**IEEE P802.15**

**Wireless Specialty Networks**

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| Project | IEEE P802.15 Working Group for Wireless Specialty Networks (WSNs) |
| Title | **Response to EC March Meeting ‘s comments for SG15.6a** |
| Date Submitted | May 12th, 2021 |
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| Re: | Amendment to IEEE Std 802.15.6 Wireless Body Area Networks |
| Abstract | In preparation for PAR and CSD of SG 15.6a |
| Purpose | For discussion in SG 15.6a |
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# Study Group process recap from the March 2021 meeting

Pat posted the document 21-0138-00 requesting for additional supporting information to IG DEP PAR document, such that EC members would have a more informed 802 EC vote at the closing plenary.

IG DEP posted the requested additional information in document 21-0154-00.

All these documents were discussed during the March meeting several times.

## 802 EC voting at the March Plenary

Pat sent the EC voting result by email:

“Congratulations, the 802 EC has approved the formation of four 802.15 study groups: SG15.6a, SG15.4ab, SG15.14, and SG15.15.

The only study group that was contested was SG15.6a from IG dep. The issue to those that voted against it was the inclusion of automotive. Comments against the automotive inclusion focused around the scope of the standard i.e. body area networks. I believe that there would have been no votes against had the automotive element not been included in the description. The EC vote (procedural) was 8/4/1, the motion carried with 67% voting approve.

Again, congrats and thanks for taking these tasks on.

Sincerely, Pat”

#  Follow up to the EC comment on 802.1 TSN

During the March meeting, we met with the 802.1 Chair and Vice Chair for an introduction to Time sensitive Networks (TSN) activities.

For the May meeting, we have prepared how 802.1 TSN may be integrated into the amendment described in the document 21-0245-00-6a for further discussion.

# Follow up to the EC comment on EMC/EMI in vehicles

We got comments from George Zimmerman about EMC/EMI in vehicles.

1. Email forwarded by Pat: “George Zimmerman, 802 Treasurer, responded to me with the following query: "I had not realized that the Body Area Networks combined automotive bodies as well as human bodies (I had thought they were human body networks). Having done a bit of work in automotive networking, I am somewhat familiar with the EM environment there, and it seems substantially different from what a human body would ordinarily deal with, including issues of compatibility, interference tolerance with high-levels of EM signals often due to interactions of the automotive body with EM fields. I would have thought that these (automotive and human networks) are two different problems, requiring different environmental expertise. Is the expertise present in the proposed SG from the automotive industry?”
2. Email from G.Z.: “I very much appreciate your timely reply, and apologize for my un-timely response. (For some reason the email went into my junk folder, which is no good excuse) However, I have now found it, and will be interested to follow your progress. I have communicated the activity to other 802 participants whom I know through Steve Carlson's IEEE P802.3cy Multigigabit Automotive Electrical PHY Task Force, which includes individuals affiliated with major automotive OEMs and Tier-1 suppliers. I have worked with these individuals a number of years in previous automotive ethernet projects, and EMC has been a major concern. These individuals have been interested to learn what is being studied in the new project, and to lend their expertise as they can. It appears the web page for the activity is not yet set up, (https://www.ieee802.org/15/pub/default\_page.html lists TG6a as a 'pending homepage'), but if this is not the right location to look and to point people to, please let me know where to find information.”

## Items to work out for the May meeting

We are planning to integrate Human BAN (HBAN) with vehicles, so-called Vehicle BAN (VBAN). Hence, careful consideration of the electromagnetic environment as well as EMC/EMI in vehicles should be considered.

A request from a Medical Consortium in Japan is related to the use case of senior car/truck/bus drivers due to the number of accidents at least in Japan. As the automotive industry is also involved, there must be an interaction between HBAN and VBAN for monitoring, warnings, alerts, emergency situations. This interaction HBAN and VBAN with enhanced dependability allows for more reliable and safe driving, including autonomous cars.

For the May meeting, we have prepared 21-0244-00-6a for further discussion on UWB channel and environmental models in vehicles, including EMC/EMI issues.

We welcome the experience of P802.3cy (Electrical Automotive Ethernet) and Automotive Industry on EMC/EMI related issues and solutions.