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| **Telecommunication Standardization Bureau** | | ITU logo |
|  | | Geneva, 14 August 2014 |
| Ref: | **TSB Circular 113**  FG AC/MA | - To Administrations of Member States of the Union;  - To ITU-T Sector Members;  - To ITU-T Associates;  - To ITU-T Academia |
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| E-mail: | [tsbfgac@itu.int](mailto:tsbfgac@itu.int) | **Copy:**  - To the Chairmen and Vice-Chairmen of all ITU-T Study Groups;  - To the Director of the Telecommunication Development Bureau;  - To the Director of the Radiocommunication Bureau |
| Subject: | **- Creation of a new Focus Group on Aviation Applications of Cloud Computing for Flight Data Monitoring (FG AC);**  **- First meeting of FG AC, 1-3 December 2014, Kuala Lumpur, Malaysia** | |

Dear Sir/Madam,

1 I am pleased to announce the establishment of the ITU-T Focus Group on Aviation Applications of Cloud Computing for Flight Data Monitoring (FG AC) further to the agreement by ITU-T TSAG at its meeting in Geneva on 17-20 June 2014.

2 This Focus Group will identify, in close collaboration with ICAO and other partners, the requirements for telecommunication standards for an aviation cloud for real-time monitoring of flight data. This will include the protection and security, data ownership and access to flight data.

The FG AC webpage can be found at <http://itu.int/en/ITU-T/focusgroups/ac>.

3 The Focus Group will operate under procedures set out in Recommendation ITU-T A.7. The Telecommunication Standardization Advisory Group (TSAG) serves as the parent group. The agreed Terms of Reference of FG AC which outline specific tasks and deliverables are reproduced in **Annex 1**.

I strongly believe that by establishing the Focus Group, ITU-T will meet the expectations of its membership and demonstrate its ability to address the topics requiring urgent attention.

4 FG AC is open to ITU Member States, Sector Member, Associates and Academic Institutions and to any individual from a country which is a member of ITU and who is willing to contribute to the work; this includes individuals who are also members or representatives of interested standards development organizations.

5 The first meeting of FG AC is scheduled to take place on **1‑3 December 2014 in Kuala Lumpur, Malaysia**, kindly hosted by the Malaysian Communications and Multimedia Commission.

6 Practical information about the meeting venue and how to reach will be made available shortly at <http://itu.int/en/ITU-T/focusgroups/ac>.

7 Remote participation will be available for the meeting. More information about remote participation will be made available on the Focus Group web page.

8 The items for discussion at the meeting will be made available on the Focus Group web page, together with information related to the meeting, a draft agenda, and the contributions received.

The meeting will open at 0930 hours on 1 December 2014. Participant registration will begin at 0830 hours. The meeting will close at lunchtime on 3 December 2014. No registration fee is required for participating in this meeting.

The discussions will be held in English only.

In preparing input documents, please use the basic template available from the Focus Group web page. Participants should submit input documents to FG AC in electronic format to ITU by sending them by e-mail to [tsbfgac@itu.int](mailto:tsbfgac@itu.int).

The deadline for document submission for this first meeting is **19 November 2014**. Please note that this is a paperless meeting.

9 To enable TSB to make the necessary arrangements concerning the organization of the Focus Group meeting, I should be grateful if you would register via the on-line form available from the FG AC website as soon as possible, but **not later than 21 November 2014*.*** **Please note that pre-registration of participants to the meeting is carried out exclusively *online.***

Please consult the FG AC webpage regularly for updates concerning the meeting planning.

10 We would remind you that citizens of some countries are required to obtain a visa in order to enter and spend any time in Malaysia.

**The visa must be requested not later than 3 November 2014** and obtained from the office (embassy or consulate) representing Malaysia in your country or, if there is no such office in your country, from the one that is closest to the country of departure.

Participants who need an invitation letter and/or a visa supporting letter for entering Malaysia are advised to register for the meeting as described above, and to provide, **before 3 November 2014**, the confirmation email, their full name, affiliation, nationality and passport number to Mr Sean Sharidz Doral (email: [sean.doral@cmc.gov.my](mailto:sean.doral@cmc.gov.my); Tel: +603 868 884 92) and[tsbfgac@itu.int](mailto:tsbfgac@itu.int).

Yours faithfully,

Malcolm Johnson  
Director of the Telecommunication  
Standardization Bureau

**Annex**: 1

ANNEX 1  
(to TSB Circular 113)  
  
**Terms of Reference for a Focus Group on   
Aviation Applications of Cloud Computing for Flight Data Monitoring**

The Focus Group is established in accordance with [Recommendation ITU-T A.7](http://itu.int/ITU-T/A.7).

**1 Rationale and Scope**

Motivated by the events surrounding Malaysia Airlines flight MH370, the Expert Dialogue on Real-time Monitoring of Flight Data facilitated by the International Telecommunication Union (ITU), 26-27 May 2014 in Kuala Lumpur, Malaysia, highlighted the need to address the following long-term tasks, the completion of which would be an important contribution towards the establishment of international standards for the use of an aviation cloud for real-time monitoring of flight data.

**2 ITU-T Focus Group on Aviation Applications of Cloud Computing for Flight Data Monitoring (FG AC)**

On-going discussion, at various levels and on a range of platforms, is considering the feasibility of streaming flight data from aircraft to the ground in real-time. Subjects debated within this discussion include the type of data to be transmitted to the ground and the required transmission rates; data security, storage and analytics; ownership of flight data; and the costs and changes to business models required to implement such systems on a global scale.

Government and industry agree that the way forward should be one based on international standards.

**2.1 Objectives**

Based on the operational requirements for real-time monitoring of flight data identified by the International Civil Aviation Organization (ICAO), the ITU-T FG AC, in close collaboration with ICAO and other partners of the Focus Group, should identify the requirements for telecommunication standards for an aviation cloud for real-time monitoring of flight data. This will include the protection and security, data ownership and access to flight data.

**2.2 Relationships**

The Focus Group should work in close collaboration with ICAO and other international organizations, relevant ITU-T study groups, ISO/IEC JTC 1, ISO TC 20, as well as key stakeholders such as ICT solution providers, aircraft manufacturers and airlines.

Experiences from other industry sectors and other cloud computing application providers would be useful because questions on the use of real-time flight data resemble the challenges faced by other industries (e.g., automotive, healthcare, utilities) exploiting cloud computing, big data analytics and other ICT-based solutions.

**2.3 Specific Tasks and deliverables**

* Collect and compile, store information on current technological developments and opportunities for future technological enhancements using cloud computing and data analytics.
* Develop use cases how interested parties could apply state-of-the-art data analytics and data mining techniques in real-time if flight data was stored on standards-based aviation clouds.
* Develop a report that addresses issues that need to be addressed such as the type of data to be transmitted; periodicity of transmission (continuous streaming; triggered transmission); reliability; liability; data security (such as integrity, availability, authenticity, non-repudiation); potential misuse of flight data; privacy; interoperability; cost and business models; ownership of data and access policies.
* Develop a report that examines the feasibility of using recent developments in commercial broadband services for aircrafts to also be used for real-time flight data streaming where appropriate and justified.
* In collaboration with ICAO and other partners of the Focus Group, write a report on which necessary standards would need to be developed for real-time monitoring of flight data, including studying requirements on the protection of flight data, information security, privacy, appropriate use of flight data and data ownership for the use of an aviation cloud for real-time monitoring of flight data.
* In collaboration with ICAO and other partners of the Focus Group, propose a collaborative mechanism on how to best develop the international standards to facilitate interoperability and compatibility and optimizing costs through economies of scale for real-time monitoring of flight data.
* Establish and maintain a roadmap including schedule of events and meetings leading to its implementation.
* Submit the final deliverables to TSAG no later than four calendar weeks before the TSAG meeting.

**2.4 Parent group**

The parent group is TSAG.

**2.5 Leadership**

See clause 2.3 of Recommendation ITU-T A.7.

**2.6 Participation**

See clause 3 of Recommendation ITU-T A.7. A list of participants will be maintained for reference purposes and reported to the parent group.

It is important to mention that the participation in this Focus Group has to be based on contributions and active participation.

**2.7 Administrative support**

See clause 5 of Recommendation ITU-T A.7.

**2.8 Financing**

See clauses 4 and 10.2 of Recommendation ITU-T A.7.

**2.9 Meetings**

The frequency and location of meetings will be determined by the Focus Group and the overall meetings plan will be announced as soon as possible. The Focus Group will use remote collaboration tools to the maximum extent, and collocation with existing meetings to the maximum extent. The meetings will be announced by electronic means (e.g., e-mail and website, etc.) at least four weeks in advance.

**2.10 Technical contributions**

Contributions are to be submitted at least twelve calendar days before the meeting takes place.

**2.11 Working language**

The working language is English.

**2.12 Approval of deliverables**

Approval of deliverables shall be taken by consensus.

**2.13 Working guidelines**

See clause 13 of Recommendation ITU-T A.7.

**2.14 Progress reports**

See clause 11 of Recommendation ITU-T A.7.

**2.15 Announcement of Focus Group formation**

The formation of the Focus Group will be announced via TSB Circular to all ITU membership, via the ITU-T Newslog and other means, including communication with the other involved organizations.

**2.16 Milestones and duration of the Focus Group**

The Focus Group lifetime is 12 months from the first meeting, but extensible if necessary by decision of the parent group (TSAG).

A preliminary set of milestones includes:

* First Focus Group meeting: Fourth quarter of 2014

**2.17 IPR policy**

See clause 9 of Recommendation ITU-T A.7.

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