

**Source:** TSG SA WG2  
**Title:** CRs on 23.110 v 3.2.0  
**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.

*On 23.110*

<b>TDoc #</b>	<b>CR #</b>	<b>spec</b>	<b>Title</b>
S2-99881	003	23.110	AS-NAS primitives
S2-99F14	004	23.110	Additions to the access stratum model to support Cell Broadcast.





### 3G CHANGE REQUEST

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

**23.110 CR 004**

Current Version: **3.2.0**

3G specification number ↑

↑ CR number as allocated by 3G support team

For submission to TSG **SA2#10** for approval  (only one box should be marked with an X)  
 list TSG meeting no. here ↑ for information

Form: 3G CR cover sheet, version 1.0 The latest version of this form is available from: ftp://ftp.3gpp.org/Information/3GCRF-xx.rtf

**Proposed change affects:**  
 (at least one should be marked with an X)

USIM

ME

UTRAN

Core Network

**Source:** T-Mobil

**Date:** December 3, 1999

**Subject:** Additions to the access stratum model to support Cell Broadcast.

**3G Work item:** TS 23.110.

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

- F Correction
- A Corresponds to a correction in a 2G specification
- B Addition of feature
- C Functional modification of feature
- D Editorial modification

X

**Release:** Phase 2  
 Release 96  
 Release 97  
 Release 98  
 Release 99   
 Release 00

**Reason for change:**

Broadcast and Multicast services can not be described using the services and functions defined so far in this TS. The nature of Broadcast and Multicast services, like Cell Broadcast Service (CBS), is different from other specified services.

**Clauses affected:** 6.1.

**Other specs affected:**

- Other 3G core specifications  → List of CRs:
- Other 2G 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:**

## 6 Access Stratum services

The modeling of the services follow the basic principles as set by ITU-T X.210 [Error! Bookmark not defined, Fehler! Textmarke nicht definiert.]. In this recommendation the following figure is given as an example for peer-to-peer connection-mode services.

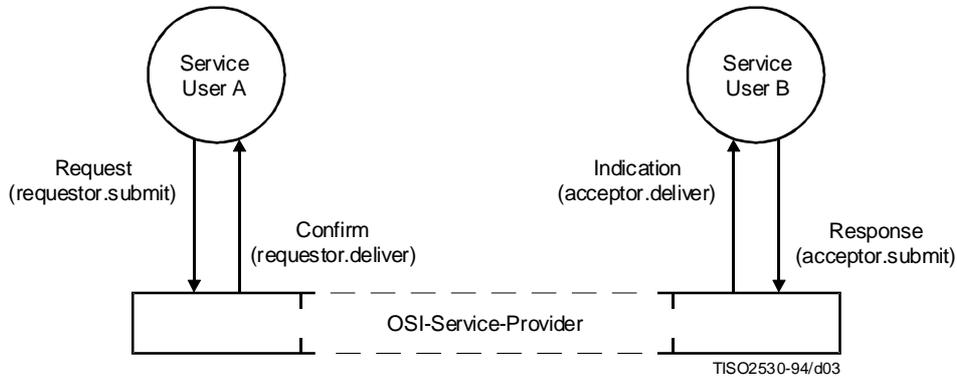


Figure 14: Example of a peer-to-peer connection-mode service [Error! Bookmark not defined, Fehler! Textmarke nicht definiert.]

For connectionless-mode services the basic primitives are "request" and "indication".

### 6.1 Service Access Points (SAPs)

The SAPs offered by the Access Stratum (AS) to the rest of the system (Non Access Stratum: NAS) are reflected in the following figure.

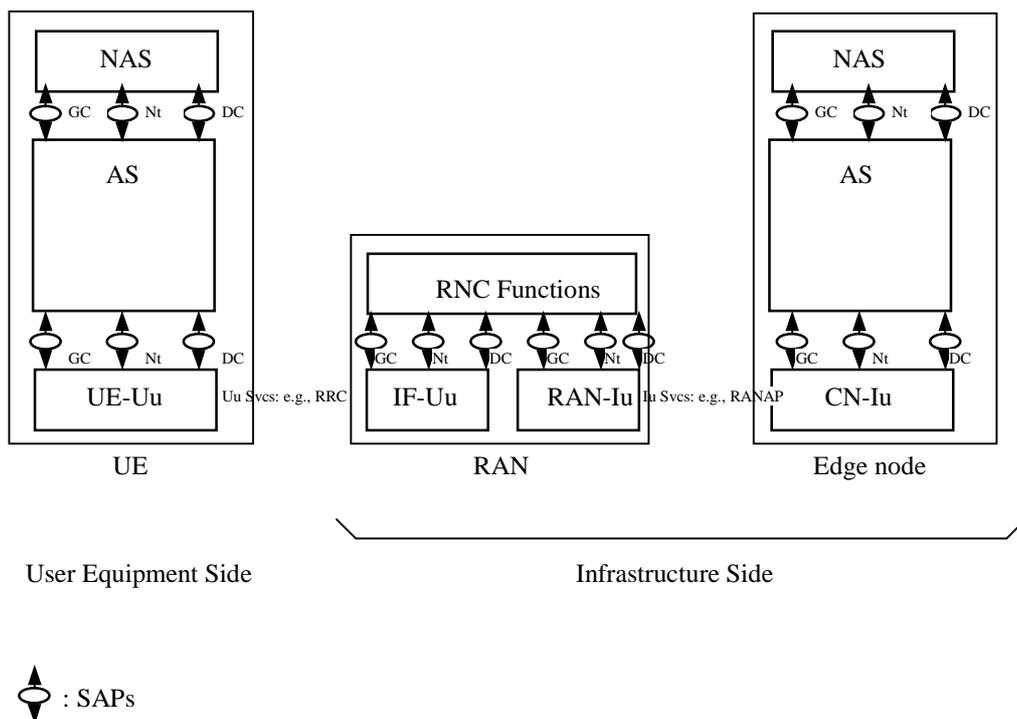


Figure 22: Service Access Points (SAPs) offered by the Access Stratum (AS)

For the time being, the SAPs offered by the AS are symmetric, i.e. the same SAPs are offered on the infrastructure side (CN-AS) and on the user equipment side (UE-AS). These SAPs are:

GC: General Control (see 6.1.1 for a general presentation and 6.2.2.1 for a detailed information).

Nt: Notification (see 6.1.2 for a general presentation and 6.2.2.2 for a detailed information).

DC: Dedicated Control (see 6.1.3 for a general presentation and 6.2.2.3 for a detailed information).

Note:

Broadcast and Multicast services can not be described using the services and functions defined so far in this TS. The nature of Broadcast and Multicast services, like Cell Broadcast Service (CBS), is very different from other specified services. The following model characteristics are missing to fulfil the CBS requirements, namely:

1. CBS uses two segments with different QoS requirements to deliver CB messages to the UE:
  - 1a. From Cell Broadcast Center (CBC) to RNC, a SAP is required where for instance, 1 second turnaround time, interactive class, with a reliable transport is required.
  - 1b. From RNC to UE, a SAP is required where for instance, a maximum delay of 10 seconds and a background class is required.
2. Because of (item 1), the service primitives used by each of the segments may also be different; i.e., the related SAPs to those primitives may differ in the two segments and a combination of GC, Nt, and DC SAPs requires study.
3. CBS traffic is asymmetric in nature. The communication flow is only in one direction from the CBC to the UE. There is no uplink channel needed and the UE can not initiate a communication or request specific information.

At least two changes are envisaged and thus detailed contributions are expected:

- i. Introduce a new SAP type.
- ii. Mapping example between the two communication segments.

Figure 2 shows also, as an example, some details of the AS architecture. The details are out of the scope of this document and are further specified in the 25-series.

This model does not exclude, nor imply, which protocol is specified between the UE-AS entity and the CN-AS entity. These protocols are 'transparent' for the AN, but participate in the service provided by the AS.

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