

## Work Item Description

### **Bearer Independent Circuit-Switched Core Network**

The work item introduces the separation of call control and bearer control in the circuit switched core network.

#### **1 3GPP Work Area**

	Radio Access
X	Core Network
	Services

#### **2 Linked work items**

*Related work items are:*

1. *Out-of-Band Transcoder Control*
2. *Circuit Switched Multimedia Swap & Fallback*
3. *Service Modification without Pre-notification*
4. *Lawful Intercept*

#### **3 Justification**

*This work item follows up the S2 work item “Enable bearer independent circuit-switched network architecture”.*

#### **4 Objective**

The objective of the work item is to evolve the R99 circuit switched domain (CS domain) in a transport network independent manner to allow the use of different transport resources (ATM, IP, STM, ...). The main new characteristic of the R00 CS domain compared with the R99 CS domain consists in the flexibility for PLMN internal transport means that allow transport based on IP. Transport and control of the CS domain network are separated to enable service provision by different means of transport resources (ATM, IP, STM, ...) for better transport resource efficiency and convergence with the PS domain transport.

The bearer independent circuit-switched network architecture comprises all core network functionality for provision of bearer- and teleservices in a circuit oriented manner. It includes the functions for the call control, related supplementary services, application services and mobility support.

Maintaining calls while terminals change locations is handover functionality of the CS domain UMTS specific call control.

Note:

The protocols used for access signalling and signalling within the network (e.g. CC in 3G TS 24.008 or MAP in 3G TS 29.002) are not affected by the introduction of new signalling transport bearers in the core network.

**5 Service Aspects**

None identified.

**6 MMI-Aspects**

None identified.

**7 Charging Aspects**

None identified.

**8 Security Aspects**

Possible impacts from Lawful Intercept, the necessity of securing the involved interfaces needs to be studied

**9 Impacts**

<b>Affects:</b>	<b>USIM</b>	<b>ME</b>	<b>AN</b>	<b>CN</b>	<b>Others</b>
<b>Yes</b>				X	
<b>No</b>	X	X	X		X
<b>Don't know</b>					

## 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.xxx	Bearer Independent CS core network; Service description; Stage 2	N4		CN#10	CN#11	Stage 2 describing the information flow on the Nc, Mc, Nb reference points in relation to UMTS specific traffic cases e.g. interworking between access signalling and evolved call control protocols, and between handover and evolved call control protocols.
29.xxx	<stage 3 for the circuit switched bearer independent core network>	N4	N3	CN#10	CN#11	Stage 3 describing the UMTS specific protocol impacts e.g. new packages for H.248. N4 shall work on general protocol matters whereas N3 shall determine the parameter values applicable to standardization activities within N3.
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	
29.007		General requirements on Interworking between the PLMN and the ISDN or PSTN		CN#1140	Add the interworking with other networks using evolved call control protocols.	

**11 Work item raporteurs**

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**12 Work item leadership**

N4

**13 Supporting Companies**

Ericsson, NEC, Vodafone, Nortel Networks, Nokia, Motorola, Cisco, Lucent Technologies, Siemens

**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

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14b The WI is a Building Block: parent Feature

WI: Enable bearer independent circuit-switched network architecture

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

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