Project	**IEEE 802.20 Working Group on Mobile Broadband Wireless Access** **<http://grouper.ieee.org/groups/802/20/>**
Title	**Draft Meeting Minutes, 802.20 Plenary Meeting - Session #21, Dallas, Texas, USA, Nov 12-17, 2006**
Date Submitted	**2006-11-30**
Source(s)	Yvette Ho Sang, as acting Recording Secretary for the session IEEE Standards Association 445 Hoes Lane Piscataway, NJ 08854 Email: y.hosang@ieee.org
Re:	**802.20 Session#21**
Abstract	Draft of the Minutes of the Session #21;
Purpose	Minutes of the Session.
Notice	This document has been prepared to assist the IEEE 802.20 Working Group. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.
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Patent Policy	The contributor is familiar with IEEE patent policy, as outlined in Section 6.3 of the IEEE-SA Standards Board Operations Manual <http://standards.ieee.org/guides/opman/sect6.html#6.3> and in *Understanding Patent Issues During IEEE Standards Development* <http://standards.ieee.org/board/pat/guide.html>.

Draft - Meeting Minutes of the 802.20 Session #21

Nov 12─17, 2006
Dallas, Texas USA
Yvette Ho Sang, as Acting Recording Secretary

The 21st session of 802.20 was held at the Nov 2006 Plenary meeting of IEEE 802.

Contributions and WG documents referenced in these minutes can be found at the 802.20 website, http://www.ieee802.org/20/

See the Appendix A-1 for the overall session attendance and participation credit list.
See the Appendix A-2 for the affiliation statements submitted.
See Appendix A-3 for the Chair's opening remarks.

Minutes of 802.20 Monday Nov 13, 2006

Meeting started at 1:40 pm.

A Call for Patents was conducted by Chair Arnie Greenspan with presentation of the patent slides found at http://standards.ieee.org/board/pat/index.html.

Opening Remarks by the Chair included an introduction outlining Chair's plans and approach for conducting the business of 802.20 (see http://standards.ieee.org/announcements/pr_80220chair.html). Chair Greenspan also reminded the working group of rules meant to uphold the imperative principles (see http://standards.ieee.org/guides/companion/part1.html#imperatives) and to eliminate positive or negative dominance. The attendees were also reminded of the rules for openness, ethics and responsibility and referred to the Policies and Procedures of IEEE 802 as well as IEEE requirements.

The Chair requested that all participants introduce themselves by giving their names, affiliations, and interest in the committee.

Session break from 3:00 PM to 3:30 PM

Session resumed at 3:45 PM.

Current issues relating to IEEE P802.20 were discussed. The Chair noted that there was a need to select new officers for 802.20 which would be addressed over time. The Chair also noted that there was a current perception that the processes in the working group were not open. The issues will need to be addressed and the perception removed. If there was any support for this perception, things would be changed. Alternatively, if these perceptions were baseless 802.20 would need to prove it.

At the present time the ballot is terminated. A decision will need to be made whether to reopen the technology selection, evaluate the submissions, reach a level of consensus,

make changes as needed, then arrive at a technology that is defensible and will result in the publication of a standard.

Opinions on the various documents would be solicited by the Chair. The Chair noted that he would take roll call straw polls to get a sense of group on the following documents:

System Requirements
Channel Models
Evaluation Criteria
Technology Selection
WG Project Development Plan
Policies and Procedures

The Chair noted that there were concerns about the technology selection process. He explained that the draft that had been sent for ballot was stopped. It will need to be determined whether the draft can go ahead to ballot. If not, the draft will need to be revised before going ahead. The Chair then made a request for issues or concerns about each document.

Discussion on System Requirements

The following concerns were raised with regard to the System Requirements document:

- Need to review the Requirements document for ambiguities. Also need to identify areas for clarification and be specific about changes.

Discussion on Channel Modeling

The following concerns were raised with regard to the Channel Modeling document:

- It is not clear when models are being used. Need to outline rationale for use of models so all members can understand.

- There was extensive discussion on channel models by the working group previously.

Discussion on Traffic Modeling and Evaluation Criteria

The following concerns were raised with regard to the Evaluation Criteria document:

- How do you compare technologies? Need to define specific criteria (performance in terms of special efficiencies).

Discussion on Technology Selection Process

The following concerns were raised with regard to the Technology Selection Process document:

- Technology Selection Process (TSP) should be reviewed because it is burdensome for anyone putting in a proposal—require that they more or less draft a standard for the submission.

- There were changes during the interim meeting that needs to be re-examined.

- The TSP document does not entertain partial proposals. Section 3.4 needs to correlate with the IEEE 802.20 WG P&P.

- Need to review the requirement for 250 km/h. There are no requirements to show performance complying with requirements on the PAR.

- Need to look at the relationship between requirements as stated in the Evaluation Criteria. There were two reports talked about in the criteria. Report 2 has the 250 km/h requirement.

Draft Standard

The following status or concerns were raised with regard to the draft P802.20 document:

- The letter ballot has been reset.

- Need an interpretation of the ruling "IEEE 802 EC chair will determine when any balloting will begin."

WG P&P

The following status or concerns were raised with regard to the IEEE 802.20 WG P&P document:

- Section 9 is informative. The informative section should be removed and normative sections applied.

A request was made to very briefly state the subject of the ongoing appeals to get a feel for what we are doing and where we are going, as well as to determine how the group will be impacted by any appeals decision.

The Chair explained that the following were under appeal:

1) Appeal that ballot was stopped
2) Appeal the removal of the officers

Regardless of appeals, any discussion should put us in a better shape to move forward.

PAR extension for 6 months is on the December IEEE-SA Standards Board agenda for the New Standards Committee (NesCom) recommendation. If all goes well during the week, it is most likely that the PAR will be approved.

It was noted that the group will need more than 6 months to do its work.

The Chair noted that a declaration of affiliation was required in order to grant participation credit and voting rights (see C802.20-06/28). The Declaration of Affiliation form is available as document 802.20-PD-11.

The Chair informed the group that an ombudsman is now available (see C802.20-06/29) for anyone with concerns about procedures within IEEE 802. Participants can contact the ombudsman by email 802ombudsman@ieee.org.

Session recessed at 4:25 PM.

Minutes of 802.20 Tuesday Nov 14, 2006

Meeting started at 8:05 AM.

An attendance software demonstration was conducted to help facilitate the sign-in process. The Chair reminded the group that the system depends on the integrity of attendees to sign in when they are attending the meeting. Any effort to manipulate the system may result in loss of privileges.

First-time attendees who were not present at the previous introduction were asked to give their names, affiliations, and reason for participating in IEEE 802.20.

The group reviewed the status of IEEE 802.20 appeals (see C802.20-06/30).

The group then reviewed all PARs that were pending IEEE 802 Executive Committee (EC) approval:

- P802.1AB revision PAR
- P802.1Qav
- P802.1Qaw
- P802.15.4d
- P802.16m

The only PAR the IEEE 802.20 working group commented upon was P802.16m. Comments are listed below:

- IMT Advanced project is due to start in future and expected to take several years. IEEE 802.20 may also develop submissions for IMT Advanced. From wording of PAR, we are not sure if other projects can submit a proposal to IMT Advanced. In addition, is a mandatory liaison also necessary?

- Section 7.1 of proposed PAR should revise wording so that other groups are not prevented from submitting to IMT Advanced. This should be clear in the PAR.

- Implication of this PAR is that this is the IEEE 802 IMT Advanced submission, which is not accurate. Submission should be 802-wide so the scope of any one PAR should not be that narrow.

- The PAR says that other SDOs may develop proposals. It does not necessarily preclude other submissions.

- IEEE 802.16 can't anticipate work from other working groups. Currently, IEEE 802.16 is the only group currently working on IMT Advanced.

- IEEE 802.20 does not currently have IMT Advanced as part of the requirements for the IEEE 802.20 draft.

- All requirements are not known for IMT Advanced. All we have is a framework. IEEE 802.20 may currently meet some of the requirements of IMT Advanced. This can be true of IEEE 802.11 and IEEE 802.22 also. Along with IEEE 802.16, these working groups may have submissions to ITU for IMT Advanced.

- ITU IMT Advanced is a long-term project. The IMT Advanced group is currently setting the requirements. The IEEE 802.16 PAR potentially eliminates all projects that have possible involvement in the future. This PAR only addresses IEEE 802.16 work and not that of other groups.

The Chair noted that all comments from the IEEE 802.20 working group would be compiled and sent to the IEEE 802.16 working group for resolution. It was requested that the Chair note that only 60% of the IEEE 802.20 working group had issues with the IEEE P802.16m PAR.

The working group discussed the System Requirements document (802.20-PD-06r1). The Chair asked that fatal flaws be identified.

System Requirements Document (SRD)

The following comments criticizing and/or supporting the SRD were presented by working group members (see also C802.20-06-31).

- **Page 5, bottom, italic text:** The standard is supposed to support mobility classes. **Page 11, section 4:** Spectral efficiency is defined. **Table 4-1** should be enhanced up to 250 km/h. All we say about mobility is that the AI shall support different rates of mobility (i.e., able to pump data through). Paragraph in **Section 4.1.6** is self contradictory. The paragraph states the data rates but it says that these are targets rather than hard limits. The data rates are independent of channel conditions, traffic loading, and system architecture. Will we apply these data rates to moving vehicle? Clarification is needed to explain what we need to do for high-speed mobility.

- Mobility for 250 km/h is not addressed in any other document, which implies that it is not required for evaluations.

- The working group does not need to put more effort in the SRD. The SRD states that there should be graceful degradation up to 250 km/h, which is the metric established. The peak rate is peak, which is the highest you can get. Mobility of 250 km/h is in one of the other required documents.

- Mobility requirements are specified in the IEEE P802.20 PAR. The working group needs to take care of ambiguities that caused delay in development activities.

The core requirements should be met. We have a conflict that needs to be taken care of because it is only partially addressed in other documents.

- **Table 4-3** are absolute numbers (may not ever be used). These values can't be met in a real environment (peak under best conditions). There may be some ambiguities, but the intent is not to over constrain the curve.

- **Table 4-2** shows possible assignments. Since there are 5 possible assignments, there is no specification for a mandatory bandwidth. It is difficult to evaluate proposals in this case. The working group needs to coordinate FDD and TDD systems in order to match up the systems to each other.

- The ambiguities were allowed so that those who proposed technology would be granted flexibility to propose things that meet particular needs of the IEEE 802.20 document.

- **Section 4.1.2** says that the AI shall support at least one of the sizes. There is no requirement on bandwidth and so the standard doesn't have to support all bandwidths.

- The requirements are well defined. The objective of the working group was to establish requirements without prejudging technology solutions. It is important to note that the block assignments for TDD are in one band, which provides flexibility to provide either TDD or FDD options.

- The goal is to allow flexibility and avoid precluding others. The document is intended to be the basis on which to compare technology proposals and not how to build products.

- The issue is flexibility vs. ambiguity. With the current draft, there are 1033 options/combinations. It is difficult to evaluate all possibilities, especially when each bandwidth has various options. It would be better to require a mandatory bandwidth to simplify the evaluation process.

- **Section 4.1.2** may be clear but if compared with the PAR, there is conflict. There are inconsistencies throughout the document and the PAR.

- It is not possible to use **Table 4.3** for all conditions.

- **Section 4.1.4** has peak data rates that are independent of channel conditions, traffic loading, and system architecture. This is peak data rate given as mathematical numbers based on best conditions. This is not what you see in the fields. Channel bandwidths are part of the Evaluation document, not the Requirements document.

- The group had to consider multiple proponents with different characteristics to reach a compromise.

- The document needs to be able to stand on its own. All verbiage should be clear about what it means.

- Decisions were made by the working group during past session discussions. Maybe the group can use the interpretation system to handle issues for those who were not there during the working group discussion.

- The working group differentiated itself from IEEE 802.16 based on the mobility factors. Support of different mobility factors is what differentiates it from other PARs. This document is used to evaluate technology. Any ambiguities create problems with evaluating technologies that are proposed. Most of the results were for lower rather than higher mobilities. The documents should be fixed so that the working group will be better able to evaluate technologies.

- **Table 4.3** shows block assignments, not channel rates. This is not a combinatorial issue. It is a freedom of design issue.

- The peak data rate description is in Appendix A on page 23.

- Note that a description of block assignments can be found in the appendix at the rear of the document. The appendix has definitions that eliminate misunderstanding. See the definition of block assignment.

- Vehicular speed is the key distinguishing factor in IEEE 802.20. At the time the working group was not sure whether to propose a single or multi-carrier system. The requirement for 250 km/h is to ensure that the system wouldn't break at that speed.

- The working group was not provided proof that no breaks will occur at 250 km/h. An explanation is needed for what technology is proposed/evaluated/approved.

- The evaluation criteria document defines what needs to be provided. There is performance data required for 250 km/h.

- Proposals may have some simulation data but may not have sufficient data to ensure performance at 250 km/h. We may not be evaluating sufficiently at this high mobility.

- The scope of the Requirements document gives a general description of performance requirements. The document talks about performance requirements later (**Sections 4.2.5.2 and 4.2.5.3**). There is a need to explain system requirements and performance requirements. Need to define whether the information is normative

or informative. Clarification is needed. The working group can also look for examples that show how the classification is done.

- **Section 4.2.5** explains requirements for the subclauses below. The standard will have minimum performance requirements.

- Clarification is needed for the questions, "Do we have an agreement that RF spec requirements are a part of the system requirements? Are they separate or informative?"

- **Section 4.2.5** has requirement, i.e., that minimum performance specifications will be listed in the standard.

- The document needs to use "shall" for requirements. Need to determine if statements are part of the base or for regulatory requirements.

- The requirements document should remain in its current form. The document is sufficiently clear and is a good foundation for subsequent work that will follow. Clarifications can be referred back to the working group. The areas of block assignments and graceful degradation to 250 km/h are addressed in the document for development in subsequent documents and in the technology selection.

The Chair asked that the working group determine whether subsequent documents have inconsistencies based on these issues. There was no indication that this was true by the working group.

A motion was made on the possibility of creating a clarifying appendix to the Evaluation document to address ambiguities. The Chair indicated that a straw poll would be conducted after the break.

Session break from 10:15 AM to 10:45 AM

Session resumed at 10:47 AM.

Discussion continued on the SRD:

- **Page 16, Section 4.2.1** shows that there is a need to look at throughput or packet error rate. Need to explain what "optimize" means.

- **Section 4.2.1** was created so that proposals would be allowed to optimize or support optimization. The Evaluation document has the error rates and throughputs.

- **Section 4.2.1** does not speak to comparing one technology to another. A link is needed (e.g., 2nd paragraph of 4.2.1). The information is generally based on the error-rate method.

A straw poll was conducted on the following question:

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Roll Call Straw Poll Question 1: Establish a second ongoing document that will provide clarification on questions of interpretation raised with respect to the 802.20 SRD.

Moved: Mark Klerer
Seconded: Jerry Upton

Results: 57 Yes, 35 No, 12 Abstain

Time: 11:30 am
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Comments on the IEEE P802.16m PAR were solicited for submittal to the IEEE 802.16 working group (see C802.20-06/32).

Session break from 12:00 PM to 1:30 PM

Session resumed at 1:35 PM.

The working group discussed the Channel Models document (802.20-PD-08). The Chair asked that fatal flaws be identified.

Channel Models document (CMD)

- **Table 2-1-1** and other tables have editor's notes that are still in some of the tables.

- **Section 3.6** references **Sections 6 and 7**. However, Sections 6 and 7 do not provide the information referenced in this clause. The channel model should have randomness that is modeling the distance between each user and the bay station. Each user can have a different profile. How will implementers deal with delays and delay profiles, given the channel matrix? Will these be different for each user?

- When is the method in **Section 6** used to evaluate proposals vs. the method in **Section 7**? If this is not specified, how can the working group compare proposal data?

- **Section 5.5, Table 5.5-1** has an empty column. The column was previously used for typical urban channel. Why was this removed?

A presentation (see C802.20-06/33) by Ayman Naguib was given on the Channel Models document (802.20-PD-08).

Discussions continued after the presentation. The following comments criticizing and/or supporting the CMD were presented by working group members (see also C802.20-06/34):

- Compromises were built around easing the burden on submitting proposals. If the submitter can do complex simulation, that's fine. If the submitter does simpler simulations, that is okay also.

- The SCM approach is more complex, but provides better fidelity and more reliability. Best practices should be used by the working group..

- There are two fundamental constraints associated with using the ITU channel model for SISO. The working group wanted to compare to large volume of historical data. In addition, there was a need for the channel models to collapse MIMO to SISO.

- The 3GPP/PP2 model represents a good effort that can be used by our working group. Since we are addressing realistic mobile environments, the models are by definition different from the ITU SISO model. Is it important to trade off realistic data rather than being able to evaluate the channel model for real performance? The original ITU channel models were not sufficient. The ITU is currently undergoing revision to support the MIMO channel model.

- The channel model should only contain the SCM. If you use the SCM model you cannot collapse to an ITU model.

- It is a reasonable methodology to compare multi- and single-channel models.

- The SCM may be more precise, but as far as using it as a tool to compare, it does not model. The working group specified that it wanted to collapse MIMO to SISO to compare results. This is a practical approach.

- It would have been possible to adopt models that would have prejudged technology choices. Instead, the working group worked to develop documents that allowed the ability to compare credible proposals with other proposals.

- An advantage is that it is a lot easier to do mapping with stated procedures. The ability to reproduce the results is very difficult with the SCM model.

- All the power delay profiles in the simulation are ITU channels.

- **Section 3.3** outlines an approach for MIMO channels.

- The document does not emphasize 250 km/h and mobility classes beyond 150 km/h. The Channel Model document has to support the higher mobility.

- **Section 6** does not clearly define parameters.

- **Section 2.1** contains the speed row. **Section 3.6.2** describes the correlation matrix for the MIMO method.

- The document needs to show the percentage of mobility that shows mobility higher than 250 km/h, and it needs to outline what carrier frequency.

- The result in the current draft is a compromise of the working group (deterministic vs. simulation model).

- Choosing a method in Section 6 vs. 7 means that you are not able to compare the results.

- It doesn't matter which is chosen (Section 6 or 7) since the correlation matrix has to be submitted.

Session break from 2:50 PM to 3:15 PM

Session resumed at 3:17 PM.

A roll call straw poll was conducted on the following question:

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Roll Call Straw Poll Question 2: Establish a second ongoing document that will provide clarification on questions of interpretation raised with respect to the 802.20-PD-08 document (Channel Models).

Moved: Jim Tomcik
Seconded: Jerry Upton

Results: 53 Yes, 36 No, 9 Abstain

Time: 4:00 pm
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Review of Technology Selection Process (TSP) document

The working group discussed the TSP document (802.20-PD-08). The Chair asked that a volunteer identify fatal flaws in the document and present the information on Wednesday. Al Jette was assigned this action.

Action Item: Al Jette will review the document for discussion on Wednesday, November 15, 2006.

The Chair invited the working group to have an open discussion.

Question: What is game plan?
Chair: To determine if documents are flawed, then we would revise them. If the documents only require clarifications, then the documents may be appropriate to go forward.

Session recessed at 6:00 PM

Minutes of 802.20 Wednesday Nov 15, 2006

Meeting started at 8:07 AM.

The IEEE 802.16 working group responded to comments from various IEEE 802 working groups (see http://ieee802.org/secmail/msg08814.html). Some IEEE 802.20 working group participants noted that their concerns were not addressed in the changes made to the PAR.

The working group discussed the Evaluation Criteria document (802.20-PD-09). The following comments criticizing and/or supporting the ECD were presented by working group members.

Evaluation Criteria document (ECD)

Anna Tee gave a presentation on the Evaluation Criteria document (see C802.20-06/35).

The presentation and discussion focused first on traffic modeling and then on the evaluation criteria.

Slide 2 –Issue 1

Traffic Modeling

- The link balance on forward and reverse links is problematic.

- Other wireless LAN models exist where there are no mandatory traffic model mix so IEEE 802.20 is ahead of them.

- For the traffic mix, load is not significant.

- Last point on third slide is valid (i.e., include consideration of actual deployment scenario, e.g., amount of guard bands required between adjacent carriers). The standard has upload technology, but the FTP/HTTP void uplink needs to be evaluated. Evaluation should occur for the downward traffic link.

- The 3GPP group has testing for the reverse link. It is possible to have file upload with voice over IP (VoIP). The traffic modeling doesn't simulate any scenario—there is low balancing. The purpose of using traffic link is modeling more realistic user environment. The document has uplink as only VoIP. In a previous version of the document (Table 7B; version 17R1), VoIP is 25% and has other types of traffic applications.

- Every mix has its disadvantages. A large mix is difficult to evaluate. The mix in 3GPP is not mandatory. There is no need to simulate the entire mix to evaluate performance.

- Different users in mixture not captured in evaluation.

- The document does not say that you don't have models for reverse link. In **Section 5.2.1.2.1**, there is information for evaluating reverse link.

- TCP is not required in the current version.

- The purpose of traffic modeling was to allow comparison of different submissions.

- There are models for both uplink and downlink. Performance analysis, however, should consider uplinks other than TCPI.

- Additional simulation will not give any significant advantages.

- The document does not balance uplink and downlink requirements. The requirements will need to adjust to changes in technology from mainly voice to email, and inclusion of other traffic models.

Session break from 9:35 AM to 10:00 AM

Session resumed at 10:05 AM.

Discussion on the ECD continued. The following comments criticizing and/or supporting the ECD were presented by working group members.

Evaluation Criteria document

Slide 3 –Issue 1

- Spectral efficiency is a requirement that enables us to not have to look at all channel sizes. It is trivial to extrapolate for 2×16.

- **Section 15** is an explanation of the requirement. The requirement is to support one of the block assignments in the SRD. There is freedom to stipulate a block assignment for that proposal, but the criteria need to be given.

- The working group didn't want to force the requirement to do several simulations, which would make it difficult for submitters. Instead, the document made it only necessary to do the block assignment chosen.

- The working group can do comparison using the occupied block size. Spectral efficiency is defined as normalized per hertz.

- **Section 15** leaves flexibility but is vague on what it means to "justify" the ability. It is not clear what to specify in justifying ability to support the specified number of carriers within the spectrum allocation specified.

- What has to be specified is technology dependent.

- A template is included with the submission. Submitters include peak data rate in 1.25 MHz and 5 MHz. This can be extended to other block sizes, but these two are required.

- Need to specify required block assignment sizes. These are not specified in **Section 15**.

Slide 3 - Issue 2

- System-level performance needs to be specified.

- On page 36, Table 15 and Section 9.1, the bulleted list covers system-level performance.

- For **Table 16**, users = 0 for 250 km/h. In addition, Scenarios 1 and 2 have 250 km/h as zero.

- The Channel Model mix is specified for system simulations. The probability is 0. At the bottom of page 38, it says that 250 km/h is required.

- The question is, "What is the probability of someone driving at 250 km/h in suburban macro cells?" Not likely and would not affect performance greatly.

- These are representative of a combination of users in different system environments. The 250 km/h is for special purpose application (e.g., airplanes and trains). It is not effective to include them in mix with other users, and so the 250 km/h is required separately.

- The 250 km/h is needed to show that you can maintain connectivity. This cannot be shown if set to zero. Doing so overestimates throughput.

- There is no fixed performance required, only that connectivity is maintained. The reason the working group went to zero in mix is that 1% for 250 km/h is swamped by other data and takes a long time to get stable statistics. It is better to show that connectivity can be maintained separately by showing what you can do at that speed.

- The second to last paragraph on **page 38** explains the rationale for using zero.

- Making 250 km/h a larger percentage than 1% would be unrealistic. The link curve can be used to evaluate 250 km/h traffic. For systems more targeted to higher speed, then you would be able to allocate a greater percentage.

- It might be possible to shift percentages from 120 km/h (set at 8%) to the 250 km/h.

- Requirements have to be achieved collectively, not separately.

- Cases are never simultaneous. There is no way to guarantee all cases at the same time. The system just needs to show that it can maintain connectivity, not even establish the connectivity. Just need to maintain connectivity once you have it. We are not trying to represent ultimate reality. The purpose of the document is to compare technologies. The document is good for that purpose.

- The Evaluation Criteria has to be realistic because this is the document that has to be met. A 1% for 250 km/h is worst case, so at a minimum you have to support that mobility.

- **Section 4.1.1, Table 4-1** of the Requirements document, shows that there are no absolute requirements to be met under all conditions. Page 38 of the Evaluation document covers the basis.

- Asking for the link curve gives much more information.

- The corner case would have 250 km/h with other traffic mixes. Having it non-zero no matter what mix is important. It is important to know what causes problems if servicing 250 km/h users.

- The problems are equipment-related and involve decision making by equipment that may have nothing to do with the air interface.

- Look at **Section 4.1.4** of the Requirements document. This clause states that IEEE 802.20 shall support up to 250 km/h. By putting the value to zero, are we meeting that requirement?

- Scenario 2 at end of **Section 9** gives limitation in using model. The speed gives 30 then nothing up to 120, but note that 60 km/h is common in urban areas.

- Having120 km/h on micro cell is not likely. To understand what is going on, we've specified two scenarios at 100%, which tells us what is going on in the system.

Slide 4 Issue 3: Link curves

- System-level simulation is important. Connectivity should be maintained at high mobility (250 km/h). This is not evaluated sufficiently.

- Nobody has produced a simulation of model of handoff extensive enough to evaluate alternatives. This has to be dealt with in the details of how the proposal works. Submitters have to say how the system works and give information on MAC operation. Only then can you assess how the MAC works. On a case-by-case basis, you determine what questions need to be answered for the specific technology. This is very subjective and specific to each proposal.

- The 250 km/h performance is not simply where a simulation is sufficient. There are several points of information requested to give us insight to evaluate the system.

- How do you evaluate dynamics in the system? The simulation's purpose is to show the dynamics. **Table 13** in the Requirements document does not show 250 km/h.

- Could have the receiver system determine if the frequency parameter is limited (no presence of high speed).

Session break from 12:00 PM to 1:30 PM

Session resumed at 1:40 PM.

Evaluation Criteria document (cont'd)

Slide 5 and Appendix slides Issue 4: Consider phased approach

- Do not have adequate simulation and calibration data for comparison of proposals.

- The document has a phased approach as shown in **Table 15** of the Evaluation document.

- Models are being run on a TCP platform, so TCP is included.

- Phasing introduces artificial delays. Reports 1 and 2 were created to allow evaluation without separate phases.

- The paragraph above **Table 3** in the Evaluation document clearly states that "The underlying transport protocol for FTP is TCP."

A suggestion was made to take the discussion offline to make documents consistent.

The following was submitted as a roll call straw poll question:

Question: Does the Evaluation Criteria document (802.20-PD-09) establish performance criteria and a framework in which candidate IEEE 802.20 technology-proposals should be evaluated?

The Chair noted that the purpose of the question is to reaffirm the document, or not.

****
Roll Call Straw Poll Question 3: Does the Evaluation Criteria document (802.20-PD-09) establish performance criteria and a framework in which candidate IEEE 802.20 technology proposals should be evaluated?

Moved: Joanne Wilson
Seconded: Doug Knisely

Results: 70 Yes, 17 No, 17 Abstain

Time: 2:45 pm
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Session break from 2:45 PM to 3:15 PM

Session resumed at 3:15 PM.

The following was submitted as a straw poll question:

Question:

Is the current 802.20 Evaluation Criteria document insufficient and inadequate for evaluation of proposals with respect to the 802.20 system requirements document, e.g., support of high mobility classes?

The Chair explained that members may need to consider whether it might be appropriate to abstain if the question was not clear. Members of the working group indicated that this might be appropriate because they did not understand the question.

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Roll Call Straw Poll Question 4: Is the current 802.20 Evaluation Criteria document insufficient and inadequate for evaluation of proposals with respect to the 802.20 system requirements document, e.g., support of high mobility classes?

Mover: Sassan Ahmadi
Seconded: Anna Tee

Result: 39 Yes, 45 No, 22 Abstain

Time: 4:00 pm
****

- Request that those offering changes to the motion explain how the change would affect their vote.
- Some evaluations are not addressed in the Evaluation Criteria document even if they are in the Requirements document.
- Question was to determine the relevancy of how well the Evaluation Criteria reflected the important requirements in the Requirements document.
- It is important to have questions that are understood by members of the WG.

The Chair pointed out that in spite of the group's best effort, the working group could not get a question that everyone understood.

<u>Technology Selection Process Document</u>

A presentation was made by Al Jette (see C802.20-06/36). The following comments criticizing and/or supporting the TSP were presented by working group members.

- **Section 3.4.1** states that "The working group shall eliminate from consideration all proposals that do not obtain at least 35% support of the ballots cast." Other TSPs allow 25%.

- **Item 9 of Sectin 3.4.1** indicates that having attained 75% support, the prevailing proposal will be adopted as the initial technical specification of IEEE 802.20 without further vote. **Item 10 of Section 3.4.1** indicates that the IEEE 802.20 Editor shall prepare Draft 1.0 from this technical specification. The Draft 1.0 shall be forwarded to the working group for letter ballot. Other TSPs allow documents to go back to the working group for a vote before progressing.

- **Section 3.3.3 item d)** states that any remaining partial proposals, after the initial selection voting, that are not merged with a complete proposal shall not be considered further during the selection process. This causes partial proposals to fall off and not be given proper consideration.

- **Section 3.2** describes the requirements for a proposal package.

- A Proposal Package is a set of documents and presentations submitted for consideration of the 802.20 Working Group. The lead in to the list states that "A proposal package shall contain at minimum, the following:"

- The proposal package requirements are onerous and not enough time was given for preparation of the package. Other groups allow at least 90 days (e.g., 802.11).

- The selection process discouraged contributions by requesting what turns out to be a draft standard (e.g., proposal submitted had 900 pages).

****

Roll Call Straw Poll Question 5: Is the current 802.20 Technology Selection Process document insufficient and inadequate for evaluation of proposals with respect to the 802.20 system requirements document, e.g., support of high mobility classes?

Mover: Sassan Ahmadi
Seconded: Anna Tee

Result: 39 Yes, 45 No, 22 Abstain

Time: 5:10 pm
****

Session recessed at 5:12 PM.

Minutes of 802.20 Thursday Nov 16, 2006

Meeting started at 8:15 AM.

The following question was proposed by the Chair:

Question: Should the IEEE 802.20 PAR be extended?

The following issues and questions were raised by working group members.

Discussion:

- It is difficult to address the question. The working group needs to determine if the documents are flawed. The focus of the group is fundamental issues with documents. It is premature to ask this question until we answer questions with the document. If the document is flawed, then the working group needs to start by looking at proposals and rework the documents.

- If people come to the meeting and try to get membership, then they intend to work on project, so they should want the PAR extended. If someone votes no then they need to give their rationale for attending the meeting.

- The working group is unsure about how the future will pan out. At this point in time, the question is valid.

- Whether the document is continued or restarted, the PAR should be extended.

- Members need an expected timeline to make a decision.

- The working group needs to affirm that the PAR should be extended. Currently the working group members differ on whether the documents should be totally revised or continued.

- There seems to be a lack of willingness to compromise. It is still not evident that there is a clear cut black and white deficiency. The working group has made no admission that there is a problem with zeros in table for high mobility.

The Chair noted that he needed to have a sense of the WG when representing the group at the IEEE-SA Standards Board.

Revised Question: Should the IEEE 802.20 WG reaffirm the prior decision to extend the IEEE 802.20 PAR?

- The question is difficult because if you vote "No" there will be a question as to why you are here. The technology exists in 3GPP, so if the group goes away, then it is not good for the industry.

- The previous extension was not voted on so the question is confusing by saying "prior decision."

- Change the question to “Does the IEEE 802.20 WG reaffirm the prior decision to extend the IEEE 802.20 PAR?”

- Why would someone participate if they did not want to extend the PAR?

Question: Does the IEEE 802.20 WG affirm the extension of the IEEE 802.20 PAR?

- Working group members want progress. However, people see progress in different ways depending on whether you are extending the PAR to 1) work together to help the working group meet its mandate or 2) continue with existing documents.

- The PAR extension will be on the December New Standards Committee (NesCom) agenda. It is inappropriate to review the process of how it got there. The question is whether there is “value” in continuing the work.

- There is resistance to change or compromise, or to develop alternatives to address insufficiencies. Instead, there is resistance to any change. If this is the way that the working group will proceed, then there won’t be a quality standard.

- In the absence of a clear work plan, it is difficult to answer the question. What are we extending the PAR to do? Does it make sense to extend the plan?

****

Roll Call Straw Poll Question 6: Does the IEEE 802.20 WG support the extension of the IEEE P802.20 PAR?

Moved: Arnie Greenspan

Result: 63 Yes, 6 No, 28 Abstain

Time: 9:14 am
****

- It is unlikely to have fruitful discussion on the Technology Selection Process (TSP) document.

- It is necessary to discuss the TSP and P&P documents prior to discussing the draft.

- There will be comments on three other documents (TSP, project plan, and call for proposals).

The Chair made a request for volunteers to fill the role of the Recording Secretary.

Technology Selection Process document

The following comments criticizing and/or supporting the TSP were presented by working group members (see also C802.20-06-37).

- The process at the end of **Section 3, items 9 and 10** could result in several changes between steps without taking a vote of the working group.

- Proposals need to include the technology description template (**Section 3.2**).

- **Page 3, lines 14-16 and the last few lines above item 5** states that by a vote the working group can decide information about a proposal's compliance with the requirements. Compliance should be straightforward and technical (determined by the results in the proposal). Wording should be that there should be a 75% vote to decide compliance.

- In **Section 5**, "consistent" should be "according to." What does "consistent" mean?

- The document is inconsistent as to whether Evaluation Reports 1 and 2 are required. The text in **lines 25-26** conflicts with later text on **p. 4 lines 2-3**, which says that the report "may" be available.

- The text on **page 4, lines 3-4, item c)**, talks about partial proposals. The text states that partial proposals must merge before being carried forward. This is problematic. Partial proposals should be allowed to progress.

- The text on **page 4, lines 32-34**, states that revised proposals need new simulations and would be given time for new simulations to be submitted. No time was given in the project plan. Also, **page 4, lines 36-37**, indicates that review of proposals should take more than one session.

- The statement on **page 5, line 26**, states that the proposal needs to obtain at least 35% approval. This should be changed to 25%.

- At the end of **Section 3, item 9** states that the proposal can "proceed without further vote." A validation phase is missing, which should be done prior to the creation of the draft.

- At the end of **Section 3, item 10** the text infers that the technical specification and draft are two different things. The draft should be forwarded for letter ballot. A validation/voting phase approving the document for ballot is needed.

- **Page 6, lines 3-5**, state that revisions are possible, which indicates that the review should be more than one session.

- There is a severe deterrent to request an entire specification (standard). This is not realistic. **Item 3 of clause 3.2** should be removed.

- The objective of the process is to produce the first draft for the working group letter ballot. For that reason, the restraint on partial proposals was implemented because the working group wouldn't want to choose among partial proposals when it needs to start the letter ballot process. The working group needs a complete draft

as the starting point, which is why there was the request for a full draft proposal or to incorporate the partial proposal into a complete proposal.

- **Section 3.4, items 9 to 10** facilitates the start of the working group letter ballot where errors can be corrected during the ballot.

- Partial proposals were submitted and their acceptance was clearly stated in the document. Only during the down selection process are partial proposals denied.

- Partial proposals can be integrated into a full proposal when submitters collaborate, or during working group ballot where comments suggest integration of a partial proposal.

- This process should be a technology selection process, not a draft selection process. Simulations are appropriate.

- The option is to incorporate proposals on the back end or on the front end of draft development. In the future, incorporating on the back end would be fine. Integration depends on the stage of the process.

- How far back would you need to go to integrate partial proposals? Comments are still open so those sections can be changed.

- The technology cannot be changed at Sponsor ballot. The working group needs to determine if the technology can be appropriately integrated in the draft and project the impact on the remaining technology in the draft. The process should evaluate the general architecture prior to developing the draft. It is more difficult to do so when the draft is already developed.

- The draft was built from the TSP document. If the working group wants to entertain a fair and open process, then it needs to fix the TSP and restart the technology selection.

- The issue is with having a core technology specification as part of the proposal. Other working groups allow white papers, even if it is difficult to see how the technology works. A detailed specification allows people to understand how the technology works.

- The working group ballot is used to incorporate technologies. There are no limits on the extent of the changes or the number of changes during the working group ballot.

- The down selection process in other groups varies from a detailed document to a much more informal process (with or without a vote of the working group).

- The 35% approval noted on **page 5, line 26** is for the initial ballot to determine if the technology is very deficient. It should be noted that members can vote on multiple proposals, so the percentage is not a selection among all the proposals.

- It should be noted that at working group ballot, 75% approval is required to make a change so the bar is much higher at that point.

- As the draft matures, the degrees of freedom decreases. This is a natural progression.

- The ballot resolution group process was not open to the entire working group. This needs to be addressed.

The chair suggested that a revote would be appropriate when changes to the Technology Selection Process document are made.

Session break from 10:00 AM to 10:30 AM

Session resumed at 10:35 AM.

Technology Selection Process document (cont'd)

A presentation was made by Sassan Ahmadi (see C802.20-06/38).

The following comments criticizing and/or supporting the TSP were presented by working group members.

- **Table A-1 in Annex A** in 802.20 PD-10 has an inconsistency between the TSP and SRD documents.

- The SRD requirement is for the finished specification to contain that requirement. There is no requirement that the submission contain that information.

- The SRD is ambiguous as to how the specification document should be handled. Specifications and requirements vary depending on country, bands, etc. The specification of an air interface may not be appropriate to deal with these requirements. Submitters need to create a related document as an add-on to the Technology Specification. The proposal change would be a generalized baseline specification. The other document would be used to describe the application to other environments.

- **Section 4.2.5.2** has the definition of a compliant proposal, which requires that it meets the "shall" entries in the SRD.

- **Section 3.3.1, item b),** states that proposals shall be presented no earlier than 14 days prior to the meeting. There is ambiguity about a "later session." It is not clear how much later. Is it expected that the technology selection would not stop until both reports are received?

- Evaluations must be presented prior to the meeting.

- **Section 3.3.1, item c)** This item should be changed to accept partial proposals in later stages. Partial proposals should be allowed so that the working group can compare them against parts of full proposals.

WG Project Development Plan

The following comments criticizing and/or supporting the WG Project Development Plan were presented by working group members.

- The WG Project Development Plan (802.20 PD-07r1.ppt) allocated time that was not allowed in actuality.

- Entry for drafting the standard spans 2 meetings. The intent was that drafting the standard was a set amount of time, regardless of schedule delays. That time was not granted in actuality.

- The schedule was not met and the working group was behind schedule. The time reduction was an attempt to complete the standard by the targeted date. This would require revising the project plan because maintaining the timeframe would be impossible, given the delays.

- Time was built in for contingencies as in any project plan. However, during delays, there is a need to adjust the time allocated to the activities. The number and extent of the proposals determine how much time would be needed to evaluate the proposals.

- The need to request an extension is not a valid reason to squeeze the project plan. From the plan, the Evaluation Criteria would be approved in March and the call for proposals would be in March. Until the evaluation document was approved, you would not know what was required. There was a very short time given to develop the proposal after the Evaluation document was finalized.

- The original project plan showed the working group's intent, and is what happened in the final timeline (e.g., call for proposals at one meeting and presentations at the next meeting).

- The extra time allowed was for consolidating proposals

The Chair noted that the important question to ask is, "If the baseline slipped, did any actions affect the ability for people to submit full or partial proposals?" The working group did in fact have fewer proposals than anticipated. It could be seen as helpful that there was less time needed, or is it possible that the working group would have gotten more proposals if time allowed?

- Need for clarification as to whether there was an update to the project schedule.

- The current permanent document (802.20-PD-07R1) is the official project plan. There were requests made to submit later because potential proponents did not believe they had enough time to develop their proposals. The project plan had the time built in, so proponents should have been allowed to do so.

- The September meeting had a revised project plan that was not voted on.

- The assumption is that periods of time for activities would remain even with time slippage.

Discussion ensued on what schedule was used for WG activities and whether the working group was operating without a schedule.

The Chair noted that it seems that the official project plan slipped and work continued without an official work plan.

- The working group needs to discuss the call for proposal. The call for proposals had a deadline. Requests by additional proponents for more time was not granted.

Session break from 11:45 AM to 1:30 AM

Session resumed at 1:40 AM.

Comments on the working group policies and procedures, developed by Sassan Ahmadi, were presented (see C802.20-06/39).

Mark Klerer reviewed the comments from ballot resolution of the working group letter ballot process (LB2_Comment_Repository_S1a.xls).

The Chair noted that he reserved the right to look at the comments to get a historical perspective with regard to the comments. No action was being taken. The review was only done as an exercise to get a flavor of the activity within the comment resolution process.

The Chair requested that comments be pulled from both working group letter ballots (see 2006-05-08LB1_Comment_repository_S3.xls and LB2_Comment_Repository_S1a.xls).

The following observations were made during the review of the Letter Ballot comments:

Review of Comment Responses

Suggestions for comments submitted and process of ballot resolution

1. Constitution of comment resolution team

a. Ensure transparency and encourage involvement and input.

b. Results should be documented.

c. Result needs full WG approval.

2. Non-specific comments

Submitter (proponent): Comments have to give specific actions in the document (changes to text) to resolve objection, and cannot be a general instruction to scour document and determine what changes need to be made.

Resolution Group: Request that the submitter provide additional information.

3. Comments asserting that requirements were not met

Submitter: Comments need to identify requirements in the requirements document or another WG document.

Resolution Group: The comment resolution group would have to explain why they disagree with the text in the requirements documents identified or believe that the text was not applicable.

4. Responses does not include rationale for decisions

Resolution Group: Explain rationale behind decisions, e.g., explain why decision made not to add purpose

5. Inclusion of new/different features during ballot

Submitter: Review modification and indicate negative vote if additional information required to analyze input

Resolution Group: New features should be vetted by WG for benefits and disadvantages before accepted by ballot resolution group and including in the draft (e.g., presented to WG)

Unresolved comments

Submitter: Maintain comments as negative in ballot. Explain why previous response was unacceptable.

Resolution Group: Suggest that group contact submitter for specific input.

Discussion on the comments continued:

- The first letter ballot closed in March. The second letter ballot closed in May. Objections were made in May. There was no quorum at that meeting so the issues were not fully closed. Perhaps at a later date with full quorum, the comments might have been addressed.

- In order to address concerns, then Chair Upton wrote to individual voters asking what specific things could be done to change their vote from "No" to "Yes."

- All the information was available so submitters had the opportunity to review the information and perform a technical review.

- All new features had attached papers with the ballot. The papers showed the information relevant to make a vote determination.

Session break from 3:15 PM to 3:45 PM

Session resumed at 3:45 PM.

Discussion continued on the IEEE P802.16m PAR that was revised after considering comments from IEEE 802.20.

- Text is still exclusionary if couple scope with 7.1.

- Delete “aspect of” and change “is expected to be unique within IEEE 802” to “currently, this PAR is unique within IEEE 802.”

- There are no current requirements for IMT Advanced, so nobody knows which standards will be able to meet the final requirements of IMT Advanced. In fact, when completed, IEEE 802.20 might meet the requirements or be adjusted to meet the requirements, and should be able to do so.

- Item 7.1 of the PAR should say “yes”
Acknowledge that other standards bodies might submit to IMT-Advanced.

- No project can predict the work of another project. IEEE 802.16 should be able to define the next generation.

- It is possible to provide encouragement for IEEE 802.16 to work with IMT Advanced. However, the language should not hinder IEEE 802.20 from submitting to IMT Advanced.

- The ITU is in the early stages of defining IMT Advanced. The document M1645 is a framework document. Recommendations will be developed to set the requirements.

- IEEE 802.20 is not precluding IEEE 802.16 from supporting IMT Advanced. However, IEEE 802.20 should be able to do likewise later, if and when applicable. IMT Advanced is not specified in M1645, and in fact no requirements exist. There is an overlap in scope of IEEE 802.16 and 802.20 since they both deal with the cellular layer. It is important to remove “aspects of” and “but the scope of this standard is expected to be unique within IEEE 802” because proposal can be submitted from IEEE 802.20.

- Other IEEE 802 projects may submit proposals for IMT Advanced.

- Item 7.4 of the IEEE P802.16m PAR indicates that the scope overlaps other 802 projects.

- The problem is that the scope is tied to submission to ITU-R.

- Uniqueness is extending IEEE 802.16e to IMT Advanced.

- Remove “unique submission to ITU-R.”

- Change item 7.1 to “Yes.” Indicate that the scope of this standard is the extension of IEEE 802.16 to IMT Advanced.

A quick vote using raised hands was taken to see if the IEEE 802.16 PAR needed to be revised.

Result
OK as is: 25
Need to be revised: 44

The Chair asked what remedies might be appropriate and how far back does the working group need to go with respect to the existing draft standard?

****
Roll Call Straw Poll Question 7: Is the base document adequate as a starting point for further fair and equitable consideration of WG ballot?

Mover: Arnie Greenspan

Result: 46 Yes, 35 No, 7 Abstain

Time: 5:30 pm
****

The Chair was asked to explain how he intends to ensure fairness and openness. Chair Greenspan noted that he would ensure that all rules are observed. Rules are explicit in the documents on IEEE Web site. Block voting is inappropriate. There are ways to control block voting. How to repair block voting if it exists is under consideration. The working group needs to address the fact that opposing sides are not talking to each other, but at each other.

The Chair then asked for an indication of who is going to the London meeting. Raised hands indicated that most of the working group will attend. It was noted that the January meeting conflicts with an ITU meeting.

Session adjourned at 5:47 PM.

Appendix A-1

Overall Session Attendance and Participation Credit List

	A	B	I	J	O	P	Q	R	S	T	V	W	X
1	**Last Name**	**First Name**	**Nov06 Voters**	**Jan07 Voters***	**July05**	Sept05	**Nov05**	Jan06	**Mar06**	May06	**Nov 06**	Jan07	**Mar 07**
2	Agis	Edward	M	M			1	1	1	1	1		
3	Agrawal	Avneesh	M	M			1	1	1				
4	Ahmadi	Sassan	M New	M			1		1	1	1		
5	Ahn	Jae Young	M	M			1	1	1	1			
6	Alamouti	Siavash	M	M			1	1	1	1			
7	Alder	Larry	No	No									
8	Ali	Murtaza	M	M			1	1	1				
9	Alphonse	Jean	M	M			1	1	1				
10	Arefi	Reza	M	M			1	1	1	1			
11	Austin	Mark	No	No		1							
12	Bajaj	Rashmi	No	M New					1		1		
13	Barriac	Gwen	M	M	1	1	1	1	1				
14	Basu	Saswata	M New	M New				1	1				
15	Batin	Colin	No	No									
16	Baum	Kevin	M New	M New			1			1			
17	Bavafa	Moussa	M New	M					1	1	1		
18	Bentov	Izhar	No	No			1						
19	Bernstein	Jeffrey	M	M	1	1	1	1	1		1		
20	Bogenfeld	Eckard	No	No					1				
21	Bravin	Nancy	M	M	1	1	1	1	1		1		
22	Burbank	Jack	No	No				1					
23	Bussey	Chris	M	M	1	1	1	1	1		1		
24	Cai	Sean	M	M			1	1	1				
25	Canchi	Radhakrishna	M	M	1	1	1	1	1	1	1		
26	Carlo	Jim	M	M			1	1	1				
27	Carneiro	Edson	M	M	1	1		1	1				
28	Carson	Peter	M	M		1	1	1	1				
29	Castell	Harold P.	M	M	1	1	1	1	1		1		
30	Chae	Suchang	M New	M New					1	1			
31	Chang	Young Bin	M New	M New					1	1			
32	Chen	Michael	No	No			1						
33	Chen	Yao	No	No						1			
34	Chickneas	Jim	M	M	1	1	1	1	1				
35	Chion	Hua Mary	M	M			1	1	1				
36	Cho	Juphil	M New	M				1	1		1		

	A	B	I	J	O	P	Q	R	S	T	V	W	X
37	Cho	Jaeweon	No	No				1					
38	Cho	Soonmi	M New	M New					1	1			
39	Choi	Hyoungjin	M New	M New				1	1				
40	Choi	JoonYoung	No	No				1					
41	Choi	Yang-Seok	M	M			1	1	1	1			
42	Choi	Yun	No	No					1				
43	Chong	Chia-Chin	M	M (New?)			1	1		1			
44	Choo Eng	Yap	No	No									
45	Chun	Jin Young	M	M		1	1	1	1				
46	Chung	Jaeho	M New	M				1	1		1		
47	Cleveland	Joseph	M	M			1	1			1		
48	Comstock	David	M New	M New				1	1	1			
49	Dalal	Neerav	No	No			1						
50	Dean	Chris	M	M	1	1	1	1	1		1		
51	Dodd	Donald	M	M	1	1	1		1				
52	Dorward	Lynne	M	M	1	1	1	1	1				
53	Dunn	Doug	M	M			1	1	1		1		
54	Eilts	Henry	M	M		1	1	1	1	1	1		
55	El-Rayes	Mohamed	M New	M New					1	1			
56	Entzminger	Lindell	No	No									
57	Epstein	Mark	M	M	1	1	1	1	1	1	1		
58	Feder	Peretz	M	M			1	1	1		1		
59	Ferguson	Alistair	M	M	1		1		1				
60	Fong	Mo-Han	No	No			1						
61	Freeland	Graham	M	M			1	1	1		1		
62	Gal	Dan	M	M	1	1	1	1	1				
63	Garcia-Alis	Daniel	M	M	1		1	1	1		1		
64	Garg	Deepshikha	M	M	1	1	1	1	1		1		
65	Giles	Arthur	M	M	1	1	1	1	1				
66	Gomes	Eladio	M	M	1	1		1	1		1		
67	Gore	Dhananjay	M New	M				1	1		1		
68	Gorodetsky	Svetlana	M	M	1		1	1	1		1		
69	Gorokhov	Alexei	M	M			1	1	1		1		
70	Greenspan	Arnie		M							1		
71	Gunduzhan	Emre	No	No					1				
72	Guo	Qiang	M	M			1	1	1	1			

	A	B	I	J	O	P	Q	R	S	T	V	W	X
73	Habab	Zion	No	No				1					
74	Han	Youngnam	No	No					1				
75	Hatakawa	Yasuyuki	No	No			1						
76	Ho	Jin-Meng	M	M			1	1	1				
77	Hong	Songnam	M New	M New					1	1			
78	Hou	Victor	M	M	1	1	1	1	1	1	1		
79	Howard	Fred	M	M		!	1	1	1				
80	Hu	Rose	M New	M				1	1	1	1		
81	Hu	Teck	M New	M					1	1	1		
82	Huang	Haiming	No	No					1				
83	Humbert	John	M	M (New?)			1	1					
84	Huo	David	M	M	1		1	1	1				
85	Hur	Yerang	M New	M New					1	1			
86	Ibbetson	Luke	M New	M			1		1		1		
87	Iimuro	Kazuyoshi	M	M			1	1	1		1		
88	Ikeda	Yutaka	No	No							1		
89	Ishikawa	Hiroyasu	No	No			1						
90	James	David S.	M	M									
91	Jeong	Moo Ryong	No	No			1						
92	Jeong	Byung-Jang	M	M			1	1	1		1		
93	Jette	Alan	M	M			1	1	1	1	1		
94	Ji	Baowei	M New	M					1	1	1		
95	Ji	Tingfang	M	M			1	1	1		1		
96	Johnson	Brian	No	No			1						
97	Jones	Dennis	M	M	1	1	1	1	1				
98	Joo	Pan Yuh	No	No				1		1			
99	Kadous	Tamer	M	M			1	1	1		1		
100	Kalhan	Amit	M	M			1	1	1		1		
101	Kanai	Takeo		No							1		
102	Kang	Hyunjeong	M New	M New				1	1				
103	Kasch	William	M	M		1	1	1	1				
104	Katayama	Masahide		No							1		
105	Khademi	Majid	M	M	1		1	1	1		1		
106	Khan	Farooq	No	No				1					
107	Khandekar	Aamod	M	M			1	1	1		1		

	A	B	I	J	O	P	Q	R	S	T	V	W	X
108	Khatibi	Farrokh	M	M	1		1	1	1		1		
109	Kiernan	Brian	M	M		1	1	1	1	1			
110	Kim	Beomjoon	No	No			1						
111	Kim	Hyeon Soo	M New	M					1	1	1		
112	Kim	Jae-Ho	M New	M New					1	1			
113	Kim	Joonsuk	No	No					1				
114	Kim	Peter J.W.	M New	M New				1	1				
115	Kim	Tae Young	M New	M					1	1	1		
116	Kim	Yong Ho	M	M			1	1	1		1		
117	Kim	Young-Ho	M New	M New				1	1	1			
118	Kim	Young Kyun	M New	M				1	1		1		
119	Kim	Youngsoo	M New	M					1	1	1		
120	Kim	Kanghee	No	No				1					
121	Kimura	Shigeru	M	M			1	1	1		1		
122	Kitahara	Minako	M	M	1		1	1	1		1		
123	Kitamura	Takuya	M	M (New?)			1	1		1			
124	Klerer	Mark	M	M	1	1	1	1	1	1	1		
125	Knisely	Douglas	M	M			1	1	1	1	1		
126	Knowles	Skip	No	No									
127	Ko	Young-Jo	M	M (New?)			1	1					
128	Kogianitis	Achilles	No	No									
129	Kolze	Tom	M New	M					1	1	1		
130	Koo	Changhoi	M	M			1	1	1	1	1		
131	Koplyay	Ferenc	M New	M New					1	1			
132	Kujawski	Fred E.		No							1		
133	Kwon	Dong Seung	M	M (New?)			1	1		1			
134	Kwon	Jae Kyun	No	No			1						
135	Kwon	Young Hyoun	M	M			1	1	1				
136	Lalaguna	Pablo	M	M	1	1	1	1	1		1		
137	Lawrence	Lisa	M	M	1		1	1	1				
138	Lee	Heesoo	M	M			1	1	1	1	1		
139	Lee	Jungwon	M New	M New				1	1				
140	Lee	Mihyun	M New	M				1	1		1		
141	Lee	Sungjin	M New	M New				1	1				
142	Lee	Wook-Bong	M	M			1	1	1	1			
143	Lestable	Thierry	M New	M New					1	1			

	A	B	I	J	O	P	Q	R	S	T	V	W	X
144	Li	Jaing	No	No			1						
145	Li	Jun	M	M (New?)		1	1			1			
146	Li	Thomas	No	No				1		1			
147	Li	Yingyang	M New	M					1	1	1		
148	Lim	Hyoung Kyu	M	M			1	1	1	1			
149	Lin	Jiezhen	M	M	1		1	1	1	1			
150	Liu	Walter	M New	M New					1	1			
151	Livshitz	Michael	No	No					1				
152	Loh	Lee Ying	No	No									
153	Lozano	Angel	No	No			1						
154	Lu	Jianmin	No	No			1	1		1			
155	Ma	Steven	M	M			1	1	1	1			
156	Maez	Dave		No									
157	Martynov	Irina	M	M	1	1	1	1	1		1		
158	Martynov	Michael	M	M	1	1	1	1	1		1		
159	McGinniss	David	M New	M New				1	1				
160	McMahon	Anthony	M	M			1	1	1		1		
161	McMillan	Donald	M	M	1	1	1	1	1		1		
162	Miyazono	Max	M	M	1		1		1		1		
163	Modlin	Cory	No	No			1						
164	Mollenauer	James	M	M	1	1	1	1	1	1	1		
165	Murakami	Kazuhiro	M	M	1		1	1	1		1		
166	Murphy	Peter	M	M			1	1	1				
167	Naaman	Laith	M New	M New				1	1				
168	Nabar	Rohit	M New	M				1	1		1		
169	Nagai	Yukimasa	M New	M New			1		1				
170	Naguib	Ayman	M	M	1	1	1	1	1				
171	Naidu	Mullaguru	M	M	1		1	1	1		1		
172	Nakamura	Kenichi	M New	M				1	1		1		
173	Nakamura	Tetsuya	M	M			1	1	1		1		
174	Nakano	Shinji	M	M			1	1	1		1		
175	Nguyen	Nha	M	M	1	1	1	1	1		1		
176	Nicolas	Julien	M	M			1	1	1				
177	Noh	Taegyun	M New	M					1	1	1		
178	Novick	Fred	M	M	1	1	1	1	1		1		
179	O'Brien	Francis	M	M			1	1					

	A	B	I	J	O	P	Q	R	S	T	V	W	X
180	Odlyzko	Paul	M	M			1	1	1	1			
181	Oguma	Hiroshi	M New	M			1		1	1	1		
182	Oh	Changyoon	M New	M New					1	1			
183	Ovadia	Shlomo	No	No						1			
184	Panicker	John	M New	M New					1	1			
185	Park	Chul	M New	M				1	1	1	1		
186	Park	DS	M New	M					1	1	1		
187	Park	Jeongho	M New	M					1	1	1		
188	Park	Won-Hyoung	M	M			1	1	1	1			
189	Patzer	Steve	M	M			1	1	1	1			
190	Perini	Patrick	M	M			1	1	1				
191	Pfann	Eugen	M	M			1	1	1		1		
192	Ping	Luo	M	M				1					
193	Pirhonen	Riku	M	M	1	1	1	1	1	1	1		
194	Pittampalli	Eshwar	M	M			1	1					
195	Poisson	Sebastien	M	M	1	1	1	1	1		1		
196	Polcari	Amy	M	M	1			1	1				
197	Polsgrove	Jim	M	M	1	1	1	1	1				
198	Prakash	Rajat	M	M	1	1	1	1	1	1	1		
199	Preece	Rob	M	M	1	1	1	1	1		1		
200	Priebe	Russell	No	No									
201	Pulcini	Gregory	No	No									
202	Puthenkulam	Jose	M	M			1	1	1	1			
203	Qian	Xiaoshu	M	M			1	1	1	1			
204	Ragsdale	James	M	M	1		1	1	1	1	1		
205	Rajadurai	Rajavelsamy	M New	M New					1	1			
206	Rajkumar	Ajay	M	M	1	1	1	1	1	1			
207	Razoumov	Leonid	M New	M New				1	1				
208	Salminen	Reijo	M New	M New			1		1				
209	Sampath	Hemanth	M	M			1	1	1		1		
210	Sano	Masato	M	M		1	1	1	1		1		
211	Santhanakrishnan	Anand	M New	M New					1	1			
212	Sasaki	Shigenobu	M New	M					1	1	1		
213	Semper	Bill	No	No						1			
214	Seo	Bangwon	M New	M					1	1	1		

	A	B	I	J	O	P	Q	R	S	T	V	W	X
215	Shabtay	Ophir	No	No				1					
216	Shasha	Eli	No	No				1					
217	Shepard	Johnny	No	No		1							
218	Shields	Judy	M	M	1	1	1	1	1				
219	Shively	David	M	M			1		1		1		
220	Shoji	Hiryuki	No	No						1			
221	Shono	Takashi	M New	M				1	1	1	1		
222	Sihn	Gyung Chul	M New	M					1	1	1		
223	Sivanesan	Kathiravetpilla i	M New	M				1	1		1		
224	Son	Jungje	No	No				1					
225	Son	Yeongmoon	M	M			1	1	1	1			
226	Song	Young Seog	M New	M					1	1	1		
227	Sorensen	Henrik	M New	M New				1	1				
228	Springer	Warren	M	M	1		1		1				
229	Srinivasan	Roshni	M New	M					1	1	1		
230	Staver	Doug	M	M	1	1	1		1				
231	Stone	Mike	No	No									
232	Stuby	Richard	M New	M				1	1	1	1		
233	Su	David	No	No					1				
234	Suh	Changho	M	M			1	1	1	1			
235	Suh	Mark	M New	M					1	1	1		
236	Surcobe	Valentin	M New	M		1			1	1	1		
237	Sutivong	Arak	M	M			1	1					
238	Suzuki	Tomohiro	M	M			1	1	1		1		
239	Tamaki	Satoshi	No	No				1					
240	Tan	Teik-Kheong		No							1		
241	Tang	Xiangguo	M New	M New				1	1				
242	Teague	Harris	M	M			1	1	1		1		
243	Tee	Lai-King Anna	M	M			1	1	1	1	1		
244	Tomcik	James	M	M	1	1	1	1	1	1	1		
245	Toro	Steven	M	M				1					
246	Trick	John	M	M	1	1	1	1	1				
247	Tsui	Daniel	No	No									
248	Ulupinar	Fatih	M	M			1	1	1				

	A	B	I	J	O	P	Q	R	S	T	V	W	X
249	Upton	Jerry	M	M	1	1	1	1	1	1	1		
250	Vaidya	Rahul	M New	M New					1	1			
251	Valbonesi	Lucia	M	M			1	1	1	1			
252	Valls	Juan Carlos	M	M	1	1	1	1	1		1		
253	Vijayan	Rajiv	M	M			1	1	1		1		
254	Vivanco	Silvia	M	M	1		1		1		1		
255	Wan	Jane	No	No					1				
256	Wasilewski	Thomas	M	M	1	1		1	1		1		
257	Watanabe	Fujio	M	M (New?)		1	1						
258	Wieczorek	Alfred	M	M	1		1	1		1			
259	Wilson	Joanne	M	M	1		1	1	1	1	1		
260	Wu	Gang	M	M	1		1		1				
261	Wu	Geng	M New	M New			1		1	1			
262	Yaghoobi	Hassan	M	M			1	1	1	1			
263	Yallapragada	Rao	M	M			1	1	1		1		
264	Yeh	Choongil	M	M			1	1	1	1	1		
265	Yin	Hujun	M	M			1	1	1	1			
266	Yoo	Do-Sik	No	No				1					
267	Yoon	Young C.	No	No			1						
268	Youssefmir	Michael	M	M	1	1	1	1	1		1		
269	Yuda	Tetsuya	M	M	1	1	1	1	1				
270	Yun	Jungnam	M New	M New					1	1			
271	Yuza	Masaaki	M	M			1				1		
272	Zhu	Chenxi	No	No				1					
273	Zhu	Peiying	M New	M New			1		1				
274		* Blue type indicates a status change; Red type indicates that affiliation is required											

Appendix A-2

Affiliation Statements

802.20 Declarations of Affiliation

0	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	http://www.intel.com
2	Agrawal	Avneesh	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	http://www.qualcomm. com
3	Ahmadi	Sassan	Intel Corporation	Intel Corporation	Intel Corporation	Intel Corporation	www.intel.com
4	Alamouti	Siavash M.	Intel Inc.	Same	N/A	N?A	www.intel.com
5	Ali	Murtaza	Texas Instruments, Inc.	Same	Not Applicable	Not Applicable	www.ti.com
6	Alphonse	Jean R.	Lucent Technologies	Same	Not Applicable	Not Applicable	
7	Alsaleh	Haggar	Consultant	Same	Not Applicable	Not Applicable	
8	Arefi	Reza	Intel Corporation	same	same	same	http://www.intel.com
9	Bajaj	Rashmi	France Telecom R&D	same	Orange Ftgroup	OrangeFTGroup	www.francetelecom.com/en
10	Barriac	Gwen	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	http://www.qualcomm. com
11	Bavafa	Moussa	Broadcom Corporation	Same	Not Applicable	Not Applicable	www.broadcom.com
12	Bernstein	Jeff	Telecommunications Management Group, Inc.	QUALCOMM, Incorporated	Not Applicable	Not Applicable	www.tmgtelecom.com
13	Bravin	Nancy	Self	Qualcomm		Qualcomm	
14	Bussey	Chris J.	Bussey Consulting Services, Inc.	Same	Chris J Bussey	Not Applicable	
15	Canchi	Radhakrishna	Kyocera Telecommunications Research Corporation.	Same	Kyocera Corporation.	Kyocera Corporation	www.ktrc-na.com
16	Carlo	Jim	J.Carlo Consulting LLC	Huawei Technology	Not Applicable	Not Applicable	www.huawei.com
17	Carson	Peter	Qualcomm, Inc.	Same	Not Applicable	Not Applicable	
18	Castell	Harold P.	Bussey Consulting Services, Inc.	Same	Chris J Bussey	Not Applicable	
19	Chen	Yao	Beijing Samsung Telecommunication	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
20	Cho	Juphil	Kunsan National University	Same	Not Applicable	Not Applicable	www.kunsan.ac.kr
21	Choi	Hyoungjin	TTA	same	Not Applicable	Not Applicable	www.tta.or.kr

22	Choi	Yang-Seok	Intel Corporation	Same	NA	NA	URL:www.intel.com
23	Chun	Jin Young	LGE	Same	Not Applicable	Not Applicable	www.lge.com
24	Chung	Jaeho	KT Corporation	Same	Not Applicable	Not Applicable	www.kt.co.kr
25	Cleveland	Joseph	Samsung Telecommunications America, LLP	Same	Samsung Electronics Company	Not Applicable	www.samsungtelecom.com
26	Comstock	David	Huawei Technologies Co,Ltd	Same	Not Applicable	Not Applicable	www.huawei.com
27	Crozier	Eugene	SR Telecom Inc	Same	Not Applicable	Not Applicable	www.srtelecom.com
28	Dean	Christopher	Telecommunications Management Group, Inc. (TMG)	Qualcomm, Inc.	Not applicable	Not applicable	www.tmgtelecom.com
29	Dhaliwal	Upkar	Future Wireless Technologies, L.P.	Same	Not Applicable	Not Applicable	
30	Dodd	Don	Morningstar Mergers	same	N/a	N/a	Mstarmgt@aol.com
31	Dorward	Lynne	LADCOMM Corporation	SAME	Not applicable	Not applicable	www.ladcomm.com*
32	Dunn	Doug	Kyocera Telecommunications Research Corporation	Same	Kyocera Corporation	Kyocera Corporation	www.ktrc-na.com
33	Eilts	Hank	Texas Instruments, Inc.	Same	Not Applicable	Not Applicable	www.ti.com
34	Epstein	Mark	Qualcomm	same	NA	NA	www.qualcomm.com
35	Feder	Peretz	Lucent Technologies	Bell Laboratories	Lucent Technologies	NA	www.lucent.com
36	Ferguson	Alasdair	Selbourne Associates	Same	Not Applicable	Not Applicable	
37	Fong	Mo Han	Nortel	Same	Not Applicable	Not Applicable	www.nortel.com
38	Freeland	Graham	Steepest Ascent Ltd	same	Not Applicable	Not Applicable	www.steepestascent.com
39	Gal	Dan	Lucent Technologies	same	Not Applicable	Not Applicable	www.lucent.com
40	Garcia-Alis	Daniel	Steepest Ascent Ltd	same	Not Applicable	Not Applicable	www.steepestascent.com
41	Garg	Deepshikha	Kyocera Telecommunications Research Corporation.	Same	Kyocera Corporation.	Kyocera Corporation	www.ktrc-na.com
42	Gil	Gye-Tae	KT	Same	Not Applicable	Not Applicable	http://www.kt.co.kr/kthome/eng/index.jsp
145	Gomes	Eladio Rodrigues	EPEC Solutions Inc.	Qualcomm Brazil		Qualcomm	www.epecsolutions.com

43	Gore	Dhananjay	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	http://www.qualcomm. com
44	Gorodetsky	Svetlana	Gorodetsky Consulting	same	Not applicable	Not applicable	
45	Gorokhov	Alex	Qualcomm Inc.	Same	Not Applicable	Not Applicable	www.qualcomm.com
46	Greenspan	Arnie	AROSCO Inc.	Same	Not Applicable	Not Applicable	
47	Guo	Qiang	Motorola, Inc.	Same	Not Applicable	Not Applicable	www.motorola.com
48	Hou	Victor	Broadcom Corporation	Same	Not Applicable	Not Applicable	www.broadcom.com
49	Hu	Rose	Nortel Networks	Same	Not Applicable	Not Applicable	www.nortel.com
50	Hu	Teck	Siemens Network LLC	Same	Siemens AG	Siemens AG	www.siemens.com
51	Humbert	John	Sprint Corporation	Same	Not Applicable	Not Applicable	www.sprint.com
52	Huo	David	Lucent Technologies	Same	Not Applicable	Not Applicable	www.lucent.com
53	Hur	Yerang	POSDATA Co. Ltd.,	Same	Not Applicable	Not Applicable	www.posdata.co.kr
54	Ibbetson	Luke	Vodafone Group Services Limited	same	not applicable	Not Applicable	www.vodaphone.com
55	Iimuro	Kazuyoshi	Kyocera corporation	Same	Not Applicable	Not Applicable	www.kyocera.co.jp
56	Ikeda	Yutaka	Sharp Corp	same	not applicable	not applicable	sharp-world.com
57	Jeong	Byung Jang	ETRI	Same	Not Applicable	Not Applicable	www.etri.re.kr
58	Jette	Al	Motorola, Inc.	Same	Not Applicable	Not Applicable	www.motorola.com
59	Ji	Baowei	Samsung Telecommunications America, LLP	Same	Samsung Electronics Company	Not Applicable	http://www.samsungtelecom.com/
60	Ji	Tingfang	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	http://www.qualcomm. com
61	Jones	Dennis	Taliesen North Consulting	Same	Not Applicable	Not Applicable	
62	Joo	Panyuh	Samsung Electronics	Same	Samsung Electronics	Not Applicable	www.samsung.com
63	Kadous	Tamer	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	http://www.qualcomm. com
64	Kalhan	Amit	Kyocera Telecommunications Research Corporation	Same	Kyocera Corporation	Kyocera Corporation	www.ktrc-na.com
65	Kang	Hyunjeong	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
66	Katayama	Masahide	Kyocera Corp	same	not appliciable	Not Applicable	www.kyocera.co.jp

67	Khademi	Majid	Khademi Consulting	Khademi Consulting	Not Applicable	Not Applicable	
68	Khandekar	Aamod	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	http://www.qualcomm. com
69	Khatibi	Farrokh	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	http://www.qualcomm.com
70	Kiernan	Brian	Interdigital Communications Corp	same	not applicable	Not Applicable	www.interdigital.com
71	Kim	Hyeon Soo	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
72	Kim	Jae-Ho	ETRI	Same	Not Applicable	Not Applicable	www.etri.re.kr
73	Kim	Peter	TTA	same	Not Applicable	Not Applicable	www.tta.or.kr
74	Kim	Taeyoung	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
75	Kim	Yong Ho	LGE	Same	Not Applicable	Not Applicable	www.lge.com
76	Kim	Young Ho	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
77	Kim	Young Kyun	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
78	Kim	Youngsoo	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
79	kimura	shigeru	Kyocera Corp.	Same	Not Applicable	Not Applicable	www.kyocera.co.jp
108	Kitahara	Minako	Kyocera Corp.	Same	Not Applicable	Not Applicable	www.kyocera.co.jp
80	Kitamura	Takuya	Fujitsu Limited	Same	Not Applicable	Not Applicable	www.fujitsu.com
81	Klerer	Mark	QUALCOMM Flarion Technologies	Same	QUALCOMM, Incoroporated	Not Applicable	http://www.qualcomm.com/qft/
82	Knisely	Douglas	Airvana, Inc.	Same	Not Applicable	Not Applicable	www.airvana.com
83	Kolze	Tom	Broadcom	same	Not applicable	Not applicable	Broadcom.com
84	Koo	Changhoi	Samsung Telecommunications America, LLP	Samsung Electronics	Same	Same	www.samsungtelecom.com
85	Koplyay	Ferenc	Freescale Semiconductor	Same	N/A	N/A	www.freescale.com
86	Kujawski	Fred	AirCell Inc.	Same	Not Applicable	Not Applicable	www.aircell.com
87	Kwon	Dong-Seung	ETRI	same	Not applicable	Not applicable	www.etri.re.kr
88	Kwon	Young-Hyoun	LGE	Same	Not Applicable	Not Applicable	www.lge.com

89	Laguna	Pablo	MedStar Systems, LLC	Qualcomm		Qualcomm	www.medstarsystems.com
90	Lawrence	Lisa	CTCI	CTCI	Not applicable	Not applicable	Lisa.lawrence@ctci.ca
91	Lee	Heesoo	ETRI	Same	Not Applicable	Not Applicable	www.etri.re.kr
92	Lee	Mihyun	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
93	Lee	Sungjin	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
94	Lee	Wook-Bong	LGE	Same	Not Applicable	Not Applicable	www.lge.com
95	Li	Jun	Nortel Networks, Inc.	Same	Nortel Networks, Inc.	Not Applicable	www.nortel.com
96	Li	Yingyang	Beijing Samsung Telecommunication	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
97	Lim	Hyoung Kyu	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
98	Lin	Jiezhen	Siemens Network Ltd, Beijing	Siemens Ltd., China	Siemens AG	Siemens AG	www.siemens.com.cn
99	Lo	Titus	Neocific, Inc.	Same	N/A	N/A	
100	Maez	David	Navini Networks	Same	Not Applicable	Not Applicable	www.navini.com
101	Martin	Terry					
102	Martynov	Irina	Belgud International	Qualcomm		Qualcomm	
103	Martynov	Michael	Belgud International	Qualcomm		Qualcomm	
105	McGinniss	David S.	Sprint Nextel	Same	Not Applicable	Not Applicable	www.sprint.com
106	McMahon	Anthony	Institute for System Level Integration	Strathclyde University	Not applicable	Not applicable	www.sli-institute.ac.uk
107	McMillan III	Donald C.	Advanced Network Technical Solutions, Inc.	Same	N/A	N/A	www.antsinc.com
109	Miyazono	Max	Qualcomm Inc	Same	Not Applicable	Not Applicable	www.qualcomm.com
110	Mollenauer	Jim	Technical Strategy Associates	Motorola Inc.	Not applicable	Not Applicable	Technicalstrategy.com
111	Murakami	Kazuhiro	Kyocera Corporation	Same	Not Applicable	Not Applicable	www.kyocera.co.jp
112	Murphy	Peter A.	Intel Corp.	Same	Not applicable	Not applicable	www.intel.com
113	Nabar	Rohit	Marvell Semiconductor Inc	Same			www.marvell.com

114	Naguib	Ayman	Qualcomm Inc.	Same	Not Applicable	Not Applicable	www.qualcomm.com
115	Naidu	Mullaguru	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	http://www.qualcomm. com
116	Nakamura	Kenichi	Fujitsu Limited	Same	Not Applicable	Not Applicable	www.fujitsu.com/global/
117	Nakamura	tetsuya	NTT MCL Inc.	same	NTT Corp.	Not Applicable	www.nttmcl.com
118	Nakano	Shinji	Kyocera Corp.	Same	Not Applicable	Not Applicable	www.kyocera.co.jp
119	Navidi	Pierre	XG Stream Ltd	OAK GLOBAL SA	Not Applicable	Not Applicable	
120	Ngo	Chiu	Samsung Electronics	Same	N/A	N/A	www.samsung.com
121	Nguyen	Nha	Bussey Consulting Services, Inc.	Same	Chris J Bussey	Not Applicable	
122	Noh	Taegyun	ETRI	Same	Not Applicable	Not Applicable	www.etri.re.kr
123	Novick	Fred	Bussey Consulting Services, Inc.	Same	Chris J Bussey	Not Applicable	
124	O'Brien	Francis E.	Lucent Technologies	Same	Lucent Technologies	Not applicable	www.lucent.com
125	Odlyzko	Paul	Motorola	same	Not Applicable	Not Applicable	
126	Oguma	Hiroshi	Industrial Technology Institute Miyagi Prefecture Government	Tohuku University	Not Applicable	Not Applicable	http://www.mit.pref.miyagi.jp
127	Oh	Changyoon	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
128	Oprescu	Val	Motorola, Inc.	Same	Not Applicable	Not Applicable	www.motorola.com
129	Palanivelu	Arul	Marvell Semiconductor Inc	Same			www.marvell.com
130	Panicker	John	NORTEL	Same	Not Applicable	Not Applicable	www.nortel.com
131	Park	Chul	ETRI(Electronics and Telecommunications Research Institute)	Same	Not Applicable	Not Applicable	www.etri.re.kr
132	Park	DS	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
133	Park	Jeongho	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
134	Patzer	Steve	Intel Corp.	SAME	Not Applicable	Not Applicable	
135	Pfann	Eugen	University of Strathclyde	same	not applicable	not applicable	www.strath.ac.uk
136	Pirhonen	Riku	Nokia Oyj	Same	Not Applicable	Not Applicable	www.nokia.com

137	Pittampalli	Dr. Eshwar	Lucent Technologies	Same	Not Applicable	Not Applicable	www.lucent.com
138	Poisson	Sebastien	Oasis Wireless Inc	Same	N/A	N/A	www.oasiswireless.net
139	Prakash	Rajat	Qualcomm Inc	Same	Not Applicable	Not Applicable	www.qualcomm.com
140	Preece	Rob	Bussey Consulting Services, Inc.	Same	Chris J Bussey	Not Applicable	
141	Puthenkulam	Jose	Intel Corporation	Same	Not Applicable	Not Applicable	http://www.intel.com
142	Ragsdale	Jim	Ericsson Inc	Telefon AB - L.M. Ericsson	Telefon AB - L.M. Ericsson	same	http://www.ericsson.com/us
143	Rajadurai	Rajavelsamy	Samsung India Software Operations Private Limited	Same	Samsung Electronics Company	Same	http://www.samsungindiasoft.com
144	Rajkumar	Ajay	Lucent Technologies Inc.	Same			www.lucent.com
146	Sampath	Hemanth	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	
104	Sano	Masato	Kyocera Corp.	Same	Not Applicable	Not Applicable	www.kyocera.co.jp
147	Santhanakrishnan	Anand	Samsung India Software Operations Private Limited	Same	Samsung Electronics Company	Same	http://www.samsungindiasoft.com
148	Sasaki	Shigenobu	Niigata University	Same	Not applicable	Not Applicable	www.niigata-u.ac.jp
149	Seo	Bangwon	ETRI	Same	Not Applicable	Not Applicable	www.etri.re.kr
150	Shields	Judy	Ladcomm	same	NA	NA	
151	Shin	Gyung-Chul	ETRI	Same	Not Applicable	Not Applicable	www.etri.re.kr
152	Shively	David	Cingular Wireless	Same	AT&T / BellSouth	Same	www.cingular.com
153	Shono	Takashi	Intel K.K.	Same	Intel Corporation	Same	www.intel.co.jp
154	Sivanesan	Kathiravetpillai	Samsung Electronics Company	Same	Samsung Electronics Company	Not Applicable	www.samsung.com
155	Song	LeiLei	Marvell Semiconductor Inc	Same			www.marvell.com
156	Song	Young Seog	ETRI	same	Not applicable	Not applicable	www.etri.re.kr
157	Springer	Warren	Springer Associates	Same	Not Applicable	Not Applicable	
158	Srinivasan	Roshni	Intel Corporation	Same	Not Applicable	Not Applicable	URL www.intel.com

159	Staver	Doug	3581969 Canada Inc.	Same	Not Applicable	Not Applicable	
160	Stuby	Rick	Agere Systems	Same	Not Applicable	Not Applicable	www.agere.com
161	Suchang	Chae	ETRI(Electronics and Telecommunications Research Institute)	Same	Not Applicable	Not Applicable	www.etri.re.kr
162	Suh	Mark	Samsung Telecommunications America	Same	Samsung Electronics Company	Not Applicable	www.samsungtelecom.com
163	Surcobe	Valentin	Motorola	same	Not applicable	Not Applicable	www.motorola.com
164	Suzuki	Tomohiro	Kyocera Corp.	Same	Not Applicable	Not Applicable	www.kyocera.co.jp
165	Tan	Teik-Kheong (TK)	NXP Semiconductors	Same	Not Applicable	Not Applicable	www.nxp
166	Teague	Harris	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	http://www.qualcomm.com
167	Tee	Anna	Samsung Telecommunications America	Same	Samsung Electronics Co., Ltd.	Not Applicable	http://www.samsungwirelss.com
168	Tomcik	Jim	Qualcomm,	Same	Not Applicable	Not Applicable	http://www.qualcomm. com
169	Ulupinar	Fatih	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	http://www.qualcomm. com
170	Upton	Jerry	Self, JUpton Consulting	Qualcomm and Self	NA	Qualcomm, Inc. and Self	
171	Vaidya	Rahul	Samsung India Software Operations Private Limited	Same	Samsung Electronics Company	Same	http://www.samsungindiasoft.com
172	Valbonesi	Lucia	Motorola, Inc.	Same	Not Applicable	Not Applicable	www.motorola.com
173	Valls	Juan Carlos	Telecommunications Management Group	Qualcomm, Inc.	Not applicable	Not applicable	www.tmgtelecom.com
174	Vijayan	Rajiv	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	http://www.qualcomm. com
175	Vivanco	Silvia	Telecommunications Management Group	Qualcomm	Not applicable	Not applicable	www.tmgtelecom.com
176	Ward Jr	Robert M	Northrop Grumman	Same	N/A	N/A	
177	Wasilewski	Tom	Qualcomm Incorporated	Same	Not Applicable	Not Applicable	http://www.qualcomm. com

178	Watanabe	Fujio	DoCoMo Communications Laboratories USA, Inc.	Same	NTT DoCoMo USA, Inc.	Not Applicable	www.docomolabs-usa.com
179	Wieczorek	Al	Motorola, Inc.	Same	Not Applicable	Not Applicable	Al.Wieczorek@Motorola.com
180	Wilson	Joanne	ArrayComm, LLC	Same	Ygomi, LLC	Ygomi, LLC	www.arraycomm.com
181	Wu	Geng	Nortel Networks.	Same	Not Applicable	Not Applicable	www.nortel.com
182	Xiaoshu	Qian,	Intel Corp	Same	N/A	N/A	www.intel.com
183	Yaghoobi	Hassan	Intel Corporation	Same	Not Applicable	Not Applicable	www.intel.com
184	Yallapragada	Rao	Qualcomm, Incorporated	Same	Not Applicable	Not Applicable	http://www.qualcomm. com
185	Yeh	Choong il	ETRI	same	Not applicable	Not applicable	www.etri.re.kr
186	Yin	Hujun	Intel Corp.	Same	N/A	N/A	www.intel.com
187	Youssefmir	Michael	Self	ArrayComm		Ygomi Group	www.arraycomm.com
188	yuda	tetsuya	Kyocera Corp.	Same	Not Applicable	Not Applicable	www.kyocera.co.jp
189	Yun	Jungnam	POSDATA Co. Ltd.,	Same	Not Applicable	Not Applicable	www.posdata.co.kr
190	Yuza	Masaaki	NEC Infrontia Corp.	same	NEC Corp.	Not Applicable	www.necinfrontia.co.jp
191	Zhu	Peiying	Nortel	Same	Not Applicable	Not Applicable	www.nortel.com
192	Nagai	Yukimasa	Mitsubishi Electric	same	not applicable	Not Applicable	http://www.mitsubishielectric.co.jp/
193	Li	Thomas	Huawei Technologies Co,Ltd	Same	not applicable	Not Applicable	http://www.huawei.com
194	Kanai	Takeo	Symbies, Inc.	Softbank BB Corp.	not applicable	Not Applicable	http://www.symbies.com/
189	Kawabata	Hiro	Qualcomm	Same	not Applicable	Not Applicable	http://www.qualcomm.com
187							
188							

Appendix A-3

Chair’s Opening Remarks

HELLO, MY NAME IS ARNIE GREENSPAN. SOME OF YOU MAY HAVE HEARD THE NAME. I HAVE BEEN APPOINTED BY THE STANDARDS BOARD AND THE 802 EXECUTIVE COMMITTEE AS THE CHAIR OF 802.20.

I BELIEVE THAT THE LAST TIME SOMEONE HAD AN ASSIGNMENT SUCH AS THIS ONE WAS WHEN BIBLICAL DANIEL WAS APPOINTED TO APPEAR IN THE LIONS DEN. ONLY TIME WILL TELL IF I HAVE A SIMILAR POSITIVE RESULT AS DID DANIEL.

WE EACH HAVE A JOB TO DO. I WILL DO MY BEST TO HELP YOU GET INTO A POSITION WHERE YOU CAN GET RID OF ME. YOUR JOB IS TO HELP ME HELP YOU ACCOMPLISH THE GOAL OF RETURNING ME TO OBSCURITY. WHAT I INTEND TO DO WHILE I AM WITH YOU AS CHAIR, IS THE FOLLOWING: I, WITH YOUR HELP, WILL TRY TO GET 802.20 BACK ON TRACK AND MOVING TOWARD ACHIEVING ITS MISSION OF DEVELOPING A SPECIFICATION FOR MOBILE BROADBAND WIRELESS ACCESS.

CURRENTLY, AND UNTIL THIS MEETING, ALL WORK BY 802.20 HAD BEEN SUSPENDED. THE OFFICERS OF 802.20 WERE REMOVED AND THE STANDARDS ASSOCIATION 802 EXECUTIVE COMMITTEE PONDERED OVER WHAT TO DO ABOUT THE MANY PROBLEMS THAT WERE PERCEIVED TO EXIST IN THE CONDUCT OF BUSINESS BY 802.20. I WILL TELL YOU THAT MANY OPTIONS WERE CONSIDED; SOME OF THEM EVEN MORE DRACONIAN THAN APPOINTING ME AS CHAIR. FOR EXAMPLE, THERE WERE SOME THAT FELT THAT ALL WORK ACCOMPLISHED BY 802.20 SHOULD BE SET ASIDE AND WORK BEGUN ANEW. OTHERS RECOMMEND THE DISSOLUTION OF 802.20 AND TRANSFER OF THE EFFORT TO ANOTHER 802 GROUP. IN THE FINAL ANALYSIS THE DECISION WAS MADE THAT 802.20 AND ITS MEMBERSHIP WERE A VALUABLE RESOURCE AND THAT THEIR WORK TO DATE HAD A SIGNIFICANT VALUE CONTENT THAT SHOULD BE SALVAGED IF POSSIBLE. THAT AN EFFORT WOULD BE MADE TO TAKE THE WORK OF 802.20 TO DATE AND REVIEW, DISCUSSION AND, IF NECESSARY, REWORK WOULD TAKE

PLACE ON THE 802.20 FOUNDATION TO PREPARE 802.20 TO PROCEED WITH ALL POSSIBLE EFFICIENCY TO ACCOMPLISH THE MISSION OF THIS GROUP.

THERE ARE SOME OF YOU, PERHAPS MANY OF YOU OR ALL OF YOU WHO FEEL THAT 802.20 WAS NEVER OFF TRACK. THAT ALL THAT HAS TRANSPIRED IS NOT FAIR. TO ALL OF YOU THAT FEEL THAT WAY I MUST SAY 'TOO BAD'. LIFE IS NOT ALWAYS AS ONE WOULD WISH. I ALSO MUST INFORM ALL OF YOU THAT THIS IS THE LAST TIME THAT I INTEND TO TAKE TIME AWAY FROM OUR WORK TO DISCUSS THE ANGST OR PERCEIVED FAIRNESS OF WHAT HAS TRANSPIRED. THIS GROUP SERVES AT THE PLEASURE OF THE 802 EXECUTIVE COMMITTEE WHO, IN TURN, SERVE AT THE PLEASURE OF THE IEEE STANDARDS ASSOCIATION BOARD OF GOVERNORS. THE CONVERSE IS NOT TRUE. THEREFORE WE OR THOSE OF YOU WHO WISH TO WILL SUCH IT UP AND PREPARE TO MOVE AHEAD.

AS WE PREPARE TO MOVE AHEAD, I WILL REMIND YOU THAT THERE ARE RULES, POLICIES AND PROCEDURES THAT WILL GOVERN OUR EFFORTS. THE STANDARDS SOCIETY RULES MAY BE FOUND ON THE IEEE WEB PAGE. THESE RULES ARE DESIGNED TO ENSURE DUE PROCESS, CONSENSUS, OPENNESS, BALANCE AND RIGHT OF APPEAL. THESE ARE SOME OF THE AREAS THAT 802.20 WAS PERCEIVED TO TRANSGRESS IN THE PAST.

802 RULES MAY BE FOUND ON THE 802 WEB PAGE. THESE 802 RULES ARE MORE EXPLICIT THAN THOSE OF THE STANDARDS BOARD. THEY TOO ARE DESIGNED TO ENSURE DUE PROCESS, CONSENSUS, OPENNESS AND BALANCE AND RIGHT OF APPEAL.

FOR AREAS NOT SPCIFICIED BY THE STANDARD ASSOCIATIONS RULES ON THE 802 RULES WE WILL USE ROBERTS RULES TO DIRECT OUR ACTIVITIES.

AS LONG AS I AM CHAIR, 802.20 WILL BE SO CAREFUL, SO OPEN AND SO JUDICIOUS IN OUR ACTIONS AND DECISIONS THAT NO ONE WILL ANY LONGER QUESTION OUR PROCESS AND RESULTING OUTPUT.

WHILE WE SEEK CONCENSUS WE WILL NOT TOLERATE DOMINANCE. THIS INCLUDES POSITIVE DOMINANCE WHEREBY ONE GROUP STACKS THE DECK TO ENSURE THAT AN ISSUE, TECHNICAL DOCUMENT OR PROCEDURAL QUESTION IS DECIDED IN THEIR FAVOR BY HAVING PERSONS ATTENDING A MEETING AND VOTING THE DESIRES OR INTERESTS OF A MANIPULATING ENTITY RATHER THAN THEIR OWN TECHNICAL OPINION OR VIEW.

NEGATIVE DOMINANCE IS THE MANIPULATION OF QUESTIONS OR ISSUES BY HAVING SUFFICIENT PERSONS ATTENDING A MEETING AND VOTING THE DESIRES OR INTERESTS OF A MANIPULATING ENTITY RATHER THAN THEIR OWN TECHNICAL OPINION OR VIEW IN ORDER TO STOP POGRESS

OR BLOCK APPROVAL. FOR EXAMPLE, TECHNICAL DECISION IN 802.20 REQUIRES CONSENSUS OF 75% FOR TECHNICAL DECISIONS. THEREFORE A MANIPULATING ENTITY WOULD NEED ONLY TO CONTROL JUST OVER 25% OF THE VOTERS TO BLOCK ADOPTION OR APPROVAL OF A TECHICAL DOCUMENT.

THE ADVERSION OF THE 802 EXECUTIVE COMMITTEE AND THE IEEE TO COMPROMISE OF THE DECISION PROCESS BY MANIPULATION AND CONTROL OF THE VOTING MEMBERS CANNOT BE OVERSTATED. IT IS THE INTENTION OF THE IEEE AND MYSELF TO DO EVERTHING POSSIBLE TO IDENIFY, ROOT OUT AND EXPELL ALL PERSONS FOUND TO BE MINDLESS HAND PUPPETS OF OTHERS RATHER THAN MATURE THINKING AND INTELLIGENT ENGINEERING COLLEGUES ENGAGED IN THE PROCESS OF PRODUCING THE BEST TECHNICAL OUTPUT RESULT.

THE MEANS BY WHICH WE WILL BE ABLE TO IDENTIFY AND ROOT OUT COLLUSION TO ACHIEVE POSITIVE OR NEGATIVE

DOMINANCE, IS BEING STUDIED. YOU ARE ALL AWARE THAT WE REQUIRE FULL DISCLOSURE OF ATTENDEE AFFILIATION. WE RECOGNIZE THAT BEING AFFILIATED WITH A SPONSOR THAT HAS AN INTEREST IN WHAT WE DO DOES NOT NECESSARILY INDICATE COLLUSION AND CONTROL. HOWEVER, VOTING PATTERNS OVER TIME MAY VERY WELL GIVE REASON FOR WONDER. NO ONE AGREES WITH ANYONE ALL OF THE TIME, ESPECIALLY IN REGARDS TO THE COMPLEX MATTERS THAT CONCERNS THIS COMMITTEE. OVER TIME WE MAY, AS NECESSARY, DEVELOP VOTING METHODOLOGIES THAT WILL HELP PRECLUDE ORCHESTRATED VOTING. IT IS STILL A WORK IN PROCESS. WE ARE PARTICULARLY, AT THIS TIME, DEALING WITH HIGH LEVELS OF ANXIETY AND PARANOIA.

I WILL, I AM SURE, NEED A GREAT DEAL OF HELP PUTTING 802.20 IN A POSITION WHERE ITS DECISIONS ARE NOT SUSPECT AND WHERE ITS WORK TO ACHIEVE ITS MISSION CAN BE ACCOMPLISHED EFFICIENTLY AND EFFECTIVELY. I HOPE THAT MOST OF THAT HELP WILL COME FORM THE

MEMBERS OF THIS COMMITTEE. IF NOT, I MUST ASSURE YOU THAT THERE ARE MANY PEOPLE ON 802 AND THE IEEE THAT ARE WILLING, READY AND ABLE TO PROVIDE ALL OF THE SUPPORT THAT WILL BE REQUIRED. I HOPE THAT ALL THE HELP THAT I WILL NEED AND THAT ALL OF THE CORRECTIONS, CHANGES AND ADJUSTMENTS THAT WE MUST MAKE WILL COME FROM WITHIN 802.20.

INTRODUCTION

AS THE FIRST STEP TO ASSIST ME AND BECAUSE I DON'T KNOW MOST, IF NOT ALL OF YOU, I WILL REQUEST THAT EACH OF YOU STAND, TELL US YOUR NAME, YOUR AFFILIATION, IF YOU HAVE FILLED OUT A DISCLOSURE OF AFFILIATION AS REQUIRED, HOW LONG YOU HAVE BEEN ASSOCIATED WITH 802.20 AND WHAT PRIMARY AREA OF INTEREST YOU HAVE IN 802 OR FOR THAT MATTER IN 802.20.

DISCUSSION OF CURRENT ISSUES

A. CHANGE OF OFFICERS

MOST, OR ALL OF YOU, ARE AWARE THAT ALL PRIOR OFFICERS OF 802.20 HAVE BEEN REMOVED AND TODAY WE HAVE JUST A CHAIR. OVER TIME THAT WILL CHANGE, BUT FOR NOW IT JUST IS.

BOTTOM LINE, THERE WERE SO MANY QUESTIONS REGARDING BOTH DOMINENCE AND DECISIONS MADE THAT BOTH THE EXECUTIVE COMMITTEE OF 802 AND THE DIECTORS OF THE IEEE-SA DETERMINED THAT THE ONLY WAY TO ALLOW 802.20 TO CONTINUE OPERATING WAS TO REMOVE THE ADMINISTRATION WHICH ALLOWED THESE QUESTIONS TO ARISE. OUR JOB IS TO FIX THE PERCEPTIONS THAT EXIST. IF THE PROBLEMS ARE REAL WE MUST MAKE THEM GO AWAY. IF THE PROBLEMS ARE NOT REAL WE MUST PROVE IT. UNFORTUNATELY, 802.20 IS GUILTY UNTIL PROVEN INNOCENT. WE WILL AND WE MUST PROCEED TO PROVE US INNOCENT.

B. NEED FOR OFFICERS

802.20 WILL NEED A FULL SLATE OF OFFICERS; SOMEONE TO REPLACE ME, AND THE REST OF THE NORMAL SLATE OF OFFICERS TO ADMINISTER THE ACTIVITIES OF 802.20. THE PROCESS FOR CHOOSING THE 802.20 OFFICERS WILL INCLUDE IDENTIFICATION, VETTING AND FORMAL ELECTION OF OBJECTIVE AND NON-AFFILIATED PERSONS. I SUGGEST THAT THIS WILL TAKE TIME. IT WON'T BE AT THIS MEETING OR EVEN THE NEXT, BUT WILL HAPPEN IN THE FORESEEABLE FUTURE BECAUSE IT MUST. THE CAVEATES ASSOCIATED WITH IMPLEMENTATION OF THIS PROCESS IS THAT ALL INTERESTED PARTIES MUST AND SHALL BE CONVINCED THAT THE INSTALLATION OR A NEW SLATE OF OFFICERS WILL NOT LEAD TO THE PRBLEMS THAT HAVE BEEN PREVIOUSLY ENCOUNTERED. THESE PROBLEMS INCLUDE THE PERCEPTION OF THE ADMINISTRATORS OF 802.20 THAT THE PROCESS IS NOT OPEN, FAIR, INDEPENDENT AND DEFENSABLE.

C. PLANS & LIMITATIONS FOR THIS MEETING

THE PLANS FOR THIS MEETING ARE TO FIRST AGREE UPON WHERE WE ARE AS 802.20. AS YOU KNOW, A VARIETY OF ISSUES EXIST. WE MUST LOOK AT THE DIRECTIVES OF THE STANDARDS BOARD WHICH INCLUDE:

1. **TERMINATION OF THE WG BALLOTS IN PROCESS.**
2. **REOPEN THE TECHNOLOGY SELECTION PROCESS.**
3. **UNDERSTANDING THAT AN OVERSITE COMMITTEE OF THE STANDARDS ASSOCIATION STANDARDS BOARD HAS BEEN FORMED TO REVIEW WHAT WE DO AND HOW WE DO IT.**
4. **ADDITIONALLY THAT AN OVERSITE COMMITTEE OF 802 HAS ALSO BEEN FORMED TO REVIEW ADMINISTRATION AND MONITOR THE WORK OF 802.20.**

ANY OF YOU WHO HAVE THE IMPRESSION THAT WE ARE UNDER INCREDIBLE SCRUTINY ARE QUITE CORRECT.

IN REVIEWING THE FOUR DIRECTIVES WHICH EXIST, THE TWO WE SHOULD DISCUSS ARE TERMINATION OF THE BALLOTS IN PROCESS AND REOPENING OF THE TECHNOLOGY SELECTION PROCESS.

THE REOPENING OF THE TECHNOLOGY SELECTION PROCESS DOES NOT MEAN ABANDONING WHAT HAS BEEN ACCOMPLISHED. IT DOES MEAN MAKING CERTAIN THAT WE INVITE AND REVIEW INPUTS FOR ALTERNATIVE APPROACHES, CHANGES AND/OR MODIFICATIONS TO THE CURRENT DOCUMENTION, AND BE PREPARED AT THE NEXT MEETING TO DISCUSS THESE INPUTS, REACH A LEVEL OF CONSENSUS CONCERNING THEM, MAKE CHANGES AS NECESSARY AND APPROPRIATE AND AS SUPPORTED BY THE 802.20 MEMBERSHIP TO ARRIVE AT A SELECTION OF TECHNOLOGY THAT IS SUPPORTABLE, DEFENSABLE AND

OPTIMAL. PREPARING FOR THIS PROCESS WILL TAKE THE BULK OF THIS WEEK.

THERE ARE A NUMBER OF APPEALS IN PROCESS. THESE INCLUDE:

1. **PROTEST OF THE REMOVAL OF OFFICERS.**
2. **PROTEST OF THE BALLOT TERMINATION AND,**
3. **PROTEST OF THE REOPENING OF THE TECHNOLOGY SELECTION PROCESS.**

MY OPINION IS THAT THESE APPEALS WILL FAIL. HOWEVER, SHOULD THEY FAIL OR SUCCEED IT SEEMS TO ME THAT WE, AS 802.20, SHOULD NOT SIT DEAD IN THE WATER AND DO NOTHING. I SUGGEST AND RECOMMEND THAT WE MOVE AHEAD AS I HAVE SUGGESTED AND SHOULD THE APPEALS SUCCEED, 802.20 WILL STILL BE BETTER OFF THAN IF WE DID NOTHING.

D. DOCUMENTS IN FORCE

WE HAVE A NUMBER OF DOCUMENTS IN FORCE IN 802.20 TECHNICALLY.

WE HAVE A SYSTEM REQUIREMENTS DOCUMENT. MY CONVERSATIONS TO DATE INDICATE THAT THIS SYSTEMS REQUIREMENTS DOCUMENT IS A GOOD AND VIABLE DOCUMENT THAT WE CAN HANG OUR HAT ON. HOWEVER, I WOULD BE INTERESTED TO HEAR DISCUSSIONS ON THIS DOCUMENT, OPINIONS IN SUPPORT OR CONTRARY AND PERHAPS A STRAW VOTE CONCERNING THE 802.20 SYSTEMS REQUIREMENTS DOCUMENT. A REAFFIRMATION OR NOT, IF YOU WILL.

WE ALSO HAVE A CHANNEL MODEL. IN A SIMILAR FASHION, I INVITE DISCUSSIONS ON THE CHANNEL MODEL AND REAFFIRMATION OR NOT.

THE DRAFT STANDARD IN BALLOT IS A BIG ISSUE. YOU ARE AWARE THAT THE BALLOT HAS BEEN SUSPENDED. WE WANT THE SAME OPEN AND HONEST DISCUSSION OF THE

draft. ONCE AGAIN WE WILL INVITE SUGGESTIONS, RECOMMENDATIONS FOR CHANGE ALTERNATIVES LEADING TO CHANGE OR NOT AND A NEW BASE LINE OR NOT FOR BALLOT.

I POINT OUT THAT SCRUTINY WILL BE INTENSE. I WILL ASK AND DEMAND THAT ALL VIEWS PRO OR CON BE SUPPORTED I WILL LOOK FOR ALL INPUTS TO BE RATIONAL, SUPPORTABLE, TECHNICAL AND UNEMOTIONAL LEADING TO A TOTALLY DEFENSABLE AND SUPPORTABLE DOCUMENT WHICH WILL BE REOPENED FOR BALLOT.

WE ALSO HAVE A NUMBER OF ADMINISTRATIVE PROCEDURAL DOCUMENTS AND WE HAVE A POLICY AND PROCEDURES DOCUMENT.

I will INVITE DISCUSSION DURING THIS WEEK OF THE 802.20 POLICY AND PROCEDURES. I WILL SEEK MEANS AND WAYS TO PRECLUDE REOCCURANCE IN THE FUTURE OF THE PROBLEMS WHICH CURRENTLY BESET US.