IEEE P802.11
Wireless LANs

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| IEEE 802.11 Real Time Applications TIGSt. Louis meeting minutes |
| Date: 2019-01-18 |
| Author: |
| Name | Affiliation | Address | Phone | Email |
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Abstract

This document contains the meeting minutes for the Real Time Applications TIG during St. Louis interim meeting.

**IEEE 802.11 Real Time Applications TIG**

**Jan 2019, F2F meeting**

1. The IEEE 802.11 Real Time Applications (RTA) Technical Interest Group (TIG) meeting was called to order by the Chair, Allan Jones (Activision).
2. Chair recommend to silent cell phones and submission should not contain company logos.
3. Chair reviewed the IEEE-SA patent policy. Chair asked if there is any response to his call for potentially essential patents. None.
4. Chair review the agenda for today.
5. Chair motion to approve teleconference minutes since Nov 2018.
* **Move: Dave Calvacanti Second: Stuart Kerry**

**Approve TIG minutes of teleconferences and minutes from Nov 2018 Plenary meeting:**

* + RTA TIG November Plenary Meeting minutes <https://mentor.ieee.org/802.11/dcn/18/11-18-2092-00-0rta-rta-nov-bangkok-meeting-minutes.docx>
	+ RTA November 28 Teleconference Minutes

 [https://mentor.ieee.org/802.11/dcn/18/11-18-2091-00-0rta-rta-nov-28- cc-meeting-minutes.docx](https://mentor.ieee.org/802.11/dcn/18/11-18-2091-00-0rta-rta-nov-28-cc-meeting-minutes.docx)

* + RTA December 12 Teleconference Minutes

 <https://mentor.ieee.org/802.11/dcn/18/11-18-2167-00-0rta-rta-dec-18-cc-minutes.docx>

 Minutes approved by unanimous consensus.

1. Straw poll

**Do you agree with the timeline and goals represented in this document for the RTA TIG?**

**Yes: 19**

**No: 0**

**Abstain: 9**

1. Submissions

|  |  |  |
| --- | --- | --- |
| **DCN** | **Title** | **Author** |
| 11-19/0065-00 | RTA TIG Summary and Recommendations  | Kate Meng |
| 11-19/0078-00 | Use cases for RTA in vehicles (Wed) | Jim Lansford |
| 11-19/0110-00 | How can RTA fit in 802.11 | Kazuyuki Sakoda |
| 11-19/0111-00 | Additional game use case over WLAN (Wed) | Kazuyuki Sakoda |
| 11-19/0116-00 | Drone Use Case Followup | Akira Kishida |
| 21-19/0009-00 | Why you should care about VR network requirements | Dillon Seo |

1. Review timeline of RTA TIG

**March 2019 Plenary Meeting**

Final submissions/presentations and submit final report to the working group

Close/Adjourn RTA TIG

1. Review Tele conference till March plenary meeting

January 30th, 2019 6:00pm – 7:30pm EST

February 27th, 2019 6:00pm – 7:30pm EST

1. **Presentations on 15 Jan PM1**

**Kate Meng presents 11-19-0065**

Straw Poll

The RTA TIG recommends the 802.11 working group EHT SG to consider mechanisms to minimize the worst-case latency, low jitter and reliability requirements identified in the RTA TIG report (11-18-2009-r4) as part of the scope of the EHT project.

A: Yes 34

B: No 0

C: Abstain 4

**Akira Kishida presents 11-19-0116**

No comments.

**Kazuyuki Sakoda presents 11-19-0110**

Comments: Now everyone cares low latency and the request is already in EHT PAR. About band specific, there is a chance in 6GHz.

Comments: I think to improve latency performance; high mac modification is not enough. We will need PHY/MAC modification.

Comments: About the requirements and specs, I think 5Mbps is too low for cloud gaming with good user experience. And about the latency requirements, you mean round trip right?

Ans: Agree, we can talk offline.

**Wednesday 16/01/2019 PM 1 Session**

**Jim Lansford presents 11-19-0078**

Comments: Clarification for the ms level timing requirement is time synchronization accuracy and is not latency.

A: Yes. For just downstream streaming, the latency doesn’t matter. But it matters for synchronization of Video and Audio streaming. That’s the requirements from car OEMs. The only use case I can think about is that latency get involved is facetime. User doesn’t want 1/2 second latency when doing the facetime. But don’t know any car companies is thinking about having facetime link in the car screen.

Comments: Why not present these use case requirements to SGbd? The use case requirement hasn’t frozen.

A: The use cases talked in the presentation is inside the vehicle, not vehicle to vehicle. That should oppose to bd, so it’s in different scope.

**Kazuyuki Sakoda presents 11-19-0111**

Comments: The bandwidth requirement is 5Mbps at 720p resolution, how did you come up this calculation? For cloud streaming gaming, everything is being rendered in the game server, the information is streamed to the client. So information is need greater bandwidth requirements with sending gaming data and video data. 5Mbps is OK for p2p gaming, but maybe too low for cloud gaming.

Comments: When you have multiple clients connected to the same game server, you may need equal upstream and downstream requirement.

A: Yes.

 Comments: With respect to the real-time mobile gaming, is the latency requirement 20msec for roundtrip because here shows 10msec for one-way streaming? It should be lower than 10msec for roundtrip.

A: Agree.

Comments: The end to end latency requirement of cloud stream gaming is less than 100msec, I think it should be much lower, e.g. 50msec.

A: Agree, but here just demonstrate bearable minimal requirement.

**Dillion Deo presents 21-19-0009**

 Comments: Are those use cases discussed in .21 WG? What’s the target within this group?

 A: .21 WG considered on higher layer, but also exploring the options for lower layer requirements. So now we are broadcasting those use cases to all 802 working groups, so if anything related to someone’s interests, they can continue the development.

 Comments: If you really want to try to optimize those capability, or add some features, those targets could be applicable in 11ay.