Agenda Item: 6.1.2.6_____5. Review of Work Packages

Source: **Ericsson**

Title: Clarification of facsimile requirements

Document for: Approval

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Background:

There are some requirements on a real time fax service and it has been included in the latest version of 3.2.0 but unfortunately the requirements are still unclear. S1 was also requested by SA#3 to clarify the fax requirements. This contribution is an attempt to clarify the requirements.

The term "real time fax" needs first to be defined. A proposal is to include the basic property that a "real time fax" is an end-to-end fax session.

Requirements for a real time fax solution are that both mobile originated and mobile terminated calls shall be supported. A normal PSTN/ISDN fax machine shall also be possible to connect to a mobile terminal via a fax adaptor.

The requirement on a real time fax must not be mixed up with how the requirement is solved. There are at least two alternatives to solve a real time fax requirement and the first one is the ITU-T T.38 solution proposed in the technical report 3GPP 22.945 and the other is the proposed work item on enhancement of the GSM non-transparent fax solution specified in GSM 03.46.

CHANGE REQUEST No :		*Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.*

Technical Specification 3GPP:	22.00	Version	3.2.0	

Submitted to TSG SA *list plenary meeting or STC here* ↑		for approval	**X**	without presentation ("non-strategic")	**X**
		for information		with presentation ("strategic")	

PT SMG CR cover form. Filename: crf26_3.doc

Proposed change affects: SIM ☐ ME ☐ Network ☒
(at least one should be marked with an X)

Work item: 22.00 UMTS phase 1

Source: Ericsson   **Date:** 6 May, 1999

Subject: Clarification of facsimile requirements

Category:
(one category and one release only shall be marked with an X)

					Release:		
F	Correction		**X**		Phase 2	
A	Corresponds to a correction in an earlier release				Release 96	
B	Addition of feature				Release 97	
C	Functional modification of feature				Release 98	
D	Editorial modification				Release 99	**X**
					UMTS	**X**

Reason for change: Clarification of the fax requirements and including a definition of the real-time fax requirements.

Clauses affected: Fax section in 6.1

Other specs affected:

Other releases of same spec	☐	→ List of CRs:	
Other core specifications	☐	→ List of CRs:	
MS test specifications / TBRs	☐	→ List of CRs:	
BSS test specifications	☐	→ List of CRs:	
O&M specifications	☐	→ List of CRs:	

Other comments:

6 Services

UMTS phase 1 will enable the introduction of a range of new services (e.g. Internet services and Multimedia) and applications with the concept of service capabilities. The service capabilities are bearer services defined by parameters (e.g. QoS attributes) and mechanisms needed to realise services.

6.1   Teleservices and supplementary services

UMTS phase 1 shall at least support the following GSM teleservices currently handled by GSM : speech, emergency call and SMS. UMTS phase 1 shall support these teleservices as stated below :

Speech: A default speech codec shall be specified to provide speech service across the UTRAN and GSM access networks. The selected speech codec shall operate with no discernible loss of speech on handover between the GSM access network and the UTRAN.

*Short Message Service-Point to Point (SMS-PP)***:** A short message service point to point shall be provided seamlessly (as far as the user or the users terminal equipment is concerned) across the UMTS and GSM access network. Additional features are planned for SMS in **Release 99.**

Short Message Service-Cell Broadcast (SMS-CB): A short message service cell broadcast shall be provided seamlessly (as far as the user or the users terminal equipment is concerned) across the UMTS and GSM network.

Supplementary Services : The standard shall support GSM Release '99 supplementary services. The control of such supplementary services shall be the same as for GSM, from the user's perspective.

~~**FAX:** Transfer of data to/from facsimile machines in the PSTN/ISDN should be supported seamlessly (as far as the user or the user's terminal is concerned) across the UMTS and GSM access network. It is envisaged that the main use of fax in the mobile environment will be via PCs. UMTS will not optionally support direct end-to-end communication using T.30real time non-transparent fax service. Instead Alternatively, a~~

Facsimile: The primary UMTS facsimile (fax) service shall be a store and forward service ~~is envisaged~~ where ~~some kind of~~a file or message transfer program is used to transfer text or images from a mobile terminal to a store and forward unit for subsequent delivery to the facsimile machine in the PSTN/ISDN. The user (or the users PC) may receive notification of successful delivery of the fax. Fax messages from PSTN/ISDN to mobile terminals are stored in a store and forward unit. The mobile terminal may be notified that a fax message is available. No standardisation of a fax store and forward service is planned and it is envisaged that roaming subscribers will be supported via the VHE.

An optional UMTS fax service using an end-to-end fax session between a PSTN/ISDN fax machine and a mobile terminal shall be standardised. This optional fax service is referred to as the UMTS real-time fax service and shall support mobile originated and mobile terminated fax calls and shall support facimile transmissions to and from a PSTN/ISDN group 3 fax machine attached to the mobile terminal via an adapter.

6.2. Bearer services

UMTS phase 1 shall support GSM phase 2+ Release '99 data bearer services :

*Circuit switched data***:** Circuit switched data services and "real time" data services shall be provided for interworking with the PSTN/ISDN so that the user is unaware of the access network used (UMTS and GSM access network or handover between access networks). Both transparent (constant delay) and non-transparent (zero error with flow control) services shall be supported. These data services shall operate with minimum loss of data on handover between the GSM access network and the UTRAN.

Packet switched data: Packet switched data services shall be provided for interworking with packet networks such as IP-networks and LANs. The standard shall provide mechanisms which ensure the continuity of packet based services upon handover e.g. between GSM and UMTS.