|  |  |  |
| --- | --- | --- |
| logogreen | **ASIA-PACIFIC TELECOMMUNITY**  **The 15th Meeting of APT Wireless Group (AWG-15)**  27 – 30 August 2013, Bangkok, Thailand | **Document:**  **AWG15/OUT-15**  30 August 2013 |

WORKING GROUP TECHNOLOGY ASPECTS

**QUESTIONNAIRE FOR REVISION OF THE APT REPORT ON “INTRODUCTION, APPLICATION, ISSUES AND TECHNOLOGY FOR SHORT RANGE DEVICES (SRDS)”**

A new work item to revise APT Report on “Introduction, Application, Issues and Technology for SRDs" (APT/AWG/REP-31) has been set as the work plan AWG-14/TMP-52 (Rev 2) during AWG-14. TG-SRD has finalised a draft questionnaire for revision of the APT Report as attached, which is to be sent to WG-Tech and AWG Plenary for approval.

**Attachment: 1**

**Attachment**

**Questionnaire for Revision of the APT Report on “Introduction, Application, Issues and Technology for Short Range Devices (SRDs)”**

**Replying Administration:**

**Contact Point:**

**1. Introduction of Short Range Devices**

Which devices with SRD connectivity have been already introduced in your country?

*Note: The items 21-28 are requested to respond for this time, as the items 1-20 had been already circulated. However, responses to the items 1-20 are welcome if there are situations changed. Please also note that responses to all the items will be merged and appear in the revised report.*

|  |  |  |
| --- | --- | --- |
| No | SRD Type / System | Situation[[1]](#footnote-1)  3. very popular  2. popular  1. rare  0. no |
| 1 | Desktop PC with wireless connection | 3 2 1 0 |
| 2 | Notebook PC with wireless connection | 3 2 1 0 |
| 3 | Smartphone with short range radiocommunication system | 3 2 1 0 |
| 4 | Tablet computer | 3 2 1 0 |
| 5 | Game | 3 2 1 0 |
| 6 | e-book | 3 2 1 0 |
| 7 | Digital device (camera, camcorder etc.) | 3 2 1 0 |
| 8 | Audio-Visual for home (video transmission etc.) | 3 2 1 0 |
| 9 | Portable audio | 3 2 1 0 |
| 10 | Mobile router (3G to WiFi etc.) | 3 2 1 0 |
| 11 | Wireless Access Point for home usage | 3 2 1 0 |
| 12 | Wireless peripheral device (headphone, keyboard, mouse) | 3 2 1 0 |
| 13 | Cordless phone (2.4GHz, others) | 3 2 1 0 |
| 14 | Wireless sensor network | 3 2 1 0 |
| 15 | Medical equipment with short range wireless connection | 3 2 1 0 |
| 16 | Healthcare | 3 2 1 0 |
| 17 | Security camera | 3 2 1 0 |
| 18 | POS (Point Of Sales) system with wireless connection | 3 2 1 0 |
| 19 | Femtocell | 3 2 1 0 |
| 20 | Wireless microphone | 3 2 1 0 |
| 21 | Factory automation / Product management / Trace and track | 3 2 1 0 |
| 22 | Smart metering | 3 2 1 0 |
| 23 | Machine-to-machine (M2M) remote control | 3 2 1 0 |
| 24 | Intelligent transport system (ITS) for vehicle to vehicle / infrastructure communication | 3 2 1 0 |
| 25 | In-vehicle communication / controller area network (CAN) | 3 2 1 0 |
| 26 | Digital signage | 3 2 1 0 |
| 27 | Home appliance | 3 2 1 0 |
| 28 | Others (please specify the detail below) | 3 2 1 0 |

**2. Environments and Applications**

2-1 Environments

In what environments the SRD applications have been used in your country? Are they popular in your country?

*Note: The items 13, 14 and 16 are requested to respond for this time, as rest of the items had been already circulated. However, responses to any of the items are welcome if there are situations changed. Please also note that responses to all the items will be merged and appear in the revised report.*

|  |  |  |
| --- | --- | --- |
|  | SRD Environment | Situation  3. very popular  2. popular  1. rare  0. no |
| 1 | Train station | 3 2 1 0 |
| 2 | Airport | 3 2 1 0 |
| 3 | On the train | 3 2 1 0 |
| 4 | Airplane | 3 2 1 0 |
| 5 | Vehicle (Taxi, bus etc.) | 3 2 1 0 |
| 6 | Café | 3 2 1 0 |
| 7 | Bookstore | 3 2 1 0 |
| 8 | Shopping Centre | 3 2 1 0 |
| 9 | Museum | 3 2 1 0 |
| 10 | Hospital | 3 2 1 0 |
| 11 | School (primary school, high school, university etc.) | 3 2 1 0 |
| 12 | Public Office | 3 2 1 0 |
| 13 | Factory | 3 2 1 0 |
| 14 | Home | 3 2 1 0 |
| 15 | Outdoor (town etc.) | 3 2 1 0 |
| 16 | Others (please specify the detail below | 3 2 1 0 |

2-2 SRD usage and users’ experience related to applications

Which applications have been used with SRDs in your country? How are they popular? In the case the application is used with SRDs in your country, what kind of radio access technologies are used? What is the users’ experience (sufficiency level) of the application quality using the SRDs?

*Note: Only when “3”, “2”, or “1” is marked in “Situation”, it is requested to proceed for “Radio Access Technologies” and “Users’ experience of application quality”. If “0” is marked in “Situation”, you can skip answering for “Radio Access Technologies” and “Users’ experience of application quality” for that application. In “Radio Access Technologies”, plural options can be chosen. For each of the chosen item of “Radio Access Technologies”, the most applicable level of “Users’ experience of application quality” with that Radio Access is marked. Any assumptions, conditions, or other supplemental information for responding the question can be described in “Notes”.*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Application | | Situation  3. very popular  2. popular  1. rare  0. no | Radio Access Technologies  a. Cellular  (incl femto)  b. WiFi  c. UWB  d. ZigBee  e. Bluetooth  f. IrDA  g. NFC  h. RFID  i. others (please specify) | Users’ experience of application quality  5 Excellent  4 Good  3 Fair  2 Poor  1 Bad | Notes |
| Audio | | | | | |
| 1 | Conversational voice | 3 2 1 0 | a | 5 4 3 2 1 |  |
| b | 5 4 3 2 1 |
| c | 5 4 3 2 1 |
| d | 5 4 3 2 1 |
| e | 5 4 3 2 1 |
| f | 5 4 3 2 1 |
| g | 5 4 3 2 1 |
| h | 5 4 3 2 1 |
| i | 5 4 3 2 1 |
| 2 | Voice messaging | 3 2 1 0 | a | 5 4 3 2 1 |  |
| b | 5 4 3 2 1 |
| c | 5 4 3 2 1 |
| d | 5 4 3 2 1 |
| e | 5 4 3 2 1 |
| f | 5 4 3 2 1 |
| g | 5 4 3 2 1 |
| h | 5 4 3 2 1 |
| i | 5 4 3 2 1 |
| 3 | Streaming audio | 3 2 1 0 | a | 5 4 3 2 1 |  |
| b | 5 4 3 2 1 |
| c | 5 4 3 2 1 |
| d | 5 4 3 2 1 |
| e | 5 4 3 2 1 |
| f | 5 4 3 2 1 |
| g | 5 4 3 2 1 |
| h | 5 4 3 2 1 |
| i | 5 4 3 2 1 |
| Video | | | | | |
| 4 | Videophone | 3 2 1 0 | a | 5 4 3 2 1 |  |
| b | 5 4 3 2 1 |
| c | 5 4 3 2 1 |
| d | 5 4 3 2 1 |
| e | 5 4 3 2 1 |
| f | 5 4 3 2 1 |
| g | 5 4 3 2 1 |
| h | 5 4 3 2 1 |
| i | 5 4 3 2 1 |
| 5 | One-way video | 3 2 1 0 | a | 5 4 3 2 1 |  |
| b | 5 4 3 2 1 |
| c | 5 4 3 2 1 |
| d | 5 4 3 2 1 |
| e | 5 4 3 2 1 |
| f | 5 4 3 2 1 |
| g | 5 4 3 2 1 |
| h | 5 4 3 2 1 |
| i | 5 4 3 2 1 |
| Data | | | | | |
| 6 | Web-browsing | 3 2 1 0 | a | 5 4 3 2 1 |  |
| b | 5 4 3 2 1 |
| c | 5 4 3 2 1 |
| d | 5 4 3 2 1 |
| e | 5 4 3 2 1 |
| f | 5 4 3 2 1 |
| g | 5 4 3 2 1 |
| h | 5 4 3 2 1 |
| i | 5 4 3 2 1 |
| 7 | Bulk data | 3 2 1 0 | a | 5 4 3 2 1 |  |
| b | 5 4 3 2 1 |
| c | 5 4 3 2 1 |
| d | 5 4 3 2 1 |
| e | 5 4 3 2 1 |
| f | 5 4 3 2 1 |
| g | 5 4 3 2 1 |
| h | 5 4 3 2 1 |
| i | 5 4 3 2 1 |
| 8 | High-priority transaction services (E-commerce) | 3 2 1 0 | a | 5 4 3 2 1 |  |
| b | 5 4 3 2 1 |
| c | 5 4 3 2 1 |
| d | 5 4 3 2 1 |
| e | 5 4 3 2 1 |
| f | 5 4 3 2 1 |
| g | 5 4 3 2 1 |
| h | 5 4 3 2 1 |
| i | 5 4 3 2 1 |
| 9 | Command / control | 3 2 1 0 | a | 5 4 3 2 1 |  |
| b | 5 4 3 2 1 |
| c | 5 4 3 2 1 |
| d | 5 4 3 2 1 |
| e | 5 4 3 2 1 |
| f | 5 4 3 2 1 |
| g | 5 4 3 2 1 |
| h | 5 4 3 2 1 |
| i | 5 4 3 2 1 |
| 10 | Still image | 3 2 1 0 | a | 5 4 3 2 1 |  |
| b | 5 4 3 2 1 |
| c | 5 4 3 2 1 |
| d | 5 4 3 2 1 |
| e | 5 4 3 2 1 |
| f | 5 4 3 2 1 |
| g | 5 4 3 2 1 |
| h | 5 4 3 2 1 |
| i | 5 4 3 2 1 |
| 11 | Interactive games | 3 2 1 0 | a | 5 4 3 2 1 |  |
| b | 5 4 3 2 1 |
| c | 5 4 3 2 1 |
| d | 5 4 3 2 1 |
| e | 5 4 3 2 1 |
| f | 5 4 3 2 1 |
| g | 5 4 3 2 1 |
| h | 5 4 3 2 1 |
| i | 5 4 3 2 1 |
| 12 | Telnet | 3 2 1 0 | a | 5 4 3 2 1 |  |
| b | 5 4 3 2 1 |
| c | 5 4 3 2 1 |
| d | 5 4 3 2 1 |
| e | 5 4 3 2 1 |
| f | 5 4 3 2 1 |
| g | 5 4 3 2 1 |
| h | 5 4 3 2 1 |
| i | 5 4 3 2 1 |
| 13 | E-mail (server access) | 3 2 1 0 | a | 5 4 3 2 1 |  |
| b | 5 4 3 2 1 |
| c | 5 4 3 2 1 |
| d | 5 4 3 2 1 |
| e | 5 4 3 2 1 |
| f | 5 4 3 2 1 |
| g | 5 4 3 2 1 |
| h | 5 4 3 2 1 |
| i | 5 4 3 2 1 |
| 14 | Instant messaging | 3 2 1 0 | a | 5 4 3 2 1 |  |
| b | 5 4 3 2 1 |
| c | 5 4 3 2 1 |
| d | 5 4 3 2 1 |
| e | 5 4 3 2 1 |
| f | 5 4 3 2 1 |
| g | 5 4 3 2 1 |
| h | 5 4 3 2 1 |
| i | 5 4 3 2 1 |
| Background applications | | | | | |
| 15 | Fax | 3 2 1 0 | a | 5 4 3 2 1 |  |
| b | 5 4 3 2 1 |
| c | 5 4 3 2 1 |
| d | 5 4 3 2 1 |
| e | 5 4 3 2 1 |
| f | 5 4 3 2 1 |
| g | 5 4 3 2 1 |
| h | 5 4 3 2 1 |
| i | 5 4 3 2 1 |
| 16 | Low priority transaction services | 3 2 1 0 | a | 5 4 3 2 1 |  |
| b | 5 4 3 2 1 |
| c | 5 4 3 2 1 |
| d | 5 4 3 2 1 |
| e | 5 4 3 2 1 |
| f | 5 4 3 2 1 |
| g | 5 4 3 2 1 |
| h | 5 4 3 2 1 |
| i | 5 4 3 2 1 |
| 17 | E-mail (server-to-server) | 3 2 1 0 | a | 5 4 3 2 1 |  |
| b | 5 4 3 2 1 |
| c | 5 4 3 2 1 |
| d | 5 4 3 2 1 |
| e | 5 4 3 2 1 |
| f | 5 4 3 2 1 |
| g | 5 4 3 2 1 |
| h | 5 4 3 2 1 |
| i | 5 4 3 2 1 |
| 18 | Usenet | 3 2 1 0 | a | 5 4 3 2 1 |  |
| b | 5 4 3 2 1 |
| c | 5 4 3 2 1 |
| d | 5 4 3 2 1 |
| e | 5 4 3 2 1 |
| f | 5 4 3 2 1 |
| g | 5 4 3 2 1 |
| h | 5 4 3 2 1 |
| i | 5 4 3 2 1 |
| Others (please specify the detail below) | | 3 2 1 0 | a | 5 4 3 2 1 |  |
| b | 5 4 3 2 1 |
| c | 5 4 3 2 1 |
| d | 5 4 3 2 1 |
| e | 5 4 3 2 1 |
| f | 5 4 3 2 1 |
| g | 5 4 3 2 1 |
| h | 5 4 3 2 1 |
| i | 5 4 3 2 1 |

**3. Issues**

Is there any issues related to SRD radio communication system?

*Note: The items 5-7 are requested to respond for this time, as the items 1-4 had been already circulated. However, responses to the items 1-4 are welcome if there are situations changed. Please also note that responses to all the items will be merged and appear in the revised report.*

|  |  |  |
| --- | --- | --- |
|  | Issues | Situation  3. very important  2. important  1. not so important  0. don’t care |
| 1 | Congestion of frequency band | 3 2 1 0 |
| 2 | Security | 3 2 1 0 |
| 3 | Performance (data rate, latency) | 3 2 1 0 |
| 4 | Interference between SRD and other systems | 3 2 1 0 |
| 5 | Device cost | 3 2 1 0 |
| 6 | Battery life | 3 2 1 0 |
| 7 | Others (please specify the detail below) | 3 2 1 0 |

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

1. “very popular”: most of people are using or rely on the devices/services.

   “popular”: many people are using the devices/services and it is easy to find them.

   “rare”: some people are using or the devices/services do exist but it is not easy to find them.

   “no”: No such devices/services are used or exist in your country. [↑](#footnote-ref-1)