Source: **TSG SA WG2**
Title: **CRs on 23.920 v 3.1.0**
Agenda Item: **5.2.3**

The following CRs have been approved by TSG SA WG2 and are requested to be approved by TSG SA plenary #6.
Note: 23.920 is stopped after the implementation of this CR.

On 23.920 v.3.1.0

TDoc #	CR #	spec	Title
S2-99D20	010	23.920	Deletion of the Cell Broadcast System Architecture

3GPP TSG SA meeting # 10
Abiko, Japan, 29 Nov - 03 Dez 1999

Document S2-99D20
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

23.920	CR	A10	Current Version:	3.1.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	SA#6	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)*	(U)SIM		ME		UTRAN / Radio	X	Core Network	X

Source: D2 Mannesmann **Date:** 24.11.99

Subject: Deletion of the Cell Broadcast System Architecture

Work item: 5.2.1, 5.19

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

F	Correction	X	**Release:**	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	
				Release 00	

Reason for change: As the CBS Architecture is moved to 23.121 this CR deletes the according section within the 23.920.

Clauses affected:

Other specs affected:

Other 3G core specifications	X	→ List of CRs:	23.121
Other GSM core specifications		→ List of CRs:	
MS test specifications		→ List of CRs:	
BSS test specifications		→ List of CRs:	
O&M specifications		→ List of CRs:	

Other comments:


help.doc

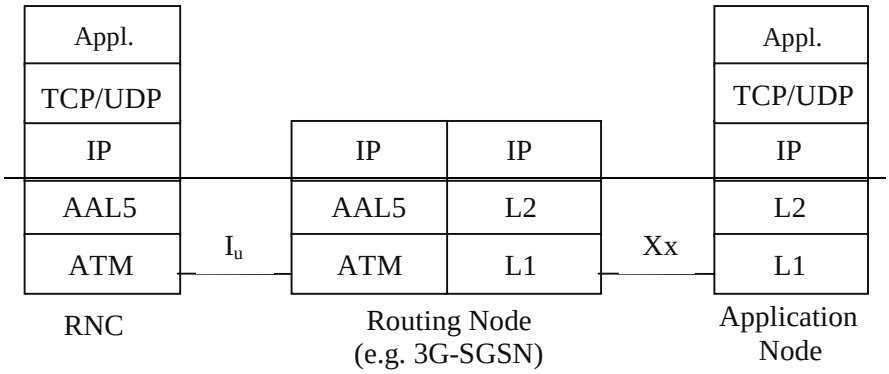
<--------- double-click here for help and instructions on how to create a CR.

5.2 Core network layer 3

~~5.2.1 Common Communication Channel~~

~~A common communication channel (name to be defined) provides nodes of the Core Network the ability to reach every RNC of the UTRAN. This communication channel can be used for application like SMS cell broadcast or location services (LCS).~~

~~This communication mechanism would use e.g. an IP routing functionality of the 3G-SGSN. The according protocol stack is outlined in figure 5.~~



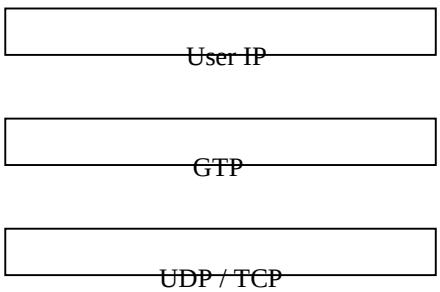
~~Figure 5: Protocol Stack of the Common Communication Channel~~

~~The placeholder Xx should be replaced by the according reference points of the applications e.g. Bc for cell broadcast.~~
~~The following issues until now are identified and have to be solved:~~
~~1.IP Routing functionality in the 3G-SGSN,~~
~~2.An appropriated layer 3 protocol has to be chosen (TCP or UDP) per application,~~
~~3.Addressing of the Application and Application node by the RNC(s),~~
~~4.Addressing (dynamic or static) of the application (e.g. CBC) on the RNC(s).~~

- L3 technologies
- GTP vs. IP-in-IP tunneling

In UMTS/GPRS, it should be possible for operators to use different packet switching protocol (e.g. ATM-SVC) under single GTP standard.

Between GSNs GTP uses UDP/IP (or TCP/IP) for addressing regardless whether IP routing or ATM-SVC switching is used. The use of ATM-SVC will not impact on GTP standardisation



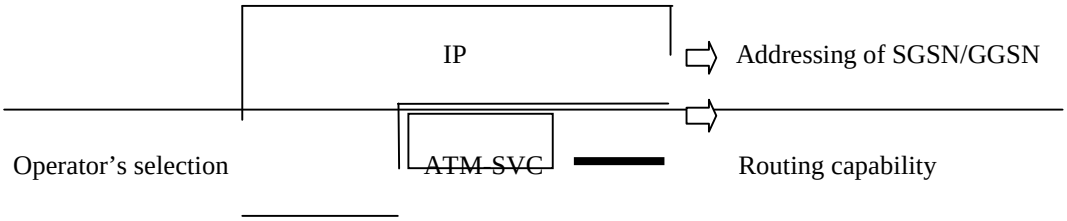

IP
Addressing of SGSN/GGSN
Operator's selection
ATM SVC
Routing capability

Figure 6

5.19 Short Message Service Cell Broadcast in UMTS

The *Short Message Service Cell Broadcast* (SMS.CB) was defined as a UMTS Phase 1 requirement to guarantee the continuity of the corresponding GSM services. It shall be provided seamlessly (as far as the user or the users terminal equipment is concerned) across the UMTS and GSM network.

5.19.1 Network Architecture

Figure 22 proposes a straight forward adoption of the GSM cell broadcast architecture in UMTS.

The basic network structure replaces the GSM BSS with the UTRAN containing the RNC and the Node B. The cell broadcast center (CBC) is part of the core network and connected to a routing node e.g. a 3G SGSN via the Bc reference point. Thus the CBC can reach every RNC via the user plane of the Iu interface by using the newly introduced common communication channel. On the logical interface between the CBC and the RNC a mandatory protocol shall be defined. which should mainly be adopted from the corresponding GSM specification (see GSM 03.41). The other UTRAN related interfaces are described in the according UTRAN specifications based on the RAN 2 TR 25.925. Based on this architecture and the current requirements for cell broadcast the core network elements like MSC, VLR, HLR etc are not involved for the service delivery.

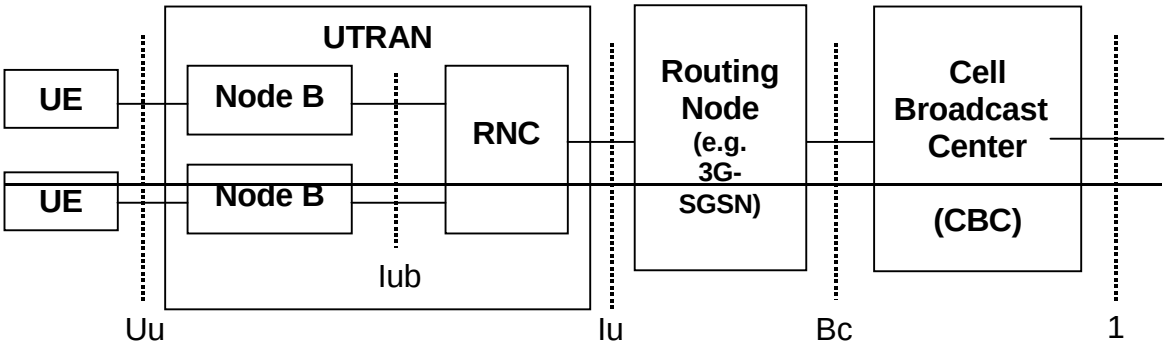
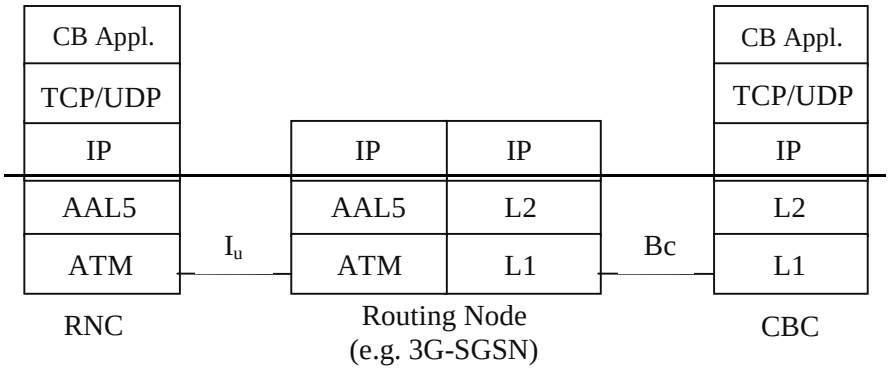


Figure 21: Architecture for SMS Cell Broadcast in UMTS

The protocol stack between the CBC and the RNC is given in figure 22. Protocol primitives for the cell broadcast application defined by GSM 03.41 are used for the Cell Broadcast application.



~~Figure 22: Common Communication Channel used by the Cell Broadcast Application~~

~~5.19.2 Interface Responsibilities~~

~~Interface 1 was not in the scope of GSM (see also GSM 03.41). At the moment it is ffs. if it should be standardized.~~

~~The interface between the CBC and the RNC is in the scope of T2 SWG3 (Messaging) as this group is continuing the work of the SMG4 Drafting Group *Message Handling*. Work has not yet started.~~

~~The needed changes to the Iu and Iub Interfaces is in the scope of RAN WG3 mainly.~~

~~The Uu Interface is fully under scope of RAN WG2 for layer 2 and 3 and RAN WG1 for layer 1 questions.~~