# Collaboration on ITS Communication Standards

## Tokyo, Japan, 21 August 2012

### Meeting report

1. **Introduction**

The meeting of the Collaboration on ITS Communication Standards (“Collaboration”) took place 21 August 2012 at TTC in Tokyo, Japan. Mr 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**

The Chairman welcomed the participants (21 on-site, 5 remote) and thanked TTC for hosting the meeting. The final list of participants is reproduced in [Doc 005](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-20120821-Tokyo/005%20-%20List%20of%20Participants.pdf). The agenda as approved by the meeting is reproduced in [Doc 001](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-20120821-Tokyo/001%20-%20Draft%20agenda.docx).

1. **Introductions**

A short *tour de table* to introduce the participants was held.

1. **Review of revised ITS communications requirements document (**[**DOC 002**](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-20120821-Tokyo/002%20-%20Global%20ITS%20Communication%20Requirements%20%28DRAFT%29.zip)**)**

Collaboration Chairman Russ Shields then presented the latest version of the requirements document, noting that this document is work in progress, and that help is needed to advance.

The document is structured in four high-level areas of ITS communications:

1. Vehicle / ITS Station-to-Infrastructure Short-Range Communications;
2. Vehicle / ITS Station-to-Infrastructure Wide-Area Communications;
3. Wide-Area Communications: Infrastructure to Multiple Vehicles / ITS Stations (Broadcast); and
4. Vehicle-to-Vehicle Communications.

Each section specifies the applications and regions that have indicated a need for them, and the requirements of these applications. Specific values for requirements, when they have been stated, have been selected from the questionnaire response summary (which is reproduced in the Annex to DOC 002).

The 14 types of requirements which have been identified are: (1) Addressing; (2) Bandwidth / Throughput; (3) Connection type (persistent or not); (4) Coverage; (5) Data integrity; (6) Directionality; (7) Latency; (8) Pre-emption priority of applications; (9) Quality of service; (10) Range; (11) Reliability; (12) Reserved bandwidth needed; (13) Security and privacy; and (14) Topology.

Participants noted that a short description or definition of each of these requirements would help to clarify the document. Also, it was suggested to introduce high-level categories of requirements (e.g., functional, performance related).

Other comments on the requirements document included:

* Focus on communication standards, independent of specific devices;
* Considerations on performance and how it can be measured;
* Different types of ‘reliability’;
* Trade-off between several characteristics, e.g., reliability vs. cost;
* Differentiation between use of an ITS application in ‘ordinary times’ vs. use in ‘disaster times’.

Dr Inoue then noted that some high-level description of the social/societal role of ITS should be included in this document to make it a compelling case. He later presented [DOC 003](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-20120821-Tokyo/003%20-%20Proposal%20for%20modification%20to%20the%20Table%20of%20Contents%20in%20Global%20ITS%20Communication%20Requirements%20%28DRAFT%29.docx) which proposes a modified structure to the requirements document.

Russ noted that some applications, in particular related to pedestrians, have not yet been addressed in the document. A pedestrian with communications equipment can be considered as an ITS station.

**Action #1: All participants, by 15 September 2012:** to submit (basic) material, suggestions and comments on DOC 002. This may include additional ITS applications, definitions of requirements, comments on the document structure, etc. Input can be sent to tsbcits@itu.int.

**Action #2: Dick Schnacke (US), Scott Cadzow (Europe) and participant from Japan (tbd), by 1 October 2012:** to revise DOC 002 based on input received and discussions.

Action #2a: ARIB and TTC to nominate expert to collaborate with Dick and Scott.

Action #2b: ITU/TSB to send email to all involved, to forward input.

Action #2c: Dick Schnacke to present revised document at TC204 meeting in Moscow and seek feedback and guidance.

Russ noted that it would be nice to have a stable version of the requirements document ready by end of 2012.

1. **Standards gap analysis based on ITS communications requirements**

A future ITS communication standards gap analysis is closely interlinked with a complete requirements document.

Participants discussed the importance of an assessment of existing standards in the gap analysis. There are cases (e.g., probe data), in which ITS stakeholders lack commitment to implement international ITS standards. It would be desirable to analyze the reasons for this, and provide good information where a standard has to be improved, changed or updated. Failure of adaption of a standard in one region or country can be a lesson learned in another region.

Other participants advised not to look back, but to focus on modern communication protocols.

1. **Security frameworks and standards for ITS communications**

Mr Koji Nakao (KDDI / NICT, Vice-Chair of ITU-T Study Group 17 on Security) gave an overview of the latest trends and threats in information security. He then introduced participants to the structure and scope of ITU-T Study Group 17 and presented the latest work on cloud computing and smart grid security. His presentation material is summarized in [DOC 004](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-20120821-Tokyo/004%20-%20Overview%20of%20security%20threats%20and%20current%20ITU-T%20activities%20related%20to%20ICT%20security.zip).

It was agreed to issue a liaison statement to the next meeting of ITU-T Study Group 17 to invite SG17 to study threats and risks for ITS communications.

Russ noted the potentially life-saving or life-threatening role of security in ITS communications. Similar impact of information security or lack thereof cannot be found in many applications outside ITS and healthcare informatics (e.g., remote monitoring of pacemaker).

A related aspect is the issuance of certificates, and participants agreed that SG17 would be the appropriate place to study ITS safety-related issues.

ITS security has been partially addressed by some organizations. For instance, in the IEEE 1609 working group on dedicated short range communication, [Project 1609.2](http://standards.ieee.org/develop/project/1609.2.html) works on a draft standard for “Security Services for Applications and Management Messages. An earlier standard, [IEEE 1609.2 (2006)](http://standards.ieee.org/findstds/standard/1609.2-2006.html), was withdrawn.

**Action #3: Yushi, Russ, Martin by 24 August 2012:** to draft and submit liaison statement to SG17.

1. **Update of Terms of Reference and list of work items**

The [revised terms of reference](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/ToR/CITS-ToR-2012-07-17.docx) and [list of initial work items](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/ToR/Archive-obsoleted-work-items/Work%20Items%20%28v120403%29.docx) were presented. The ToR include a change which was made after the last meeting and discussions at TSAG. The Chairman invited all participants to send their input (e.g., new work items to be added) and comments.

1. **Collaboration management**

No updates to report.

1. **Next meetings**

The next meeting of the Collaboration on ITS Communication Standards will take place on **Sunday, 28 October 2012 in Vienna, Austria**. The meeting will be hosted by the Telecommunications Research Center Vienna ([FTW](http://www.ftw.at/?set_language=en)). Participants are invited to register at <http://itu.int/reg/tmisc/3000449>.

[ITU-T Focus Group on Driver Distraction](http://www.itu.int/en/ITU-T/focusgroups/distraction/Pages/default.aspx) will meet in the same venue on **29-30 October 2012**.

Other noteworthy events taking place in Vienna before the Collaboration meeting:

* 27 October 2012: [8th International Workshop on Vehicle Communication for Safety and Sustainability](http://www.car-to-car.org/index.php?id=10);
* 22-26 October 2012: [19th ITS World Congress](http://2012.itsworldcongress.com/), with sessions on ITS standardization (see [here](http://2012.itsworldcongress.com/content/congress/preliminary-programme)).

The following meeting will take place on **17 December 2012**, Washington, D.C., USA (hosted by the [Alliance of Automobile Manufacturers](http://www.autoalliance.org/)), followed by ITU-T Focus Group Driver Distraction on **18‑19** **December**.

The first meeting in 2013 is planned for **13 March 2013**, tentatively in China.

**Action #4: Martin by 14 October 2012:** to contact CCSA to discuss possibility of hosting the meeting on 13 March 2013 in China.

1. **Any other business**

None.

1. **Close of meeting**

The Chairman thanked the participants for all the discussions, the host TTC for providing excellent meeting facilities and MRI for sponsoring coffee break and refreshments.

The meeting closed at 4:45pm local time.

### List of new actions

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## Annex 1

### Pending and ongoing action items from previous Collaboration meetings

* **ITU Secretariat** to reach out to ITU-T Study Group 17 and find out what is needed from SG17 side to provide guidance on **Work Item 4**
	+ **Pending (importance of SG17 involvement was pointed out in TSAG document)**
	+ **Liaison will be sent in follow up of Tokyo meeting**
* **ITU-R** to consider seeking input from IEEE and [APT Wireless Group](http://www.apt.int/APTAWG) in addition to organizations listed on DOC-002add, slide 4
	+ **Ongoing**
* **ISO TC 204 WG16** and **CNIT** to further discuss DOC-004 and DOC-005 at ISO TC 204’s next meeting in Melbourne starting 16 April 2012, to find ways to accommodate the input and to collaborate
	+ **Ongoing / related work items are being created**
* **All** to submit contributions on WRC-12 Resolution 654 to the meeting of ITU-R Working Party 5A (deadline is 29 October 2012).
	+ **Ongoing**

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