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| **The 35th APT Standardization Program Forum**  **(ASTAP-35)** | **ASTAP-35/OUT-16** |
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Working Group on Service and Application (WG SA)

**Questionnaire ON IOT ECOSYSTEM DEVELOPMENT ACTIVITIES   
OF THE APT COUNTRIES**

**Section 1: Elementary Part**

1. **Introduction:**

This document is to propose conducting a research survey on the current status of IoT ecosystem in the APT member countries. This survey defines IoT ecosystem development as consisting of multiple components such as policy, human resources, capital resources and solutions readiness that allow businesses, governments as well as consumers to improve IoT market penetration.

1. **Objective of the Questionnaire:**

The objective of the questionnaire is to understand IoT ecosystem development policy and implementation of each APT country, especially regarding socialization, regulation, education of human resources, standardization, and collaboration, amongst others. The policy and activities that made IoT Ecosystem development a more accessible area of interest.

The survey result could provide a means for the APT countries to share information and experience in implementing IoT ecosystem development. The result should give grounding information to establish each APT member country's IoT ecosystem development strategy and respond effectively to the international movements promoted through APT, ITU, and other forums.

1. **Responsible Group:**

WG SA/EG IOT

1. **Rapporteur of the Questionnaire:**

Nur Akbar Said

Fita Indah Maulani

1. **Meeting at which the Questionnaire was approved:**

To be approved at ASTAP-35.

1. **Target Responder:**

APT Members/Associate Members/Affiliate Members

1. **Deadline for Responses:**

15 December 2023 (Tentative)

**References**

1. ITU-T Y.4000 series Internet of Thing

**Section 2: Questionnaire Part**

1. **Primary contact information**

|  |  |
| --- | --- |
| Country |  |
| Organization |  |
| Name |  |
| Position |  |
| Email |  |

1. **Current status of IoT Services** 
   1. Does your country have or plan to develop IOT standard?

* Yes, it is mandatory.
* Yes, it has not been mandatory.
* Yes, we plan to develop one.

(Expected time to finish/publish/enforce: )

* No, is there any reason why not to do it?

* + 1. If your answer to Question 2.1 is “Yes”, What kinds of IoT standard are available?
* Telecommunication Equipment/ Device Certification (radio frequency-RF, electrical safety, and electromagnetic compatibility-EMC)
* Security aspect, please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Healthy/medical aspect, please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Others, please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  1. Does your country have or plan to develop IoT guideline?
* Yes, it is mandatory.
* Yes, it has not been mandatory.
* Yes, we plan to develop one.

(Expected time to finish/publish/enforce: )

* No, is there any reason why not to do it?

* + 1. If your answer to Question 2.2 is “Yes”, What kinds of IoT guideline are available?
* Telecommunication Equipment/ Device Certification (radio frequency-RF, electrical safety, and electromagnetic compatibility-EMC)
* Security aspect, please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Healthy/medical aspect, please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Others, please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  1. Does your country have or plan to develop IoT regulation?
* Yes, it is mandatory.
* Yes, it has not been mandatory.
* Yes, we plan to develop one.

(Expected time to finish/publish/enforce: )

* No, is there any reason why not to do it?

* + 1. If your answer to Question 2.3 is “Yes”, What kinds of IoT regulation are available?
* Telecommunication Equipment/ Device Certification (radio frequency-RF, electrical safety, and electromagnetic compatibility-EMC)
* Security aspect, please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Healthy/medical aspect, please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Others, please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  1. What kinds of IoT services are available?
     1. Device
* Consumer, Personal & Home
* Industrial
* Health
* Defense
* Others, please specify
  + 1. Network
* NB-IoT
* LTE-M
* LoRa
* SigFox
* Others, please specify
  + 1. Platform & Application (IoT Solutions)
* Smart Home, please specify (eg: smart home solutions from local manufacture or combination between imported device and local application)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Smart Manufacture, please specify (eg: smart manufacture solutions from local manufacture or combination between imported device and local application)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Smart Cities, please specify (eg: smart cities solutions from local manufacture or combination between imported device and local application) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Smart Healthcare, please specify (eg: smart healthcare solutions from local manufacture or combination between imported device and local application)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Smart Agriculture and Farming, please specify (eg: smart agriculture solutions from local manufacture or combination between imported device and local application) \_\_\_\_\_\_\_\_\_\_
* Smart Transportation and Logistics, please specify (eg: smart transportation solutions from local manufacture or combination between imported device and local application) \_\_\_\_\_\_\_
* Smart Education, please specify (eg: smart education solutions from local manufacture or combination between imported device and local application)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Others, please specify
  1. Is pre-registration required before using the compliance services?
* Yes
* No
  1. Does your country have standard for the compliance services?
* Yes. What are the primary standards of the compliance services? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* No
  1. Does your country have guideline for the compliance services?
* Yes. What are the primary guidelines of the compliance services? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* No
  1. Does your country have regulation for the compliance services?
* Yes. What are the primary regulations of the compliance services? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* No

1. **Current status of IoT Ecosystem Development**
   1. Does your country have or plan to develop IoT Ecosystem?

* Yes, it is mandatory.
* Yes, it has not been mandatory.
* Yes, we plan to develop one.

(Expected time to finish/publish/enforce: )

* No. is there any reason why not to do it? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + 1. If your answer to Question 3.1 is “Yes”,
       1. How do you develop IoT Community?
* By Region (eg:community based on cities), please specify \_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* Nationwide (eg: association), please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* By Interest (eg: devices provider), please specify \_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* By Educational Institution (eg: school, university, vocation),

please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* Others, please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  1. What is the focus of the development IoT Industry in your country?
* Devices Manufacturing, please specify
* System Integration, please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* R&D, please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Platform, please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Application, please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Others, please specify
  1. Have your country developed any regulation regarding IoT?
* Yes, please specify
* No, is there any reason why not to do it?
  + 1. What ministry/institution is responsible as the regulator for the compliance IOT service?

* 1. Have your country developed any R&D Center for IoT?
* Yes, please specify
* No, is there any reason why not to do it?
  1. Have your country given any incentive to develop IoT? (eg: tax reduction, event promotion, incubation, etc)
* Yes, please specify
* No, is there any reason why not to do it?

* 1. Who operates the IoT services? (eg: managed service Smart Cities Solution cross border)
* Their own (in-house), please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Third party (developer), please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Managed services, please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Others, please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  1. Have your country develop regulatory sandbox for IoT?
* Yes, please specify
* No, is there any reason why not to do it?
  1. Does your country have or plan to develop IoT skill by Training/Certification Center?
* Yes, it is enforced, please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Yes, it has not been enforced, please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Yes, we plan to develop one, please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(Expected time to finish/publish/enforce: )

* No. Is there any reason why not to do it? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* + 1. If your answer to Question 3.8 is “Yes”, please specify the standard for training/ certification

* + 1. If your answer to Question 3.8 is “Yes”, please specify the guideline for training/certification

* + 1. If your answer to Question 3.8 is “Yes”, please specify the regulation for training/ certification

* 1. What IoT services are mostly requested by customer?
* Smart Home
* Smart Healthcare
* Smart Building
* Smart Manufacturing
* Smart Agriculture and Farming
* Smart Transportation and Logistics
* Others, please specify
  1. Is Personal Data Protection Regulation applied to IOT Services?
* Yes, please specify (eg: private and public data regulation)
* No.
  1. What ministry/institution is responsible as the regulator for the IOT service personal data protection?

* 1. Is there any independent regulatory authority for audit implementation of personal data protection regulation?
* Yes, please specify (eg: private and public data regulation)
* No. , is there any reason why not to do it? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. **Current status of Collaboration on IoT Ecosystem Development** 
   1. Does your country have or plan to develop Collaboration for IOT Ecosystem Development?

* Yes, it is mandatory.
* Yes, it has not been mandatory.
* Yes, we plan to develop one.

(Expected time to finish/publish/enforce: )

* No. is there any reason why not to do it? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* 1. If your answer to Question 4.1 is “Yes”,
     1. What kinds of collaboration actions are available?
        1. Join use case development
* Device. Please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Network. Please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Platform. Please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Application. Please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Others. please specify
  + - 1. Join promotion, sales & marketing
* Workshop, FGD, Campaign. Please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Exhibition. Please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Market Place. Please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Others. Please specify
  + - 1. Others, please specify (eg: collaboration public and private sectors) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* 1. Does your country have standard for the compliance collaboration?
* Yes. What are the primary standards for the compliance collaboration? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* No
  1. Does your country have guideline for the compliance collaboration?
* Yes. What are the primary guidelines for the compliance collaboration? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* No
  1. Does your country have regulation for the compliance collaboration?
* Yes. What are the primary regulations for the compliance collaboration? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* No
  1. What is the most usefull media to promote and develop IoT Ecosystem in your country?
* Offline media (eg: newspaper). Please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Online media (eg: online news). Please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Social media (eg: Instagram, Facebook). Please specify \_\_\_\_\_\_\_\_
* Others. Please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_