

Tentative MAC Interim Meeting Minutes Monday AM, November 6, 1995

The meeting was called to order by chairman Dave Bagby at 8:42 AM. Carolyn Heide secretary.

Goals

- Quick votes on letter ballot reference papers
- Process all D2 LB comments
- Review initial MAC PICS Proforma
- New papers: none announced
- Misc: approval of minutes

LB Reference Papers

Motion #1: To adopt text from P802.11-95/137r2 with the change:
the second sentence of point g of 8.2.2.4 should read "All STAs shall use the backoff procedure defined in subclause 6.2.6.2 for transmission of the first frame following the ATIM window."

Moved by: Simon Black
Seconded by: Sarosh Vesuna

Motion 1 Discussion:

There is a concern that many sta are encouraged to put out ATIMs at the same time. Clusters the collision possibility. There is a sentiment expressed that while this is true, the scheme does work, although it might not be the most efficient method ever invented.

Approved: 10 Opposed: 0 Abstain: 4 *Motion #1 passes*

Motion #2: To adopt the text from document P802.11-95/196.

Moved by: Tom Baumgartner
Seconded by: Leon Scaldeferri

Motion 2 Discussion:

Arguments against - while it may solve a problem with software implementations of the MAC, this solution adds a lot of overhead to hardware implementations. At future higher rates we may have created a problem for software implementations. Changing back to MSDU basis has short term gain, but MPDU basis has a clean, simple implementation, clear functional split between MAC and PHY.

Straw poll: MSDU-least support; MPDU-most; don't know-in the middle.

Arguments in favor: there isn't a clear split anymore between hardware and software, that implementation shouldn't be a concern. The algorithms were designed to run in software, and later down the road the software implementations will get faster too. The use of this is optional, if you can't afford to have real-time processing stolen from your processor, don't do it. Also consider that other algorithms may be added later, so keeping as high up as possible would facilitate that better.

Approved: 1 Opposed: 6 Abstain: 8 *Motion #2 fails*

Motion #3: To adopt the text from document P802.11-95/198

Moved by: Wim Diepstraten
Seconded by: Carolyn Heide

Motion 3 Discussion:

If this bit is set does it preclude you from talking to an unencrypted stack in an AP? Isn't this covered by the WEP function on and off bit? No to both of these, because there is an index to sta referred to here, this is not a global state.

It would be nice to know at a higher level whether or not a frame was encrypted, but this allows adjusting of things, using MIB variables, that are supposed to be hidden. This covers a deficiency elsewhere.

Approved: 6 Opposed: 0 Abstain: 9 *Motion #3 passes*

Motion #4: To adopt the text from document P802.11-95/201.

Moved by: Tom Baumgartner
Seconded by: Bob O'Hara

Motion 4 Discussion: none

Approved: 12 Opposed: 0 Abstain: 3 *Motion #4 passes*

Motion #5: To adopt the text from document P802.11-95/203

Moved by: Tom Baumgartner
Seconded by: Chris Zegelin

Motion 5 Discussion: none

Approved: 11 Opposed: 0 Abstain: 4 *Motion #5 passes*

Motion #6: To adopt the text from document P802.11-95/206

Moved by: Bob O'Hara
Seconded by: Tom Baumgartner

Motion 6 Discussion:

Arguments against: this cuts down the channel efficiency for FH. More and more efficiency cuts have been creeping in.

Arguments in favor: remember that because you can do this, doesn't mean that you have to. Would rather have a simple broken mechanism than a complicated broken one. Consistency - tuning fragment size by environment is allowed by this standard, but not within an MSDU in any other case than as an optimization at the dwell boundary. It is a lot of work, once you have acquired the channel, to calculate what you can get through and get an ack, all before the dwell boundary. Great overhead imposed on every transmission, precludes simple implementations. Why does this paper specify striking out of last sentence?

Motion 7#: To postpone this motion until Michael Fischer arrives.

Moved by: Wim Diepstraten
Seconded by: Tom Baumgartner

Motion 7 Discussion: none

No Objection

*Motion 7# passes**Motion #6 postponed***Motion #8:** To adopt the text from document P802.11-95/207.

Moved by: Tom Baumgartner
 Seconded by: Johnny Zweig

Motion 8 Discussion:

There is opposition to the specific numbers - 7 as a minimum is too high, increases collision probability, especially for broadcast/multicast.

Adoption of these papers eliminates the need to discuss letter ballot comments, but doesn't preclude those discussions from occurring (some people would like to discuss the numbers more in specific letter ballot discussions).

Approved: 10

Opposed: 1

Abstain: 8

Motion #8 passes

Documents 95/208 and 209r1 are opposed suggestions. The possibilities seem to be: leave as is D2; adopt 208; adopt 209; abstain.

Motion #9: To move to a committee of the whole to discuss the choices.

Moved by: Bob O'Hara
 Seconded by: Tom Baumgartner

No Objection

*Motion #9 passes***7 minute discussion**

The difference in the proposals comes down to whether you believe there will be clumping of SIDs at the high values - that makes the compression of leading zeros worth while. There is efficiency gain by adopting either one.

The current d2 proposal takes more processing, but was intended for channel efficiency with scattered SIDs. For small numbers of stations the changes proposed by these papers are good, but the d2 scheme works for small or large possibilities.

The issue is how you allocate the SIDs. Any algorithm can be made efficient if you allocate to be efficient for the bit mapping algorithm.

A problem with the method in D2 is that the complexity of decoding is different per station - you have more work to do depending on what SID you were assigned. The proposals in these papers are fair.

Return to normal discussion**Motion #10:** to adopt either 208 or 209, and if this passes to pick one by vote.

Moved by: Tom Baumgartner
 Seconded by: Wim Diepstraten

Motion 10 Discussion:

Call the question: Tom Baumgartner, seconded by Johnny Zweig (no nays).

Approved: 6

Opposed: 5

Abstain: 6

Motion #10 passes

Vote: in favor of 95/208 (1); in favor of 209r1 (7); abstain (5)

95/209r1 adopted

Motion #11: To adopt the text from document P802.11-95/210.

Moved by: Tom Baumgartner
Seconded by: Leon Scaldeferri

Motion 11 Discussion: none

Approved: 14 Opposed: 0 Abstain: 4 *Motion #11 passes*

Motion #12: To adopt the text from document P802.11-95/211.

Moved by: Bob O'Hara
Seconded by: Johnny Zweig

Motion 12 Discussion: none

Approved: 5 Opposed: 1 Abstain: 11 *Motion #12 passes*

Motion #13: To adopt the text from document P802.11-95/212.

Moved by: Simon Black
Seconded by: Jon Rosdahl

Motion 13 Discussion: none

Approved: 12 Opposed: 1 Abstain: 5 *Motion #13 passes*

Motion #14: To adopt the text from document P802.11-95/215.

Moved by: Bob O'Hara
Seconded by: Tom Baumgartner

Motion 14 Discussion:

Author clarifies that the last paragraph was supposed to be a comment not part of the text.

Motion #15: To amend point 13 to read:
"Association is denied because the requesting sta is not authenticated."

Moved by: Wim Diepstraten
Seconded by: Johnny Zweig

Motion 15 Discussion: none

Approved: 11 Opposed: 0 Abstain: 6 *Motion #15 passes*

Motion #16: To refer this is the committee dealing with section 4 letter ballot comments deal with it.

Moved by: Simon Black
Seconded by: Chris Zegelin

Motion 16 Discussion: none

No objection

Motion #16 passes

No Objection

Motion #14 passes

Potential Organization of rest of the weeks' activities:

Tues & Wed: Small groups dealing with clauses, meeting together occasionally, at least once a day, to coalesce.

Discussion of when to do joint MAC/PHY issues. There are certainly joint issues to deal with, but specific letter ballots are the goal.

Thursday prepare for plenary presentation of week's result.

Discussion of how to divide the groups and how to mechanically make the changes. Sections 4, 6 and 8 have the most technical comments.

Small Group Leaders per clause: Tom Baumgartner - 1; Jon Rosdahl/Simon Black - 4; Bob O'Hara - 8; Carolyn Heide - 6; Dave Bagby - all others.

Break into small groups 11 AM.

Meeting adjourned: 11 AM

