Source:	**TSG CN WG3**
Title:	**Revised WID for Service Change and UDI Fallback**
Agenda item:	**8.7**
Document for:	**APPROVAL**

Tdoc N3-020315
revised from N3-020309

Work Item Description

Title: Service Change and UDI Fallback

1   3GPP Work Area

	Radio Access
X	Core Network
	Services

2   Linked work items

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3   Justification

CS video telephony via 3G.324M terminals may become a quite expensive service compared to ordinary CS speech because if a user temporarily disables the video stream the invoicing will not be reduced. The user will be charged for both the speech as well as the data bearer (and thus the used bandwidth is not changed). Users may therefore decide not start calling via video telephony service.

In order to make CS video telephony more attractive the user may appreciate the ability to change between CS speech and CS multimedia service by a change of the bearer during the active state of a call. The procedure for invoking this change should be as simple as possible, e.g., by the touch of a button. In this way users save money and video telephony gets more and more used. A convenient way to change between ordinary speech and multimedia (video) can be regarded a key service when introducing UMTS multimedia. It is also a kind of end user test possibility for video telephony.

4   Objective

The objective of this work item should be to base service change and fallback from UDI multimedia to speech on the standardised network (also terminal) capability to change the service from CS modem multimedia to speech at fallback after call setup. The same principles should be applied here as well.

- Fallback indication (a speech BC-IE and a modem multimedia BC-IE in SETUP and CALL CONFIRMED) should also be applicable to UDI multimedia and speech.

- At the same time it shall be an indication for a service change capability (of the network and terminal).

- The network should accept a service change (MODIFY is received) after call setup in both directions, speech to multimedia and multimedia to speech. A service change is only allowed between the indicated services at call setup.

- The existing in-call modification to change the call mode (TS 24.008, 5.4.3.4) should be used to change the radio and network resources.

- Core network signalling is using Out-of-Band Transcoder Control (OoBTC) to signal UDI multimedia capabilities across the network at call setup and for service change during the call.

5   Service Aspects
The feature shall operate within PLMNs and between PLMNs where transit networks support BICC Codec Negotiation. The interworking with ISUP networks or BICC networks that do not support this feature shall allow a graceful rejection of the service change and a successful call setup using a single service. ~~When transit networks outside PLMNs are involved the provisioning of service change and fallback can not be guaranteed.~~

6   MMI-Aspects
No.   Implementation dependent.

7 Charging Aspects

No.

8 Security Aspects

No

9 Impacts

Affects:	USIM	ME	AN	CN	Others
Yes		X		X	
No			X		X
Don't know	X				

10 Expected Output and Time scale (to be updated at each plenary)

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
23.172	Technical Realisation of the CS Multimedia Service; UDI/RDI Fallback and Service Modification; Stage 2	CN3		CN#16 (June 02)	CN#16(June 02)	This is based on the previously proposed changes to TR-23.972 (document nb to be confirmed by MCC)

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
29.007		General requirements on interworking between the Public Land Mobile Network (PLMN) and the Integrated Services Digital Network (ISDN) or Public Switched Telephone Network (PSTN)	CN#1~~6~~4 (June 02~~Dec 01~~)	Enhancing the fallback from modem multimedia to speech capability by user initiated service change and fallback from UDI multimedia to speech.
24.008		Mobile radio interface layer 3 specification; Core Network Protocols - Stage 3	CN#1~~6~~4 (June 02~~Dec 01~~)	Enhancing the fallback from modem multimedia to speech capability by user initiated service change and fallback from UDI multimedia to speech.
27.001		General on Terminal Adaptation Functions (TAF) for Mobile Stations (MS)	CN#1~~6~~4 (June 02~~Dec 01~~)	Enhancing the fallback from modem multimedia to speech capability by user initiated service change and fallback from UDI multimedia to speech.
~~23.153~~		~~Out of Band Transcoder Control - Stage 2~~	~~CN#15 (Mar 02)~~	~~Enhance the current OoBTC procedures to support negotiation of a multimedia codec~~
26.103		Speech Codec List for GSM and UMTS	SA#15 (Mar 02)	Add a multimedia codec for negotiation of fallback and service change for UDI multimedia (OoBTC)
22.101		Service principles	SA#15 (Mar 02)	Include service requirements for service change and fallback for UDI/RDI multimedia calls

11 Work item raporteurs

Rune Werner Wiik, Ericsson AS, Norway
E-mail: Rune.Werner.Wiik@ericsson.no Tel: +47 67 25 03 43

12 Work item leadership
CN3

13   **Supporting Companies**

Ericsson, Vodafone UK Ltd, Vodafone D2Mannesmann Mobilfunk, Orange France Telecom, Hutchison 3G

14   **Classification of the WI (if known)**

X	Feature (go to 14a)
	Building Block (go to 14b)
	Work Task (go to 14c)

14a   The WI is a Feature:
no building blocks under this feature

14b   The WI is a Building Block:

14c   The WI is a Work Task: