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| **Title:** | Minutes of the fourth adhoc session on Quantum |
| **Purpose:** | Information |
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| **Keywords:** | Minutes; 4th Adhoc Quantum; Tutorial; |
| **Abstract:** | This document carries the minutes of the fourth and last adhoc session on Quantum. The goal was to take a decision regarding the way forward. |

# Introduction

This adhoc session was scheduled on Thursday 13th of December at the ITU from 18:00 to 19:30 and chaired by M. Arnaud Taddei with the support from Mrs. Xiaoya Yang, from the ITU-T Secretariat.

# Minutes

## Opening words

Chairman explained that many consultations happened and a further revised FG ToR was produced.Yet since this is the last session of the adhoc before TSAG closing plenary tomorrow, it is not at discussions anymore but for decision in this session.

Chairman explained the structure of the agenda.

## Approval of this agenda

The agenda of this meeting in [TD439](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-TSAG-181210-TD-GEN-0439) was approved.

## Missed feedback from session 3 – Spain

As chairman had to close the floor in the 3rd adhoc session 3 before given the floor to Spain, Chairman invited Spain to do so now.

Spain explained that whilst initially it supported the establishment of the FG, a discussion with Capitol and a verification of the Spanish administration on Spain’s participation in ETSI ISG QKD, Spain decided to change its position and object to the establishment of the FG.

## Identification of documents pertaining to this session

The only new document that was updated was the ToR which can be found in [TD433R1](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-TSAG-181210-TD-GEN-0433)

## High level explanation on latest ToR

China offered a brief review of the changes in the new ToR produced with Japan

* Restricted scope for QKD
* Tuning of the QIN/QIT section

China was on the perception at this stage that they have consensus with SG13, SG17 Chairman, Japan and Korea.

## Results from consultations in order and last call from the floor

Chairman asked the question to those delegations and entities consulted before this adhoc session in order (SG13, SG17, SK Telecom, NICT, US, Canada, UK), if they would object to the establishment of the Focus Group.

ALL The interventions thanked China and recognized the enormous amount of quality work which went into this output. Yet:

Table 1 - Table of delegations positions

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| --- | --- | --- | --- |
| Delegation | Was consulted | Comments | Object/Support |
| Switzerland (SG13 Chairman) | Yes | still sees QKD which flags a risk of duplication | Object |
| Korea | No | N/A | N/A |
| SG17 Chairman | Yes | Provided suggestions but cannot give a position without the consultation with SG17 management | abstain |
| SK Telecom | Yes | Tried to help improve | abstain |
| Japan | Yes | Participated to the new ToR and is satisfied with it as it demarks the FG vs SG mandates | Support |
| US | Yes | Still identifies the risk of duplication and the premature stage to establish FG | Object |
| Canada | Yes | As Canada notes the duplication on QKD and the other aspects being too early for the FGAs SG17 member is asking to take a perspective of what will happen when Contributions arrive to SG17 and will clash with the FG and the SG Canada understands and sympathise with China’s effort but cannot support | Object |
| UK | Yes | Observes is still referencing the QKD and flags the risk for duplication and sees the too early stage for the FG on the other aspects | Object |
| Egypt | No | Thanks China  | Support |
| Sweden | No | Took the time to check with Capitol and shares concerns as UK | Object |
| Saudi Arabia | No | Thanks China for this effort | Support |
| France | No | Concerned for the existing Study Groups | Object |
| Orange | No | Same concerns | Object |

China was given the floor assessing the various concerns and tried to plea again for the FG calling on the timing, the relevance, the efforts to demark, the contribution from China Mobile contributors, the researchers perspective and consideration on their assessment of the maturity.

## Assessment for a consensus for a new FG

Chairman assessed that there is no consensus and there is no time for this adhoc to reach a consensus at this stage. Timing of events didn’t help the none quantum expert side to get a deep analysis to validate China’s claims. The meeting sees an opportunity to improve the current work on SGs at this stage.

As well A.7 forbids the FG to coordinate the SG

## Proposal for way forward

As there were still objections voiced even after this new ToR resulting from consultations, the chairman noted that there was no consensus and proposed a way forward by which China could consider:

* organize a workshop to allow all participants to be prepared and prepare participation
* send contributions to SG13 and SG17
* write a technical report to detail the content behind the presentation in [TD406R1](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-TSAG-181210-TD-GEN-0406)
* potentially and based on this discussion already happened, propose perhaps a new FG at the next TSAG in September 2019

As well chairman offered China the chance to write a statement for this report.

The idea of a workshop

* Was supported by SG13, SG17 and several delegations in particular US
* TSB offered the possibility to run it in the aegis of ITU
* SG13 will have 2 meetings in 2019 with a possibility to put a workshop in one of its interim SG13 meetings
* SG17 will have 2 meetings in 2019 and offered a mini-workshop for Quantum at the next SG17 meeting in January 2019

## How to address Coordination

A strong need for coordination between SG13, SG17 with the current consideration of SG2 and maybe perhaps later SG15 was recognized.

Chairman proposed a way forward regarding the coordination between the SG2, SG13, SG17 and when SG15 feels to:

* Encourage to strengthen the relationship with ETSI ISG QKD and potentially other SDOs like ISO/IEC
* Decide the best way to organize the coordination using any possibilities offered by ITU-T mechanisms, including Liaison Statement.

## Proposal for Adhoc Sessions Report

Chairman verbally highlighted the structure and what will be reported to TSAG

## Any Other Business

None

## Closing

The meeting closed at 19:27, 3’ before scheduled time, on a round of applause.

# Chairman’s Conclusion Analysis

The meeting finished with no consensus on the establishment of a FG but proposed a way forward. This is not the end but the beginning of a new chapter for the ITU.

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