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| **Purpose:** | | Proposal | | | |
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| **Keywords:** | Blockchain; Focus Group |
| **Abstract:** | Korea (Republic of) supports the proposal by ITU-T SG17 to establish a Focus Group on Blockchain under the auspices of TSAG. |

**Introduction**

It is noted that ITU-T Study Group 17 held a successful ITU workshop on “[Security Aspects of Blockchain](http://www.itu.int/en/ITU-T/Workshops-and-Seminars/201703/Pages/default.aspx)” on 21st March 2017. It was noted further that ITU-T SG17 meeting on 30th March 2017 agreed to propose TSAG to consider the establishment of Focus Group on Blockchain. It was also noted that, in the first week of April, ISO/TC 307 ([Blockchain and electronic distributed ledger technologies](https://www.iso.org/committee/6266604.html)) has met firstly in Sydney to initiate work for Blockchain technologies.

It is recognized that the Blockchain technology is nature of crosscutting and that some ITU-T Study Groups (for example SG20) have already considered work items and studies within their purview. It is also recognized that, considering the similarity of the successful outcomes of the FG DFS, the proposed Focus Group could provide comprehensive analysis of Blockchain across multiple industry sectors, applications and services, including the role of ITU-T in standardization. Such approach would also allow participation from external experts that do not normally contribute to ITU-T Study Groups. It is recognized further that the timing for ITU-T study groups is critical element for success of this proposed FG.

The Focus Group on Blockchain, as proposed under the auspices of TSAG, could address a number of topics of Blockchain; use-cases and applications, various aspects of requirements for the implementation of Blockchain, regulatory and policy aspects, and security and privacy aspects of Blockchain.

**Proposal**

Korea (Republic of) supports the SG17’s proposal to TSAG that TSAG consider the establishment of a Focus Group on Blockchain. In addition, Korea (Republic of) submits draft Terms of Reference given in the Annex of this contribution to facilitate discussion for consideration by TSAG.

The Focus Group on Blockchain would increase the visibility of ITU-T, and enhance the ongoing work of the associated Study Groups. In addition, this FG would also allow TSAG to invite qualified experts from industry and other stake holders to lead this crosscutting effort.

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| **Annex: Terms of reference for New Focus Group on Blockchain (FG BC)**  **1. Rationale and Scope**  Recently Blockchain has become one of disruptive innovations with great potential to change our economy, culture and society fundamentally. Blockchain, also known as a distributed ledger technologies, is an open, distributed, secure ledger that can record all transactions or online activities among relevant entities efficiently and in a verifiable manner.  Blockchain is in theory secure by design and an example of a distributed computing system with high fault tolerance. Decentralised consensus can therefore be achieved with a Blockchain.  This makes Blockchain suitable for the recording of events, payment transaction records, and other records management activities, identity management, transaction processing, and proving data provenance.  The FG BC will be an open platform for relevant stakeholders – such as telecom regulators, financial regulators, services providers, platform providers, network operators; international organizations and industry forums and consortia – to share knowledge, best practices and lessons learned in the field with the objective of identifying the standardized frameworks needed to support the scaling up of applications and services based on Blockchain technologies globally.  A FG BC, as proposed under the auspices of TSAG, could address a number of topics of Blockchain technologies, for example, use-cases and applications, requirements for the implementation, regulatory and policy aspects, security and privacy aspects, among many other aspects.  A FG BC could consist of several Working groups that deal with those issues and topics mentioned above.  **2. ITU-T Focus Group on Blockchain (FG BC)**  The ITU-T FG BC will analyse applications and services based on Blockchain technologies that can be standardized by ITU-T study groups, identify best practices and guidance which could support the implementation of such applications and services on a global scale and identify a way forward that ITU-T SGs need to study in order to meet the urgent market needs.  It will develop a security standardization roadmap for interoperable services based on Blockchain technologies taking into consideration the activities currently undertaken by the various relevant groups, standards developing organizations (SDOs) and forums and a regulatory toolkit which may be used by national policymakers and regulatory authorities from ITU Member States.  This Focus Group will work closely with relevant study groups in ITU-T and will also invite non ITU-T members to participate in its work.  **2.1 Objectives**  To support the development of base materials for global standards for applications and services based on Blockchain technologies, the objectives of this focus group include:   * Establish liaisons and relationships with other organizations which could contribute to the standardization activities based on Blockchain technologies. * Describe the ecosystem for applications and services based on Blockchain technologies and identify the respective roles and responsibilities of the stakeholders in the ecosystem. * Identify successful use cases for implementation of applications and services based on Blockchain technologies. * Suggest future ITU-T study items and related actions for various ITU-T study groups for example on:   + Concepts, coverage, vision and use cases of services based on Blockchain.   + Characteristics and requirements for services based on Blockchain.   + Architectural framework and communication technologies of services based on Blockchain.   + Analyse and evaluate the current status of Blockchain technology and its maturity;   + Research security and privacy aspects related to applications and services based on Blockchain;   + Examine means for extending on-line trust using Blockchain technologies;   + Provide a platform to share findings and for dialogue on policy and regulatory implications of Blockchain between enterprises working on Blockchain applications and regulators from various industrial/economic sectors;   + Identify stakeholders with whom ITU-T could collaborate further on and potential collective action and specific next steps. ​   **2.2 Relationships**  This Focus Group will work in close collaboration with all ITU-T study groups, especially SG11, SG13, SG16, SG17 and SG20.  This FG BC will collaborate with relevant entities, in accordance with Recommendation ITU-T A.7.  These entities include the following: financial institutions, telecommunications regulators, financial regulators, non-governmental organizations (NGOs), policy makers, SDOs, industry forums and consortia (such as ISO TC 307, ISO/IEC JTC 1, GSMA, SWIFT etc.), payment systems networks, remittances companies, ICT companies, academic institutions, research institutions and other relevant organizations.  **2.3 Specific Tasks and deliverables**   * Utilize the deliverables related to Blockchain that were produced by FG DFS and study gaps between those by FG DFS and what need to be achieved. * Collect and document information on current initiatives and activities from the stakeholders involved in applications and services based on Blockchain. This will involve developing use cases and identifying standards related to services based on Blockchain across the world. * Develop a document which reflects how technologies enable applications and services by the underlying nature of the ecosystem including best practices of policy and regulatory framework, risk assessment methodologies and business models being used. * Develop a report on the definitions of terminologies and taxonomy for applications and services based on Blockchain and its ecosystem. * Develop a report on the potential barriers for the deployment of services based on Blockchain. * Study and analyse the implications of mandating interoperability and interconnection of services based on Blockchain. This will include the development of a security standardization roadmap for interoperable services based on Blockchain taking into consideration the interoperability challenges and best practices. * Study and analyse the implications of standards for cross border remittances. * Study and analyse technology competitiveness issues that may hinder the deployment of services based on Blockchain. * Develop a regulatory toolkit which can be used by policymakers and regulatory authorities for scaling up services based on Blockchain uptake. * Organise regional thematic workshops in order to collect inputs from various stakeholders. The workshops will be a platform to investigate best practices for the harmonization of legal and regulatory framework for applications and services based on Blockchain technologies globally. The workshops will bring together the Telecommunication Regulators, Financial Regulators, Policy makers and other relevant parties to identify issues and priorities, exchange information and best practices through peer learning and knowledge dissemination processes and identifying possible policy interventions enabling financial inclusion. * Draft technical reports describing and addressing the standardization gaps and identifying future standardization work for ITU-T study groups in the area of services based on Blockchain. * Send the final deliverables to the parent group, at least four calendar weeks before the parent group 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 participations.  **2.7 Administrative support**  See clause 5 of Recommendation ITU-T A.7.    **2.8 General 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 work electronically using teleconferences and with face-to-face meetings. Meetings will be held as determined by the Focus Group and 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 one and half year from the first meeting, but extensible by decision of the parent group if necessary.  A preliminary set of milestones includes:   * First Focus Group meeting: Third quarter of 2017   **2.17 Patent policy**  See clause 9 of Recommendation ITU-T A.7. |

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