IEEE P802.11
Wireless LANs

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| 802.11ba Teleconference Minutes January-February 2018 |
| Date: 02-12-18 |
| Author(s): |
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Abstract

This document contains minutes from TG 802.11ba teleconferences in January and February 2018.

Rev 0: Minutes from TG 802.11ba teleconference on 29th of January 2018.

Rev 1: Minutes from TG 802.11ba teleconference on 12th of February 2018.

Rev 2: Minutes from TG 802.11ba teleconference on 26th of February 2018.

**Teleconference on Monday, January 29th, 2018, 10:00 – 11:00am (ET)**

**Agenda:**

1. Call meeting to order

2. Agenda setting

3. Patent policy (link at the end of the email)

4. Attendance: send email to the chair or secretary (leif.r.wilhelmsson@[ericsson.com](http://ericsson.com))

5. Presentations

    1) 18/169r1, Power efficiency for individual frames reception, Jarkko Kneckt (Apple)

6. Adjourn

Please note that teleconferences are bound by the conditions stipulated by the documentation below.  Please review them and bring up any questions/concerns you may have before proceeding with the teleconference:

IEEE Patent Policy - <http://standards.ieee.org/board/pat/pat-slideset.ppt>
Patent FAQ - <http://standards.ieee.org/board/pat/faq.pdf>
LoA Form - <http://standards.ieee.org/board/pat/loa.pdf>
Affiliation FAQ - <http://standards.ieee.org/faqs/affiliationFAQ.html>
Anti-Trust FAQ - <http://standards.ieee.org/resources/antitrust-guidelines.pdf>
Ethics - <http://www.ieee.org/portal/cms_docs/about/CoE_poster.pdf>
IEEE 802.11 Working Group Operations Manual –
<https://mentor.ieee.org/802.11/dcn/09/11-09-0002-16-0000-802-11-operations-manual.doc>

**Chair Minyoung Park (Samsung) calls the meeting to order at 10:00am (ET).**

Minyoung goes through the agenda and asks if there is anything that should be added to the agenda. No discussion on the agenda, so the proposed agenda will be used.

Minyoung reviewes the IEEE 802 and 802.11 Policy and Procedure, and direct them to the links provided in the call for this meeting in case of questions. Minyoung asks if there is any potentially essential patent that people are aware of or if there are any questions in this matter.

No potentially essential patents reported and no questions asked.

Minyoung reminds about recording attendance by sending an email to the secretary.

**Presentation:**

**11-18/169r1, “Power Efficiency for Individually Addressed Frames Reception”, Jarkko Kneckt (Apple):** The contribution is concerned with that the AP can send a wake-up packet very often, say every 50ms, to wake up the PCR even if the data is not time-critical. To avoid unnecessary power consumption, it is proposed that the AP should be able to inspect the packet and apply TFS. One could e.g. differentiate between delay and power optimized services.

**Question/Comment (Q):** Your concern is that the STA is woken up unnecessary often?

**Answer(A):** Yes, e.g. if the message is not time-critical it may not be needed to wake up the PCR immediately.

**Q:** Will TFS as defined today work?

**A:** Yes, but we just want to delay the low priority packet. We just want to specify the general behavior and leave details for implementation.

**Q:** The AP is in control. I believe this may be achieved without involving the non-AP STA.

**Q:** I don’t really see from where you get the power saving.

**A:** The power saving comes from that the PCR is activated less often.

**Meeting is adjourned at 10.40am (ET).**

**List of Attendees:**

|  |  |  |
| --- | --- | --- |
|  | Name | Affiliation |
| 1 | Minyoung Park | Samsung |
| 2 | Leif Wilhelmsson | Ericsson |
| 3 | Jarkko Kneckt | Apple |
| 4 | Peter Loc | Huawei |
| 5 | Yunsong Yang | Huawei |
| 6 | Alphan Sahin | Interdigital |
| 7 | John Notor | Notor Research/ARM Inc. |
| 8 | Osama Aboul-Magd | Huawei |
| 9 | Sue Leicht | NSA |
| 10 | Hanseul Hong | Yonsei Univ. |

**Teleconference on Monday, February 12th, 2018, 5:00 – 6:00pm (ET)**

**Agenda:**

1. Call meeting to order

2. Agenda setting

3. Patent policy (link at the end of the email)

4. Attendance: send email to the chair or secretary (leif.r.wilhelmsson@[ericsson.com](http://ericsson.com/))

5. Presentations

    1) 11-18-0244-01-00ba-Advertising-WUR-Discovery-Frame-for-Fast-Scanning, Kaiying Lv

6. Adjourn

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Anti-Trust FAQ - <http://standards.ieee.org/resources/antitrust-guidelines.pdf>
Ethics - <http://www.ieee.org/portal/cms_docs/about/CoE_poster.pdf>
IEEE 802.11 Working Group Operations Manual –
<https://mentor.ieee.org/802.11/dcn/09/11-09-0002-16-0000-802-11-operations-manual.doc>

**Chair Minyoung Park (Samsung) calls the meeting to order at 5:02pm (ET).**

Minyoung goes through the agenda and asks if there is anything that should be added to the agenda. No discussion on the agenda, so the proposed agenda will be used.

Minyoung reviewes the IEEE 802 and 802.11 Policy and Procedure, and direct them to the links provided in the call for this meeting in case of questions. Minyoung asks if there is any potentially essential patent that people are aware of or if there are any questions in this matter.

No potentially essential patents reported, and no questions asked.

Minyoung reminds about recording attendance by sending an email to the secretary.

**Presentation:**

**11-18/0244r1, “Advertising WUR Discovery Frame Related Info for Fast Scanning” Lv Kaiying:** The presentation relates to the WUR discovery frame format and how the mobile knows where to find the WUR discovery frame. One of the key components to limit the latency is the WUR discovery channel should be selected from a fixed subset of WUR channels.

**Question/Comment (Q):** It seems to me the information may be obtained through the PCR assuming that the STA is associated with the AP?

**Answer(A):** In case of location scan, association is not required. In case of roam scan I agree it would have to be associated.

**Q:** It seems you just need to scan for the WUR beacon?

**A:** Yes, but with a fixed number of discovery channels, the scan can be made faster.

**Q:** Maybe you are out of range for your WUR channel?

**A:** Basically this is why we propose the discovery channel. Of course, there is always a risk to be out of range.

**Q:** I don’t believe this is needed.

**Q:** It seems to me all APs must support this feature, otherwise the idea may not work.

**Meeting is adjourned at 6.00pm (ET).**

**List of Attendees:**

|  |  |  |
| --- | --- | --- |
|  | Name | Affiliation |
| 1 | Minyoung Park | Samsung |
| 2 | Leif Wilhelmsson | Ericsson |
| 3 | Kaiying Lv | ZTE |
| 4 | Peter Loc | Huawei |
| 5 | Yunsong Yang | Huawei |
| 6 | Po-Kai Huang | Intel |

**Teleconference on Monday, February 26th, 2018, 11:00 – 12:00pm (ET)**

**Agenda:**

1. Call meeting to order

2. Agenda setting

3. Patent policy (link at the end of the email)

4. Attendance: send email to the chair or secretary (leif.r.wilhelmsson@[ericsson.com](http://ericsson.com/))

5. Presentations

    1) 11-18-0356-00-00ba-compressed-ssid-for-wur-discovery-frame, Taewon Song, LG Electronics

    2) 11-18/0358 Dynamically Changing WUR ID, Enrico Rantala, Nokia

6. Adjourn

Please note that teleconferences are bound by the conditions stipulated by the documentation below.  Please review them and bring up any questions/concerns you may have before proceeding with the teleconference:

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Anti-Trust FAQ - <http://standards.ieee.org/resources/antitrust-guidelines.pdf>
Ethics - <http://www.ieee.org/portal/cms_docs/about/CoE_poster.pdf>
IEEE 802.11 Working Group Operations Manual –
<https://mentor.ieee.org/802.11/dcn/09/11-09-0002-16-0000-802-11-operations-manual.doc>

**Chair Minyoung Park (Samsung) calls the meeting to order at 11:00pm (ET).**

Minyoung goes through the agenda and asks if there is anything that should be added to the agenda. No discussion on the agenda, so the proposed agenda will be used.

Minyoung reviewes the IEEE 802 and 802.11 Policy and Procedure, and direct them to the links provided in the call for this meeting in case of questions. Minyoung asks if there is any potentially essential patent that people are aware of or if there are any questions in this matter.

No potentially essential patents reported, and no questions asked.

Minyoung reminds about recording attendance by sending an email to the secretary.

**Presentations:**

**11-18/0356r0 “Compressed SSID for WUR Discovery Frame”, Taewon Song (LGE):** The contribution investigates different methods to compress the SSID and also suggests the length for the compressed SSID. The criterion for a suitable compression method is that the compress method should result in unique hashed values as far as possible. Based on this criterion, the CRC-based compression is proposed. It is suggested that 8 bits suffice.

**Question/Comment (Q):** Should the compressed SSID be human readable? Is there a common view within the group whether this would be desirable?

**Answer(A):** For the use case we have in mind, the compressed SSID does not have to be human readable.

**11-18/0358r0 “Dynamically Changing WUR ID”, Enrico-Henrik Rantala (Nokia):** The presentation is concerned with attacks where the purpose is to drain the battery by falsely waking up the PCR. To address this problem, it is proposed to dynamically change the WUR ID address.

**Q:** Do you also consider multi-cast and broadcast?

**A:** We have only considered unicast.

**Q:** I don’t know if there really a security issue after association has been performed.

**Q:** I believe this is solved with the embedded SSID.

**A:** No, the embedded SSID is for minimizing the risk of collision. This has nothing with security to do.

**Q:** I also believe the addressed problem is still relevant and is not addressed by the embedded SSID.

**Meeting is adjourned at 11.40pm (ET).**

**List of Attendees:**

|  |  |  |
| --- | --- | --- |
|  | Name | Affiliation |
| 1 | Minyoung Park | Samsung |
| 2 | Leif Wilhelmsson | Ericsson |
| 3 | Taewon Song  | LGE |
| 4 | Suhwook Kim  | LGE |
| 5 | Yunsong Yang | Huawei |
| 6 | Enrico-Henrik Rantala | Nokia |
| 7 | Rojan Chitrakar | Panasonic |
| 8 | Woohin Ahn | WILUS |