TSG-SA Working Group 1 (Services) meeting #2   ***TSGS1#2(99)161***
Edinburgh, Scotland 9th-12th March 1999

Agenda Item: **8.3**

Source: **ARIB**

Title: Main Differences between ARIB and SMG Service Requirements

Document for: **Discussion**

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1. Introduction

Regarding ARIB's "Requirements and Objectives for 3G Mobile Services and System" (TSGS/#/(99)022)
which was submitted to the last TSG-SA WG1 meeting, ARIB reports the evaluation compared with UMTS
22.00 series.

2. Main Differences between ARIB and SMG Service Requirements

There are mainly five differences between them as follows:

(1) Voice-band Data Service

ARIB describes Voice-band Data Service as one of 3G system's services (refer to ARIB Vol.1 Sec. 5.1.5)
while UMTS 22.00 series does not mention the service.

(2) Group 3 Facsimile

ARIB describes Group 3 Facsimile as one of 3G system's services (refer to ARIB Vol.1 Sec. 5.1.6)
while UMTS describes only data to/from facsimile machines (refer to UMTS 22.00 Sec. 5.1).

(3) Wideband Telephony Service

ARIB describes Wideband Telephony Service (High Quality Speech) as a 3G System's service (refer to ARIB
Vol.1 Sec.5.1.3.2)
while UMTS does not mention it.

(4) Position Location Identification

ARIB describes " A 3G Mobile System should be designed as objective to identify the location of a mobile
station within a radius of no more than 125 meters in 67 percent of all cases." (refer to ARIB Vol.1
Sec.6.3.2.11)
while UMTS describes "It is required that a minimum precision of around 50meters can be achieved in all
types of terrestrial radio environment."(refer to UMTS 22.05 Sec. 8.5)

(5) Service Examples

ARIB mentions definition, bearer capability (bit rate , BER, delay), network model etc. as service examples
(refer to ARIB Vol.1 Annex 3 and Annex 4)
while UMTS does not mention them.

(6) Location Services

ARIB mentions Image of Location Services, Position measuring methods, Objectives of Location services etc.
as Location Services (refer to ARIB Vol.1 Appendix 1)

while UMTS does not mention them.

3. Proposal to modify UMTS 22.00 series
Considering the differences above, ARIB proposes the modification of UMTS 22.00 series as follows:

(1) Voice-band Data Service
Voice-band Data Service is currently very popular in fixed networks. In addition to that, it is popular even in cellular system in Japan. ARIB, therefore proposes to describe Voice-band Data Service in UMTS 22.00 Sec. 5.1 or 5.2.

(2) Group 3 Facsimile
Group 3 Facsimile is also currently very popular in fixed networks. The same can be said in cellular system in Japan. ARIB, therefore proposes to describe Group 3 Facsimile in UMTS 22.00 Sec. 5.1 or 5.2.

(3) Wideband Telephony Service
ARIB proposes to mention wideband telephony service in UMTS 22.01 Sec.1.

(4) Position Location Identification
In the United States where the development of positioning system is in progress, the same requirement for emergency call is indicated as that of ARIB. Considering the discussion of requirements in FCC and the progress of system development, ARIB proposes to adopt the ARIB's requirement in stead of current 50 meters requirement in UMTS 22.05 Sec. 8.5.

(5) Service Examples
The mentioned examples are not mandatory but just examples. However, the description of ARIB's examples is feasible because it includes a lot of information to help one's understanding. ARIB, therefore, proposes to describe ARIB's Service Examples in Annex or Appendix.

(6) Location Services
The description of ARIB's Location Services is feasible because it includes a lot of information to help one's reference. ARIB, therefore, proposes to describe ARIB's Location Services in Annex or Appendix as information.

4. Other differences
The following items are different but their differences are insignificant to modify.

(1) Bit Rate
ARIB describes bearer channel of 384 kbps is supported in Step 1 (refer to ARIB Vol.1 Sec.5.5) while UMTS describes 2Mbps (refer to UMTS 22.01 Sec.1).

(2) Paging
Regarding ARIB's description 'Paging Service is supported. '(refer to ARIB Vol.1 Sec.5.1.8.3), in UMTS 22.00 series, the service can be achieved by Short Message, Cell Broadcast, Packet transmission etc.

(4) Other differences
There are more minor differences between them but they are insignificant.