**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) |
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| Source | Marco Hernandez (NICT) |
| Response |  |
| Abstract |  |
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1. TG8 sessions

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1. Minutes

Chair: Prof. Myung Lee (CUNY) USA.

Secretary: Marco Hernandez (NICT) Japan.

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Monday March 9th, PM1 session

−Chair calls the meeting to order.

**Chair:** The meeting's agenda is in DCN 15-144r0. The plan is to finish the 1st draft version next May 2015. Who wants a slot for a presentation?

−The agenda DCN 15-144r1 is approved unanimously.

−The minutes of the previous meeting DCN 15-99r0 are approved unanimously.

**Chair:** Let’s hear a report for the teleconferences, Marco?

−Marco skims the teleconferences minutes: DCN 15-113r0, 15-132r0, and 15-159r0.

−Chair reviews the items assigned to champions in DCN 14-657r5.

1st presenter is Marco (NICT) DCN 14-248r4 "NICT PHY Specification Proposal"

**Comments:**

**BJ:** It is better for me if you make the modifications in the draft version 0.8.

**Response:** Ok, I will do it in order to revise it later.

2nd presenter is Marco (NICT) DCN 15-171r0 "PHY General Requirements and Services"

**Comments:**

**BJ:** The frequency error tolerance of 0.25 is too strict.

**Response:** Yes, this proposed value is for a high quality radio. However, it was a suggestion. We can leave it as TBD at the moment.

**Chair:** Let's take a recess until PM2.

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Monday January 12th, PM2 session.

−Chair calls the meeting to order.

−The discussion on "PHY General Requirements and Services" continues:

In start and end of a superframe sub-clause, there was a long discussion, because the term superframe structure is used in the MAC, which is conceptually different from the superframe at the PHY level. The discussion was settled by changing superframe by PPDU.

3rd Presenter is Igor (NICT) DCN 15-195r0 "Proposed text for Minimum LIFS and SIFS periods for UWB PHY"

**Comments:**

**BJ:** I want to see the table 39, for the editing.

**BJ:** I do not get how to modify that table.

**Marco:** You do not need to modify that table. I will take Igor's text for SIFS and I will put it in the clause of “PHY general requirements” document for approval later.

4th presenter is BJ (ETRI) DCN 15-191r0 "Fully Distributed Synchronization Scheme for PAC with Additional Simulations"

**Comments:**

**Li:** In page 11, initial synchronization, the 180 rule has advantages, but in page 15 merging of 2 networks, the probability of PDs phase in the 90 rule is better.

**Response:** 50% of the time, the networks cannot merge.

**BJ:** I deleted the optional feature of using the concave curve, because is not good for implementation.

**Marco:** You are misleading, because there are many practical implementations of the firefly algorithm. Besides, we do not know how you are implementing your simulations.

**Paul:** Why do we need an algorithm? We need only to specify the convergence rate.

**Response:** We need that rule for synchronization of PAC. It is not like a cellular system.

**Paul:** We need only to specify the preambles without a particular rule at the receiver, and guidelines for guarantee convergence.

**Response:** In cellular systems you can do that, but for TG8 we need to be more careful.

**Paul:** Standards do not specify algorithms at the receiver, either BJ's or firefly.

**Response:** I think I need to have offline discussion with Marco and Paul, before moving a motion.

**Li:** In page 6, 2nd paragraph is not clear.

**BJ:** That is Shannon's part. I will revise it.

**Qing:** In the synchronization of 2 networks, there is a possibility of a gap between them, so that they do not synchronize.

**Response:** Yes, we take that into account. There is a possibility of faulty signals. You first detect and then you merge.

**Chair:** Let's take a recess until PM1 tomorrow.

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Tuesday March 10th, PM1 session

−Chair calls the meeting to order.

5th presenter is H.B. Li (NICT) DCN 15-215r0 "Draft text of Channel Scanning for TG8"

**Comments:**

**BJ:** Where in the superframe, the request and response are located?

**Response:** Good question.

**Chair:** He is describing the primitives only.

**BJ:** These management signals should be sent in the superframe.

**Chair:** I think the request for scanning should be done during discovery.

**BJ:** For active scanning, a PD needs to interchange management messages. Is there an overlap with discovery?

**Response:** Not really, in discovery a PD decodes the discovery information.

**Qing:** In sleeping mode, it depends how long a PD sleeps. Also you have deep sleep. You need at least 1 superframe to wake up and re-synchronize.

**BJ:** This scanning is used not only to sense the channel, but for initialization as well.

**Response:** Yes.

5th presenter is Marco (NICT) DCN 15-171r2 "PHY general requirements and services"

**Comments:**

**BJ:** Please make the entries of Table 4, transmission bandwidth, as TBD.

Marco moves a motion to approve the text in DCN 15-171r3 "PHY General Requirements and

Services" into the Draft Standard v0.8

Second: BJ.

Discussion: none.

Official vote:

In favor: 7. Oppose: 0. Abstain: 0. Motion carries.

−Chair: Let's take a recess until PM2.

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Tuesday March 10th, PM2 session

−Chair calls the meeting to order.

6th presenter is Qing (Interdigital) DCN 15-222r1 "Draft text of architecture for TG8"

**Comments:**

**Qing:** for the PHY sub-clause, Marco is that ok?

**Marco:** Please change LQI by CQI and the coexistence document 15.4 by 15.8.

7th presenter is BJ (ETRI) DCN 15-191r1 "Fully Distributed Synchronization Scheme for PAC with Additional Simulations"

**Comments:**

**Li:** The text mentioned before should indicate from initialization to merging.

**Response:** Correct. I need to revise the text.

Marco moves a motion to approve the text embedded in DCN 15-170r3 "Motions for high mobility PHY" into the Draft Standard v0.8.

Second: HB Li.

Discussion: none.

Official vote:

In favor: 7. Oppose: 0. Abstain: 0. Motion carries.

8th presenter is H.B. Li (NICT) DCN 15-215r2 "Draft text of Channel Scanning for TG8"

**Comments:** None.

HB Li moves a motion to approve the text in DCN 15-215r3 "Draft text of Channel Scanning for TG8" into the Draft Standard v0.8.

Second: Marco.

Discussion: none.

Official vote:

In favor: 8. Oppose: 0. Abstain: 0. Motion carries.

9th presenter is BJ (ETRI) DCN 15-191r3 "Fully Distributed Synchronization Scheme for PAC with Additional Simulations"

**Comments:** None.

BJ moves a motion to approve the text embedded in DCN 15-191r2 into the Draft Standard v0.8

Second: Marco.

Discussion: none.

Official vote:

In favor: 6. Oppose: 1. Abstain: 0. Motion carries.

10th presenter is Qing (Interdigital) DCN 15-228r0 "Motion for the draft text of architecture for TG8"

**Comments:** None.

Qing moves a motion to approve the text embedded in DCN 15-222r2 into the Draft Standard v0.8

Second: Marco.

Discussion: none.

Official vote:

In favor: 7. Oppose: 0. Abstain: 0. Motion carries.

10th presenter is Qing (Interdigital) DCN 15-74r0 "MAC\_work\_items"

**Comments:**

−Qing goes through the document to check which items are done and the missing parts were assigned to champions for discussion later in the week.

**Chair:** The meeting is in recess until PM1 tomorrow.

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Wednesday March 11th, PM1 session

−Chair calls the meeting to order.

11th presenter is Qing (Interdigital) DCN 15-223r0 "Draft text for Tx, Rx, and Ack for TG8"

**Comments:**

−Qing goes through the document and TG8 discusses and changes part of the text. Qing will resume the discussion during PM2.

Chair: Let's take a recess until PM2.

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Wednesday March 11th, PM2 session

−Chair calls the meeting to order.

12th presenter is J. Lee (ETRI) DCN 15-244r0 "Introduction to 802.11 Association Procedure"

**Comments:**

**BJ:** In slide 11, what happens when the access to the AAA server is lost?

**Response:** In that case the AP does the authentication.

**Qing:** What kind of authentication protocol?

**Response:** Real authentication protocol adapted from cellular.

**BJ:** What about re-association or re-authentication?

**Response:** If the station is associated to an AP, then re-authentication is required.

**BJ:** If a move to another room, but then I come back?

**Response:** In that case is re-association. Previous info of the station is stored in AP and authentication info is stored in the authentication server.

**BJ:** What about disassociation?

**Response:** Info of that station is deleted from the AP.

**Qing:** For us, if PDs go to sleep, and then wake up, re-association is possible, because we can re-use info stored from the previous association.

**Response:** At a group level, info of the stations is stored by the group leader (GO).

**Li:** Why the GO cannot be transferred to other devices?

**Response:** Maybe complexity.

**Marco:** If the GO disappears?

**Response:** If the GO disappears, a new group is formed.

**Lee:** For PAC, which is fully distributed, handling of the GO protocol becomes very complex.

−Qing continues the discussion on DCN 15-223r0:

Qing moves a motion to approve the text in DCN 15-223r1 into the Draft Standard v0.8

Second: Marco.

Discussion: none.

Official vote:

In favor: 8. Oppose: 0. Abstain: 0. Motion carries.

−Chair: Let's take a recess until AM1 tomorrow.

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Thursday March 12th, AM1 session

−Chair calls the meeting to order.

**Chair:** I noticed that a security proposal was uploaded to Mentor. I will ask Woongsoo Na to present it during a teleconference and the group may decide if the group goes for this security proposal, as TG9 is still unfinished.

**BJ:** Actually, he is not involved in the security proposal. I do not know what is going on.

**Chair:** Can you contact him?

**BJ:** Yes.

−Chair: Let's schedule teleconferences:

April 8th at 7:00 AM EDT, 8:00 PM Japan/Korea, Ireland 11:00 AM.

April 22nd at 8:00 PM EDT; 9:00 AM (April 3) Japan/Korea; Ireland 12:00 AM.

May 6th at 7:00 AM EDT; 8:00 PM Japan/Korea; Ireland 11:00 AM.

13th presenter is BJ (ETRI) DCN 15-236r0 "Overview Text for IEEE 802.15 TG8 PAC"

**Comments:**

−BJ reads the document and TG8 decides some changes in the text.

BJ moves a motion to approve the text in DCN 15-236r1 into the Draft Standard v0.8

Second: Marco.

Discussion: none.

Official vote:

In favor: 8. Oppose: 0. Abstain: 1. Motion carries.

14th presenter is BJ (ETRI) DCN 15-241r0 "Discussion of General MAC frame format of 802.15.4 from PAC point of view"

**Comments:**

−BJ reads the document and TG8 decides some changes in the text.

15th presenter is Qing (Interdigital) DCN 15-247r0 "Draft text of MAC individual frame format for TG8"

**Comments:**

−Qing reads the document and TG8 decides some changes in the text.

Chair: Let's take a recess until AM2.

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Thursday March 12th, AM2 session

−Chair calls the meeting to order.

BJ moves a motion to approve the Draft Standard v0.92 so that it becomes 0.10.0.

Second: Marco.

Discussion: none.

Official vote:

In favor: 8. Oppose: 0. Abstain: 0. Motion carries.

−Chair goes through missing items in DCN 15-74r2 and assigned those to champions.

**Chair:** Thank you everybody for your hard work. Talk to you in the next teleconference.

The meeting is adjourned.