Technical Specification Group Radio Access Network
Marco Island, USA 4 - 7 June 2002

RP#16(02) 0413

TSG_Doc_Num	Specification	CR_Num	Revision_Num	3G_Release	CR_Subject	CR_Category	Cur_Ver_Num	New_Ver_Num	Tdoc_Num	WorkItem
RP-020413	25.434	022		R99	Correction of Aesa formats	F	3.7.0	3.8.0	R3-021160	TEI
RP-020413	25.434	023		Rel-4	Correction of Aesa formats	A	4.3.0	4.4.0	R3-021164	TEI
RP-020413	25.434	024		Rel-5	Correction of Aesa formats	A	5.0.0	5.1.0	R3-021168	TEI

3GPP TSG-RAN WG3 Meeting #29 ***R3-021160***
Gyeongju, Korea, 13th – May17th, 2002

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CHANGE REQUEST

⌘ **25.434** **CR** **022** ⌘ rev **-** ⌘ Current version: **3.7.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network **X** Core Network ☐

Title:	⌘	Correction of Aesa formats
Source:	⌘	R-WG3
Work item code:	⌘	TEI
Date:	⌘	April 2002
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
F *(essential correction)*
A *(corresponds to a correction in an earlier release)*
B *(Addition of feature),*
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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)*

Reason for change: ⌘ The version of October 96 of the recommendation E191 is inaccurate since it does not have other Aesa variants but it only references the embedded E164.

Then, also, Aesa variants can designate E164 Aesa only variants if it is not clearly stated that other Aesa variants within the Nsap variants may also be considered.

Native E164 reference is missing.

Summary of change: ⌘ The E191 recommendation reference has been corrected and also the possibility to use any other Nsap Aesa variants outside of E164 variants within Nsap format. Native E164 correct reference is given.

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) since the RNC can use any other Aesa variant of the Nsap format with this correction.

This CR has an impact under functional point of view for implementations not behaving like indicated in the CR.
The impact can be considered isolated because the change affects only the aal2 transport layer addressing function.

Consequences if not approved: ⌘ Erroneous specification referenced and inaccurate restriction on the possible Nsap Aesa variants to be used.

Clauses affected: ⌘ 2,6.2

Other specs affected: ⌘

X	Other core specifications	TS25434 CR023 REL-4 TS25434 CR024 REL-5
	Test specifications	
	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/3G_Specs/CRs.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://www.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 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.

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. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document.*

[1] ITU-T Recommendation I.363.2 (9/97): "B-ISDN ATM Adaptation layer specification: Type 2 AAL".

[2] ITU-T Recommendation I.366.1 (6/98): "Segmentation and Reassembly Service Specific Convergence Sublayer for the AAL type 2".

[3] ITU-T Recommendation Q.2630.1 (12/99): "AAL type 2 signalling protocol (Capability Set 1)".

[4] ITU-T Recommendation Q.2110 (7/94): "B-ISDN ATM adaptation layer - Service Specific Connection Oriented Protocol (SSCOP)".

[5] ITU-T Recommendation Q.2130 (7/94): "B-ISDN signalling ATM adaptation layer - Service Specific Coordination Function for Support of Signalling at the User Network Interface (SSCF at UNI)".

[6] ITU-T Recommendation Q.2150.2 (12/99): "Signalling Transport Converter on SSCOP and SSCOPMCE".

[7] ITU-T Recommendation I.361 (11/95): "B-ISDN ATM layer specification".

[8] ITU-T Recommendation I.630 (2/99): "ATM protection switching".

[9] ITU-T Recommendation E.191 (~~10~~03/~~96~~00): "B-ISDN ~~numbering and~~ addressing".

[10] ITU-T Recommendation X.213 (11/95): "Information Technology - Open Systems Interconnection - Network Service Definition".

[11] ITU-T Recommendation E.164 (5/97): " The international public telecommunication numbering plan ".

6 I_{ub} Transport Signalling Application for Common Transport Channel Data Streams

6.1 Introduction

This subclause specifies the transport signalling protocol(s) used to establish the user plane transport bearers. The protocol stack is shown in clause 7 (figure 2).

6.2 Transport Signalling

Q.2630.1 [3] as developed by ITU-T is selected as the standard AAL2 signalling protocol for Iub.

Binding ID provided by the radio network layer shall be copied in SUGR parameter of ESTABLISH.request primitive of [3]. The binding identifier shall already be assigned and tied to a radio application procedure when the Establish Request message is received over the Iub interface in the Node B.

User Plane Transport bearers are established and in all normal cases released by the ALCAP in the Controlling RNC. The Node B shall initiate release of the user plane transport bearers for the removed common channels that were remaining within the cell when the cell is deleted.

AAL2 transport layer addressing is based on embedded E.164 or other AESA variants of the NSAP addressing format [9, 10]. Native E.164 addressing [11] shall not be used.

If there is an AAL2 switching function in the transport network layer of the interface, the AAL2 Link Characteristics parameter (ALC) shall be included in the Establish Request message of AAL2 signalling protocol.

3GPP TSG-RAN WG3 Meeting #29 ***R3-021164***
Gyeongju, Korea, 13th – May17th, 2002

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CHANGE REQUEST

⌘ **25.434** **CR** **023** ⌘ rev **-** ⌘ Current version: **4.3.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network **X** Core Network ☐

Title:	⌘	Correction of Aesa formats
Source:	⌘	R-WG3
Work item code:	⌘	TEI
Date:	⌘	April 2002
Category:	⌘	**A**
Release:	⌘	REL-4

Use one of the following categories:
F *(essential correction)*
A *(corresponds to a correction in an earlier release)*
B *(Addition of feature),*
C *(Functional modification of feature)*
D *(Editorial modification)*
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R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
REL-4	*(Release 4)*
REL-5	*(Release 5)*

Reason for change: ⌘ The version of October 96 of the recommendation E191 is inaccurate since it does not have other Aesa variants but it only references the embedded E164.

Then, also, Aesa variants can designate E164 Aesa only variants if it is not clearly stated that other Aesa variants within the Nsap variants may also be considered.

Native E164 reference is missing.

Summary of change: ⌘ The E191 recommendation reference has been corrected and also the possibility to use any other Nsap Aesa variants outside of E164 variants within Nsap format. Native E164 correct reference is given.

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) since the RNC can use any other Aesa variant of the Nsap format with this correction.

This CR has an impact under functional point of view for implementations not behaving like indicated in the CR.
The impact can be considered isolated because the change affects only the aal2 transport layer addressing function.

Consequences if not approved: ⌘ Erroneous specification referenced and inaccurate restriction on the possible Nsap Aesa variants to be used.

Clauses affected: ⌘ 2,6.2

Other specs affected: ⌘

X	Other core specifications	TS25434 CR022 R99 TS25434 CR024 REL-5
	Test specifications	
	O&M Specifications	

Other comments: ⌘

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[1] ITU-T Recommendation I.363.2 (11/2000): "B-ISDN ATM Adaptation layer specification: Type 2 AAL".

[2] ITU-T Recommendation I.366.1 (6/98): "Segmentation and Reassembly Service Specific Convergence Sublayer for the AAL type 2".

[3] ITU-T Recommendation Q.2630.1 (12/99): "AAL type 2 signalling protocol (Capability Set 1)".

[4] ITU-T Recommendation Q.2110 (7/94): "B-ISDN ATM adaptation layer - Service Specific Connection Oriented Protocol (SSCOP)".

[5] ITU-T Recommendation Q.2130 (7/94): "B-ISDN signalling ATM adaptation Layer - Service Specific Coordination Function for Support of Signalling at the User Network Interface (SSCF at UNI)".

[6] ITU-T Recommendation Q.2150.2 (12/99): "Signalling transport converter on SSCOP and SSCOPMCE".

[7] ITU-T Recommendation I.361 (11/95): "B-ISDN ATM layer specification".

[8] ITU-T Recommendation I.630 (2/99): "ATM protection switching".

[9] ITU-T Recommendation Q.2630.2 (12/2000): "AAL Type 2 signalling protocol (Capability Set 2)".

[10] ITU-T Recommendation E.191 (0310/0096): "B-ISDN ~~numbering and~~ addressing".

[11] ITU-T Recommendation X.213 (11/95): "Information Technology - Open Systems Interconnection - Network Service Definition".

[12] ITU-T Recommendation E.164 (5/97): " The international public telecommunication numbering plan ".

6 I_{ub} Transport Signalling Application for Common Transport Channel Data Streams

6.1 Introduction

This subclause specifies the transport signalling protocol(s) used to establish the user plane transport bearers. The protocol stack is shown in clause 7 (figure 2).

6.2 Transport Signalling

Q.2630.2 as developed by ITU-T [9] is selected as the standard AAL2 signalling protocol for Iub. ITU-T Recommendation Q.2630.2 [9] adds new optional capabilities to ITU-T Recommendation Q.2630.1 [3].

Binding ID provided by the radio network layer shall be copied in SUGR parameter of ESTABLISH.request primitive of [9]. The binding identifier shall already be assigned and tied to a radio application procedure when the Establish Request message is received over the Iub interface in the Node B.

User Plane Transport bearers are established and in all normal cases released by the ALCAP in the Controlling RNC. The Node B shall initiate release of the user plane transport bearers for the removed common channels that were remaining within the cell when the cell is deleted.

AAL2 transport layer addressing is based on embedded E.164 or other AESA variants of the NSAP addressing format [10, 11]. Native E.164 addressing [12] shall not be used.

If there is an AAL2 switching function in the transport network layer of the interface, the Link Characteristics parameter (LC) shall be included in the Establish Request message and in the Modification Request message of AAL2 signalling protocol.

If there is an AAL2 switching function in the transport network layer of the interface, the Path Type parameter (PT) may be included in the Establish Request message of AAL2 signalling protocol for prioritisation at ATM level.

3GPP TSG-RAN WG3 Meeting #29 ***R3-021168***
Gyeongju, Korea, 13th – May17th, 2002

CR-Form-v3

CHANGE REQUEST

⌘ **25.434** **CR** **024** ⌘ rev **-** ⌘ Current version: **5.0.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network **X** Core Network ☐

Title:	⌘	Correction of Aesa formats
Source:	⌘	R-WG3
Work item code:	⌘	TEI
Date:	⌘	April 2002
Category:	⌘	**A**
Release:	⌘	REL-5

Use one of the following categories:
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A *(corresponds to a correction in an earlier release)*
B *(Addition of feature),*
C *(Functional modification of feature)*
D *(Editorial modification)*
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R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
REL-4	*(Release 4)*
REL-5	*(Release 5)*

Reason for change: ⌘ The version of October 96 of the recommendation E191 is inaccurate since it does not have other Aesa variants but it only references the embedded E164.

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Summary of change: ⌘ The E191 recommendation reference has been corrected and also the possibility to use any other Nsap Aesa variants outside of E164 variants within Nsap format. Native E164 correct reference is given.

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The impact can be considered isolated because the change affects only the aal2 transport layer addressing function.

Consequences if not approved: ⌘ Erroneous specification referenced and inaccurate restriction on the possible Nsap Aesa variants to be used.

Clauses affected: ⌘ 2,6.2

Other specs affected: ⌘

X	Other core specifications	TS25434 CR022 R99 TS25434 CR023 REL-4
	Test specifications	
	O&M Specifications	

Other comments: ⌘

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[2] ITU-T Recommendation I.366.1 (6/98): "Segmentation and Reassembly Service Specific Convergence Sublayer for the AAL type 2".

[3] ITU-T Recommendation Q.2630.1 (12/99): "AAL type 2 signalling protocol (Capability Set 1)".

[4] ITU-T Recommendation Q.2110 (7/94): "B-ISDN ATM adaptation layer - Service Specific Connection Oriented Protocol (SSCOP)".

[5] ITU-T Recommendation Q.2130 (7/94): "B-ISDN signalling ATM adaptation Layer - Service Specific Coordination Function for Support of Signalling at the User Network Interface (SSCF at UNI)".

[6] ITU-T Recommendation Q.2150.2 (12/99): "Signalling transport converter on SSCOP and SSCOPMCE".

[7] ITU-T Recommendation I.361 (11/95): "B-ISDN ATM layer specification".

[8] ITU-T Recommendation I.630 (2/99): "ATM protection switching".

[9] ITU-T Recommendation Q.2630.2 (12/2000): "AAL Type 2 signalling protocol (Capability Set 2)".

[10] ITU-T Recommendation E.191 (~~10~~03/~~96~~00): "B-ISDN ~~numbering and~~ addressing".

[11] ITU-T Recommendation X.213 (11/95): "Information Technology - Open Systems Interconnection - Network Service Definition".

[12] IETF RFC 768, (August 1980): "User Datagram Protocol".

[13] IETF RFC 2460, (December 1998): "Internet Protocol, Version 6 (IPv6) Specification".

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

[15] IETF RFC 2474, (December 1998): "Definition of the Differentiated Services Field (DS Field) in the IPv4 and IPv6 Headers".

[16] IETF RFC 1661, (July 1994): "The Point-to-Point Protocol (PPP)".

[17] IETF RFC 1662, (July 1994): "PPP in HDLC-like Framing".

[18] IETF RFC 2507, (February 1999): "IP header compression".

[19] IETF RFC 1990, (August 1996): "The PPP Multilink Protocol (MP)".

[20] IETF RFC 2686, (September 1999): "The Multi-Class Extension to Multi-Link PPP".

[21] IETF RFC 2509, (February 1999): "IP Header Compression over PPP".

[22] 3GPP TS 25.401, "UTRAN Overall Description"

[23] 3GPP TS 25.426, "UTRAN Iur and Iub Interface Data Transport & Transport Signalling for DCH Data Streams"

[24] IETF RFC 3153, (August 2001): "PPP Multiplexing".

[25] IETF RFC 2364, (July 1998): "PPP over AAL5".

[26] IETF RFC 3031, (January 2001): "Multiprotocol Label Switching Architecture".

[27] ITU-T Recommendation E.164 (5/97): " The international public telecommunication numbering plan ".

6 I_{ub} Transport Signalling Application for Common Transport Channel Data Streams

6.1 Introduction

This subclause specifies the transport signalling protocol(s) used to establish the user plane transport bearers. The protocol stack is shown in clause 7 (figure 2).

6.2 Transport Signalling in case of ATM Transport Option

Q.2630.2 as developed by ITU-T [9] is selected as the standard AAL2 signalling protocol for Iub. ITU-T Recommendation Q.2630.2 [9] adds new optional capabilities to ITU-T Recommendation Q.2630.1 [3].

Binding ID provided by the radio network layer shall be copied in SUGR parameter of ESTABLISH.request primitive of [9]. The binding identifier shall already be assigned and tied to a radio application procedure when the Establish Request message is received over the Iub interface in the Node B.

User Plane Transport bearers are established and in all normal cases released by the ALCAP in the Controlling RNC. The Node B shall initiate release of the user plane transport bearers for the removed common channels that were remaining within the cell when the cell is deleted.

AAL2 transport layer addressing is based on embedded E.164 or other AESA variants of the NSAP addressing format [10~~2~~, 11~~3~~]. Native E.164 addressing [27] shall not be used.

If there is an AAL2 switching function in the transport network layer of the interface, the Link Characteristics parameter (LC) shall be included in the Establish Request message and in the Modification Request message of AAL2 signalling protocol.

If there is an AAL2 switching function in the transport network layer of the interface, the Path Type parameter (PT) may be included in the Establish Request message of AAL2 signalling protocol for prioritisation at ATM level.