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| Asia-Pacific Telecommunity Member Administrations |
| Proposed new Resolution [APT-2] – Enhancing the standardization of Internet of things and smart cities & communities |
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| **Abstract:** | In this document the Asia-Pacific Telecommunity Administrations propose a new Resolution [APT-2] on enhancing the standardization of Internet of things and smart cities & communities. |

Introduction

Recently Internet of Things (IoT) has been attracting much international attention as its importance is increasing for industry, public authorities, end users, etc. In this regard, there have been some actions throughout ITU such as establishing new IoT related Resolutions at ITU Plenipotentiary conference in 2014 and Radio-communication Assemblies (RA) in 2015. In order to promote and speed up the standardization work on IoT and SC&C in ITU-T, a new study group SG20 (IoT and its applications including smart cities and communities) had been established in June 2015. As an important reform measures of ITU-T, the establishment of SG20 shows that ITU would like to play an important leading role to the global economic and environment development through the standardization and applications of ICT technologies, to supporting the sustainable development target of the United Nations.

Proposal

Taking into account that IoT is an essential part of ICT technology, the APT Member Administrations believe that there is a need for ITU-T to take an appropriate action in accordance with a new resolution on IoT and SC&C, with the expectation for resolution to be made at WTSA‑16. Therefore, the APT Member Administrations would like to propose to establish a new Resolution [APT-2] (Enhancing the Standardization of IoT and Smart Cities & Communities), as provided in Annex.

ADD APT/44A12/1

DRAFT NEW RESOLUTION [APT-2]

Enhancing the standardization of Internet of Things and smart cities & communities

(Hammamet, 2016)

The World Telecommunication Standardization Assembly (Hammamet, 2016),

recalling

*a)* that Resolution 197 (Busan, 2014) of the Plenipotentiary Conference, ‘Facilitating the Internet of Things to prepare for a globally connected world’;

*b)* that Resolution 66 (Geneva, 2015) of Radiocommunication Assembly, ‘Studies related to wireless systems and applications for the development of the Internet of Things (IoT)’;

*c)* that Resolution 58 (Rev. Dubai, 2014) of World Telecommunication Development Conference (WTDC), which invites members states to promote and undertake research and development of ICT-accessible equipment, services and software;

*d)* that ITU-T SG20 is responsible for studies relating to Internet of Things and its applications including Smart Cities and Communities (SC&C);

*e)* that ITU-T Objectives in Resolution 71 (Rev. Busan, 2014) of Plenipotentiary Conference, and in particular (T.5), which mandates ITU-T to extend and facilitate cooperation with international, regional and national standardization bodies;

*f)* that the purpose of the JCA-IoT and SC&C (Joint Coordination Activity on Internet of Things and Smart Cities and Communities) under the leadership of ITU-T SG20 is to coordinate the work on “Internet of Things and Smart Cities and Communities” not only within ITU, but also with other SDOs,

considering

*a)* that globally connected “Internet of Things” world will be built on the connectivity and functionality made possible by telecommunication networks;

*b)* that various industrial sectors, such as energy, transportation, health, agriculture, disaster management, public safety and home network, are collaborating for the development of cross vertical Internet of Things technologies;

*c)* that there are diverse number of Internet of Things protocols ranges from lower to upper layers which might be difficult to conform hence a standard set of open protocols for at least data exchange must be agree upon for conformance and interoperability;

*d)* that the ITU T should play a leading role in the development of Internet of Things and SC&C related standards,

taking into account

that lack of common data and information model format for Internet of Things heterogeneous systems need to be collaboratively assess and standardize,

recognizing

*a)* that industry forums and SDOs partnership projects are developing technical specifications for IoT;

*b)* that much progress has been made in an effort for collaboration between ITU-T and other organizations such as oneM2M to transpose their specifications as ITU-T Recommendations;

*c)* that ITU-T SG20 is responsible for the standardization work relating to Internet of things and its applications, with an initial focus on Smart Cities and Communities in ITU-T, and is collaborating with the other SGs and relevant SDOs;

*d)* that Internet of Things enables by having heterogeneous technologies for diverse use‑cases such as smart utilities and agriculture, these technologies from physical to application layer having interoperability and conformance testing requirements,

resolves to instruct ITU-T Study Group 20

1 to develop ITU-T Recommendations aimed at implementing IoT and Smart Cities and Communities including, but not limited to, issues related to emerging technologies such as industry internet of things, smart manufacturing and so on;

2 to collaborate with IoT related standards organizations or entities such as industry forums, consortium, SDOs, etc.;

3 to evaluate and access the IoT system usage model for regional countries from interoperability perspective towards standardized open protocol framework for data and information exchange;

4 to establish an ongoing collaboration and cooperation between ITU-T SG17 and ITU-T SG20 in order to coordinate and facilitate the development on the issues of IoT security and privacy,

instructs the Director of the Telecommunication Standardization Bureau

1 to provide necessary assistance to speed up the work, especially to take advantage of every opportunity within the assigned budget, including communicating with telecommunications and ICT industries, to promote industries participation in ITU-T’s standardization activities on IoT and SC&C;

2 to carry out pilot projects in cities related to the SC&C assessment activities aimed to facilitate the deployment and implementation of the IoT and SC&C standards worldwide;

3 to continue to support the United for Smart Sustainable Cities Initiative (U4SSC) launched by ITU together with UNECE in May 2016 and share its deliverables with ITU-T SG20 and other concerned SGs;

4 to make an effort for IoT collaboration with other international organizations outside of ITU;

5 to strengthen the training and guidance of stakeholders to adopt ITU-T’s standards on IoT and SC&C, and organize workshops and forum on IoT and SC&C in order to promote IoT and SC&C standards and applications to the ICT industry,

invites Member States, Sector Members, Associates and academia

1 to submit contribution to boost the standardization of IoT and SC&C in ITU-T SG20;

2 to share their national plan and use cases and usage model of IoT systems and a potential future collaboration for interoperability and conformance event for inter-state IoT systems;

3 to support and organize relevant Internet of Things events such as maker culture which will promote innovation and growth in IoT technologies and solutions;

4 to promote the usage model for Internet of Things systems by governments, industries and other entities in regional counties for initial deployment towards economic growth from interoperability and conformance perspective.