# Collaboration on ITS Communication Standards

## 7 December 2015, Arlington, United States

### Meeting report

1. **Introduction**

The meeting of the Collaboration on ITS Communication Standards (“Collaboration”) took place on 7 December 2015 in Arlington, VA, United States, hosted by the Telecommunications Industry Association (TIA).

The meeting was held in conjunction with a workshop on “[How Communications Will Change Vehicles and Transport](http://tiaonline.org/events/vehicle-connectivity-workshop)” on 8 December 2015, jointly organized by TIA and ITU. The workshop was attended by more than 100 participants. Workshop programme and presentation material are available [here](tiaonline.org/events/vehicle-connectivity-workshop).

**T. Russell Shields** of Ygomi LLC chaired the meeting.

The intent of the Collaboration is to provide a globally recognized forum for the creation of an internationally accepted, globally harmonized set of ITS communication standards of the highest quality in the most expeditious manner possible to enable the rapid deployment of fully interoperable ITS communication-related products and services in the global marketplace.[[1]](#footnote-1)

1. **Opening of meeting, introductions and adoption of the agenda**

**Russ Shields** welcomed the 17 participants (the final list of participants is reproduced in [Doc 012](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-201512-Arlington/012%20-%20List%20of%20Participants.pdf)) and gave introduction to the objectives of the Collaboration (see [website](http://www.itu.int/en/ITU-T/extcoop/cits/)). He stressed that the Collaboration is not a standards-setting, but a standards-facilitating group, exchanging information and promoting the development and adoption of ITS communications standards.

He thanked TIA for hosting the meeting and co-organizing the workshop taking place the following day.

The draft agenda was presented and adopted without changes in [Doc 001](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-201512-Arlington/001%20-%20Draft%20agenda.docx).

1. **Updates on ITS communications standards activities**

**Scott Belcher**, CEO of TIA, welcomed the participants and briefly introduced TIA’s activities in the field of vehicle communications.

He highlighted the work of [TIA TR-48](http://www.tiaonline.org/all-standards/committees/tr-48) on vehicular telematics, with a primary focus on 5.9 GHz Dedicated Short Range Communications for Wireless Access in Vehicular Environments (DSRC/WAVE). Another important area of work is TIA’s Intelligent Transportation Systems Working Group ([ITSWG](http://www.tiaonline.org/policy/itswg)), which develops policy positions and governmental advocacy strategies to advance the interests of ICT stakeholders in the ITS sector.

**Paul Najarian**, United States, reviewed the recent ITU World Radiocommunication Conference (WRC-15) from an ITS communications perspective. He highlighted the agreements reached on the subject of automotive radars ([Doc 003](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-201512-Arlington/003%20-%20Automotive%20radar.docx)) (WRC-15 AI 1.18). The technical characteristics of such radars are provided in the most recent version of [Recommendation ITU-R M.2057](https://www.itu.int/rec/R-REC-M.2057-0-201402-I/en).

Looking ahead ([Doc 004](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-201512-Arlington/004%20-%20ITS%20WRC-19%20agenda%20item.docx)), he described *“3.5”* ITS communications related items for the next WRC (WRC‑19), namely

ITS:

* AI 1.12 to consider possible global or regional harmonized frequency bands, to the maximum extent possible, for the implementation of evolving Intelligent Transport Systems (ITS) under existing mobile-service allocations, in accordance with Resolution  **COM6/13 (WRC‑15)**;

Radio local area networks (RLAN):

* AI 1.16 to consider issues related to wireless access systems, including radio local area networks (WAS/RLAN), in the frequency bands between 5 150 MHz and 5 925 MHz, and take the appropriate regulatory actions, including additional spectrum allocations to the mobile service, in accordance with Resolution **COM6/22 (WRC‑15)**;

Radiocommunication system for trains (including the possibility for Positive Train Control):

* AI 1.11 to take necessary actions, as appropriate, to facilitate global or regional harmonized frequency bands to support railway radiocommunication systems between train and trackside within existing mobile service allocations, in accordance with Resolution **COM6/12 (WRC‑15)**;

Wireless Power Transmission (WPT):

* WRC-15 requested a study (not an Agenda Item) concerning Wireless Power Transmission (WPT) for electric vehicles, in order to:
1. to assess the impact of WPT for electric vehicles on radiocommunication services;
2. to study suitable harmonized frequency ranges which would minimize the impact on radiocommunication services from WPT for electrical vehicles.

**Russ Shields** described ITU’s active involvement in the UNECE World Forum on the Harmonization of Vehicle Regulations ([WP.29](http://www.unece.org/trans/main/wp29/introduction.html)) and its informal groups on [ITS and automated driving](https://www2.unece.org/wiki/pages/viewpage.action?pageId=2523344) and [in-vehicle emergency call systems](https://www2.unece.org/wiki/pages/viewpage.action?pageId=14319865).

To increase awareness of these activities within the vehicle manufacturing community, and to be able to respond to the needs of the manufacturers, participants encouraged ITU to consider convening a meeting of senior executives of vehicle manufacturers, in possible collaboration with UNECE and FIA among others .

* Action (1) ITU/TSB: Study the proposal of convening a meeting of the leaderships of vehicle manufacturers, UNECE, ITU, and others.

**Barbara Wendling** of Volkswagen Group of America and Chair of the J3016 Task Force introduced ([Doc 010](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-201512-Arlington/010%20-%20Update%20on%20J3016%20revisions.ppt)) participants to the updates currently underway on [SAE J3016](http://standards.sae.org/j3016_201401/), “Taxonomy and Definitions for Terms Related to On-Road Motor Vehicle Automated Driving Systems”. The plan is to (1) clarify and rationalize taxonomical differentiator(s) for lower levels; (2) clarify scope of taxonomy (to what it does and does not apply); (3) modify existing, and add new, supporting terms and definitions; and (4) add more rationale, examples, and explanatory text throughout.

Participants debated different approaches to defining automation levels (taxonomy of automation on the *system* level vs. taxonomy of automation on the *application* level). Presented by ITU-T SG16 Chairman **Yushi Naito**, TTC Japan’s [Doc 006](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-201512-Arlington/006%20-%20TTC%20AUTO%20TAX.docx) advocates for a taxonomy based on concrete use cases / scenarios. Participants noted that the objective of the related work item in ITU-T (F.AUTO-TAX) was to reflect the outcome of the automation level discussion in UNECE, which is guided by J3016, in an international standard.

**Koji Nakao**, Vice-Chairman of ITU-T Study Group 17 (Security) provided an introduction and update on work item itssec-1 ([Doc 009](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-201512-Arlington/009%20-%20Introduction%20to%20X.itssec-1.pptx)). The meeting reviewed two related Liaison Statements from ITU-T SG17 ([Doc 002](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-201512-Arlington/002%20-%20Liaison%20ITU-T%20SG17.zip)) and SG16 ([Doc 005](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-201512-Arlington/005%20-%20Liaison%20ITU-T%20SG16.zip)), and discussed the feedback received from Harman/Redbend and Arynga on a preliminary draft of the work item ([Doc 008](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-201512-Arlington/008%20-%20Comments%20disposition.docx)). Mr Nakao thanked all those who provided feedback and input on the draft and announced that comments would be reflected during the upcoming Q6/17 Rapporteur Group Meeting, on 7-8 January 2016 in Seoul, Korea. A future draft will be sent to the next meeting of CITS (4 March 2016) for review and comments, and it is expected that the text be consented at the following meeting of ITU-T Study Group 17 (Geneva, 14-23 March 2016).

Due to lack of time [Doc 007](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-201512-Arlington/007%20-%20Secure%20Over-the-Air%20Vehicle%20Software%20Updates%20-%20Operational%20and%20Functional%20Requirements.docx) describing operational and functional requirements of secure over-the-air vehicle software updates was not discussed. It was recommended to consider the document in the next meetings of CITS, SG16 and SG17.

* Action (2) ITU/TSB: Make Doc 007 available to the next meetings of CITS, SG16 and SG17.
1. **Next meetings**

The first meeting in 2016 will take place on **4 March 2016** at ITU headquarters in **Geneva, Switzerland**. The meeting will be held in conjunction with [**The Symposium on The Future Networked Car**](http://www.itu.int/en/fnc/2016/Pages/default.aspx) at Geneva Motor Show (3 March 2016).

Meeting announcement, logistical information and registration form will be made available at <http://itu.int/go/ITScomms>.

1. **Close of meeting**

**Russ Shields** thanked TIA for hosting the meeting and the participants for all the fruitful discussions. The meeting closed at 1805.

| Meeting | No. | Who | What | Work Item | By when | Status |
| --- | --- | --- | --- | --- | --- | --- |
| Arlington, December 2015 |
| Arlington(2015) | 1 | ITU/TSB | Study the proposal of convening a meeting of the leaderships of vehicle manufacturers, UNECE, ITU, and others. |  | March 2016 meeting |  |
| Arlington(2015) | 2 | ITU/TSB | Make Doc 007 available to the next meetings of CITS, SG16 and SG17. |  |  | Done |
| Beijing, July 2015 ([meeting report](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-201507-Beijing/011%20-%20Meeting%20report.docx)) |
| Beijing(2015) | 1 | ITU/TSB | Establish a repository of ITU’s ITS related work items. |  | December meeting | [Done](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/ITS%20work%20items.xlsx) |
| Beijing(2015) | 2 | China Unicom | Submit a contribution based on Doc 008 to SG16 meeting. | 1 | SG16 deadline: 29 Sept 2015 | Pending |
| Geneva, March 2015 ([meeting report](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-201503-Geneva/009%20-%20Meeting%20report.docx)) |
| Geneva(2015) | 1 | Koji Nakao | Provide additional details about communication security aspects of Japan’s V2V verification project. | 4 | July 2015 meeting | Pending  |
| Geneva(2015) | 2 | Russ Shields, Yushi Naito, ITU/TSB  | Follow work of informal group ITS/AD, synchronize activities with development of F.AUTO-TAX. | 2, 3, 6 | Update in July 2015 meeting | Ongoing |

1. Collaboration website, <http://www.itu.int/en/ITU-T/extcoop/cits/> [↑](#footnote-ref-1)