TSG RAN Meeting #17 **RP-020605**
Biarritz, France, 3 - 6 September, 2002

Title **CRs (Rel-4 and Rel-5 Category A) to TS 25.401**
Source **TSG RAN WG3**
Agenda Item **7.3.4**

RAN3 Tdoc	Spec	curr. Vers.	new Vers.	REL	CR	Rev	Cat	Title	Work item
R3-021980	25.401	4.5.0	4.6.0	REL-4	058	-	F	Correction of Alcap identifiers	ETRAN-IPtrans
R3-022025	25.401	5.3.0	5.4.0	REL-5	055	1	A	Clarification on ALCAP Indentifiers	ETRAN-IPtrans

3GPP TSG-RAN WG3 Meeting #31 ***Tdoc ⌘R3-022025***
Stockholm- Arlanda, Sweden, 19th – 23rd August 2002

CR-Form-v7

CHANGE REQUEST

⌘ **25.401** **CR** **055** ⌘ **rev** **1** ⌘ Current version: **5.3.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network **X** Core Network **X**

Title:	⌘	Clarification on ALCAP Indentifiers
Source:	⌘	RAN WG3
Work item code:	⌘	ETRAN-IPtrans
Date:	⌘	06/08/2002
Category:	⌘	**A**
Release:	⌘	REL-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	Currently TS25.401 uses the term “ALCAP identifiers” to name the transport bearer identifiers. Through the introduction of the IP transport option “ALCAP identifiers” will not only refer to the Path-Id /CID in case of AAL2 transport but also to UDP/IP in case of IP transport. This is wrong as ALCAP may not be used with the IP transport option.
Summary of change:	⌘	“ALCAP Identifiers” are replaced by the “Transport Network identifiers”. Impact assessment towards the previous version of the specification (same release): This CR has no impact with the previous version of the specification (same release) because it only introduces the distinction between the TNL concepts for the AAL2 and the IP transport option in a place where this was obviously forgotten. The corresponding concept was already present in the context of other specifications.
Consequences if not approved:	⌘	In particular in conjunction with the use of IP transport option use of addresses can be erroneous due to bad naming as transport bearers are not identified outside of the use of a transport network control plane.

Clauses affected:	⌘	6.1.8.1, 6.2.8.2

Other specs affected:	Y	N			
⌘	X		Other core specifications	⌘	TS 25.401 Rel-4 CR058
		X	Test specifications		
		X	O&M Specifications		

Other comments:	⌘	

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

6.1.8.1 Radio Network Control Plane identifiers

Each addressable object in each reference point has an application part level identifier. This identifier is allocated autonomously by the entity responsible for initiation of the setup of the object. This application part identifier will be used as a reference to the object that is setup. Both ends of the reference point shall memorise the AP Identifier during the lifetime of the object. Application part identifier can be related to a specific Transport Network ~~ALCAP~~ identifier and that relationship shall also be memorised by both ends.

Table 1 lists the basic AP level identifiers in each reference point.

Table 1: Basic AP level identifiers in each reference point

Object	Identifier	Abbreviation	Valid for
Radio Access Bearer	Radio Access Bearer ID	RAB-ID	Iu
Dedicated Transport channel	DCH-ID	DCH-ID	Iur, Iub
Downlink Shared Channel	DSCH-ID	DSCH-ID	Iur, Iub
[TDD Uplink Shared Channel]	USCH-ID	USCH-ID	Iur, Iub

6.1.8.2 Transport Network ~~Control Plane~~ identifiers

Transport Network ~~ALCAP~~ identifiers are used in the Transport Network Layer (TNL) ~~Control plane~~ to identify the transport bearer and may be used in User Plane in the actual data transmission using the transport link. The Transport Network~~ALCAP~~ identifier identifies the transport link according to the naming conventions defined for the transport link type in question. Both ends of the reference point of the concerned TNL ~~ALCAP~~ shall memorise the Transport Network~~ALCAP~~ identifiers during the lifetime of the transport link. Each Transport Network~~ALCAP~~ identifier can be binded to an Application Part identifier.

The Transport Network~~ALCAP~~ identifiers vary depending on the transport link type.

Table 2 indicates examples of the identifiers used for different transmission link types.

Table 2: Examples of the identifiers used for different transmission link types

Transmission link type	Transport Network~~ALCAP~~ Identifier
AAL2	AAL2 Path ID + CID
GTP over IP	IP address + TEID
UDP over IP	IP address + UDP port

The communication of Transport Network~~ALCAP~~ identifiers is made in two ways:

When an ALCAP is used, the transport layer address ~~is~~ communicated via the Radio Network Layers protocols (NBAP, RNSAP, RANAP…) is a Transport Network Control Plane address and the Transport Network~~ALCAP~~ identifiers are communicated through this~~e~~ Transport Network Control Plane only.

When no ALCAP is used, the Transport Network~~ALCAP~~ identifiers are directly communicated via the Radio Network Layers protocols (NBAP, RNSAP, RANAP…) on all interfaces.

In both cases, the transport layer address (e.g. IP address) is encapsulated by the Transport Network Layer in the NSAP structure as defined in [Annex A of [15], [16]] transported transparently on Iub, Iur and Iu-CS and passed transparently from the Radio Network Layer to the Transport Network Layer. The NSAP structure (encapsulation) is only used in order to provide to the TNL explicit identification of the type of the TNL address that is being conveyed by the given RNL protocol. It is then the responsibility of the Transport Network Layer to interpret this structure (e.g. to determine accordingly if the requested network type is ATM or IP).

On the Iu-PS, the NSAP structure is not used in RANAP but the 'straight IP addressing' shall be used.

The following scheme depicts the encapsulation of a native IPv6 address in NSAP structure when conveyed in RANAP, RNSAP and NBAP.

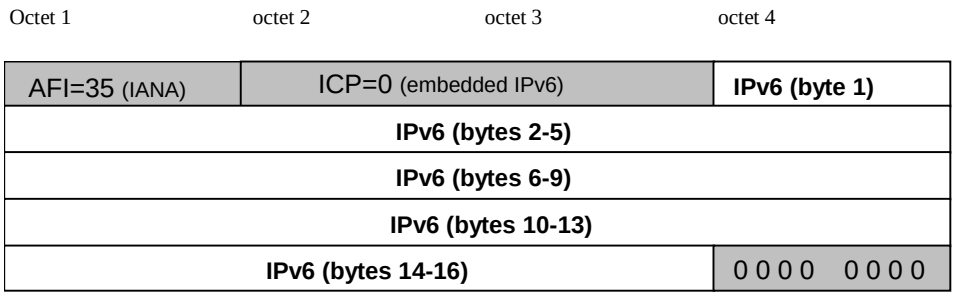

Figure 6A: IPv6 address embedded in NSAP structure in RANAP/RNSAP/NBAP.

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CHANGE REQUEST

⌘ **25.401** **CR** **058** ⌘ **rev** **-** ⌘ Current version: **4.4.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network **X** Core Network **X**

Title:	⌘	Correction of ALCAP Identifiers
Source:	⌘	RAN WG3
Work item code:	⌘	ETRAN-IPtrans
Date:	⌘	19/08/2002
Category:	⌘	**F**
Release:	⌘	REL-4

Use one of the following categories:
F *(correction)*
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C *(functional modification of feature)*
D *(editorial modification)*
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R98 (Release 1998)
R99 (Release 1999)
Rel-4 (Release 4)
Rel-5 (Release 5)
Rel-6 (Release 6)

Reason for change:	⌘	Currently TS25.401 erroneously uses the term “ALCAP identifiers” to name the transport bearer (Network) identifiers such as Path-Id /CID or UDP/IP. It also says that these transport bearer identifiers are ONLY used in the transport network control plane which is erroneous and in contradiction with the main principle in 11.1.3.3 saying: “if there is no Alcap signalling transaction, the Transport Network Control Plane is not needed at all”.
Summary of change:	⌘	- “ALCAP Identifiers” are replaced by the “Transport Network identifiers” - Restriction of use of these identifiers within a transport network control plane is removed. Impact assessment towards the previous version of the specification (same release): This CR has isolated impact with the previous version of the specification (same release) because it allows the use of transport bearer identifiers like IP address and TEID on Iu-PS despite there is no transport network control plane. It has both functional and protocol impact.
Consequences if not approved:	⌘	Since Transport bearer identifiers can only be used with a transport network control plane, they cannot be used on Iu-PS w/o any Alcap according to 11.1.3.3. Use of addresses can also be erroneous due to bad naming.

Clauses affected:	⌘	6.1.8.1, 6.2.8.2

Y **N**

Other specs affected:	⌘	X		Other core specifications	⌘ 25.401 v5.3.0 CR055r1
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

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6.1.8 Identifiers for dedicated resources within UTRAN

6.1.8.1 Radio Network Control Plane identifiers

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[TDD Uplink Shared Channel]	USCH-ID	USCH-ID	Iur, Iub

6.1.8.2 Transport Network ~~Control Plane~~ Iidentifiers

~~ALCAP~~Transport Network identifiers ~~is~~are used ~~only~~ in the Transport Network Layer~~Control plane (ALCAP protocol, if exist)~~ to identify the transport bearer and may be used in User Plane in the actual data transmission using the transport link. The Transport Network Identifier ~~ALCAP identifier~~ identifies the transport link according to the naming conventions defined for the transport link type in question. Both ends of the reference point of the concerned TNL~~ALCAP~~ shall memorise the Transport Network~~ALCAP~~ identifiers during the lifetime of the transport link. Each Transport Network~~ALCAP~~ identifier can be binded to an Application Part identifier.

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