Seqno 1 was not accepted.

seqno 3, refers to TDD, deferred.

seqno 4, we opened this editorial comment early. 30 years ago machines had 7 bit bytes, and so the term bytes was not used in standards. today, all machines use 8 bit bytes. There were objections from the floor from departing from the usage of octets to adopt bytes. One commenter read a definition from the internet, mentioning that an

octet is an 8-bit byte. This comment is deferred until tomorrow evening, as it's a green editorial comment.

seqno 6, The editor considers this ("handling of reserved fields") to be an editorial comment that was not fully addressed last time, and it should probably be carried out. The commenter said that the comment has different meanings for different sections, e.g. a variable length field cannot be reserved. Another member said that it's better to have a standard value such as zero for reserved fields, to help with debugging and that this is helpful. Reply from the floor that reserved fields are "don't cares" and that receivers must ignore them, and setting them to zero is a testing issue, not a protocol specification issue. The comment was accepted, subject to decisions in specific cases for comments below.

seqno 7, The section is missing and the commenter could not remember where it came from. Another voting member said they are proposing a new table in the QoS section with ProfileType definitions, and comment #105 addresses this issue. seqno 7 was accepted.

seqno 9, 10, accepted.

seqno 14, issue is whether to split into 802.20a and 802.20b to separate the 625K-MC mode from the ultra wideband mode. It was mentioned that the latest 802.11 specification rolls up nearly all of 802.11a - 802.11h into one document, just the opposite of what is proposed here. This comment was presented in the past, and as in the past, there was no progress and so it was not accepted.

seqno 15, By using PilotID and channelBand throughout the spec, we can avoid using a reusable unique ID (since the ActiveSetIndex can be reused and can be stale), we should look for places in the spec where ActiveSetIndex is used, and replace them with PilotID and channelBand. A floor comment said that this has enough tentacles that we should examine each case separately. Action item to the editor was to accept the comment, but for editor to flag questionable cases in the marked up copy. The editor later stated after D2.0m was produced that he had done all the ones he could find, closing this action item.

seqno 16, a comment from last time, each message has an AuthTag field, but last time a few messages did not get the box for the AuthTag ; put them back in. The editor believes this should be re-accepted, to finish the job. Accept.

seqno 22, from the floor, right now there are conflicts in the text in the 625MC intro section. There are some uses of forward link that are not consistent. The best resolution, which we talked about last time, is to continue to use "AN" and change the meaning to "Access Node". Then an Access Network can be shown as a collection of Access Nodes. The editor would like to see consensus between Ericsson, Kyocera, and Qualcomm principals. This is deferred until Tuesday evening, and there is an Action item for Ericsson, Kyocera, and Qualcomm to come to agreement. A later comment from Ericcson has addressed this issue, and was accepted, closing this action item.

seqno 34, accepted. Please next time make these typos editorial comments.

seqno 38, 1.4.3, The attachment DON-150 is missing from the attachments. The other 3 tables were displayed in the meeting, and it was agreed to accept this comment. A question from the editor as to whether the appendix is needed ?? The proposer and Broadcom representative will get together before the next evening to decide whether it the appendix needs to be removed.

seqno 39, complaining about missing acronym definitions was accepted. The editor will try to add more additional acronym definitions, it was noted that the MAC FL and RL sections had large tables of acronyms also, and we did not want to overload the front of the document with too many acronyms.

seqno 41-44, 47, 48, 55, 58, 71, accepted.

Action item for the editor, noticed by an audience member. On page 60, there is duplicate text, "indicates the nearest integer indicates the nearest integer" The duplicate text was not fixed by the editor but Qualcomm has agreed to resubmit this action item as an editorial comment for the Atlanta meeting, closing this action item.

seqno 91, previously it was o.k. for the AN to send a packet and this would cause a reservation to be opened, this was seen as a security hole and has been removed from the spec. So, we need to remove the state transition from the diagram that goes to open state when a QoS-reservation-matching packet is transmitted. Unfortunately, the attachment is missing but it's the middle conditional of the state transition, "or Tx a packet for this reservation" Accepted.

seqno 97, accepted, same as seqno 91 which was accepted.

seqno 98, accepted. The reasoning is because now we are spec'ing exactly how a connection is closed down ~ what to do in other layers.

seqno 151, see attachment text mislabeled 3.4.3.2.1

seqno 175, agreement was to use the term "TDM Pilot 3" throughout the document, accepted.

seqno 177, accepted.

seqno 178, Action Item for Don Gillies of Qualcomm and Victor Hou of Broadcom, to describe IPSI and explain it clearly, text is to be produced for the Tuesday meeting. After later discussions, it was agreed that the definition of IPSI should be copied from 1.4.9 and placed in the 1.4.5 Definitions section of the introduction, closing this action item.

seqno 179-181, accepted.

The PM2 session recessed at 5:10 for a break
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The EVE1 session resumed at 5:31 P.M.

seqno 188, accepted. In the previous version of the spec, we added R-CDMA data channels but failed to mention that data packets could go on those channels.

seqno 191, page number given is ACROBAT page 193, not spec page numbered 193. This is just a mix-up, "data transmitted on FL by AT" should be "AN", accepted.

seqno 193, 201, 203, 208, 209, accepted.

seqno 205, original text has indexing and typo problems,

seqno 210, the padding is already included in a higher-layer description of the message, so the reserved field at the end of both messages is not needed.

seqno 212, 213, 215-217, 221, accepted.

seqno 223, refers to ACROBAT page number, not spec number. Comment is additional helpful description, accepted.

seqno 228-230, 232-234, 236-237, accepted.

seqno 239, 240 : more explanation about when you can retry an access probe ; you cannot retry if the sector is broadcasting load control, or if the overhead parameters have changed. accepted.

seqno 244, accepted. not o.k. to do an access probe only to get timing or power correction information from a sector.

seqno 245, accepted. probably an editorial comment.

seqno 246, accepted.

seqno 247, DelayToNext probe is like a local variable used in this procedure, but it is not defined elsewhere, and should be defined in outer text. Action Item for Don Gillies of Qualcomm to work with Orlett Pearson of Alcatel-Lucent to define this variable. The next day Orlett Peterson proposed text for this item, which was accepted, and later Don Gillies identified a second place in the text where the same fix could be applied, closing the action item.

seqno 248, accepted.

seqno 249, the intent of the comment was to specify what "Power" meant ; It was possible to misinterpret this as Power per Hz or Power per tone ; there were objections that this might drastically change the power used for access, and so it was left open by the editor. Action item for Ericsson and Qualcomm to get together and agree on text on how to set the access channel power. It was later agreed later that "Power Density" would be defined as "Power Per Tone" throughout the document, closing this action item.

seqno 251, accepted.

seqno 251, the comment has a typo, R-RABCH, comment should complain about F-RABCH. Accepted.

seqno 254, accepted. editor complains that sometimes, to edit a table, one line is changed and then re-inserted in the next line.

seqno 256, accepted.

seqno 261, will this be consistent with an earlier comment requiring extended frame (2-slot) transmissions for 6-interlace handsets? Action item for Yong Li of Qualcomm to answer this question ; deferred until Tuesday evening. It was later agreed that this was a non-issue that arose because of a mix-up between extended-frame transmission and other definitions in the MAC protocol, requiring no specification changes, and closing this action item.

seqno 262-266, 268-270, accepted.

seqno 272, accepted, probably an editorial comment. Action item for Mark Klerer, typo "filed" should be "field". The secretary later verified in the D2.0m specification that all instances of "filed" in the specification have been changed to "field", closing this action item.

seqno 273, accepted. Note that the comment ends early, Action item for Mark Klerer, the last 4 words of the paragraph should be retained. The secretary later verified in the D2.0m specification that the last 4 words of the paragraph were retained in the D2.0m specification, closing this action item.

seqno 274, 278, 279-285, 287-289, accepted.

seqno 291, just a name change, no objections, accepted.

seqno 292, we had this before, we propose to accept this one, accepted.

seqno 293, 294, 297, 298, accepted.

seqno 299, accepted, change handling of reserved field as per agreement.

seqno 301, accept, but get an explanation for why MACID is to be specified without hex (presumably because the size changes depending upon the bandwidth of the system).

seqno 302, the comment has already been addressed by seqno 254, accepted.

seqno 303, 304, 307-309, accepted.

seqno 310, accepted with some changes to the parenthesis and "or"s to make it more clear.

The chair stated that we were not making rapid progress on the ballot comments. At the present rate of progress we ran the risk of not finishing before the 802.20 meeting was slated to be completed. Members were encouraged to return on Tuesday with clustered comments, so that where possible, several comments could be closed with one discussion on acceptance. This measure would be allowed by the chair.

The EVE1 session ended at 8:11 P.M.

Tuesday, September 18, 2007.

The AM1 session began at 8:31 A.M.

There was discussion about whether we should go beyond 8:00 P.M. this evening. some suggested continuing into the time allotted for the social event tomorrow night, and others suggested returning after the social Wednesday night to continue work. It was agreed to approve the agenda for only today, and to re-approve the day's agenda for each day into the future. Agenda (to work through dinner until 8:00 P.M.) was approved by asking for objections, and there we no objections.

The editor then took the floor to discuss comments on the LB1m draft.

seqno 312, accepted.

seqno 313, 314, 318, were discussed as a group, accepted.

seqno 315, A question from the audience, what is the reference to "4.0" ?? In the new text, section "Resource Reassignment", section 4.6.5.5.1.1.3.3., there are references to just "4.0" which is non-existent. The commenter is requested to research this issue and give a reference by this evening. CONTROL-SHIFT-F9 will freeze all fields to a value before cut and paste, the audience should take advantage of this feature.

seqno 321, accepted.

seqno 324, add a paragraph to clarify how outstanding group resource assignments are determined, accepted.

seqno 329, accepted.

seqno 330, "obvious" extra sentence, accepted.

seqno 331, mention fields set to zero if not used, accepted.

seqno 332-334, 337, accepted.

seqno 338, FLAM has the phrase "Message" in it, suggesting a payload, but it's really a block, which is a sub-portion of a message. So the editorial / nomenclature comment is to change FLAM to FLAB and RLAM to RLAB everywhere, accepted.

seqno 342, accepted.

seqno 343, same as 338, accepted.

seqno 344, terminological changes from "sticky" to "persistent", and other minor grammatical changes, accepted.

seqno 345, 348, 349, 350, 352, accepted.

seqno 353, there were questions from the floor, the comment says, "should always discard", the change seems to be different, editor makes a note to delete the text from the end of sentence to about 2 sentences later.

seqno 356, 357, 359, 361, 364, 372, accepted.

seqno 375, accepted subject to our own convention, that optional fields are not specified as "0 or 1" bits, but rather, as "1*" with a footnote indicating when the size might be zero, i.e. if a higher-level field is set to a particular value.

seqno 376, accepted.

seqno 377, same as 376.

The AM1 session recessed at 10:17 A.M.
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The AM2 session began at 10:43 A.M.

seqno 380-385, 390-392, 394, 395, 398-403, 405, 407, accepted.

seqno 408, accepted.

seqno 410, same as 407, accepted.

seqno 411, attributes are split between 6-interlace and 8-interlace, so we have a new attribute for 8-interlace maximum packet decode size, accepted.

seqno 412-416, 420, accepted.

seqno 422, there was a request from the audience to table it until this evening, to get a series of change marks.

seqno 425-427, this is a contentious comment, asking for rationale for AT-initiated handoff. There was a contentious discussion and a request for the people making requests to provide a handoff flowchart to improve the specification. It's hard for a working group member to come up with 10 pages of text to make something clear. There was a suggestion to remove AT-Initiated handoff. When there is a complaint that something is missing, it is not right to ask for replacement text. The chair stated that the difference between the practice ballot in the past, and the letter ballot we are in right now, is that now you can vote "No" and give us to the solution to the problem. A solution cannot be "I don't like it and you must do something about it." It must be more complete. We are not going to spend a lot of time here discussing what it says, let alone what the correction should be. We are going in circle and we must move ahead and process comments. A commenter from the floor mentioned that page 355, section 4.7.5.4.4 gives conditions for handoffs, and should satisfy the requester's complaints. The idea of the comment was to remove effective TBDs, not to assert that there are missing TBDs. The submitters should talk with other meeting members and decide what to do by Wednesday after lunch. Action Item for Broadcom (Victor Hou) and Qualcomm (Tingfang Ji) and Kyocera (Radhakrishna Canchi). Qualcomm later supplied extensive text and a table for the D2.0m specification which should make the algorithm for handoff decision-making clear, closing this action item.

seqno 428, see resolution to 430.

seqno 429-430, accepted.

seqno 431, the exact algorithms (for implementing turbo decoding or tail biting, and for declaring erasures) are never specified in an air interface specification. The editor stated that some information on erasures can be found in the performance spec section, and how well a handset identifies erasures is a competitive implementation issue that manufacturers compete to achieve. The final disposition was, "No concrete solution proposed."

seqno 432-434, will be bundled with seqno 425-427, Wednesday after lunch.

seqno 435, accepted, but reference should read 4.7.5.4.2, not 7.5.4.2.

seqno 436, will be bundled with seqno 425-427, Wednesday after lunch.

The chair stated that 30-45 minutes for lunch would be good. He wanted the audience to think about sending out for dinner, a number of people would collect an appropriate amount of $$$ to send out for dinner, to give us a good chance of finishing the work on the table by the end of this meeting. If we are willing to put in one long day and late-night, then we should be able to finish all of the comments and vote by the end of this meeting.

The AM2 session recessed at 12:08 P.M.
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The PM1 session began at 1:05 P.M.

skipping to seqno 453, as all other comments 437-452 that are open are for resolution Wednesday after lunch.

seqno 453, accepted.

seqno 454, text to accompany revised equation in previous change, accepted.

seqno 457, attribute moved to this protocol, mark as accepted.

seqno 465, 467, accepted.

seqno 468, there was discussion about whether changing "shall" to "may" results in correct text. the text changes from "The AT shall only..." to "The AT may only ...". Question as to, how is the decision made by the terminal. If you have a "may" and no information on the alternative path, then how is your path choice determined ?? The original text was explicitly clear on the condition and what to do. if you introduce this "may", then how is the alternative decided ?? Upon further explanation, this is such a corner case (I.e. only with 99% accuracy in detecting erasures), the complaint was withdrawn, accepted.

at 1:30 P.M. discussion ensued on how to speed up the process, it was agreed to bring in dinner and work until 11:00 P.M. to speed things up. Also it was proposed that we show blocks of 10 comments at a time and ask for dissensions.

seqno 469, 471, accepted,

seqno 473, deferred to get diff-marks

seqno 476, accepted.

seqno 482, deferred to get diff-marks.

seqno 484, not many diff-marks, new section 4.7.5.4.10.3,

seqno 487, 490, accepted.

seqno 491, deferred to get diff-marks.

seqno 492, deferred to get diff-marks.

seqno 494, deferred to get diff-marks

seqno 496, 497, 498, 499, accepted

seqno 504, 508, accepted.

seqno 510, 511, 512, deferred

seqno 517, accepted.

action item for Mark Klerer, page 377, 418, 538, line 11, "filed" -> "field". The secretary later verified in the D2.0m specification that all instances of "filed" in the specification have been changed to "field", closing this action item.

seqno 525, 526, deferred for diff-marks.

seqno 530, accepted.

seqno 531-542, accepted.

seqno 543, deferred for diff-marks.

seqno 544, accepted.

seqno 545, accepted (table reference will be fixed.)

seqno 546, typo, accepted.

seqno 547, probably editorial, accepted.

seqno 548, accepted.

seqno 549, null comment, null disposition.

seqno 550, deferred for diff-marks.

seqno 554, minor typo. Section number should be updated by Editor to be correct (FLCS Channel number).

seqno 555, 557, 561, 562, 569-571, accepted.

seqno 572, wait for diff-marks, deferred.

seqno 575, wait for diff-marks, deferred.

seqno 579, 581-585, accepted.

seqno 586, wait for diff-marks, deferred.

seqno 590, 591, accepted.

seqno 593, note that the term "bytes" should be replaced by "octets".

seqno 594-595, accepted.

seqno 599, wait for diff-marks, deferred.

seqno 600, 602, accepted.

seqno 603-605, 607-609, 612, 615, wait for diff-marks, deferred.

seqno 610- 611, 613-614, 616, accepted.

Jerry Upton volunteered to get a food order together for Subway for this evening's dinner. He volunteered to go out to buy sodas at a local grocery store. He said he would collect the money from people at the dinner later.

The PM1 session recessed at 2:55 P.M.
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The PM2 session resumed at 3:22. P.M.

seqno 618, 619, 621, accepted.

seqno 621, accepted, but must defined this field as "padding" and treat accordingly.

seqno 622, accepted.

seqno 623, 624, wait for diff-marks, deferred.

seqno 625, 626, Action Item, Qualcomm (Don Gillies) and Broadcom (Victor Hou) to work together to produce a new table that was missing with channels that are missing.

The table was produced and incorporated into the D2.0m specification, closing this action item.

seqno 632-638, 668, 642-643, 648-649, accepted.

seqno 650, accepted, but editor wants to know if someone can fix the English, plural and singular might not be right.

seqno 656-658, 660-661, 668-669, 675-679, 683, 684, accepted.

seqno 686, partially accommodated by resolution to comment to 684.

seqno 688, accepted.

seqno 692, accepted, already covered by 691 and subsumed.

seqno 693, see DON-151. However, whether an encoding is optional or mandatory is in the text, and is seen as difficult to add to the table.

seqno 696, accepted, subsumed by 695 (editorial DON-151).

seqno 697, accepted.

seqno 701, Wednesday after lunch.

seqno 703, accepted, a typo.

seqno 704, 706, 707, accepted.

seqno 710, the size cannot be specified as it is not constant. not accepted.

seqno 714, 720-721, 723-725, 730, accepted.

seqno 731, 733, subsumed by 732.

seqno 732, 736, 737, 743, 745, 746, 750, 753, 754, 756, 758, 761-762, 765-767, 769, 771-774, 776, accepted.

The PM2 session adjourned at 5:07 P.M.
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The EVE session convened at 5:31 P.M.

The editorial chair directed the audience to download a supplementary comment support package (Supplemental Comment Package.zip) from the website that contains corrected page and line numbers. The discussion then turned to supplemental comment package sequence no's (scp seqno's) in this one ballot, as opposed to sequence numbers from the main spreadsheet (seqno's).

discussion returned to sequence numbers on open issues deferred from Monday.

seqno 22, concerning AN terminology in the 625K-MC section, was closed.

seqno 7, not accepted, we will leave it as octets for now, allowing submitter to resubmit it if he wants to later.

seqno 178, a definition for PSI and IPSI was found in section 1.4.9, and the proposal is to move this text into the acronym section so that people can understand what is meant by "PSI" and "IPSI" in the specification.

seqno 210, 213, resolved, as this is fixed by a later comment #1113 replaces the table and corrects the problem.

seqno 247, resolved by new text produced by Qualcomm and Alcatel-Lucent.

seqno 249, the issue is still open as we are wondering if the proposed textual change will be correct, based on the somewhat misnamed term "power density" which does not average over Hz, but rather, per carrier.

seqno 261, resolved, it was a confusion on the part of the questioner.

seqno 279, issue is still open.

seqno 301, why is the broadcast ID == 0, because its a convenient value available no matter how large is the MACID. the change is accepted.

seqno 420, 473, 482, with diff-marks, accepted.

The 802.20 Chair left the meeting to attend the IMT-Advanced meeting and to represent the 802.20 committee in that meeting.

seqno 484, 490, 491, 494, 517, 525, accepted.

At this very moment, food appeared and we took a break to eat dinner, since the dinner was too noisy to serve in conjunction with editorial communications.

seqno 526, 538, 539, 540, 543, 550, 572, 575, 586, with diff-marks, accepted.

seqno 603-605, 607-609, 612, 615, with diff-marks, accepted.

This completed the list of sequence numbers to revisit, and we returned to regular sequence number processing.

seqno 776, 779, 780, 784, 786, 788, accepted.

seqno 796, 797, 800, 802, 804-806, 808, 811, 815-817, 818-823, accepted.

seqno 825-833, 835-836, accepted.

seqno 834. Not accepted, due to inability of transmitter to reliably detect its own failure.

seqno 832, 833, Qualcomm has worked to get better minimum performance requirements and has some new text to put into the spec. The issue is tabled and

Broadcom and Qualcomm should work further to come up with new text for the specification.

seqno 834-836, accepted.

seqno 839, add correct reference, accepted.

seqno 840, accepted.

seqno 843, add figure per comment 850 and accept.

seqno 844, 847, 849-852, 859, 860, 862, accepted.

seqno 866, accept, variable name should IsSynchronous rather than GloballySynchronous

seqno 867-868, accept.

seqno 869-870, disposition is to delete the "Not Specified" section, accepted.

seqno 873-875, 878, 879, 881, accepted.

The EVE session recessed at 9:50 P.M.
==========
The EVE session resumed at 10:00 P.M.

seqno 883, 886, accepted.

seqno 887, 888, those empty sections will be deleted.

seqno 890-895, accepted.

seqno 899, notorious empty section, it will be deleted, same as seqno 900, accepted.

seqno 901-905, 907, 911-919, 923, 926-936, 938-941, accepted.

seqno 943, minimum performance specification, deferred.

seqno 945, accept.

seqno 947, accept, replace text in line 16-17.

seqno 949, the definitions of radio config 1 and 2 are the contents of these sections.

seqno 951, 952, accepted.

The EVE session recessed at 11:03 P.M.

Wednesday, September 19, 2007

The AM1 session began at 8:28 A.M.

The chair thanked the audience for their hard work the previous evening.

The chair summarized what he learned at the 802.18 IMT Advanced meeting. At least 3 telecoms will be held for IMT Advanced. They are in the early organizational states. It was all very vague, as more details become available it will be shared with the 802.20 working group.

If there are no further questions we will proceed with comment resolution. The editorial chair took the floor.

seqno 953, it was fixed as a result of seqno 951, accepted.

seqno 955, accepted, but deferred until we find the relevant page, page 1061, accepted.

seqno 956, accepted, but deferred until page with mod is found. found on page 1061, accepted.

seqno 957, accepted.

seqno 958, mention the CRC length, accepted.

seqno 959, resolution is to not fully delete the sections ,but to refer to the associated unicast sections, mentioning that they are the same; this preserves the sectioning in the document, allowing a different scrambling sequence for broadcast to have its own, full section, accepted.

seqno 960, accepted.

seqno 962, the route counter should change to 15 bits globally.

seqno 963-964, accepted.

seqno 965, when route grows to 15 bits, the reserved field must shrink, but the first two fields of the cryptosync are slated for removal in a future version of UMB, at a request from Ericsson, this edit is tabled for revisiting later / further study.

seqno 966-968, 970, accepted.

seqno 971-972, same disposition as 965, to be revisited.

seqno 973, 974-983, accepted.

seqno, same disposition as 971, 972, 965, to be revisited.

seqno 986-997, accepted.

seqno 998, 1001, deferred, not clear why we need to move the connection close primitive issuance to this section, why not leave the text as referencing the connection close section.

seqno 999, accepted.

The AM1 session recessed at 9:57 A.M.
==========
The AM2 session began at 10:33 A.M.

In order to be fair to people more interested in the wideband portion of the spec, we will work on wideband comments after lunchtime.

seqno 1004, deferred, awaiting explanation of how octet alignment will be maintained.

seqno 1006, deferred, need rationale.

seqno 1007, 1008, 1009, accepted.

seqno 1011, pending clarification, deferred.

seqno 1013-1015, 1017, 1019-1022, 1024, accepted.

seqno 1025, withdrawn.

seqno 1026-1031, 1033-1036, 1038-1040, accepted.

The chair asked that people take only half an hour for lunch, and return with a plate of food if necessary to arrive in time for the PM1 sessions.

seqno 1063, 1065, 1067, accepted.

seqno 1064, 1066, 1068, superseded.

The AM2 session recessed at 12:04 P.M.
==========
The PM1 session began at 12:47 P.M.

The first comment concerning narrowband mode was 1655.

seqno 1655-1656, accepted.

seqno 1657, change "transmitter" to 'receiver", accepted.

seqno 1658, accepted.

seqno 1642, no concrete resolution proposed.

seqno 1669, accepted.

This concluded the proposed changes to narrowband mode.

The editor then polled the two entities that had comments dealing with TDD, and they indicated they needed more time to resolve their differences with respect to the TDD wideband mode.

seqno 1069, 1070-1072, accepted.

seqno 1073, 1074 : superseded by 1071.

seqno 1077, accepted.

seqno 1078, superseded by 1077

seqno 1079-1096, 1098-1100, 1102-1103, 1106-1114, 1116-1130, accepted.

seqno 1132-1138, accepted.

seqno 1146-1152, accepted (**)

seqno 1154-1159, 1161, 1163-1167, 1172-1173, accepted.

seqno 1175, align text with tables.

seqno 1178-1183, 1192-1193, 1196-1198, accepted.

seqno 1200, see 1175

seqno 1201, 1203, accepted.

seqno 1204, during the process of accepting #1204, the editor accidentally overwrote the entire spreadsheet with "accept". To save time while resolving this error, the editor called for a recess at this point.

The PM1 session recessed at 2:55 P.M.
==========
The PM2 session began at 3:17 P.M.

seqno 1204 was re-accepted.

seqno 1205 accept, except GloballySynchronous becomes IsSynchronous. Upon clarification, this group has decided to standardize on the term IsSynchronous and wipe out GloballySynchronous throughout the spec.

seqno 1208, accepted.

seqno 1209, will fix the formatting, accepted.

seqno 1211, 1214-1216, 1219-1220, 1223-1224, accepted.

seqno 1225 after otherwise, add "if startofpacketmode=1", accepted.

seqno 1226-1231, 1234-1236, 1238-1239, 1242-1249, accepted.

skipped many editorial comments to 1278.

At 4:00, there was a question as to what to do to proceed. We considered addressing the harmonized Motorola / Qualcomm TDM comments, or chapter 8, or chapter 9. Qualcomm asked the editor to withdraw all comments for chapter 9, and requested that we skip resolution of our chapter 8 comments. Therefore, at this point, we skipped to Chapter 10 comments and continued onwards.

seqno 1565-1569, 1572-1573, 1575, accepted.

seqno 1577, table 206, table 209, accepted.

seqno 1580, accepted.

seqno 1585, 1587, 1588, 1589, all similar (message losing flowID), accepted.

seqno 1590, as in previous comments, accepted.

seqno 1591-1593, accepted. on picture, change "8n" to "8".

A contribution from Qualcomm dealing with minimum performance requirements ("Supplementary Comment Support Package 2" ,here) was presented to the group.

A comment from the floor questioned why the performance spec was given in terms of MSCE, and why were the performance requirements identical for both AN and AT, whereas typically AT specs are less stringent than AN specs.

The chair asked Broadcom to give a finite list of performance parameters that they wanted to see included in the spec, to be completed by Thursday afternoon.

Broadcom was asked to comment, and they indicated that they thought it was progressing in the right direction.

Ericsson was asked to comment, and they stated that they thought it might go too far in terms of waveform quality. We should not be stating a goal of what the receiver performance should be. We should be focused on the transmit waveform, not the receive waveform or receiver quality.

The chair pointed out that in the next round he expected a comment that would say, "Please do it this way", the chair is not certain we are going to get things straight and square today.

Qualcomm pointed out that they didn't think it was normative - there is no requirement.

Broadcom pointed out that it was valuable to have an AN MSCE measurement procedure in the standard. The traditional view is that you can look at this and decide if you have an ideal implementation with this level of performance then the transmitter would have a 0.5 dB degradation in conjunction with the transmitter.

step #1 : Can we include this contribution in the next draft ?? Broadcom asked for a stay of the decision until the Thursday morning coffee break.

step #2 : can we request Broadcom to give us a definitive list of additional parameters to be also included in the next revision of the document.

At this point, we continued with comment resolution.

seqno 1594, 1595-1596, accepted.

seqno 1597, two extra words "RouteID" and "MoreHeader" are words to be deleted from the table, accepted.

seqno 1598, padding comment, accepted.

seqno 1599-1602, 1604, 1606, accepted.

seqno 1607, correct by deleting reserved field, accepted.

seqno 1608-1610, accepted.

Attention now moved to non-Qualcomm comments on Chapter 9.

seqno 1026

The PM2 session recessed at 5:50 P.M.

Thursday, September 20, 2007

The AM1 session began at 7:30 A.M.

seqno 178, it was requested that the editor also draw information from page 960, lines 7-13, and reference tables 218, 219 in defining IPSI. This was accepted.

seqno unknown (MAC Chapter), it was mentioned that the color figures should be changed to black and white, this comment was not accepted as it was thought most people would read the PDF / computer version of the comment, not the paper version.

seqno 1278, accepted.

seqno 1281 probably editorial, accepted.

seqno 1296, accepted. editor will see how it looks after the change is made.

seqno 1306, accepted.

seqno 1309, 1310, 1315, accepted with typo correction "messages" -> "message"

seqno 1340, accepted.

seqno 1343, not accepted, refer to comment #55, To assure consistency change text in 12.1 to explain that a Protocol type consists of two subfields.

seqno 1346, global search ProtocolType and correct all instances.

seqno 1350, accepted.

seqno 1351, one objection from the floor, open for comment, accepted.

seqno 1354, 1355, accepted.

seqno 1357, not accepted.

most of the rest of the chapter 8 seqno's were accepted, but the secretary was busy participating in other parts of the meeting during this time. The notation "8 or 16" and an appropriate description was adopted and recommended for use throughout the document.

attention turned towards editorial comments.

seqno 708, it was suggested that a figure for a parity check matrix would depend on parameters in use at the time, it was not clear that just one matrix could be drawn to satisfy the comment. The editor asked the commenter to provide a non-normative example of what the figure should look like, to help generate the correct figure for the document.

seqno 727, superseded by 732 and Motorola attachment #1.

seno 1052, route protocol == route control protocol? no, comment stands.

seqno 814, should this be done ?? yes, its still accepted.

The AM1 session recessed at 9:38.
==========
The AM2 session resumed at 10:20.

attention turned towards yellow comments (ones left open for further discussion and clarifications.)

seqno 232 after discussions between the proposer and the objector, accepted.

seqno 321, x, y, z, p, d, subject to corrected references, was accepted based on corrections that were emailed.

seqno 425, concerning objections about missing information in handoff section. If the request is asking for "FYI" explanation of handoff, it can be provided. If the questions concern philosophy of handoff design, that cannot be provided since no alternative design exists. concrete proposals are required that identify specific changes that are within the ambit of the specification.

at 10:31 the requestor said that this was not satisfactory and that the specification is deficient in relation to handoff specification. "It's not reasonable to shirk the responsibility to answer this ..."

Another commenter said that a very simple bit of text might resolve the handoff issue, if the text were modified to say something like, "The access terminate will initiate a request based on these metrics", and perhaps that simple change could resolve this issue.

seqno 426, 427, concrete proposals to specify this in mathematical terms are encouraged.

seqno 432, Qualcomm is willing to give references to indications that tell the terminal that handoff is correct. The sections concerning DRLSS and DLSS satisfy the request, we can just put a statement into the front of that section.

Another person suggested that this can be resolved by adding the word "request" between "handoff" and "decisions".

"The access terminal monitors various air-link parameters to decide when to request handoff, handoff is not completed until the access terminal receives assignment messages from the DFLSS and/or DRLSS." This sentence should occur in sections 4.7.5.4.3, and 4.7.5.4.4.

The requestor said that this was a satisfactory resolution to comment 432. with this change, #432 is accepted.

seqno 432, resolution is to change text to read "making FL and RL handoff request decisions."

seqno 433, 434, change text to read, "initiate handoff request"

seqno 435, 436, these were deferred simply because there were so many requests for changes to handoff request, now they can be accepted.

seqno 439, similar disposition, accepted.

seqno 444, 447, similar disposition, accepted

seqno 449, just a typo, similar disposition, accepted.

seqno 450, similar disposition, accepted.

seqno 701, still open, but there was a figure from another comment that could satisfy this comment, so marked withdrawn.

seqno 791, 792, 793, minimum performance specification comments, the relevant sections will be updated with a submittal MPS02 provided at the meeting from Qualcomm, the editor had asked for a list of additional things that Broadcom wanted to see considered, 11 parameters and constellation accuracy for 8-PSK, and 8-PSK and 16-QAM for receiver sensitivity, accepted.

seqno 968, there is no reason to have to set it to zero, accepted.

seqno 971, 972, correct resolution is to remove the reserved field completely, it is no longer needed.

seqno 985, in this comment the reserved field is needed. accept and define the reserved field correctly.

seqno 998, 1001, after a requested clarification "when you lose a member of an active set, you should not shut down the entire connection", accepted.

seqno 1006, 1008, clarification presented, accepted.

seqno 1011, accepted.

seqno 1357, issue of a complex attribute acknowledgement, text provided by Qualcomm satisfied the request for a better resolution, accepted.

seqno 1534-1547, these were all editor goofs in the last round of revisions, and were accepted rather quickly at the end of this morning's meeting.

The editor announced that all entity comments had been satisfied at this point, and that we should turn our attention to contributions from non-entity members.

The first two comments (row #9, non-member entity spreadsheet page) asking for flexible tile support. For these two comments, the editor wrote that this resolution had been previously discussed and evidence of performance benefits had been requested from the submitter. The additional analysis was not provided, so the comment was not accepted.

The second comment (row #10, non-member entity spreadsheet page) asking for multi-carrier mode, requested in proposal C802.20-07/18. was considered. The resolution was, "Wideband multi-carrier is currently supported in the draft". So the comment was not accepted, since MC mode is already in the draft.

The third comment (row #11, non-member entity spreadsheet page) the consensus of the 802.20 up until now has been not to support 1.25 MHz mode, the editor asked if anyone had objections to not accepting this comment? There were no objections.

seqno 1351, A proposed paragraph was presented up for the introduction in the session protocol (chapter 8), at the end of section 8.1, page 939, accepted.

seqno TBD, a proposed equation was presented for computing average RL channel quality, accepted.

The floor was given to the chair of the session.

Motion, "The WG affirms the resolution of comments that occurred during the Sept. session for Letter Ballot 1m."

Moved by Jerry Upton.
Seconded by Nancy Bravin.

Discussion on the floor, the chair stated that quorum is 12, and the chair believes we have 13 voters. Broadcom asked to wait until after lunch before voting to further review the comment resolution spreadsheet results for correctness before voting.

The chair stated that the desire was to vote as some people may want to leave after lunch. We have 23 voting members + chair for a total of 24, so quorum is 12.

Roll-Call Vote, 13 present (including chair) for a quorum

Kyocera (Radhakrishna Canchi), yes
Motorola (Jim Mollenauer ~ alternate), yes
Broadcom (Victor Hou), abstain
Ericsson (Jim Ragsdale), yes
Alcatel-Lucent (Rajkumar Ajay), yes
Qualcomm (Jim Tomcik) yes
Strathclyde University (Eugen Pfann ~ alternate) yes
ETRI (Heesoo Lee), abstain
Samsung (Changhoi Koo) , abstain
Institute Miyagi Prefecture (Hiroshi Oguma), yes
NTT MCL (Tetsuya Nakamura) abstain
Steepest Ascent (Graham Freeland ~ alternate), yes
Arosco, Arnie Greenspan (chair, not voting)

no negatives
8 yes
4 abstains
12 total votes

This means that we have accepted the comment resolution, and the chair will make his closing remarks and housekeeping after lunch, please return from lunch at 1:45 P.M.

The AM2 session recessed at 12:18 P.M.
==========
The PM1 session began at 1:45 P.M.

The chair put up a portion of the original ballot instructions concerning voting:

Please remember that the operating rules state that all "NO" votes must be accompanied by technical comments which include specific reasons and enough information for the group to understand what needs to change in order for you to change from a "no" vote to a "yes" vote. Simply saying "not good enough" is not good enough, and may be grounds for the chair to invalidate your vote.

The chair put up slides (802.20-7/23) summarizing the meeting, thanking everyone, and putting forward the one remaining open decision, as to how late ballots will be treated. The following are the chair's statements.

We addressed all comments, and we even addressed "rogue" comments from non-entities. The decision about whether late ballots should be included must be reached by the chair. Regardless of the decision there will be another opportunity to review the draft and change your vote if you are unsatisfied with how your comments were treated.

The reason that 802.20 has run into problems in the past, is there has been a perception that rules have been ignored or manipulated in the past. As a result of the late receipt of the two ballots, the chair declares that they will not be counted and that we have received a 75% YES vote and we will undergo a 30 day recirculation ballot.

It will open no later than October 7th and will close on Tuesday one week before the Atlanta plenary.

There followed a very lively discussion with comments and protests from the floor concerning ballots that were not counted.

During the discussion, the chair stated he had gone to the oversight committee, and to the chair of 802, explained the circumstances, and the universal response was "follow the rules".

The chair asked during one point, "Is it important to you that the vote is 71.3% or 75%? The chair does not believe that either number changes anything."

Among other things chair stated, "If the chair counts late ballots, even if just 1 minute late, what about 2 minutes? 5 minutes? 24 hours late? The chair does not know how to draw that line."

Throughout the discussion, one of the voters whose ballot was declared invalid stated multiple times that the ballot was a valid legitimate ballot that sent before the close of the ballot and that the vote should be counted. (The comments in the ballot were discussed by the WG). Thus, there was further discussion involving multiple persons about the

clarity of the rules regarding the absolute time reference for receipt of the ballot. During the discussion, the voter also stated that in discussion with the Chair on Monday afternoon, the Chair agreed to count the vote. The Chair acknowledged to the WG that he had made the agreement that the voter had mentioned, but had changed his mind as a result of the guidance of the 802.20 oversight committee. The voter expressed his disapproval.
The chair closed the discussion by asking if there is any other subject matter to discuss before asking for a motion to adjourn?

A question was asked - - Was there anything out of the opening plenary that we need to know about ?

The stated there was much discussion about a non-North American location, such as Calgary (?!?! :-)).Barring hotel space problems and costs, it looks like Rome is where we will be heading in the future. Another discussion was about signing up and getting and account with the IEEE, so that you could participate in the forthcoming attendance system. These issues are being worked upon.

The 802.20 working group 30-day ballot is expected to open on October the 7th, when instructions should be sent.

The ballot should close on Tuesday November the 6th at 23:59 Eastern Time, one week before the Atlanta Plenary.

No matter what the chair says, please read the instructions and follow them first, and if there is any confusion please contact the chair for clarification.

Jerry Upton made a motion to adjourn.
Nancy Bravin seconded the motion.
There were no objections, so moved.

The PM1 session adjourned at 2:59 P.M.

Appendix 1 - September 2007 - Attendance Credits and Voter Status											
Last Name	**First Name**	Jul07 Voter	Sep07 Voter	**Mar06**	May06	**Nov06**	**Jan07**	**Mar07**	**May07**	**Jul07**	**Sep07**
Agis	Edward	M	M	1	1	1					
Agrawal	Avneesh	M	No	1							
Ahmadi	Sassan	M	M	1	1	1					
Ahn	Jae Young	M	No	1	1						
Alamouti	Siavash	M	No	1	1						
Ali	Murtaza	M	No	1							
Alphonse	Jean	M	No	1							
Arefi	Reza	M	No	1	1						
Bajaj	Rashmi	M New	M	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		1
Bravin	Nancy	M	M	1		1	1	1	1	1	1
Budianu	Petru	No	M new						1	1	1
Bussey	Chris	M	M	1		1	1	1	1	1	
Cai	Sean	No	No	1							
Canchi	Radhakrishna	M	M	1	1	1	1	1	1	1	1
Carlo	Jim	M	No	1							
Carneiro	Edson	M	M	1				1	1	1	
Carson	Peter	M	M	1			1	1			
Castell	Harold P.	M	M	1		1		1		1	
Chae	Suchang	M New	No	1	1						
Chen	Yao	No	No		1						
Cho	Juphil	M	M	1		1					
Choi	Hyoungjin	M New	No	1							
Choi	Yang-Seok	M	No	1	1						
Chong	Chia-Chin	M New	No		1		1				
Chun	Jin Young	M	No	1							
Chung	Jaeho	M	M	1		1					
Cleveland	Joseph	M	No			1					
Comstock	David	M New	No	1	1						
Dean	Chris	M	M	1		1	1	1	1	1	
Dodd	Donald	M	No	1							
Dorward	Lynne	M	M	1				1			

September 2007 - Attendance Credits and Voter Status											
Last Name	**First Name**	Jul07 Voter	Sep07 Voter	**Mar06**	May06	**Nov06**	**Jan07**	**Mar07**	**May07**	**Jul07**	**Sep07**
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	802.21	802.21	802.21	1	
Ferguson	Alistair	M	No	1							
Freeland	Graham	M	M	1		1	1	1		1	1
Gal	Dan	M	No	1							
Garcia-Alis	Daniel	M	M	1		1	1	1		1	
Garg	Deepshikha	M	M	1		1		1			
Gillies	Donald	No	M					1	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	
Gorokhov	Alexei	M	M	1		1	1				
Gowaikar	Radhika	No	No						1	1	1
Greenspan	Arnie	M	M			1	1	1	1	1	1
Guo	Qiang	M	No	1	1						
Haug	John	No	No				1				
Hou	Victor	M	M	1	1	1	1	1	1	1	1
Hu	Rose	M	M	1	1	1					
Hu	Teck	M	M No ???	1	1	1					
Humbert	John	M New	No								
Huo	David	M	M	1			1				
Hur	Yerang	M New	No	1	1						
Ibbetson	Luke	M	M	1		1					
Iimuro	Kazuyoshi	M	M	1		1	1			1	
Ikeda	Yutaka	M No ???	M No??	1		1					
Ishida	Kazuhito	M New	M				1	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	1
Jones	Dennis	M	M	1				1	1	1	

September 2007 - Attendance Credits and Voter Status											
Last Name	**First Name**	Jul07 Voter	Sep07 Voter	**Mar06**	May06	**Nov06**	**Jan07**	**Mar07**	**May07**	**Jul07**	**Sep07**
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	No	**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	**No**	**1**	1						
Kim	Peter J.W.	M New	No	**1**							
Kim	Tae Young	M	M	**1**	1	**1**	**1**				
Kim	Yong Ho	M	M	**1**		**1**					
Kim	Young Kyun	M	No	**1**							
Kim	Young-Ho	M New	M	**1**	1		**1**				
Kim	Youngsoo	M	M	**1**	1	**1**					
Kim	Hyeon Soo	M	M	**1**	1	**1**					
Kim	Jae-Ho	M New	**No**	**1**	1						
Kimura	Shigeru	M	M	**1**		**1**					
Kitahara	Minako	M	M	**1**		**1**	**1**	**1**	**1**	**1**	
Kitamura	Takuya	M New	No		**1**						
Klerer	Mark	M	M	**1**	1	**1**	**1**	**1**	**1**	**1**	**1**
Knisely	Douglas	M	M	**1**	1	**1**		**1**			
Kolze	Tom	M	M	**1**	1	**1**		**1**	**1**		
Koo	Changhoi	M	M	**1**	1	**1**					**1**
Koplyay	Ferenc	M New	**No**	**1**	1						
Kujawski	Fred E.	No	No			**1**					
Kwon	Young Hyoun	M	No	**1**							
Kwon	Dong Seung	M New	No		1						
Lalaguna	Pablo	M	M	**1**		**1**					
Lawrence	Lisa	M	M	**1**				**1**	**1**		
Lee	Heesoo	M	M	**1**	1	**1**	**1**	**1**	**1**		**1**
Lee	Jungwon	M New	No	**1**							

September 2007 - Attendance Credits and Voter Status											
Last Name	**First Name**	Jul07 Voter	Sep07 Voter	**Mar06**	May06	**Nov06**	**Jan07**	**Mar07**	**May07**	**Jul07**	**Sep07**
Lee	Sungjin	M New	No	1							
Lee	Mihyun	M	M	1		1	1				
Lee	Wook-Bong	M	No	1	1						
Li	Jun	M New	No		1						
Li	Thomas	No	No		1						
Li	Yingyang	M	M	1	1	1					
Li	Yong	No	No						1		1
Lim	Hyoung Kyu	M	No	1	1						
Lin	Jiezhen	M	No	1	1						
Liu	Walter	M New	No	1	1						
Lu	Jianmin	No	No		1						
Ma	Steven	M	No	1	1						
Martynov	Irina	M	M	1		1	1	1	1	1	1
Martynov	Michael	M	M	1		1	1	1	1	1	1
McGinniss	David	M New	No	1							
McMahon	Anthony	M	M	1		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	1
Murakami	Kazuhiro	M	M	1		1		1		1	1
Murphy	Peter	M	No	1							
Naaman	Laith	M New	No	1							
Nabar	Romit	M	M	1		1					
Nagai	Yukimasa	M New	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	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	M				1	1	1	1	

September 2007 - Attendance Credits and Voter Status											
Last Name	**First Name**	Jul07 Voter	Sep07 Voter	**Mar06**	May06	**Nov06**	**Jan07**	**Mar07**	**May07**	**Jul07**	**Sep07**
Odlyzko	Paul	M	**No**	**1**	1						
Oguma	Hiroshi	M	M	**1**	1	**1**				**1**	**1**
Oh	Changyoon	M New	**No**	**1**	1						
Panicker	John	M New	**No**	**1**	1						
Park	Chul	M	M	**1**	1	**1**					
Park	DS	M	M	**1**	1	**1**					
Park	Jeongho	M	M	**1**	1	**1**					
Park	Won-Hyoung	M	**No**	**1**	1						
Patel	Chirag	No	No						**1**	**1**	**1**
Patzer	Steve	M	**No**	**1**	1						
Pearson	Orlett	No	**No**								**1**
Pfann	Eugen	M	M	**1**		**1**	**1**	**1**			**1**
Pirhonen	Riku	M	M	**1**	1	**1**		**1**			
Pittampalli	Eshwar	M New	No								
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	**No**	**1**	1						
Qian	Xiaoshu	M	**No**	**1**	1						
Ragsdale	James	M	M	**1**	1	**1**		**1**	**1**	**1**	**1**
Rajadurai	Rajavelsamy	M New	**No**	**1**	1						
Rajkumar	Ajay	M	M	**1**	1	**802.21**	**802.21**	**802.21**	**802.21**	**1**	**1**
Sampath	Hemanth	M	M	**1**		**1**	**1**		**1**	**1**	**1**
Sano	Masato	M	M	**1**		**1**	**1**				
Santhanakrishnan	Anand	M	**No**	**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**					
Sihn	Gyung Chul	M	M	**1**	1	**1**					
Sivanesan	Kathiravetpilla i	M	M	**1**		**1**					
Song	Young Seog	M	M	**1**	1	**1**					

September 2007 - Attendance Credits and Voter Status											
Last Name	**First Name**	Jul07 Voter	Sep07 Voter	**Mar06**	May06	**Nov06**	**Jan07**	**Mar07**	**May07**	**Jul07**	**Sep07**
Sorensen	Henrik	M New	No	1							
Springer	Warren	M	No	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	1
Surcobe	Valentin	M	M	1	1	1		1	1	1	
Suzuki	Tomohiro	M	M	1		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	1
Ulupinar	Fatih	M	No	1							
Upton	Jerry	M	M	1	1	1	1	1	1	1	1
Vaidya	Rahul	M New	No	1	1						
Valbonesi	Lucia	M	M	1	1				1		
Valls	Juan Carlos	M	M	1		1	1	1	1	1	1
Vijayan	Rajiv	M	M	1		1	1	1			
Vivanco	Silvia	M	M	1		1	1	1	1	1	
Wang	**Michael**									1	1
Wasilewski	Thomas	M	M	1		1		1			
Watanabe	Fujio	M New	No					1			
Wieczorek	Alfred	M	M		1			1			
Wilson	Joanne	M	M	1	1	1	1			1	
Wu	Geng	M New	No	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	No	1	1						
Yoon	Young C.	No	No						1		
Youssefmir	Michael	M	M	1		1					1
Yuda	Tetsuya	M	No	1							

September 2007 - Attendance Credits and Voter Status											
Last Name	**First Name**	Jul07 Voter	Sep07 Voter	**Mar06**	May06	**Nov06**	**Jan07**	**Mar07**	**May07**	**Jul07**	**Sep07**
Yun	Jungnam	M New	**No**	**1**	1						
Yuza	Masaaki	M	No			**1**					
Zhang	Xin									**1**	**1**
Zhou	Yan									**1**	**1**
Zhu	Peiying	M New	No	**1**							

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
16	Budianu	Petru Cristian	Qualcomm	Same	Not Applicable	Not Applicable	www.qualcomm. com
17	Bussey	Chris J.	Bussey Consulting Services, Inc.	Qualcomm	Chris J Bussey	Not Applicable	www.qualcomm. com
18	Cai	Sean	ZTE USA Inc.	Same	ZTE Corp	Not Applicable	www.zteusa.com
19	Canchi	Radhakrishna	Kyocera Telecommunications Research Corporation.	Same	Kyocera Corporation.	Kyocera Corporation	www.ktrc-na.com
20	Carlo	Jim	J.Carlo Consulting LLC	Huawei Technology	Not Applicable	Not Applicable	www.huawei.com
21	Carneiro	Edson	EPEC Solutions Inc.	Qualcomm Brazil	Not Applicable	Qualcomm	www.epecsolutions.com
22	Carson	Peter	Qualcomm, Inc.	Same	Not Applicable	Not Applicable	

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

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

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	Last Name	First Name	Employer	Affiliation	Ultimate Parent of Employer	Ultimate Parent of Affiliation	URL1
69	Jeong	Byung Jang	ETRI	Same	Not Applicable	Not Applicable	www.etri.re.kr
70	Jette	Al	Motorola, Inc.	Same	Not Applicable	Not Applicable	www.motorola.com
71	Ji	Baowei	Samsung Telecommunications America, LLP	Same	Samsung Electronics Company	Not Applicable	www.samsungtelecom.com/
72	Ji	Tingfang	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	www.qualcomm. com
73	Jones	Dennis	Taliesen North Consulting	Qualcomm	Not Applicable	Not Applicable	
74	Joo	Panyuh	Samsung Electronics	Same	Samsung Electronics	Not Applicable	www.samsung.com
75	Kadous	Tamer	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	www.qualcomm. Com
76	Kalhan	Amit	Kyocera Telecommunications Research Corporation	Same	Kyocera Corporation	Kyocera Corporation	www.ktrc-na.com
77	Kanai	Takeo	Symbies, Inc.	Softbank BB Corp.	N/A	N/A	www.symbies.com/
78	Kang	Hyunjeong	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
79	Katayama	Masahide	Kyocera Corp	same	not appliciable	Not Applicable	www.kyocera.co.jp
80	Kawabata	Hiro	Qualcomm	Same	not Applicable	Not Applicable	www.qualcomm.com
81	Khademi	Majid	Khademi Consulting	Qualcomm	Not Applicable	Not Applicable	www.qualcomm. com
82	Khandekar	Aamod	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	www.qualcomm. com
83	Khatibi	Farrokh	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	www.qualcomm.com
84	Kiernan	Brian	Interdigital Communications Corp	same	not applicable	Not Applicable	www.interdigital.com
85	Kim	Hyeon Soo	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
86	Kim	Jae-Ho	ETRI	Same	Not Applicable	Not Applicable	www.etri.re.kr
87	Kim	Peter	TTA	same	Not Applicable	Not Applicable	www.tta.or.kr
88	Kim	Taeyoung	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
89	Kim	Yong Ho	LGE	Same	Not Applicable	Not Applicable	www.lge.com
90	Kim	Young Ho	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com

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	Last Name	First Name	Employer	Affiliation	Ultimate Parent of Employer	Ultimate Parent of Affiliation	URL1
91	Kim	Young Kyun	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
92	Kim	Youngsoo	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
93	Kimura	Shigeru	Kyocera Corp.	Same	Not Applicable	Not Applicable	www.kyocera.co.jp
94	Kitahara	Minako	Kyocera Corp.	Same	Not Applicable	Not Applicable	www.kyocera.co.jp
95	Kitamura	Takuya	Fujitsu Limited	Same	Not Applicable	Not Applicable	www.fujitsu.com
96	Klerer	Mark	QUALCOMM Flarion Technologies	Same	QUALCOMM, Incoroporated	Not Applicable	www.qualcomm.com/qft/
97	Knisely	Douglas	Airvana, Inc.	Same	Not Applicable	Not Applicable	www.airvana.com
98	Kolze	Tom	Broadcom	same	Not applicable	Not applicable	www.broadcom.com
99	Koo	Changhoi	Samsung Telecommunications America, LLP	Samsung Electronics	Same	Same	www.samsungtelecom.com
100	Koplyay	Ferenc	Freescale Semiconductor	Same	N/A	N/A	www.freescale.com
101	Kujawski	Fred	AirCell Inc.	Same	Not Applicable	Not Applicable	www.aircell.com
102	Kwon	Dong-Seung	ETRI	same	Not applicable	Not applicable	www.etri.re.kr
103	Kwon	Young-Hyoun	LGE	Same	Not Applicable	Not Applicable	www.lge.com
104	Lalaguna	Pablo	MedStar Systems, LLC	Qualcomm		Qualcomm	www.medstarsystems.com
105	Lawrence	Lisa	CTCI	Qualcomm	Same	Same	www.ctci.ca
106	Lee	Heesoo	ETRI	Same	Not Applicable	Not Applicable	www.etri.re.kr
107	Lee	Jungwon	Marvell Semiconductor Inc	Same	Marvell Technology Group, Ltd	Not Applicable	www.marvell.com
108	Lee	Mihyun	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
109	Lee	Sungjin	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
110	Lee	Wook-Bong	LGE	Same	Not Applicable	Not Applicable	www.lge.com
111	Li	Jun	Nortel Networks, Inc.	Same	Nortel Networks, Inc.	Not Applicable	www.nortel.com
112	Li	Thomas	Huawei Technologies Co,Ltd	Same	not applicable	Not Applicable	www.huawei.com

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	Last Name	First Name	Employer	Affiliation	Ultimate Parent of Employer	Ultimate Parent of Affiliation	URL1
113	Li	Yingyang	Beijing Samsung Telecommunication	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
114	Li	Yong	Qualcomm Inc	Same	Not Applicable	Not Applicable	www.qualcomm.com
115	Lim	Hyoung Kyu	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
116	Lin	Jiezhen	Siemens Network Ltd, Beijing	Siemens Ltd., China	Siemens AG	Siemens AG	www.siemens.com.cn
117	Liu	Walter	FutureWei Technologies, In	Same	Huawei Technologies Co.,Lt	N/A	www.futurewei.com
118	Lo	Titus	Neocific, Inc.	Same	N/A	N/A	
119	Lu	Jianmin	FutureWei Technologies, In	Same	Huawei Technologies Co.,Lt	N/A	www.futurewei.com
120	Ma	Steve	Freescale Semiconductor	Same	N/A	N/A	www.freescale.com
121	Maez	David	Navini Networks	Same	Not Applicable	Not Applicable	www.navini.com
122	Martynov	Irina	Belgud International	Qualcomm		Qualcomm	
123	Martynov	Michael	Belgud International	Qualcomm		Qualcomm	
124	McGinniss	David S.	Sprint Nextel	Same	Not Applicable	Not Applicable	www.sprint.com
125	McMahon	Anthony	Institute for System Level Integration	Strathclyde University	Not applicable	Not applicable	www.sli-institute.ac.uk
126	McMillan III	Donald C.	Advanced Network Technical Solutions, Inc.	Same	N/A	N/A	www.antsinc.com
127	Miyazono	Max	Qualcomm Inc	Same	Not Applicable	Not Applicable	www.qualcomm.com
128	Mollenauer	Jim	Technical Strategy Associates	Motorola Inc.	Not applicable	Not Applicable	www.Technicalstrategy.com
129	Murakami	Kazuhiro	Kyocera Corporation	Same	Not Applicable	Not Applicable	www.kyocera.co.jp
130	Murphy	Peter A.	Intel Corp.	Same	Not applicable	Not applicable	www.intel.com
131	Naaman	Laith	Intel Corp.	Same	Not Applicable	Not Applicable	www.intel.com
132	Nabar	Rohit	Marvell Semiconductor Inc	Same			www.marvell.com
133	Nagai	Yukimasa	Mitsubishi Electric	Same	Not Applicable	Not Applicable	www.mitsubishielectric.co.jp/
134	Nagaraj	Shirish	Motorola	Same	Not Applicable	Not Applicable	www.motorola.com
135	Naguib	Ayman	Qualcomm Inc.	Same	Not Applicable	Not Applicable	www.qualcomm.com

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	Last Name	First Name	Employer	Affiliation	Ultimate Parent of Employer	Ultimate Parent of Affiliation	URL1
136	Naidu	Mullaguru	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	www.qualcomm. com
137	Nakamura	Kenichi	Fujitsu Limited	Same	Not Applicable	Not Applicable	www.fujitsu.com/global/
138	Nakamura	Tetsuya	NTT MCL Inc.	same	NTT Corp.	Not Applicable	www.nttmcl.com
139	Nakano	Shinji	Kyocera Corp.	Same	Not Applicable	Not Applicable	www.kyocera.co.jp
140	Navidi	Pierre	XG Stream Ltd	OAK GLOBAL SA	Not Applicable	Not Applicable	
141	Ngo	Chiu	Samsung Electronics	Same	N/A	N/A	www.samsung.com
142	Nguyen	Nha	Bussey Consulting Services, Inc.	Qualcomm	Chris J Bussey	Not Applicable	www.qualcomm.com
143	Noh	Taegyun	ETRI	Same	Not Applicable	Not Applicable	www.etri.re.kr
144	Novick	Fred	Bussey Consulting Services, Inc.	Qualcomm	Chris J Bussey	Not Applicable	www.qualcomm.com
145	O'Brien	Francis E.	Lucent Technologies	Same	Lucent Technologies	Not applicable	www.lucent.com
146	Odlyzko	Paul	Motorola	same	Not Applicable	Not Applicable	
147	Oguma	Hiroshi	Industrial Technology Institute Miyagi Prefecture Government	Tohuku University	Not Applicable	Not Applicable	www.mit.pref.miyagi.jp
148	Oh	Changyoon	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
149	Oprescu	Val	Motorola, Inc.	Same	Not Applicable	Not Applicable	www.motorola.com
150	Palanivelu	Arul	Marvell Semiconductor Inc	Same			www.marvell.com
151	Panicker	John	NORTEL	Same	Not Applicable	Not Applicable	www.nortel.com
152	Park	Chul	ETRI(Electronics and Telecommunications Research Institute)	Same	Not Applicable	Not Applicable	www.etri.re.kr
153	Park	DS	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
154	Park	Jeongho	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
155	Park	Sung-Eun	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
156	Park	Won-Hyoung	SK Telecom	Same	Not Applicable	Not Applicable	www.sktelecom.com

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	Last Name	First Name	Employer	Affiliation	Ultimate Parent of Employer	Ultimate Parent of Affiliation	URL1
157	Patel	Chirag S.	Qualcomm	Same	Not Applicable	Not Applicable	www.qualcomm.com
158	Patzer	Steve	Intel Corp.	SAME	Not Applicable	Not Applicable	
159	Pearson	Orlett	Alcatel-Lucent	Same	Not Applicable	Not Applicable	
160	Pfann	Eugen	University of Strathclyde	same	not applicable	not applicable	www.strath.ac.uk
161	Pirhonen	Riku	Nokia Siemens Networks	Same	Nokia	Not Applicable	www.nokiasiemensnetworks.com
162	Pittampalli	Eshwar	Lucent Technologies	Same	Not Applicable	Not Applicable	www.lucent.com
163	Poisson	Sebastien	Oasis Wireless Inc	Qualcomm	N/A	N/A	www.oasiswireless.net
164	Prakash	Rajat	Qualcomm Inc	Same	Not Applicable	Not Applicable	www.qualcomm.com
165	Preece	Rob	Bussey Consulting Services, Inc.	Qualcomm	Chris J Bussey	Not Applicable	www.qualcomm.com
166	Puthenkulam	Jose	Intel Corporation	Same	Not Applicable	Not Applicable	www.intel.com
167	Qian	Xiaoshu	Intel Corporation	Same	N/A	N/A	www.intel.com
168	Ragsdale	Jim	Ericsson Inc	Telefon AB - L.M. Ericsson	Telefon AB - L.M. Ericsson	same	www.ericsson.com/us
169	Rajadurai	Rajavelsamy	Samsung India Software Operations Private Limited	Same	Samsung Electronics Company	Same	www.samsungindiasoft.com
170	Rajkumar	Ajay	Lucent Technologies Inc.	Same			www.lucent.com
171	Sampath	Hemanth	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	
172	Sano	Masato	Kyocera Corp.	Same	Not Applicable	Not Applicable	www.kyocera.co.jp
173	Santhanakrishnan	Anand	Stevens Institute of Technology	Same	Not Applicable	Not Applicable	www.stevens.edu
174	Sasaki	Shigenobu	Niigata University	Same	Not applicable	Not Applicable	www.niigata-u.ac.jp
175	Seo	Bangwon	ETRI	Same	Not Applicable	Not Applicable	www.etri.re.kr
176	Shields	Judy	LADCOMM	Qualcomm	NA	NA	
177	Shively	David	Cingular Wireless	Same	AT&T / BellSouth	Same	www.cingular.com

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

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

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	Last Name	First Name	Employer	Affiliation	Ultimate Parent of Employer	Ultimate Parent of Affiliation	URL1
218	Yuza	Masaaki	NEC Infrontia Corp.	same	NEC Corp.	Not Applicable	www.necinfrontia.co.jp
219	Zhang	Xin	Qualcomm	Same	Not Applicable	Not Applicable	www.qualcomm.com
220	Zhou	Yan	Qualcomm	Same	Not Applicable	Not Applicable	www.qualcomm.com
221	Zhu	Peiying	Nortel	Same	Not Applicable	Not Applicable	www.nortel.com
222							
223							