# Collaboration on ITS Communication Standards

## 6 March 2015, Geneva, Switzerland

### Meeting report

1. **Introduction**

The meeting of the Collaboration on ITS Communication Standards (“Collaboration”) took place on 6 March 2015 at ITU headquarters in Geneva, Switzerland.

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 participants (11 on-site, 6 remote; the final list of participants is reproduced in [Doc 010](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-201503-Geneva/010%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/)).

The agenda was revised to accommodate the availability of the participants and approved by the meeting as reproduced in [Doc 001](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-201503-Geneva/001%20-%20Draft%20agenda.docx).

1. **Review of past actions**

The list of open actions ([Doc 002](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-201503-Geneva/002%20-%20Review%20of%20open%20actions.docx)) was reviewed. A number of action items are ongoing (Troy 2014 #1 and #3: exchange information with SAE experts; Geneva 2014 #1: exchange information with ISO TC204 secretariat) and others were completed or on the agenda of this meeting (Sapporo 2014 #2; Troy 2014 #2 and #4) and can subsequently also be removed from the list.

1. **Work item 4 – Security frameworks and standards for ITS communications**

ITU-T Study Group 17 Vice Chairman Koji Nakao gave an overview ([Doc 008](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-201503-Geneva/008%20-%20Security%20issues%20related%20to%20the%20future%20networked%20car.zip)) on remote software updates for vehicles; lightweight cryptography; and Japan’s V2V communication verification project.

He highlighted the need of a general understanding / framework / architecture for ITS communications standards in ITU‑T, in order to facilitate the cooperation between different Study Groups.

Participants requested details about the security implementation of the V2V communication verification project.

* Action (1) Koji Nakao: Provide additional details about communication security aspects of Japan’s V2V verification project.

Mr William Whyte (Security Innovation) summarized some of the remaining challenges associated to security of connected vehicles (also see [Mr Whyte’s talk at The Symposium on The Future Networked Car](http://www.itu.int/en/fnc/2015/Documents/Presentations/S3P2-William%20WhyteV2.pdf)). These include:

* PKI governance – organization, responsibilities and business model;
* Privacy – technical countermeasures, prevention of data misuse;
* Secure implementations – quality, testing, validation of automotive software; device certification;
* Multiple applications – co-existence of applications, prioritization;
* Trust, interoperability and policies across borders;
* Future-proofing – in view of different life cycles of vehicles.
1. **Review of Symposium on The Future Networked Car 2015**

Participants were invited to provide input and feedback on the preceding Symposium on the Future Networked Car. Positive feedback was received on the topics discussed and the majority of the presentations delivered.

If there were a possibility to extend the event to 1.5 or 2 days, additional topics of interest would include: the perspective wireless carriers; the impact of LTE on connected vehicles; smartphone integration; business models; the views of insurers and law enforcement agencies on vehicle automation. A two-day Symposium should include a networking event, and increased focus should be given on attracting car makers and members of the media.

Preparations should commence earlier, and marketing and outreach efforts should be strengthened.

1. **Update on World Forum for Harmonization of Vehicle Regulations (WP.29) activities / Work item 3 – Incorporate ITS communications standards in ITU Recommendations**

Michiaki Sekine gave a short overview of the work of [WP.29 Informal Group on ITS/Automated driving](https://www2.unece.org/wiki/pages/viewpage.action?pageId=2523344). The group is discussing issues relevant for the practical application of automated driving related technology including administrative legal and social aspects. Dr. Sekine, Technical Secretary of the group, highlighted the [proposed Terms of Reference](https://www2.unece.org/wiki/download/attachments/25265582/%28ITS-AD_03-03%29%20Revised%20draft%20of%20Terms%20of%20Reference.pdf?api=v2), which include objectives and proposed timelines.

The informal group will, *inter alia*, prepare a proposal with harmonized definition of automated driving technologies.

This work is closely related to F.AUTO-TAX, a work item established by ITU-T Study Group 16 following discussion in the Collaboration. Participants highlighted the problem of inconsistent definitions; the need for governments, automotive and ICT sectors to work together and review and harmonize existing material on this issue. Informal group and SG16 were encouraged to coordinate and synchronize their activities on this item.

* Action (2) Russ Shields, Yushi Naito, ITU/TSB: Follow work of informal group ITS/AD, synchronize activities with development of F.AUTO-TAX.

Russ Shields informed participants about the ongoing discussions in [WP.29 Informal Group on Automatic Emergency Call Systems (AECS)](https://www2.unece.org/wiki/pages/viewpage.action?pageId=14319865). The most recent meeting [was briefed](https://www2.unece.org/wiki/download/attachments/25264651/AECS-07-12e.pdf?api=v2) on the progress made by ITU‑T Study Group 12 on [work item P.emergency](http://www.itu.int/itu-t/workprog/wp_item.aspx?isn=10287). The informal group is expected to reference these and other relevant activities (e.g., on global navigation satellite systems (GNSS) from the [International Committee on Global Navigation Satellite Systems (ICG)](http://www.unoosa.org/oosa/SAP/gnss/icg.html)) in its outcome.

1. **ITS communications requirements – Work Item 1**

Paul Najarian, Liaison Rapporteur of [ITU-R Working Party 5A](http://www.itu.int/en/ITU-R/study-groups/rsg5/rwp5a/Pages/default.aspx), introduced participants to ongoing discussions on spectrum harmonization in the land mobile service for V2X or connected vehicles applications ([Doc 006](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-201503-Geneva/006%20-%20Discussion%20on%20V2X%20spectrum%20harmonization.zip)).

Tom Kurihara, Chair of the [IEEE 1609 WG (Dedicated Short Range Communication Working Group)](http://standards.ieee.org/develop/wg/1609_WG.html), provided a comprehensive update of the P1609 project status and an outlook on amendments to IEEE 802.11p ([Doc 007](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-201503-Geneva/007%20-%20IEEE%20VT-ITS%201609%20and%20Related%20Standardization%20Activities.zip)).

He also highlighted the role of the IEEE 1609 and 802.11 standards in the ITS station reference architecture described in [ISO 21217:2014](http://www.iso.org/iso/home/store/catalogue_ics/catalogue_detail_ics.htm?csnumber=61570). Participants welcomed these updates also in view of similar earlier discussions on general reference architecture, terminology, etc. Other standards mentioned in this context were [ISO/IEC/IEEE 42010:2011](http://www.iso.org/iso/catalogue_detail.htm?csnumber=50508) (Systems and software engineering — Architecture description) and [ISO 14817:2002](http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=36030) (Transport information and control systems -- Requirements for an ITS/TICS central Data Registry and ITS/TICS Data Dictionaries).

1. **Work item 5 – Interaction of drivers with nomadic devices**

Yushi Naito, Chairman of ITU-T Study Group 16, introduced Doc 005, which contains a liaison statement from SG16 informing ISO TC204 WG16 about ongoing work on a functional architecture model for a vehicle gateway (VG). Mr. Naito briefly introduced other related work items underway in SG16.

1. **Other issues**

Martin Euchner, representative of the ITU secretariat to the memorandum of understanding (MoU) on electronic business between IEC, ISO, ITU, introduced a document submitted by the Management Group of the MoU on e-business ([Doc 003](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-201503-Geneva/003%20-%20Information%20from%20the%20Management%20Group%20of%20the%20MoU%20on%20e-business.docx)). The meeting agreed to send a liaison statement to UNCEFACT (text in [Doc 004](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-201503-Geneva/004%20-%20Draft%20liaison%20statement%20to%20UNCEFACT.docx)).

* Action (3) ITU/TSB: Finalize and submit Liaison Statement to UNCEFACT.

The 19th meeting of the Global Standards Collaboration (GSC) will be hosted by ITU on 15-16 July 2015 in Geneva. The GSC member organizations are listed at <http://itu.int/en/ITU-T/gsc/>. The ITU secretariat will provide a list of active ITS communications related work items in ITU to the GSC Task Force on Intelligent Transport Systems.

* Action (4) ITU/TSB: Provide list of active ITU work items related to ITS communications to GSC ITS Task Force.
1. **Next meetings**

The next meeting of the Collaboration on ITS Communication Standards will take place on **29 July 2015 in Beijing, China**, with remote participation capabilities. The meeting will be held in conjunction with a workshop on “How Communications Will Change Vehicles and Transport” on **28 July 2015**, jointly organized by ITU, the China Communications Standards Association (CCSA) and the Research Institute of Highway (RIOH) of the Ministry of Transportation.

Colocation with meetings of ITS related Questions of ITU-T Study Groups 16 and 17 on 30-31 July 2015 is currently under discussion.

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

1. **Close of meeting**

Russ Shields the participants for all the discussions. The meeting closed at 1700.

| Meeting | No. | Who | What | Work Item | By when | Status |
| --- | --- | --- | --- | --- | --- | --- |
| Geneva, March 2015 |
| Geneva(2015) | 1 | Koji Nakao | Provide additional details about communication security aspects of Japan’s V2V verification project. | 4 | July 2015 meeting |  |
| 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 |
| Geneva(2015) | 3 | ITU/TSB  | Finalize and submit Liaison Statement to UNCEFACT. |  | 31 March 2015 |  |
| Geneva(2015) | 4 | ITU/TSB | Provide list of active ITU work items related to ITS communications to GSC ITS Task Force. |  | 31 March 2015 |  |

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