3GPP TSG CT Plenary Meeting #28 **CP-050236**
1st – 3rd June 2005 Quebec, Canada.

Source: TSG CT WG4

Title: Corrections on Work Item small technical Enhancements and Improvements on Mc-interface

Agenda item: 8.12

Document for: APPROVAL

Doc-2nd-Level	Spec	CR #	Rev	Rel	Tdoc Title	CAT	C_Version
C4-050659	29.232	199	-	Rel-5	Removal of Option in Prepare Bearer that the MGW can chose the BNC Characteristics	F	5.10.0
C4-050660	29.232	200	-	Rel-6	Removal of Option in Prepare Bearer that the MGW can chose the BNC Characteristics	A	6.1.0
C4-050823	29.232	183	1	Rel-5	BNC Cut-Through Capability Package removed	F	5.10.0
C4-050824	29.232	184	1	Rel-6	BNC Cut-Through Capability Package removed	A	6.1.0
C4-050825	29.232	186	1	Rel-5	Format Of IP Address	F	5.10.0
C4-050826	29.232	187	1	Rel-6	Format Of IP Address	A	6.1.0
C4-050827	29.232	195	1	Rel-5	Clarification of maintenance procedures	F	5.10.0
C4-050828	29.232	196	1	Rel-6	Clarification of maintenance procedures	A	6.1.0
C4-050829	29.232	197	1	Rel-5	Clarification of use of topology and mulitparty	F	5.10.0
C4-050830	29.232	198	1	Rel-6	Clarification of use of topology and mulitparty	A	6.1.0
C4-050844	29.232	201	1	Rel-5	Clarification Of Use Of Wildcarding	F	5.10.0
C4-050845	29.232	202	1	Rel-6	Clarification Of Use Of Wildcarding	A	6.1.0
C4-050886	29.232	189	1	Rel-5	Clarification to Profile Registration Negotiation Procedures	F	5.10.0

3GPP TSG-CT WG4 Meeting #27 **C4-050659**
Cancun, MEXICO. 25th to 29th April 2005.

CR-Form-v7.1

CHANGE REQUEST

⌘ **29.232** **CR** **199** ⌘ **rev** **-** ⌘ Current version: **5.10.0** ⌘

*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 ☐ Core Network ☐

Title:	⌘	Removal of Option in Prepare Bearer that the MGW can chose the BNC Characteristics
Source:	⌘	LM Ericsson
Work item code:	⌘	TEI5
Date:	⌘	01/04/2005
Category:	⌘	**F**
Release:	⌘	Rel5

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:
Ph2 (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)
Rel-7 (Release 7)

Reason for change:	⌘	In q.1950 the procedure Prepare_BNC_Notify allows the MGW the option to choose the BNC Characteristics. This is not required by the stage 2 procedures in Mc interface and should be removed from this specification. ESSENTIAL CORRECTION
Summary of change:	⌘	Prepare Bearer Procedure only allows MSC to specify the BNC Characteristics
Consequences if not approved:	⌘	Mc spec contains options that are not defined in stage 2 hence interoperability problems will occur if some vendors implement this.

Clauses affected:	⌘	14.2.5			
Other specs affected:	⌘	**Y**	**N**		⌘
			X	Other core specifications	
			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.

14.2.5 Prepare Bearer

This procedure is the same as that defined in the subclause "Prepare_BNC_notify" in ITU-T Recommendation Q.1950 [23] (see 3GPP TS 29.205 [7]) except that the Commands MOD and MOV shall not be used, -the MGW shall not choose the BNC Characteristics and with additions as shown below.

Table 14.2.5.1: Prepare Bearer additions

Address Information	Control information	Bearer information
	UP mode = mode UP version = version Delivery of erroneous SDUs = value Interface = interface Initdirerection = initdirection State= ctmstate Transport= ctmtransport Version= ctmtext version Bitrate = bitrate If indication on Protocol Negotiation Result requested: NotificationRequested (Event ID = x, "Prot Negotiation Result") If indication on Rate Change requested: NotificationRequested (Event ID = x, "RateChange") If indication on Bearer Modification requested: NotificationRequested (Event ID = x, "Bearer Modification Support") If notification on CTM negotiation result requested: NotificationRequested (Event ID = x, " connchange ")	PLMN bearer capability = PLMN capability GSM channel coding = coding

3GPP TSG-CT WG4 Meeting #27 **C4-050660**
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CR-Form-v7.1

CHANGE REQUEST

⌘ **29.232** **CR** **200** ⌘ **rev** **-** ⌘ Current version: **6.1.0** ⌘

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

Title:	⌘	Removal of Option in Prepare Bearer that the MGW can chose the BNC Characteristics
Source:	⌘	LM Ericsson
Work item code:	⌘	TEI5
Date:	⌘	01/04/2005
Category:	⌘	**A**
Release:	⌘	Rel-6

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
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C *(functional modification of feature)*
D *(editorial modification)*
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Ph2 (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)
Rel-7 (Release 7)

Reason for change:	⌘	In q.1950 the procedure Prepare_BNC_Notify allows the MGW the option to choose the BNC Characteristics. This is not required by the stage 2 procedures in Mc interface and should be removed from this specification. ESSENTIAL CORRECTION
Summary of change:	⌘	Prepare Bearer Procedure only allows MSC to specify the BNC Characteristics
Consequences if not approved:	⌘	Mc spec contains options that are not defined in stage 2 hence interoperability problems will occur if some vendors implement this.

Clauses affected:	⌘	14.2.5

Other specs affected:	⌘	Y	N		⌘
			X	Other core specifications	
			X	Test specifications	
			X	O&M Specifications	

Other comments:	⌘	

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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.

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3GPP TSG-CT WG4 Meeting #27 **C4-050823**
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CHANGE REQUEST

⌘ **29.232** **CR** **183** ⌘ **rev** **1** ⌘ Current version: **5.a.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 ☐ Core Network ☐

Title:	⌘	BNC Cut-Through Capability Package removed
Source:	⌘	LM Ericsson, Vodafone
Work item code:	⌘	TEI5
Date:	⌘	01/04/2005
Category:	⌘	**F**
Release:	⌘	Rel5

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:

Ph2	*(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)*
Rel-7	*(Release 7)*

Reason for change:	⌘	BNC Cut-Through Capability package is not defined in stage 2 procedures nor is it clear what the MGW should do when asked if cut through is early or late. This package is primarily designed for other accesses than are supported in 3GPP therefore the package should not be included. **ESSENTIAL CORRECTION**
Summary of change:	⌘	BNC Cut-through Capability package is removed.
Consequences if not approved:	⌘	Mandatory package's use is not defined.

Clauses affected:	⌘	13			
Other specs affected:	⌘	**Y**	**N**		⌘
			X	Other core specifications	
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:
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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.

13 BICC packages

13.1 Mandatory BICC packages

The following BICCpackages shall be supported:

- Bearer Characteristics Package (see ITU-T Recommendation Q.1950 [23] annex A.3).
- ~~Bearer Network Connection Cut Through Package (see ITU-T Recommendation Q.1950 [23] annex A.4).~~
- Generic Bearer Connection Package (see ITU-T Recommendation Q.1950 [23] annex A.6).

13.2 Optional BICC packages

The following BICC packages shall be supported as required by the network services deployed in the network:

- Basic Call Progress Tones Generator with Directionality, (see ITU-T Recommendation Q.1950 [23] annex A.8).
- Expanded Call Progress tones Generator Package (see ITU-T Recommendation Q.1950 [23] annex A.9).
- Basic Services Tones Generation Package, (see ITU-T Recommendation Q.1950 [23] annex A.10).
- Bearer Control Tunnelling Package (see ITU-T Recommendation Q.1950 [23] annex A.7).
- Expanded Services Tones Generation Package (see ITU-T Recommendation Q.1950 [23] annex A.11).
- Intrusion Tones Generation Package (see ITU-T Recommendation Q.1950 [23] annex A.12).
- Business Tones Generation Package (see ITU-T Recommendation Q.1950 [23] annex A.13).

3GPP TSG-CT WG4 Meeting #27 **C4-050824**
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CHANGE REQUEST

⌘ **29.232** **CR** **184** ⌘ **rev** **1** ⌘ Current version: **6.1.0** ⌘

*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 ☐ Core Network ☐

Title:	⌘	BNC Cut-Through Capability Package Removed.
Source:	⌘	LM Ericsson, Vodafone
Work item code:	⌘	TEI5
Date:	⌘	01/04/2005
Category:	⌘	**A**
Release:	⌘	Rel6

Use one of the following categories:
F *(correction)*
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R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*
Rel-7	*(Release 7)*

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Summary of change:	⌘	BNC Cut-through Capability package is removed.
Consequences if not approved:	⌘	Mandatory package's use is not defined.

Clauses affected:	⌘	13			
Other specs affected:	⌘	**Y**	**N**		⌘
			X	Other core specifications	
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

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- Bearer Control Tunnelling Package (see ITU-T Recommendation Q.1950 [23] annex A.7).
- Expanded Services Tones Generation Package (see ITU-T Recommendation Q.1950 [23] annex A.11).
- Intrusion Tones Generation Package (see ITU-T Recommendation Q.1950 [23] annex A.12).
- Business Tones Generation Package (see ITU-T Recommendation Q.1950 [23] annex A.13).

3GPP TSG-CT WG4 Meeting #27 **C4-050825**
Cancun, MEXICO. 25th to 29th April 2005.

CR-Form-v7.1

CHANGE REQUEST

⌘ **29.232** **CR** 186 ⌘**rev** **1** ⌘ Current version: **5.10.0** ⌘

*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 ☐ Core Network ☐

Title:	⌘	Format of IP address
Source:	⌘	LM Ericsson
Work item code:	⌘	TEI5
Date:	⌘	01/04/2005
Category:	⌘	**F**
Release:	⌘	Rel5

Use one of the following categories:
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R98 *(Release 1998)*
R99 *(Release 1999)*
Rel-4 *(Release 4)*
Rel-5 *(Release 5)*
Rel-6 *(Release 6)*
Rel-7 *(Release 7)*

Reason for change: ⌘

1. The used format of the BIWF address is not clearly specified. This address is defined to be an NSAP format from Q.1950. Currently this specification references Annex C from H.248 which for NSAP addresses references ITU Recommendation X.213 as does Q.1950 via Q.756.5. In this recommendation there is a reference to RFC 1888 to specify how to code the NSAP address for IPV6. However there is no similar RFC for IPv4. What is defined in X.213 is a recommended format for IPv4. It is assumed that this format will have been adopted for this interface as no other definition exists. In order to ensure that this is clear this format should be clearly stated in this specification.
   In addition the AAL2 NSAP format is defined in 3GPP TS 29.414 and 25.414; this should be referenced from 29.232.
2. The IP transport package uses type for the propertes that are not exisitng in H.248.1.

ESSENTIAL CORRECTION

Summary of change: ⌘

1. Reference the transport specifications for used NSAP format for AAL2. Specify the IANA ICP IDI format for IP.
2. Specified types according to H.248.1 package definition.

Consequences if not approved: ⌘

1. Possible interoperability problems for Iu and Nb.
2. Interoperability problems for Mc and Iu.

Clauses affected:	⌘	2, 11, 15.2.7			
Other specs affected:	⌘	**Y**	**N**		
			X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

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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] 3GPP TS 23.153: "Out of band transcoder control; Stage 2".

[2] 3GPP TS 23.205: "Bearer independent circuit-switched core network; Stage 2".

[3] 3GPP TS 24.008: "Mobile radio interface Layer 3 specification; Core network protocols; Stage 3".

[4] 3GPP TS 25.415: "UTRAN Iu interface user plane protocols".

[5] 3GPP TS 28.062: "Inband Tandem Free Operation (TFO) of speech codecs; Service description; Stage 3".

[6] 3GPP TS 29.007: "General requirements on interworking between the Public Land Mobile Network (PLMN) and the Integrated Services Digital Network (ISDN) or Public Switched Telephone Network (PSTN)".

[7] 3GPP TS 29.205: "Application of Q.1900 series to Bearer Independent circuit-switched network architecture; Stage 3".

[8] 3GPP TS 29.415: "Core Network Nb interface user plane protocols".~~"Customized Applications for Mobile network Enhanced Logic (CAMEL) Phase 3; CAMEL Application Part (CAP) specification".~~

[9] 3GPP TS 48.008: "Mobile Switching Centre - Base Station System (MSC - BSS) interface; Layer 3 specification".

[10] ITU-T Recommendation H.248.1 (05/2002): "Gateway control protocol". Version 2

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

[12] IETF RFC 2960: "Stream control transmission protocol".

[13] 3GPP TS 29.202: "Signalling System No. 7 (SS7) signalling transport in core network; Stage 3".

[14] ITU-U Recommendation H.248.8: "Error codes and service change reason description".

[15] ITU-U Recommendation H.248.10: "Media gateway resource congestion handling package".

[16] 3GPP TS 26.103: "Speech codec list for GSM and UMTS".

[17] ITU-U Recommendation H.248.2: "Facsimile, text conversation and call discrimination packages".

[18] 3GPP TS 26.226: "Cellular text telephony; Transport of text in the voice channel".

[19] ITU-T Recommendation T.140: "Protocol for multimedia application text conversation".

[20] 3GPP TS 25.413: "UTRAN Iu interface RANAP signalling".

[21] 3GPP TS 25.414: "UTRAN Iu interface data transport and transport signalling".

[22] 3GPP TS 23.078: "Customized Applications for Mobile network Enhanced Logic (CAMEL); Stage 2".

[23] ITU-T Recommendation Q.1950: "Bearer independent call bearer control protocol".

Note: Only H.248.1 v1 applies to the Mc Interface

[24] ITU-T Recommendation Q.765.5: "Signalling system No. 7 - Application transport mechanism: Bearer Independent Call Control (BICC)".

[25] ITU-T Recommendation G.711: "Pulse code modulation (PCM) of voice frequencies".

[26] 3GPP TS 26.102: "3rd Generation Partnership Project; Mandatory speech codec; AMR speech codec; Interface to Iu, Uu and Nb"

[27] 3GPP TS 23.014: "Technical Specification Group Core Network; Support of Dual Tone Multi-Frequency (DTMF) signalling".

[28] ITU-T Recommendation H.248.7: "Generic Announcement Package".

[xx] 3GPP TS 29.414: "Core Network Nb data transport and transport signalling".

[xy] ITU-T Recommendation X.213 (11/95): "Information technology - Open systems interconnection - Network Service Definitions".

11 Mandatory Support of SDP and H.248.1 annex C information elements

This clause shall be in accordance with the subclause "Mandatory Support of SDP and H.248.1 annex C information elements" in ITU-T Recommendation Q.1950 [23] (see 3GPP TS 29.205 [7]), with the following clarification:

The content of the RNC Transport Address or BIWF Address depends on the used transport interface but the principle is that NSAP format is used. See 3GPP TS 25.414 [21] for RNC and for core network see 3GPP TS 29.414 [xx]. For IP the IANA ICP IDI format of the NSAP addressing format as specified in X.213 [xy] shall be used. For Ipv4 networks the IPv4 format recommended by X.213 shall be adopted.

15.2.7 IP transport package

PackageID: threegiptra (0x0083)

Version: 1

Extends: None

This package contains the information needed to be able to support IP transport from RAN to the media gateway.

15.2.7.1 Properties

IP transport address:

PropertyID: ipv4trans (0x0001).

Description: IP V4 transport address.

Type: Octet String~~32 bits IPv4Address.~~

Possible values:

- Specified as Transport Layer Address in 3GPP TS 25.413 [20].

Defined in: Local Control Descriptor.

Characteristics: Read/Write.

PropertyID: ipv6trans (0x0002).

Description: IP V6 transport address.

Type: Octet String~~128 bits Ipv6Address .~~

Possible values:

- Specified as Transport Layer Address in 3GPP TS 25.413 [20].

Defined in: Local Control Descriptor.

Characteristics: Read/Write.

UDP port:

PropertyID: UDport (0x0003).

Description: UDP port.

Type: Unsigned integer.

Possible values: 0…65535.

- Specified as Iu transport Association in 3GPP TS 25.413 [20].

Defined in: Local Control Descriptor.

Characteristics: Read/Write.

15.2.7.2 Events

None.

15.2.7.3 Signals

None.

15.2.7.4 Statistics

None3

15.2.7.5 Procedures

When the MSC Server knows that it shall apply the set up procedure in accordance with 3GPP TS 25.414 [21], this package is used to set up an IP transport between the RAN and the CN.

When the Media Gateway Controller initiates the "prepare IP bearer transport" procedure towards the RAN side, it shall request the IP transport address and the UDP port from the MGW. The MGW shall provide the MSC Server with the IP transport address of the MGW and an UDP Port. At the receipt of these information elements the MSC Server shall insert the information elements in the RAB Assignment/ Relocation message.

When the MSC Server receives the RAB assignment acknowledge or Iu relocation request response, (which includes the IP transport address of the RNC and the UDP port) and the User Plane mode is Transparent, it shall initiate the Modify IP transport address procedure towards the MGW before the first data packet is to be sent from the MGW.

The MGW shall use the IP address and UDP port if received from the MSC Server to route the user data to the RNC regardless if IP addresses and UDP ports were previously exchanged in the User Plane.

3GPP TSG-CT WG4 Meeting #27 **C4-050826**
Cancun, MEXICO. 25th to 29th April 2005.

CR-Form-v7.1

CHANGE REQUEST

⌘ **29.232** **CR** 187 ⌘ **rev** **1** ⌘ Current version: **6.1.0** ⌘

*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 ☐ Core Network ☐

Title:	⌘	Format of IP address
Source:	⌘	LM Ericsson
Work item code:	⌘	TEI5
Date:	⌘	01/04/2005
Category:	⌘	**A**
Release:	⌘	Rel6

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:
Ph2 *(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)*
Rel-7 *(Release 7)*

Reason for change: ⌘

1. The used format of the BIWF address is not clearly specified. This address is defined to be an NSAP format from Q.1950. Currently this specification references Annex C from H.248 which for NSAP addresses references ITU Recommendation X.213 as does Q.1950 via Q.756.5. In this recommendation there is a reference to RFC 1888 to specify how to code the NSAP address for IPV6. However there is no similar RFC for IPv4. What is defined in X.213 is a recommended format for IPv4. It is assumed that this format will have been adopted for this interface as no other definition exists. In order to ensure that this is clear this format should be clearly stated in this specification.
   In addition the AAL2 NSAP format is defined in 3GPP TS 29.414 and 25.414; this should be referenced from 29.232.
2. The IP transport package uses type for the propertes that are not exisitng in H.248.1.

ESSENTIAL CORRECTION

Summary of change: ⌘

1. Reference the transport specifications for used NSAP format for AAL2. Specify the IANA ICP IDI format for IP.
2. Specified types according to H.248.1 package definition.

Consequences if not approved: ⌘

1. Possible interoperability problems for Iu and Nb.
2. Interoperability problems for Mc and Iu.

Clauses affected:	⌘	2, 11, 15.2.7			
		Y	**N**		
Other specs affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:

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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.

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] 3GPP TS 23.153: "Out of band transcoder control; Stage 2".

[2] 3GPP TS 23.205: "Bearer independent circuit-switched core network; Stage 2".

[3] 3GPP TS 24.008: "Mobile radio interface Layer 3 specification; Core network protocols; Stage 3".

[4] 3GPP TS 25.415: "UTRAN Iu interface user plane protocols".

[5] 3GPP TS 28.062: "Inband Tandem Free Operation (TFO) of speech codecs; Service description; Stage 3".

[6] 3GPP TS 29.007: "General requirements on interworking between the Public Land Mobile Network (PLMN) and the Integrated Services Digital Network (ISDN) or Public Switched Telephone Network (PSTN)".

[7] 3GPP TS 29.205: "Application of Q.1900 series to Bearer Independent circuit-switched network architecture; Stage 3".

[8] 3GPP TS 29.415: "Core Network Nb interface user plane protocols".~~"Customized Applications for Mobile network Enhanced Logic (CAMEL) Phase 3; CAMEL Application Part (CAP) specification".~~

[9] 3GPP TS 48.008: "Mobile Switching Centre - Base Station System (MSC - BSS) interface; Layer 3 specification".

[10] ITU-T Recommendation H.248.1 (05/2002): "Gateway control protocol". Version 2

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

[12] IETF RFC 2960: "Stream control transmission protocol".

[13] 3GPP TS 29.202: "Signalling System No. 7 (SS7) signalling transport in core network; Stage 3".

[14] ITU-U Recommendation H.248.8: "Error codes and service change reason description".

[15] ITU-U Recommendation H.248.10: "Media gateway resource congestion handling package".

[16] 3GPP TS 26.103: "Speech codec list for GSM and UMTS".

[17] ITU-U Recommendation H.248.2: "Facsimile, text conversation and call discrimination packages".

[18] 3GPP TS 26.226: "Cellular text telephony; Transport of text in the voice channel".

[19] ITU-T Recommendation T.140: "Protocol for multimedia application text conversation".

[20] 3GPP TS 25.413: "UTRAN Iu interface RANAP signalling".

[21] 3GPP TS 25.414: "UTRAN Iu interface data transport and transport signalling".

[22] 3GPP TS 23.078: "Customized Applications for Mobile network Enhanced Logic (CAMEL); Stage 2".

[23] ITU-T Recommendation Q.1950: "Bearer independent call bearer control protocol".

Note: Only H.248.1 v1 applies to the Mc Interface

[24] ITU-T Recommendation Q.765.5: "Signalling system No. 7 - Application transport mechanism: Bearer Independent Call Control (BICC)".

[25] ITU-T Recommendation G.711: "Pulse code modulation (PCM) of voice frequencies".

[26] 3GPP TS 26.102: "3rd Generation Partnership Project; Mandatory speech codec; AMR speech codec; Interface to Iu, Uu and Nb"

[27] 3GPP TS 23.014: "Technical Specification Group Core Network; Support of Dual Tone Multi-Frequency (DTMF) signalling".

[28] ITU-T Recommendation H.248.7: "Generic Announcement Package".

[xx] 3GPP TS 29.414: "Core Network Nb data transport and transport signalling".

[xy] ITU-T Recommendation X.213 (11/95): "Information technology - Open systems interconnection - Network Service Definitions".

11 Mandatory Support of SDP and H.248.1 annex C information elements

This clause shall be in accordance with the subclause "Mandatory Support of SDP and H.248.1 annex C information elements" in ITU-T Recommendation Q.1950 [23] (see 3GPP TS 29.205 [7]), with the following clarification:

The content of the RNC Transport Address or BIWF Address depends on the used transport interface but the principle is that NSAP format is used. See 3GPP TS 25.414 [21] for RNC and for core network see 3GPP TS 29.414 [xx]. For IP the IANA ICP IDI format of the NSAP addressing format as specified in X.213 [xy] shall be used. For Ipv4 networks the IPv4 format recommended by X.213 shall be adopted.

15.2.7 IP transport package

PackageID: threegiptra (0x0083)

Version: 1

Extends: None

This package contains the information needed to be able to support IP transport from RAN to the media gateway.

15.2.7.1 Properties

IP transport address:

PropertyID: ipv4trans (0x0001).

Description: IP V4 transport address.

Type: Octet String~~32 bits IPv4Address.~~

Possible values:

- Specified as Transport Layer Address in 3GPP TS 25.413 [20].

Defined in: Local Control Descriptor.

Characteristics: Read/Write.

PropertyID: ipv6trans (0x0002).

Description: IP V6 transport address.

Type: Octet String~~128 bits Ipv6Address .~~

Possible values:

- Specified as Transport Layer Address in 3GPP TS 25.413 [20].

Defined in: Local Control Descriptor.

Characteristics: Read/Write.

UDP port:

PropertyID: UDport (0x0003).

Description: UDP port.

Type: Unsigned integer.

Possible values: 0…65535.

- Specified as Iu transport Association in 3GPP TS 25.413 [20].

Defined in: Local Control Descriptor.

Characteristics: Read/Write.

15.2.7.2 Events

None.

15.2.7.3 Signals

None.

15.2.7.4 Statistics

None3

15.2.7.5 Procedures

When the MSC Server knows that it shall apply the set up procedure in accordance with 3GPP TS 25.414 [21], this package is used to set up an IP transport between the RAN and the CN.

When the Media Gateway Controller initiates the "prepare IP bearer transport" procedure towards the RAN side, it shall request the IP transport address and the UDP port from the MGW. The MGW shall provide the MSC Server with the IP transport address of the MGW and an UDP Port. At the receipt of these information elements the MSC Server shall insert the information elements in the RAB Assignment/ Relocation message.

When the MSC Server receives the RAB assignment acknowledge or Iu relocation request response, (which includes the IP transport address of the RNC and the UDP port) and the User Plane mode is Transparent, it shall initiate the Modify IP transport address procedure towards the MGW before the first data packet is to be sent from the MGW.

The MGW shall use the IP address and UDP port if received from the MSC Server to route the user data to the RNC regardless if IP addresses and UDP ports were previously exchanged in the User Plane.

3GPP TSG-CT WG4 Meeting #27 **C4-050827**
Cancun, MEXICO. 25th to 29th April 2005.

CR-Form-v7.1

CHANGE REQUEST

⌘ **29.232** **CR** **195** ⌘ **rev** **1** ⌘ Current version: **5.10.0** ⌘

*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 ☐ Core Network ☐

Title:	⌘	Clarification of Maintenance Procedures
Source:	⌘	LM Ericsson
Work item code:	⌘	TEI5
Date:	⌘	01/04/2005
Category:	⌘	**F**
Release:	⌘	Rel5

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:
Ph2 *(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)*
Rel-7 *(Release 7)*

Reason for change:	⌘	Some of the H.248 Call Independent transactions that are inherited from q.1950 still leave a number of issues open that can cause interoperability issues. This CR aims at improving these procedures to ensure interoperability. **ESSENTIAL CORRECTION**
Summary of change:	⌘	Call Independent H.248 transactions clarified where anomalies currently exist.
Consequences if not approved:	⌘	Open to interoperability problems

Clauses affected:	⌘				
Other specs affected:	⌘	**Y**	**N**		⌘
			X	Other core specifications	
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:
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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.

14.1.2 MGW Communication Up

This procedure is the same as described in the subclause "BIWF Lost Communication" in ITU-T Recommendation Q.1950 [23] (see 3GPP TS 29.205 [7]) with the following clarification.

Address Information	Control information	Bearer information
	If mcprofilename supported: ServiceChangeProfile = mcprofilename / version	

Use of time stamps is optional.

Context Id value Null shall be used in this procedure.

14.1.4 MGW Register

This procedure is the same as that described in the subclause "BIWF Registration" in ITU-T Recommendation Q.1950 [23] (see 3GPP TS 29.205 [7]) with the following clarification.

Address Information	Control information	Bearer information
	If mcprofilename supported: ServiceChangeProfile = mcprofilename / version	

Use of time stamps is optional.

Context Id value Null shall be used in this procedure.

Non Standard Data is shall not be supported.

14.1.5 MGW Re-register

This procedure is the same as that described in the subclause "BIWF Re-Registration" in ITU-T Recommendation Q.1950 [23] (see 3GPP TS 29.205 [7]) with the following clarification.

Address Information	Control information	Bearer information
	If mcprofilename supported: ServiceChangeProfile = mcprofilename / version	

Service Change Address shall not be used.

Use of time stamps is optional.

Context Id value Null shall be used in this procedure.

Non Standard Data is shall not be supported.

3GPP TSG-CT WG4 Meeting #27 **C4-050828**
Cancun, MEXICO. 25th to 29th April 2005.

CR-Form-v7.1

CHANGE REQUEST

⌘ **29.232** **CR** **196** ⌘ **rev** **1** ⌘ Current version: **6.1.0** ⌘

*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 ☐ Core Network ☐

Title:	⌘	Clarification of Maintenance Procedures
Source:	⌘	LM Ericsson
Work item code:	⌘	TEI5
Date:	⌘	01/04/2005
Category:	⌘	**A**
Release:	⌘	Rel6

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:
Ph2 *(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)*
Rel-7 *(Release 7)*

Reason for change:	⌘	Some of the H.248 Call Independent transactions that are inherited from q.1950 still leave a number of issues open that can cause interoperability issues. This CR aims at improving these procedures to ensure interoperability. **ESSENTIAL CORRECTION**
Summary of change:	⌘	Call Independent H.248 transactions clarified where anomalies currently exist.
Consequences if not approved:	⌘	Open to interoperability problems

Clauses affected:	⌘				
Other specs affected:	⌘	**Y**	**N**		⌘
			X	Other core specifications	
			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.

14.1.2 MGW Communication Up

This procedure is the same as described in the subclause "BIWF Lost Communication" in ITU-T Recommendation Q.1950 [23] (see 3GPP TS 29.205 [7]) with the following clarification.

Address Information	Control information	Bearer information
	If mcprofilename supported: ServiceChangeProfile = mcprofilename / version	

Use of time stamps is optional.

Context Id value Null shall be used in this procedure.

14.1.4 MGW Register

This procedure is the same as that described in the subclause "BIWF Registration" in ITU-T Recommendation Q.1950 [23] (see 3GPP TS 29.205 [7]) with the following clarification.

Address Information	Control information	Bearer information
	If mcprofilename supported: ServiceChangeProfile = mcprofilename / version	

Use of time stamps is optional.

Context Id value Null shall be used in this procedure.

Non Standard Data is shall not be supported.

14.1.5 MGW Re-register

This procedure is the same as that described in the subclause "BIWF Re-Registration" in ITU-T Recommendation Q.1950 [23] (see 3GPP TS 29.205 [7]) with the following clarification.

Address Information	Control information	Bearer information
	If mcprofilename supported: ServiceChangeProfile = mcprofilename / version	

Service Change Address shall not be used.

Use of time stamps is optional.

Context Id value Null shall be used in this procedure.

Non Standard Data is shall not be supported.

3GPP TSG-CT WG4 Meeting #27 **C4-050829**
Cancun, MEXICO. 25th to 29th April 2005.

CR-Form-v7.1

CHANGE REQUEST

⌘ **29.232** **CR** **197** ⌘ **rev** **1** ⌘ Current version: **5.10.0** ⌘

*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 ☐ Core Network ☐

Title:	⌘	Clarification of Use Of Topology and Multiparty
Source:	⌘	LM Ericsson, Vodafone
Work item code:	⌘	TEI5
Date:	⌘	01/04/2005
Category:	⌘	**F**
Release:	⌘	Rel5

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:
Ph2 *(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)*
Rel-7 *(Release 7)*

Reason for change:	⌘	The Change Flow Direction procedure (Topology) is defined in stage 2 specification for the purpose of handover and monitoring. It should not be used in cases of multiparty i.e. when a conference device is used. ESSENTIAL CORRECTION
Summary of change:	⌘	Clarification that procedure ChangeFlow Direction shall not be used for multiparty calls.
Consequences if not approved:	⌘	Possible implementations conflicting stage 2 requirements resulting in problems with interoperability.

Clauses affected:	⌘	14.2.1

Other specs affected: ⌘	Y	N		⌘
		X	Other core specifications	
		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.

14.2.1 Change Flow Direction

This procedure is the same as that defined in the subclause "Change Connection Topology" in ITU-T Recommendation Q.1950 [23] (see 3GPP TS 29.205 [7]) with the following additions.

Table 14.2.1.1: Change Flow Direction additions

Address Information	Control information	Bearer information
	Context ID = c1,? Connection Configuration = (TerminationID= x1, ? TerminationID=x2,? [type = x]),…	

This procedure shall not be used for Multiparty bridge contexts.

3GPP TSG-CT WG4 Meeting #27 **C4-050830**
Cancun, MEXICO. 25th to 29th April 2005.

CR-Form-v7.1

CHANGE REQUEST

⌘ **29.232** **CR** **198** ⌘**rev** **1** ⌘ Current version: **6.1.0** ⌘

*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 ☐ Core Network ☐

Title:	⌘	Clarification of Use Of Topology and Multiparty
Source:	⌘	LM Ericsson, Vodafone
Work item code:	⌘	TEI5
Date:	⌘	01/04/2005
Category:	⌘	**A**
Release:	⌘	Rel6

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:
Ph2 *(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)*
Rel-7 *(Release 7)*

Reason for change:	⌘	The Change Flow Direction procedure (Topology) is defined in stage 2 specification for the purpose of handover and monitoring. It should not be used in cases of multiparty i.e. when a conference device is used. ESSENTIAL CORRECTION
Summary of change:	⌘	Clarification that procedure ChangeFlow Direction shall not be used for multiparty calls.
Consequences if not approved:	⌘	Possible implementations conflicting stage 2 requirements resulting in problems with interoperability.

Clauses affected:	⌘	14.2.1

Other specs affected: ⌘	Y	N	
		X	Other core specifications
		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.

14.2.1 Change Flow Direction

This procedure is the same as that defined in the subclause "Change Connection Topology" in ITU-T Recommendation Q.1950 [23] (see 3GPP TS 29.205 [7]) with the following additions.

Table 14.2.1.1: Change Flow Direction additions

Address Information	Control information	Bearer information
	Context ID = c1,? Connection Configuration = (TerminationID= x1, ? TerminationID=x2,? [type = x]),…	

This procedure shall not be used for Multiparty bridge contexts.

3GPP TSG-CT WG4 Meeting #27 **C4-050844**
Cancun, MEXICO. 25th to 29th April 2005.

CR-Form-v7.1

CHANGE REQUEST

⌘ **29.232** **CR** **201** ⌘**rev** **1** ⌘ Current version: **5.10.0** ⌘

*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 ☐ Core Network ☐

Title:	⌘	Clarification Of Use of Wildcarding
Source:	⌘	LM Ericsson
Work item code:	⌘	TEI5
Date:	⌘	01/04/2005
Category:	⌘	**F**
Release:	⌘	Rel5

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:
Ph2 *(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)*
Rel-7 *(Release 7)*

Reason for change:	⌘	The use of wildcards in H.248.1 is not restricted by this protocol and thus leaves many issues open to alternative implementations which could prevent interoperability. This CR attempts to clarify/avoid undesirable uses of wildcarding. ESSENTIAL CORRECTION
Summary of change:	⌘	Use of wildcarding in Mc interface clarified.
Consequences if not approved:	⌘	Mis-use of the wildcarding resulting in lack of interoperation.

Clauses affected:	⌘	12			
Other specs affected:	⌘	**Y**	**N**		
			X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

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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.

12 General on Packages and Transactions

The base root package (0x0002) properties shall be provisioned in the MGW.

Event Buffering shall not be supported.

Error Descriptor in NotifyRequest shall not be used.

DigitMaps shall not be supported.

H.248 Statistics shall not be audited via the Mc interface and shall be suppressed in the replies to Subtract commands, except where specific 3GPP packages define their use.

Embedded Signals shall not be supported on the Mc interface.

Embedded Events shall not be supported on the Mc interface.

Only a single media stream per Termination shall be supported.

The use of "Overspecified" (e.g. range of values) and "Underspecified" (e.g. "?") parameter specification shall not be permitted except where explicitly indicated in or referenced by the Mc interface specification.

When a Service Change command on the Root termination with a method other than Graceful is sent, the command shall always be sent as the only command in a message. The sending node shall always wait for the reply to a Service Change command on the Root termination with a method other than Graceful before sending further command requests. A Service Change command on the Root termination with method Graceful may be combined with other commands in a single message.

ServiceChange Method "Failover" with the 'MG impending failure' reason shall not be used on this interface

ServiceChange Method "Handoff" involving more than 1 MSC or MGW shall not be used on this interface.

Note : This does not preclude the use of the MGCId in a ServiceChange (Handoff) scenario, nor does it change the expected MG behaviour upon receipt of such a message, as the MGW has actually no means to differentiate whether the ServiceChangeMgcId parameter that may be received in a ServiceChange (handoff) message relates to a logical MGC inside the same MSC server or is part of another MSC-Server.

The following MGW capabilities shall be supported by the Audit Capability procedure:

- FFS

When ADD, MOD, or MOV commands exclude an Audit Descriptor, the MGW response shall only include descriptors which contained underspecified or overspecified properties in the command request, with the exception of the Error Descriptor. Furthermore, only those properties that were underspecified or overspecified in the request shall be sent in the reply .

Note1: This does not exclude tunnel information returned as part of the IPBCP tunnelling procedures.

Note2: The applicability of this restriction for text encoding is FFS.

The following Service Change Reasons are not supported:

- Modem Capability Failure (911)
- Mux Capability Failure (912).

Modem descriptor shall not be supported.

Multiplex descriptor shall not be supported.

An action request sent to a MG shall not include a request to audit attributes of a Context. Hence, for ASN.1 encoding ContextAttributeAuditReq shall not be used and for text encoding contextAudit attribute of a contextRequest shall not be used.

The ServiceState property within the TerminationState descriptor shall not take the value "Test".

The use of the Announcement Variant parameter is optional for both Fixed Announcements and Variable Announcements.

The use of wildcarding for the Termination Id shall be performed using 1 octet only.

Wildcarded responses shall only be used in Release procedures (Release Bearer and Release Termination), when multiple terminations are released with one command and in audit responses where multiple terminations are implied by the audit request.

3GPP TSG-CT WG4 Meeting #27 **C4-050845**
Cancun, MEXICO. 25th to 29th April 2005.

CR-Form-v7.1

CHANGE REQUEST

⌘ **29.232** **CR** **202** ⌘ **rev** **1** ⌘ Current version: **6.1.0** ⌘

*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 ☐ Core Network ☐

Title:	⌘	Clarification Of Use of Wildcarding
Source:	⌘	LM Ericsson
Work item code:	⌘	TEI5
Date:	⌘	01/04/2005
Category:	⌘	**A**
Release:	⌘	Rel6

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:
Ph2 (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)
Rel-7 (Release 7)

Reason for change:	⌘	The use of wildcards in H.248.1 is not restricted by this protocol and thus leaves many issues open to alternative implementations which could prevent interoperability. This CR attempts to clarify/avoid undesirable uses of wildcarding. ESSENTIAL CORRECTION
Summary of change:	⌘	Use of wildcarding in Mc interface clarified.
Consequences if not approved:	⌘	Mis-use of the wildcarding resulting in lack of interoperation.

Clauses affected:	⌘	12

Other specs affected:	⌘	Y	N		⌘
			X	Other core specifications	
			X	Test specifications	
			X	O&M Specifications	

Other comments:	⌘	

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12 General on Packages and Transactions

The base root package (0x0002) properties shall be provisioned in the MGW.

Event Buffering shall not be supported.

Error Descriptor in NotifyRequest shall not be used.

DigitMaps shall not be supported.

H.248 Statistics shall not be audited via the Mc interface and shall be suppressed in the replies to Subtract commands, except where specific 3GPP packages define their use.

Embedded Signals shall not be supported on the Mc interface.

Embedded Events shall not be supported on the Mc interface.

Only a single media stream per Termination shall be supported.

The use of "Overspecified" (e.g. range of values) and "Underspecified" (e.g. "?") parameter specification shall not be permitted except where explicitly indicated in or referenced by the Mc interface specification.

When a Service Change command on the Root termination with a method other than Graceful is sent, the command shall always be sent as the only command in a message. The sending node shall always wait for the reply to a Service Change command on the Root termination with a method other than Graceful before sending further command requests. A Service Change command on the Root termination with method Graceful may be combined with other commands in a single message.

ServiceChange Method "Failover" with the 'MG impending failure' reason shall not be used on this interface

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Note1: This does not exclude tunnel information returned as part of the IPBCP tunnelling procedures.

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The following Service Change Reasons are not supported:

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Modem descriptor shall not be supported.

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An action request sent to a MG shall not include a request to audit attributes of a Context. Hence, for ASN.1 encoding ContextAttributeAuditReq shall not be used and for text encoding contextAudit attribute of a contextRequest shall not be used.

The ServiceState property within the TerminationState descriptor shall not take the value "Test".

The use of the Announcement Variant parameter is optional for both Fixed Announcements and Variable Announcements.

The use of wildcarding for the Termination Id shall be performed using 1 octet only.

Wildcarded responses shall only be used in Release procedures (Release Bearer and Release Termination), when multiple terminations are released with one command and in audit responses where multiple terminations are implied by the audit request.

3GPP TSG-CT WG4 Meeting #27 **C4-050886**
Cancun, MEXICO. 25th to 29th April 2005.

CR-Form-v7.1

CHANGE REQUEST

⌘ **29.232** **CR** **189** ⌘ **rev** **1** ⌘ Current version: **5.10.0** ⌘

*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 ☐ Core Network ☐

Title:	⌘	Clarification to Profile Registration Negotiation Procedures
Source:	⌘	LM Ericsson
Work item code:	⌘	TEI5
Date:	⌘	01/04/2005
Category:	⌘	**F**
Release:	⌘	Rel5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
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R96 *(Release 1996)*
R97 *(Release 1997)*
R98 *(Release 1998)*
R99 *(Release 1999)*
Rel-4 *(Release 4)*
Rel-5 *(Release 5)*
Rel-6 *(Release 6)*
Rel-7 *(Release 7)*

Reason for change:	⌘	Formal Profile registration was introduced in version 5.a.0 but this is defined as optional and it is not clear how a MGW and MSC should interact if no profile is registered or the profile registered is not recognised. H.248.1 v3 has gone some way to clarify this behaviour but as this version is not yet used by this specification it should be clarified within this specification in order to ensure interoperability. **ESSENTIAL CORRECTION**
Summary of change:	⌘	New clause added to clarify profile registration negotiation procedures when no profile or unrecognised profile is received.
Consequences if not approved:	⌘	Unspecified behaviour in these cases can result in nodes assuming certain profile support when it does not exist…mayhem could ensue.

Clauses affected:	⌘	4			
Other specs affected:	⌘	Y	N		⌘
			X	Other core specifications	
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

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4 UMTS capability set

The support of the Mc interface capability set may be identified by the Mc profile and support of this profile may then be indicated in ServiceChange procedure via the ServiceChangeProfile parameter as defined in H.248.1 [10] and clarified in section 4.2.The mandatory parts of this profile shall be used in their entirety. Failure to do so will result in a non-standard implementation.

ITU-T Recommendation H.248.1 [10] shall be the basis for this profile. The compatibility rules for packages, signals, events, properties and statistics and the H.248 protocol are defined in ITU-T Recommendation H.248.1 [10] Their use or exclusion for this interface is clarified in clause 12.

4.1 Profile Identification

Table 4.1: Profile Identification

Profile name:	threegbicsn
Version:	1

4.2 Profile Registration

The reply to the ServiceChange Request containing the SCP parameter indicates if the MSC Server supports the requested profile or if it does not support it and wants to propose an alternative profile. The profile (name and version) is only returned in the reply if the MGC cannot support the specified profile in the ServiceChangeRequest. The returned reply shall indicate the profile and version supported or "NoProfile" if no profile is supported. Upon reception of a profile in the reply the MG may continue the relationship with the current MGC if it supports the indicated profile. In the instance that the MGW did not indicate a profile in the original ServiceChangeRequest and the MGC returned a profile in the reply, the MGW shall issue a new ServiceChangeRequest with the appropriate profile or "NoProfile" if no profile is supported. If the profile is not returned the MGC shall use the capabilities specified by the Profile indicated in the service change request.