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| **The Meeting of the SATRC Working Group**  **on Policy, Regulation and Services** | **SAPIX-PRS1/ OUT-07** |
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Working Group on Policy, Regulation and Services

**QUESTIONNAIRE ON SMART CITIES AND SOCIETIES: EXPERIENCE AND CASE STUDIES IN SATRC COUNTRIES IN DEPLOYING IOT, BIG DATA AND SIMILAR TECHNOLOGIES**

**1. BACKGROUND AND PURPOSE**

Internet of Things (IoT) can serve as a key enabler for creating smart infrastructure in urban and rural areas. Furthermore, IoT, Big Data and similar technologies are helping to promote development, research, and delivery of services, monitoring and evaluation of projects that encompass every aspect of human life. In view of expansion of such innovative services, it is critical for the SATRC countries to understand the potential needs of such technologies for development of smart cities/societies.

This work item aims to share experience and good practices among the SATRC countries, allowing the Regulators and their relevant stakeholders to use this report as a reference for knowledge sharing and planning.

**2. SCOPE**

Rapid uptake of IoT technology is evident from the fact that GSMA Intelligence forecasts[[1]](#footnote-1) that IoT connections will reach almost 25 billion globally by 2025, up from 10.3 billion in 2018. Enterprise will overtake consumer IoT connections in 2024 and will increase to 13.3 billion in 2025.

Big data and Artificial Intelligence (AI) are closely related in various applications. AI systems require vast amounts of data to learn from and make decisions. There are many applications involving the use of Big data and AI, health care being one important area. Cloud computing provides the infrastructure for storing, processing and analyzing big data. Therefore, Big data, AI and cloud technology have close relationship. Given the pace of development of AI, PwC estimates that, over the next 5 years, 150 million people could be positively impacted by mobile Big data and AI solutions[[2]](#footnote-2).

Under this work item, data, case studies and experience related to promotion/adoption of IoT, AI, Big Data, Cloud Computing and similar technologies, for development of smart cities & smart societies, would be collected from SATRC members through a questionnaire. Their comments and suggestions would be sought for the effective promotion/deployment of such technologies in SATRC region.

**3. METHODOLOGY FOR CARRYING OUT THE STUDY**

The study will be carried out by the participants of Working Group on Policy, Regulation and Services nominated by the SATRC Members. In this regard, the following questions have been developed to obtain necessary information from the SATRC Members on the subject Work Item. The replies are expected to be based on actual information related to their own country. Based on the information received, a draft Report will be presented for consideration of SATRC Council.

**4. QUESTIONS**

Q1: Please share the policy framework or any other national plan/framework/guidelines developed by your country for promotion/adoption of the following technologies:

* Internet of Things (IoT)
* Artificial Intelligence (AI)
* Smart Cities & Smart Societies
* Big Data, Cloud Computing & Similar technologies

Q2: Share the following details of licensing/authorization/registration framework in your country related to IoT, AI, Big Data, Cloud Computing & similar technologies and any other relevant detail.

* Is there any license/authorization/registration required to deploy IoT, AI, Big Data, Cloud Computing and similar technologies? If yes, what is its type and who is responsible to issue?
* What is the duration of above mentioned license/authorization/registration?
* What is the fee (initial fee, annual, etc) of above license/authorization/registration?
* Share any obligations on those who obtain above license/authorization/registration (e.g. deployment obligations etc)

Q3: Please share any regulations/rules/legislative framework/guidelines/policies related to:

* IoT
* Big data, AI, Cloud Computing & similar technologies, particularly the collection, storage & usage of Big Data within your country. The regulations to safeguard big data infrastructure and protect it against cyber threats & data breaches.

Q4: Share any Regulatory framework to support roaming of IoT devices (is roaming of IoT devices allowed or not? Any related conditions/restrictions) and Regulatory framework to support satellite based IoT devices.

Q5: Share the details of RF bands (Licensed and Unlicensed) allowed for deployment of IoTs and associated technical terms/limitations to use the RF bands.

Q6. The IoT based public network (also called Community network) is set of open tools and a global network to build own IoT applications at lower cost, featuring maximum security and scalability. The gateway access is available to all users/applications developers). An example of such networks is “The Things Network” <https://www.thethingsnetwork.org/>.

Share your National Regulatory framework/guidelines related to Community IoT networks? In particular, is it allowed to install the Gateways and link with community networks without any Authorization/license and is there any other regulatory restriction? Please share relevant details.

Q7: What is percentage share of IoT over Cellular network and IoT over non-cellular networks in your country?

Q8: Are there any physically deployed (or planned to be deployed) Smart Cities in your country? Please share the following information in this regard:

* Give brief description of such smart city/cities and available services
* What type of investment model is followed?
* Which government department is responsible to plan and develop the smart cities?
* Share your experience related to multi-stakeholder collaboration, if any, in such projects.
* Share implementation aspects, challenges encountered, resolution mechanism and concrete recommendations.

Q9: What are the initiatives, guidelines, policies or future plans of your country to resolve and facilitate Right of Way or similar issues for development of Smart Cities. Identify the key stakeholders & their responsibilities for resolution of Right of Way or similar issues.

Q10: What are the use cases of IoT, AI, Big Data, Cloud Computing and similar technologies relevant to smart cities in both Government and Private sector in your country. Provide examples of practical implementations (or future plans) in your respective countries.

Q11: Is your country's infrastructure capable of supporting big data technologies, e.g data centers and related technical resources to support big data? Give brief detail in this regard.

Q12: Please provide your suggestion(s) to promote the IoT, AI, Big Data, Cloud Computing and similar technologies.

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1. [GSMA | IoT Connections Forecast: The Rise of Enterprise | Internet of Things](https://www.gsma.com/solutions-and-impact/technologies/internet-of-things/gsma_resources/iot-connections-forecast-the-rise-of-enterprise/#:~:text=GSMA%20Intelligence%20forecasts%20that%20IoT,and%202025%2C%20to%2013.3%20billion.) [↑](#footnote-ref-1)
2. [GSMA | GSMA - AI for Impact](https://www.gsma.com/betterfuture/aiforimpact) [↑](#footnote-ref-2)