3GPP TSG_CN **Tdoc NP-000467**
Plenary Meeting #9, Oahu, Hawaii
20th – 22nd September 2000.

Source: **TSG_N3**

Title: **Draft Work Item description on "IWF at the CN Border"**

Document for: **APPROVAL**

3GPP TSG-CN3 Tdoc N3-000471
Meeting #12, Seattle, USA
28th August – 1st September 2000

Work Item Description

Title

IWF at the CN Border to the fixed network

1 3GPP Work Area

	Radio Access
X	Core Network
	Services

2 Linked work items

Speech Transcoder: Location and Control at UMTS Core Network Border
Transcoder Free Operation (TrFO)
Bearer Independent Circuit-Switched Core Network Architecture
Service Modification without Pre-Notification (SMWOP)
Lawful Interception

3 Justification

The location and the control of speech transcoders at the border of the UMTS Core Network to the fixed network is under investigation in order to achieve an efficient usage of network transmission resources. The same reason applies for the location of the Interworking Function (IWF) needed for the provision of circuit switched data services.
The transcoder and the IWF should be located in the same network entity for the following reasons:

- the call setup and release procedures will be similar for speech and CS Data
- the MODIFY procedure for Alternate services will become less complex

4 Objective

The objective of this Work Item is a Technical Report with a feasibility study that investigates the following issues:

- identification of benefits and drawbacks
- impacts on call control
- GSM – UMTS handover (and vice versa)

- impacts on TrFO, including the possibility of IWF free operation for mobile to mobile calls
- impacts on SMWOP
- impacts on the anchor concept
- impacts on lawful interception
- CN transmission technology constraints

The solution should be applicable for all of the services supported by the IWF.

A so-called "dual solution" should be investigated where the IWF can either be located at the border to the access network (existing solution) or at the border to the fixed network (proposed new solution) in order to allow seamless upgrades of operating networks.

5 Service Aspects

The location of the IWF must not have any impact on the data services provided by the network.

6 MMI-Aspects

None

7 Charging Aspects

None

8 Security Aspects

None

9 Impacts

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

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
xx.xxx	3G TR "Interworking Function (IWF) at the Core Network Border"	N3	N4	CN#11	CN#12	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments

11 **Work item raporteurs**

(name of physical person)

12 **Work item leadership**

CN3

13 **Supporting Companies**

(at least 4 companies)

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

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

14a The WI is a Feature: List of building blocks under this feature

(list of Work Items identified as building blocks)

14b The WI is a Building Block: parent Feature

Enable bearer independent circuit-switched network architecture

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

(one Work Item identified as a building block)