**IEEE P802.15.16t**

**Wireless Personal Area Networks**

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| Project | **IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs)** | |
| Title | **TG16t Teleconference Minutes** | |
| Date Submitted | [October 14, 2020] | |
| Source | [Juha Juntunen] [Renton, WA] | Voice:  Fax: [ n/a ] E-mail: [jjuntunen@meteorcomm.com] |
| Re: |  | |
| Abstract | [IEEE 802.15 TG16t Teleconference October 14, 2020 Task Group Minutes.] | |
| Purpose | [Report progress to WG] | |
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IEEE 802.15 TG16t Teleconference Minutes

October 14, 2020, 12:30 – 2:00 PM Pacific Time

Participants

(in order of appearance)

* Tim Godfrey (EPRI), Chairman
* Juha Juntunen (Meteorcomm LLC), Secretary (for this meeting)
* Alessadra Rocha (WiMax Forum)
* Daoud Serang (CML Microcircuits)
* Derek Ellingsworth (GE Industrial Communications)
* Guy Simpson (Ondas Networks)
* James Glib (General Atomics Aeronautical Systems and University of San Diego)
* Menashe Shahar (Ondas Networks)
* Mike Gagne (Aura Network Systems)
* Nathan Clanney (Siemens Mobility Incorporated)
* Robert Finch (Select Spectrum)
* Royce Connerly (United Pacific Railroad)
* Zach Smith (BNSF Railway)
* Klaus Bender (UTC)
* Rubin Salazar (Landis+Gyt AG)
* Harry Bims (Bims Laboratories)

Opening

Tim presented the opening slides and an agenda. Secretary was chosen based on one volunteering participant. No potential patents were identified.

All participants did an introduction round.

The presented agenda had a silent approval from the participants.

Contributions

Tim presented the contributions list. No additional contributions were announced to the ones already identified.

Contribution 213 – IEEE 802.16t Use Cases (Daoud Serang)

Daoud had consolidated updates received from others to the Use Cases spreadsheet and presented the current status of the document. Information being requested to add is for “total number of end points” column in the document.

Meteorcomm had provided numbers for some of their provided use cases.

There is still missing information on “total number of endpoints” for the use cases from Siemens, Ondas Networks, and others.

Contribution 182 – Regulatory Requirements Applicable to PLMR Bands (Menashe Shahar)

Menashe presented a document highlighting regulatory- and standards-based requirements that need to be taken into account when designing the waveform and receiver capabilities for the standard.

The sub-topics in the document included:

* Emission requirements
* Receiver requirements

Contribution 182 – System Requirements Document Outline for 16t (Mike Gagne, Menashe Shahar)

Mike had made additions to the system requirements document from unmanned aviation (drones, etc.) use case perspective.

Summary of the additions:

* In the “Mobility” section – maximum velocity
* In the “Range and Coverage Requirements” section - Max. cell radius (= 200+ miles)
* In the “Advanced antenna systems” section – Beam steering with active elements utilized (in aviation bands, C-band in particular)

Discussion followed about advanced antenna systems and beam steering support:

* The standard needs multiple profiles to cover different bands and use cases (Tim)
* Not every device has to support all features (profiles) in the standard (James and Daoud)
* Standard should in general still to remain band agnostic (Tim?)
* Question from James:
  + Is support needed for multiple beams to track multiple aircrafts?
  + Answer from Mike – that is being looked for in the implementation
* MAC layer needs to be aware of the beam steering implications (Menashe)
* The 802.16 base standard has existing beam steering support provisions (Menashe)

Menashe continued to explain his previous edits (continuation from the previous teleconference).

Finally, there was a discussion about addressing gaps in the system requirements document.

* “Modulation and coding scheme” not a requirement, but shall rather be designed based on the requirements
  + Removed from the document
* “Permutation”, not a requirement
  + Removed from the document
* Menashe to make a contribution on the Cyber Security section

Project timeline review

Tim presented the project timeline based on the current understanding. The slide is included in the meeting presentation (DCN=285).

Next meetings review

There will be two session during the next Electronic Plenary meeting

* November 3, 1-3pm (Eastern time)
* November 11, 1-3pm (Eastern time)

A discussion followed about attendance requirements (Robert, Menashe, James, Tim).

An upcoming Plenary face-to-face meeting is still in the plan for March 16-18, 2021 in Denver.

Closing

No other topics were raised.

The meeting was adjourned at 1:42 PM Pacific time.