TSG-RAN Meeting #9
Hawaii, US, 20 - 22 September 2000

TSGRP#9(00)0383

Title: **Agreed CRs to TS 25.426**

Source: **TSG-RAN WG3**

Agenda item: 5.3.3

Tdoc_Num	Specification	CR_Num	Revision_Num	CR_Subject	CR_Category	WG_Status	Cur_Ver_Num	New_Ver_Num
R3-002273	25.426	003	1	AAL2 switching possibility	F	agreed	3.3.0	3.4.0
R3-002070	25.426	004		Remove Draft in the title of the reference Q.2630.1 and Q.2150.2 in 25.426	F	agreed	3.3.0	3.4.0
R3-002174	25.426	006		Additon of reference for usage of MTP3b on Iur	F	agreed	3.3.0	3.4.0

CHANGE REQUEST

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| **25.426** | CR | **003R1** | Current Version: | 3.2.0. |

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

For submission to:	**TSG RAN #9**	for approval	**X**		strategic		*(for SMG*
list expected approval meeting # here ↑		for information			non-strategic		*use only)*

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 ☐

Source:	R-WG3		**Date:**	August 2000

Subject:	AAL2 switching possibility

Work item:	

Category:

(only one category shall be marked with an X)

				Release:	
F	Correction	**X**		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	**X**
				Release 00	

Reason for change:	R1: Complete ambiguous sentences have been removed. R0: Contribution R3-001831 (Architectural model clarifications) points out unclarity in 25.426 related to AAL2 switching possibility at Iub and Iur. This CR clarifies that AAL2 switching is possible at Iub and Iur interfaces.

Clauses affected:	7.1., 8.1.

Other specs affected:

Other 3G core specifications	☐	→ List of CRs:	
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:	

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7.1   Introduction

This clause specifies the signalling bearer for the ALCAP on Iub interface. ~~Signalling bearer is used for the conveyance of the ALCAP messages between the peer UTRAN nodes.~~

7.2   Signalling Bearer

SAAL-UNI [8, 9] is used as a signalling bearer for the AAL Type 2 Signalling protocol on Iub interface. Signalling Transport Converter for SSCOP is applied [9]. The following figure shows the signalling bearer protocol stack for the ALCAP on Iub interface.
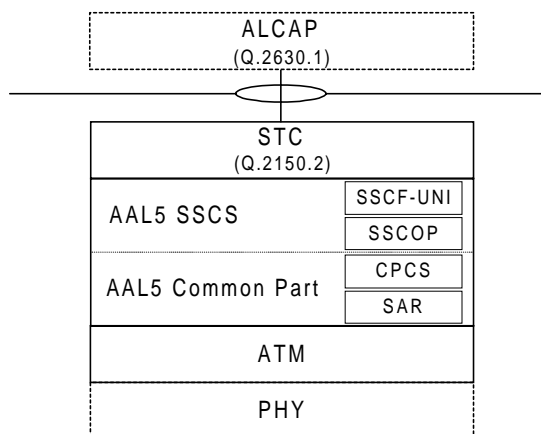
Figure 2: Signalling bearer for ALCAP on Iub interface

8   Signalling Bearer for ALCAP on I_{ur} Interface

8.1   Introduction

This clause specifies the signalling bearer for the ALCAP on the Iur interface. ~~Signalling bearer is used for the conveyance of the ALCAP messages between the peer UTRAN nodes.~~

CHANGE REQUEST

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25.426	CR	004	Current Version:	3.3.0

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

For submission to: **TSG-RAN#9**   for approval **X**   Strategic   *(for SMG*
list expected approval meeting # here   for information   non-strategic   *use only)*
↑

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

Source: R-WG3   **Date:**   August 2000

Subject: Remove "Draft" in the title of the reference Q.2630.1 and Q.2150.2 in 25.426

Work item:

Category: F   Correction   **X**   **Release:**   Phase 2   ☐
            A   Corresponds to a correction in an earlier release   Release 96   ☐
(only one category   B   Addition of feature   Release 97   ☐
shall be marked   C   Functional modification of feature   Release 98   ☐
with an X)   D   Editorial modification   Release 99   **X**
                        Release 00   ☐

Reason for change: The title of the reference Q.2630.1 and Q.2150.2 are still shown as darft, however Q.2630.1 and Q.2150.2 have been dicision in the ITU-T December 1999 SG11 meeting. The "Draft" is removed in order to show that the 25.434 is refering to the latest recommendation of Q.2630.1 and Q.2150.2

Clauses affected: 2

Other specs affected: Other 3G core specifications ☐   → List of CRs:
            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:

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1 Scope

The present document specifies the transport bearers for the DCH data streams on UTRAN Iur and Iub interfaces. The corresponding Transport Network Control plane is also specified. The physical layer for the transport bearers is outside the scope of the present document.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies.

[1] TS UMTS 25.427: "UTRAN Iur and Iub User plane Protocol for DCH Data Streams".

[2] ITU-T Recommendation I.361 (1995): "B-ISDN ATM Layer Specification".

[3] ITU-T Recommendation I.363.2 (1997): "B-ISDN ATM Adaptation Layer type 2".

[4] ITU-T Recommendation I.366.1 (1998): "Segmentation and Reassembly Service Specific Convergence Sublayer for the AAL type 2".

[5] ~~Draft n~~New ITU-T Recommendation Q.2630.1(1999): "AAL Type 2 signalling protocol (Capability Set 1)".

[6] ITU-T Recommendation E.191 (1996): "B-ISDN numbering and addressing".

[7] ITU-T Recommendation X.213 (1995): "Information Technology - Open Systems Interconnection - Network Service Definition".

[8] ITU-T Recommendation Q.2110 (1994): "B-ISDN ATM Adaptation layer - Service Specific Connection Oriented Protocol (SSCOP".

[9] ITU-T Recommendation Q.2130 (1994): "B-ISDN Signaling ATM Adaptation Layer - Service Specific Coordination Function for Support of Signaling at the User Network Interface (SSCF at UNI".

[10] Draft new ITU-T Recommendation Q.2150.2: "AAL Type 2 Signalling Transport Converter on SSCOP.

[11] ITU-T Recommendation Q.2210 (1996): Message transfer part level 3 functions and messages using the services of the ITU-T Recommendation Q.2140".

[12] ITU-T Recommendation Q.2140 (1995): "B-ISDN Signaling ATM Adaptation Layer - Service Specific Coordination Function for Support of Signaling at the Network Node Interface (SSCF at NNI)".

[13] ~~Draft n~~New ITU-T Recommendation Q.2150.1(1999): "AAL Type 2 Signalling Transport Converter on MTP-3B".

[14] IETF RFC 791 (1981): "Internet Protocol".

[15] IETF RFC 1483 (1993): "Multiprotocol Encapsulation over ATM Adaptation Layer 5".

[16] IETF RFC 2225 (1998): "Classical IP and ARP over ATM".

[17] IETF RFC 768 (1980): "User Datagram Protocol".

[18]   R. Stewart et al, "Stream Control Transmission Protocol", draft-ieft-sigtran-sctp-v9.txt (IESG Last Call Version), IETF, 19 April 2000.

[19]   G. Sidebottom et al, "SS7 MTP3 - User Adaptation Layer", draft-ietf-sigtran-m3ua-02.txt (Work In Progress), IETF, 10 March 2000.

[20]   ITU-T Recommendation I.630 (1999): "ATM Protection Switching".

CHANGE REQUEST

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25.426 CR **006**   Current Version: **3.3.0**

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

For submission to: **RAN#9**   for approval **X**   strategic [ ]   *(for SMG*
list expected approval meeting # here   for information [ ]   non-strategic [ ]   *use only)*
↑

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

Source	R-WG3	**Date:**	2000-08-21

Subject: Addition of reference for usage of MTP3b on Iur

Work item:

Category: F   Correction   **X**   **Release:**   Phase 2 [ ]
            A   Corresponds to a correction in an earlier release   [ ]   Release 96 [ ]
(only one category   B   Addition of feature   [ ]   Release 97 [ ]
shall be marked   C   Functional modification of feature   [ ]   Release 98 [ ]
with an X)   D   Editorial modification   [ ]   Release 99 **X**
                                                                Release 00 [ ]

Reason for change: Currently the text in 25.426 refers to the ITU-T recommendation for Q.2210 only. This CR proposes to also add a reference to the implementor's guide for Q.2210 which is to be used in conjunction with the recommendation itself. It contains essential information for the Iur interface such as a new service indicator for AAL2 Signalling Transport Converter.

If this change is not included, an incorrect value for the STC could be used.

Clauses affected: 2, 8.2

Other specs affected:
Other 3G core specifications	[ ]	→ List of CRs:
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

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.

- For a specific reference, subsequent revisions do not apply.

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[1]   TS UMTS 25.427: "UTRAN Iur and Iub User plane Protocol for DCH Data Streams".

[2]   ITU-T Recommendation I.361 (1995): "B-ISDN ATM Layer Specification".

[3]   ITU-T Recommendation I.363.2 (1997): "B-ISDN ATM Adaptation Layer type 2".

[4]   ITU-T Recommendation I.366.1 (1998): "Segmentation and Reassembly Service Specific Convergence Sublayer for the AAL type 2".

[5]   Draft new ITU-T Recommendation Q.2630.1: "AAL Type 2 signalling protocol (Capability Set 1)".

[6]   ITU-T Recommendation E.191 (1996): "B-ISDN numbering and addressing".

[7]   ITU-T Recommendation X.213 (1995): "Information Technology - Open Systems Interconnection - Network Service Definition".

[8]   ITU-T Recommendation Q.2110 (1994): "B-ISDN ATM Adaptation layer - Service Specific Connection Oriented Protocol (SSCOP".

[9]   ITU-T Recommendation Q.2130 (1994): "B-ISDN Signaling ATM Adaptation Layer - Service Specific Coordination Function for Support of Signaling at the User Network Interface (SSCF at UNI".

[10]   Draft new ITU-T Recommendation Q.2150.2: "AAL Type 2 Signalling Transport Converter on SSCOP.

[11]   ITU-T Recommendation Q.2210 (1996): Message transfer part level 3 functions and messages using the services of the ITU-T Recommendation Q.2140".

[12]   ITU-T Recommendation Q.2140 (1995): "B-ISDN Signaling ATM Adaptation Layer - Service Specific Coordination Function for Support of Signaling at the Network Node Interface (SSCF at NNI)".

[13]   Draft new ITU-T Recommendation Q.2150.1: "AAL Type 2 Signalling Transport Converter on MTP-3B".

[14]   IETF RFC 791 (1981): "Internet Protocol".

[15]   IETF RFC 1483 (1993): "Multiprotocol Encapsulation over ATM Adaptation Layer 5".

[16]   IETF RFC 2225 (1998): "Classical IP and ARP over ATM".

[17]   IETF RFC 768 (1980): "User Datagram Protocol".

[18]   R. Stewart et al, "Stream Control Transmission Protocol", draft-ieft-sigtran-sctp-v9.txt (IESG Last Call Version), IETF, 19 April 2000.

[19]   G. Sidebottom et al, "SS7 MTP3 - User Adaptation Layer", draft-ietf-sigtran-m3ua-02.txt (Work In Progress), IETF, 10 March 2000.

[20]   ITU-T Recommendation I.630 (1999): "ATM Protection Switching".

[21]   ITU-T Implementor's guide (12/99) for recommendation Q.2210 (07/96)

NEXT MODIFIED SECTION

8.2 Signalling Bearer

There are two protocol stacks specified for Iur ALCAP Signalling Bearer - one based on MTP-3B [11] and SAAL-NNI [12, 8] and the other based on SCTP [18]. Signalling Transport Converter for MTP-3B is applied [13 & 21]. SCCP Adaptation Layer for SCTP is applied [19]. The following figure shows the signalling bearer protocol stacks for the ALCAP on Iur interface.

```
┌─────────────────────────┐     ┌─────────────────────────┐
│         ALCAP           │     │         ALCAP           │
│       (Q.2630.1)        │     │       (Q.2630.1)        │
└───────────┬─────────────┘     └───────────┬─────────────┘
        ────◯────                       ────◯────
┌─────────────────────────┐     ┌─────────────────────────┐
│          STC            │     │          STC            │
│       (Q.2150.1)        │     │       (Q.2150.1)        │
├─────────────────────────┤     ├─────────────────────────┤
│                         │     │          M3UA           │
│         MTP-3B          │     ├─────────────────────────┤
│                         │     │          SCTP           │
│                         │     ├─────────────────────────┤
│                         │     │           IP            │
├──────────────┬──────────┤     ├─────────────────────────┤
│              │ SSCF-NNI │     │                         │
│ AAL5 SSCS    ├──────────┤     │       AAL5 SSCS         │
│              │  SSCOP   │     │                         │
├──────────────┼──────────┤     ├─────────────────────────┤
│              │   CPCS   │     │                         │
│ AAL5 Common  ├──────────┤     │    AAL5 Common Part     │
│    Part      │   SAR    │     │                         │
├──────────────┴──────────┤     ├─────────────────────────┤
│          ATM            │     │          ATM            │
├─────────────────────────┤     ├─────────────────────────┤
│          PHY            │     │          PHY            │
└─────────────────────────┘     └─────────────────────────┘
```

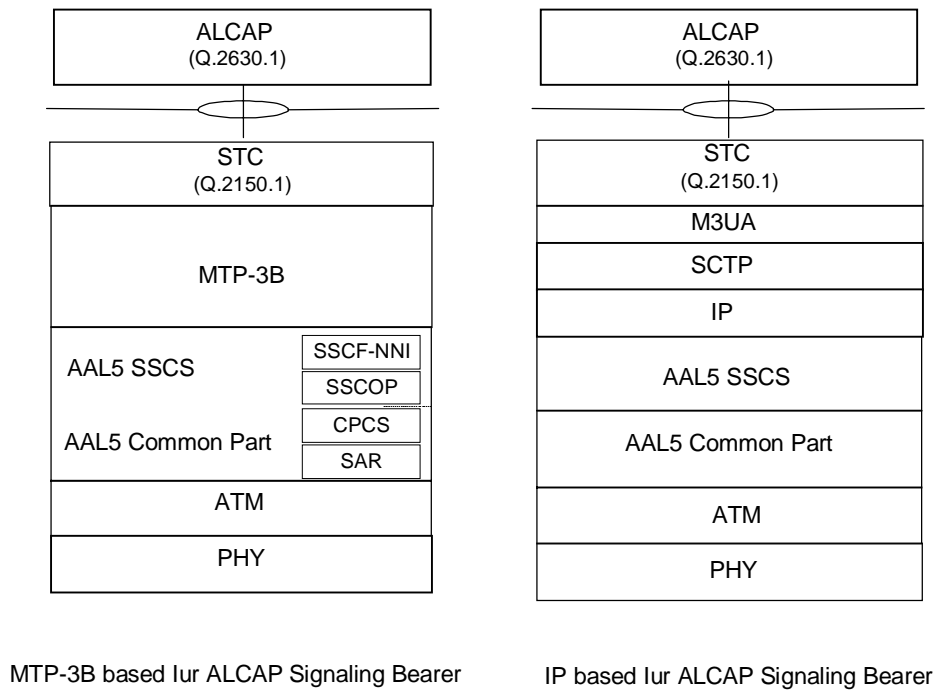MTP-3B based Iur ALCAP Signaling Bearer   IP based Iur ALCAP Signaling Bearer

Figure 3: Signalling bearers for ALCAP on Iur interface