IEEE P802.11
Wireless LANs

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| IEEE 802.11 Real Time Applications TIGAugust 22, 2018, Conference Meeting Minutes |
| Date: 2018-08-22 |
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Abstract

This document contains the meeting minutes for the Real Time Applications TIG August 22nd teleconference.

**IEEE 802.11 Real Time Applications TIG**

**August 22, 2018, Conference Call Meeting**

1. The IEEE 802.11 Real Time Applications (RTA) Technical Interest Group (TIG) meeting was called to order at 9:04pm ET by the Chair, Allan Jones (Activision).
2. Kate Meng (Tencent) was appointed as secretary of RTA TIG.
3. Agenda Doc. IEEE 802.11-18/1419r4.
4. Chair reviewed the IEEE-SA patent policy.
5. Chair asked if there is any response to his call for potentially essential patents. None.
6. Attendance:
* Allan Jones (Activision)
* Tomoko Adachi (Toshibi)
* Edward Au (Huawei)
* Dave Cavalcanti (Intel)
* Glenn Hu (Tencent)
* Yasuhiko Inoue (NTT)
* Kate Meng (Tencent)
* Akira Kishida (NTT)
* Tianyu Wu (Samsung)
* Tom Xu (Tencent)
* Kazuto Yano (ATR)
* Fang Ping (Huawei)
* Sun Bo (ZTE)
1. Chair reviewed the operating rules for a TIG.
2. Chair reminded the participants about the objectives of the TIG and the following Working Group motion in July 2018:

“Approve formation of a Real Time Applications (RTA) TIG to investigate

* + Latency and stability issues observed with real time applications such as mobile and multiplayer games, robotics and industrial automation
	+ Potential mechanisms to address the identified issues

The TIG is to complete a report on this topic at or before the November 2018 session.”

1. Kate Meng (Tencent) responded her contribution 18/1419r4 is ready for presentation.
2. Kate Meng presented her contribution 18/1419r4, “Real-time mobile game Wi-Fi problem highlight”.
3. Comments

Comment: Chapter 4, what’s the most major problem which case game lagging .

Response: weak wifi signal / interference will case the ping form client to AP higher. As a matter of fact, the listed reasons all caused ping value high.

Comment: how often the sampling the latency when you play the game?

Response: It varies, but mostly 1 or 2s from client to game server which is enough for user to get indication of the network status.

Comment: Is icmp ping sent to get the latency?

Response: Not icmp ping, we use private protocol to get the latency from the client to server in game. It is similar to the game packet. But icmp ping is used between client and AP.

Comment: Can you explain why do you think the game-lagging happen between client and gateway?

Response: When the lagging happens, there is always a high ping between client and AP.

Comment: How you decide there is lagging in game?

Response: The way we determine that user encounter lagging is based on a weighted latency distribution. In chapter 9, the table shows the relationship between game experience and latency.

Comment: Is the data about wifi based on 11ac ?How do you think 802.11ax will do some influence on your problem?

Response: We have no visibility of the standard that user used to connect to the game. Maybe we can do some test. It is an interesting topic, since to increase the throughput, MPDU is used. The frame is aggregated which means the packet is not send out in a real-time manner. We are happy to do some test if anybody contribute some test case.

Comment: Traffic model are based on some specific games? Are these games represented Or some worst case of gaming?

Response: We consider two popular mechanism synchronization, the developer will use these two mechanisms. So at current moment, you can consider these traffic model represent real-time mobile gaming.

Comment: Have you tried to change the access category?

Response: there is no access category for games, so now the access category is best effort. Maybe next meeting we can do some research and give you more information.

1. Meeting adjourned at 10:00pm ET.