

Source: CN3 Chairman
Title: Combined Work Item Sheet for Service Modification without pre-notification
Agenda item: 5.3.2
Document for: APPROVAL

The Work Item Description Sheets for "Service Modification without pre-notification between speech and Fax, speech and Modem and speech and Multimedia" (NP-000220) and "Service Modification without pre-notification using BICC" (NP-000221) agreed at CN3#10 were presented to joint CN/S2 ad hoc meeting on R2000 work items. Based on the advice of this meeting both of the work items are combined into one work item.

Work Item Description

Title: Service Modification without pre-notification

1 **3GPP Work Area**

	Radio Access
X	Core Network
X	Services

2 **Linked work items**
TrFO, Multimedia

3 **Justification**

It is required that a user is allowed to change current CS service to desired CS service whenever user wants to change. This enhancement can provide more usability of service control to user.

4 **Objective**

It is possible in current specification to change the speech service to/from the FAX service during an active call, if user specifies the TS61 in a call set-up phase (i.e. the ME sends two Bearer Capability IEs to the network. One BC IE indicates speech and another BC IE indicates FAX in a call set-up phase). It was also possible in former GSM releases to change the speech service to/from Modem service during an active call, if user specified the BS61 in a call set-up phase (i.e. the ME sends two BC IEs to the network in a call set-up phase. One BC IE indicates the speech and another BC IE indicates the modem service). It means, a user has to indicate the possible services to be used during the call at call set-up phase.

The motivation of this WI is to allow a user to change a service during a call without given an indication at call set-up phase.

Service modifications shall be possible between speech and FAX, between speech and Modem and between speech and Multimedia. Changes between speech and Multimedia have to be provided for 3.1 kHz audio as well as for UDI services.

Whereas service modifications between speech and audio services (FAX, modem, 3.1 kHz multimedia) are possible in an ISDN environment, the modification between speech and UDI multimedia cannot be provided, because ISUP capability is not sufficient to provide this modification. However, in a BICC environment, modification of speech codec can be provided. Therefore, modification between speech and UDI multimedia can be provided, if the multimedia codec is considered as a kind of speech codec.

The provision of modification between speech and UDI multimedia becomes possible, if Service Modification without pre-notification using BICC can be provided.

5 Service Aspects

A user is allowed to change the speech service to another CS service (i.e. fax, multimedia or modem service) even only TS11 is specified at call set-up phase. The features to be introduced will complement the CS bearer service and teleservice specified in R99. This service treats the following two situations:-

- 1) Service situation-1: from Speech to Fax, Multimedia or Modem without TrFO and
from Fax, Multimedia or Modem to Speech without TrFO
- 2) Service situation-2: from Speech to Fax, Multimedia or Modem with TrFO and
from Fax, Multimedia or Modem to Speech with TrFO

The subscription check has to be considered for the service modification without pre-notification, i.e. it has to be considered when the subscription check for the modified service is performed.

It is not guaranteed that the service modification without pre notification works in the all network environment. In case that the ADPCM is deployed in transit network and user wants to change the CS service from speech to MODEM/FAX/3.1kHz Multimedia without pre-notification, the negotiation might fail because of communication errors.

6 MMI-Aspects

The MMI has to support the operation of a change between speech service and fax/modem/multimedia service during an active call.

7 Charging Aspects

Charging for the service modification without pre-notification has to be considered. For example, it is have to be clarified whether the different charging are performed at the speech phase and the modem/fax/multimedia phase or not.

8 Security Aspects

None.

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
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	
23.108		Mobile Radio Interface Layer 3 specification Core Network Protocols stage 2 (structured procedures)		TSG CN#10		
23.146		Technical realisation of facsimile Group 3 service - non-transparent		TSG CN#10		
22.153		Out of Band Transcoder Control - Stage 2		TSG CN#10		
23.910		Circuit Switched Data bearer services R99		TSG CN#10		
24.008		Mobile Radio Interface Layer 3 specification (CC/MM)		TSG CN#10		
27.001		General on Terminal Adaptation Functions (TAF) for Mobile Stations (MS)		TSG CN#10		
27.007		AT command set for 3G User Equipment (UE)		TSG T#10		
29.007		General requirements on Interworking between the PLMN and the ISDN or PSTN		TSG CN#10		

11 Work item rapporteurs

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12 Work item leadership

N3

13 Supporting Companies

NEC Corporation,
NTT DoCoMo
FUJITSU LIMITED
NIPPON TELECOMMUNICATIONS CONSULTING CO., LTD
Lucent Technologies

14 Classification of the WI (if known)

	Feature (go to 14a)
X	Building Block (go to 14b)

	Work Task (go to 14c)
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14a The WI is a Feature: List of building blocks under this feature

14b The WI is a Building Block: parent Feature

Service Modification without pre-notification

14c The WI is a Work Task: parent Building Block