Agenda Item: Electronic Methods

Source: **TSG SA WG1 subgroup, Thur 4.2.99**

Title: Disussion of ARIB requirements (section 5.5)

Document for: Information

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This document is a record of notes made in section 5.5 of ARIB requirements document by subgroup convened to discuss them. Notes are highlighted as revision marks.

5.5 Service Requirements for Phase 1

Subgroup starts here...

The Phase 1 standardization of a 3G Mobile System is targeted based on a two-step approach. Step 1 is defined as a set of bearer channel capabilities which include the circuit transfer mode bearer channels at up to 384 kbit/s and packet transfer mode bearer channel at 384 kbit/s for indoor and pedestrian environments as well as the circuit transfer mode bearer channels at up to 128 kbit/s and the packet transfer mode bearer channel at 144 kbit/s for vehicular environments. [note: different from UMTS 22.00 which requires for 64 kbit/s circuit switched, 2Mb packet switched].

Standardization of Step 1 capabilities should be finalized at the first half of 1999 in order for these capabilities to be available for services in 2001. [note: draft available in April 99, final standards available release 99]

Step 2 is defined as a set of bearer channel capabilities which include the circuit transfer mode bearer channel at up to approximately 1.5 Mbit/s (equivalent to 64 kbit/s times 23 channels) and the packet transfer mode bearer channel at 2Mbit/s for the indoor environments. Standardization of Step 2 capabilities should be targeted for 2002, provided that high level definitions such as the system architecture and major parameters should be available when the details of Step 1 capabilities are defined.[noted, but not for R99]

A 3G Mobile System shall be capable of supporting pre 3G services currently available in a manner transparent to the users of pre 3G services. In addition to these services, a 3G Mobile System should offer such services that can differentiate itself from the pre 3G services. Based on these considerations, the details of the following services shall be standardized at the time when Step 1 capabilities are determined, i.e. by the first half of 1999[see above]:

- Telephony yes, R99
- High Quality Speech (wideband speech, 7kHz) no.
- Video - Real Time, Bi-directional [not standardised]
- Voice-Band Data Service(analog modems) [not standardised]
- Group 3 Facsimile Service [not standardised in 22.xx, ie T30 protocol not supported in standard]
- Supplementary Service (at least being supported by the existing 2G system) yes, R99, but must check section 5.1.7 and annex 5 service by service
- Location Services (ie capability features to support location services covered by 22.05) yes, R99
- Short Message Service yes R99
- Paging Service no, but requires to be checked. Can ARIB please check whether can be implemented by existing service capabilities, eg SMS.
- Internet Access Services (yes, R99)

It should be noted that the following service features shall be available to any of the services listed above:
- Security and Privacy

- User Mobility
- Charging

Yes to all.

Other services listed below will also be able to be implemented using the Step 1 bearer capabilities. It is highly desirable that these services are standardized in the time frame of Step 1 standardization.

- High Quality Audio
- Hi-Fi Audio Broadcasting
- Streamline Video
- Video and Data Real / Non-real Uploading Type
- Data - Real Time, Bi-directional
- Specific Dispatch Services

These are end user applications using defined bearers plus (downloadable) capabilities, normally 3GPP will not define services using bearers but just the bearers themselves.

It should be noted that the services listed above could be augmented by the availability of the Step 2 capabilities.

5.6 Services to be considered for later phases

It is important to incorporate emerging and new services requirements in the 3G Mobile System service portfolio as time goes by. One of the service areas that can be augmented in the later phases will be those that uses higher bit rate bearer capabilities becoming available in the wider range of operating environments.

Examples of such services are listed below:
- support of the high data rate needs of portable computing users, and
- support of enhanced multimedia communications requirements