TSG-RAN Meeting #15 Cheju, Korea, 5 - 8 March 2002

Title: Agreed CRs to TS 25.419

Source: TSG-RAN WG3

Agenda item: 7.3.3/7.3.4

RP_Num	Tdoc_Num	Specificatio	CR_Num	Revision 3G_Release	CR_Subject	CR_Category	Cur_Ver_Num	Workitem
		n		_Num				
RP-020167	R3-020372	25.419	081	R99	Correction of the value Default in Category IE	F	3.7.0	TEI
RP-020167	R3-020373	25.419	082	Rel-4	Correction of the value Default in Category IE	A	4.3.0	TEI
RP-020167	R3-020622	25.419	083	1 R99	Correction of the wording of maximum value	F	3.7.0	TEI
RP-020167	R3-020623	25.419	084	1 Rel-4	Correction of the wording of maximum value	A	4.3.0	TEI
RP-020167	R3-020376	25.419	085	R99	Service expected from the transport layer	F	3.7.0	TEI
RP-020167	R3-020377	25.419	086	Rel-4	Service expected from the transport layer	A	4.3.0	TEI
RP-020167	R3-020624	25.419	087	1 R99	ASN.1 take precedence if contradiction between ASN.1 and	F	3.7.0	TEI
					tabular			
RP-020167	R3-020625	25.419	088	1 Rel-4	ASN.1 take precedence if contradiction between ASN.1 and	A	4.3.0	TEI
					tabular			
RP-020167	R3-020626	25.419	089	1 R99	Mismatch the type of some IE between 24.419 and 25.324	F	3.7.0	TEI
RP-020167	R3-020627	25.419	090	1 Rel-4	Mismatch the type of some IE between 24.419 and 25.324	A	4.3.0	TEI
RP-020167	R3-020492	25.419	091	R99	Correction of the usage of Write-Replace Failure message	F	3.7.0	TEI
RP-020167	R3-020493	25.419	092	Rel-4	Correction of the usage of Write-Replace Failure message	A	4.3.0	TEI
RP-020167	R3-020494	25.419	093	R99	Error Indication correction	F	3.7.0	TEI
RP-020167	R3-020495	25.419	094	Rel-4	Error Indication correction	A	4.3.0	TEI

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Title: ೫	Co	rrectio _l	n of the value "I	Default" in	Categ	ory IE					
Source: #	R-N	NG3									
Work item code: भ	TE	I					Date:	€ <mark>Fe</mark>	b-2002		
Category: # F Release: # R99 Use one of the following categories: Use one of the following relea F (correction) 2 (GSM Phase 2) A (corresponds to a correction in an earlier release) R96 (Release 1996) B (addition of feature), R97 (Release 1997) C (functional modification of feature) R98 (Release 1998) D (editorial modification) R99 (Release 1999) Detailed explanations of the above categories can REL-4 (Release 4) be found in 3GPP TR 21.900. REL-5 (Release 5)											
Reason for change: # The current 25.419 has many unclearity which shall have correction in order to make the specification unambiguity. The use of the values of Category IE is specified in Write Replace procedure text (subclause 8.2.2). However, the usage of the its value "default" in subclau 9.2.7 is unclear. It has been described in Write Replace procedure that when the Category IE is not present, the RNC shall perform the broadcast as the same category as "Normal", therefore it is thought that the value "Default" is useless in any case								edure ıbclause ry IE is as			
Summary of chang	ge: Ж	The	"default" in Cate	egory IE is	made	e clear th	<mark>hat it shall no</mark>	<mark>ot be u</mark>	sed		
Consequences if not approved: # If this is not approved, the 25.419 is not clear and therefore it might lead to misunderstanding when inplementation. Impact Analysis: Impact Analysis: Impact assessment towards the previous version of the specification (same release): This CR has [isolated impact] with the previous version of the specification (release) because current specification is not clear enough to have implementation. ONLY if there is impact: This CR has an impact under [protocol] point of view. The impact [can] be considered isolated because the change affects [one] [system function] namely the category of the broadcast message.								ne on (same			
Clauses affected:	ж	9.2.7	,								
Other specs affected:	ж	Τe	ther core specif est specification &M Specificatio	IS	ж	25.419	CR82 Rel4				

Other comments: %

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G_Specs/CRs.htm</u>. 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

9.2.5 New Serial Number

New Serial Number IE enables identification of a new message for broadcast to be identified, and is altered every time the message is changes. The format of this IE is defined in subclause 9.2.3.

IE/GROUP NAME	PRESENCE	RANGE	IE Type and	Semantics Description
New Serial Number	0		9.2.3	

9.2.6 Service Areas List

The *Service Areas List* IE identifies a sequence of one or more Service Areas to which the message(s) apply. The *Service Areas List* IE must include at least one Service Area.

IE/GROUP NAME	PRESENCE	RANGE	IE Type and	Semantics Description
Service Areas List		1 to <maxno of SAI></maxno 		
>Service Area Identifier	М		9.2.11	

Range bound	Explanation
MaxnoofSAI	Maximum no. of SAI in Service Areas List. Value is 65535

9.2.7 Category

Category IE is sent from the CN to the RNC, and is used to indicate the priority of the message.

IE/GROUP NAME	PRESENCE	RANGE	IE Type and	Semantics Description
Category	0		Enumerated (High Priority, Background, Normal, Default)	This IE contains the broadcast priority of the message. <u>The value "Default" shall</u> not be used.

9.2.8 Repetition Period

Repetition Period IE is sent from the CN to the RNC and indicates the periodicity of message broadcasts.

IE/GROUP NAME	PRESENCE	RANGE	IE Type and	Semantics Description
Repetition Period	M		INTEGER (14096)	Range is 1 to 4096 where each unit will represent a repetition of one second to a maximum of once per ~1 hour

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Reason for change: * The procedure text of Error Indication is not align with the error handling principle Specified in chapter 10. The presence of Message Identifier IE in Error Indication message is incorrect which generates conflict when Error Indication message is used to report transport transport and the Message Identifier IE can not be included.									ncorrect,				
Summary of chang	Immary of change: # The Error Indication procedure text is corrected to match the same principles error handling as described in chapter 10. The presence of Message Identifier IE has been changed from mandatory to optional.												
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Other specs affected:

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Other comments: #		

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8.9 Error Indication

8.9.1 General

The Error Indication procedure is <u>initiated</u> by the RNC to <u>report detected errors in one incoming message</u>, <u>indicate</u> to the CN that a message is not understood, provided <u>they</u>it cannot be reported by an appropriate failure message.

8.9.2 Successful Operation

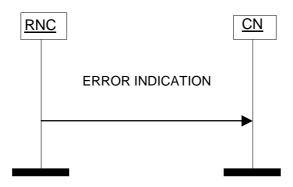


Figure 13: Error Indication Procedure: Successful Operation

When the conditions defined in chapter 10 are fulfilled, the Error Indication procedure is initiated by an ERROR INDICATION message sent from the receiving node.

The ERROR INDICATION message shall contain at least either the Cause IE or the Criticality Diagnostics IE.

Examples for possible cause values for protocol error indications are:

- "Transfer Syntax Error".

- "Abstract Syntax Error (reject)".

The RNC shall initiate the procedure by sending an ERROR INDICATION message to the CN in response to any message that is not understood e.g. invalid parameter or parameter value. This message shall contain information necessary for the CN to be able to identify which initial message this is in response to by the *Message Identifier* IE and may also contain *Serial Number* IE. The appropriate cause value – if applicable may be indicated in the *Cause* IE.

8.9.3 Abnormal Conditions

9.1.20 ERROR INDICATION

This message is sent by the RNC to CN and is used to indicate that some errors have been detected in the node to the CN in response to any message which is not understood (e.g. invalid parameter or parameter value).

Direction: RNC \rightarrow CN

PARAMETER	PRESENCE	RANGE	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1		yes	ignore
Message Identifier	<u>0</u> M		9.2.19		yes	ignore
Serial Number	0		9.2.3		yes	ignore
Cause	0		9.2.14		yes	ignore
Criticality Diagnostics	0		9.2.17		yes	ignore

9.3.3 PDU Definitions

Lots of unaffected ASN1 in 9.3.3 not shown

-- Error-Indication Error-Indication ::= SEQUENCE { protocolIEs ProtocolIE-Container {{Error-Indication-IEs}}, protocolExtensions ProtocolExtensionContainer {{Error-Indication-Extensions}} OPTIONAL, . . . } Error-Indication-IEs SABP-PROTOCOL-IES ::= { { ID id-Message-Identifier CRITICALITY ignore TYPE Message-Identifier PRESENCE CRITICALITY ignore TYPE Serial-Number PRESENCE optional } | optionalmandatory } | { ID id-Serial-Number { ID id-Cause CRITICALITY ignore TYPE Cause { ID id-Criticality-Diagnostics CRITICALITY ignore TYPE Criticality-Diagnostics PRESENCE optional }, . . . } Error-Indication-Extensions SABP-PROTOCOL-EXTENSION ::= { . . . } END

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Other specs affected:

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8.9.2 Successful Operation

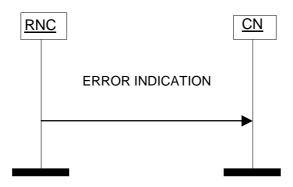


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Serial Number	0		9.2.3		yes	ignore
Cause	0		9.2.14		yes	ignore
Criticality Diagnostics	0		9.2.17		yes	ignore

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8.2 Write-Replace

8.2.1 General

The purpose of this Write-Replace procedure is to broadcast new information or replace a message already broadcast to a chosen Service Area(s).

8.2.2 Successful Operation

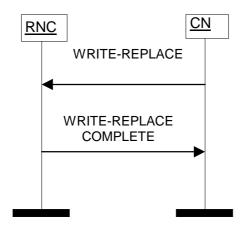


Figure 1: Write-Replace Procedure: Successful Operation

The CN shall initiate the procedure by sending a WRITE-REPLACE message to the RNC.

The presence of a *New Serial Number* IE will indicate that this is a new broadcast. The presence of both the *Old Serial Number* IE and a *New Serial Number* IE will indicate that this message is a replacement of an existing broadcast.

The RNC will initiate broadcasting of a new message or replace a message already broadcast as requested to the service areas as indicated in the *Service Areas List* IE.

The RNC shall uniquely identify the CBS message by the *Message Identifier* IE together with the serial number in the *New Serial Number* IE and the *Service Areas List* IE.

The RNC shall perform the broadcast according to the value of the Category IE as follows:

- The Category IE, if given in the WRITE-REPLACE message, shall be treated as follows:
 - 1. If the value of *Category* IE is indicated as "High Priority", the RNC shall perform the broadcast immediately;
 - 2. If the value of *Category* IE is indicated as "Background", the RNC shall perform the broadcast when no other broadcast message indicated as "High Priority" or "Normal";
 - 3. If the value of *Category* IE is indicated as "Normal", the RNC shall perform the broadcast according to the *Repetition Period* IE.
- If the *Category* IE is not given in the WRITE-REPLACE message, the RNC shall perform the broadcast as the same category indicated as "Normal".

The RNC shall pass the Data Coding Scheme IE transparently to the radio interface protocol.

The RNC shall pass the Broadcast Message Content IE Transparently to the radio interface protocol.

The RNC shall broadcast the message frequently according to the value of the *Number of Broadcasts Requested* IE. If the value is set to "0", the RNC shall broadcast the message until the CN requests otherwise.

Upon receipt of the WRITE-REPLACE message the RNC shall respond using the WRITE-REPLACE COMPLETE message containing a *New Serial Number* IE indicating that resources are available as requested for the Service Area(s) specified and a *Number of Broadcasts Completed List* IE to indicate the number of times the old broadcast message has been successfully broadcast to the particular Service Area(s).

If the WRITE-REPLACE message sent from the CN:

- contained a New Serial Number IE but not an Old Serial Number IE, the Number of Broadcasts IE within the Number of Broadcasts Completed List IE is set to "0" for each included Service Area in the corresponding WRITE-REPLACE COMPLETE message.
- contained both the *New Serial Number* IE and the *Old Serial Number* IE, an entry is made in the *Number of Broadcasts* IE in the *Number of Broadcasts Completed List* IE for each included Service Area in the corresponding WRITE-REPLACE COMPLETE message.

8.2.3 Unsuccessful Operation

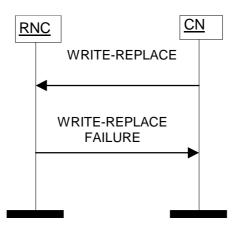


Figure 2: Write-Replace Procedure: Un-Successful Operation

If the RNC cannot allocate all the resources requested for the Service Area(s) specified in the WRITE-REPLACE message, then the RNC shall return a WRITE-REPACE FAILURE message to the CN. A list of Service Area(s) where the requested resources are unavailable and appropriate cause value shall be provided in this WRITE-REPLACE FAILURE message in the *Failure List* IE.

This WRITE-REPLACE FAILURE message may also include those Service Area(s) where the requested resources were available and shall indicate in the *Number of Broadcasts Completed List* IE those Service Area(s) which completed the request.

If the WRITE-REPLACE message sent from the CN:

- contained a *New Serial Number* IE but not an *Old Serial Number* IE, the *Number of Broadcasts* IE within the *Number of Broadcasts Completed List* IE is set to '0' for each included Service Area in the corresponding WRITE-REPLACE FAILURE message.

- contained both the *New Serial Number* IE and the *Old Serial Number* IE, an entry is made in the *Number of Broadcasts* IE in the *Number of Broadcasts Completed List* IE for each included Service Area in the corresponding WRITE-REPLACE FAILURE message.

- contained both the *New Serial Number* IE and the *Old Serial Number* IE, but if the *Old Serial Number* IE is unknown to RNC (i.e. it can not execute the kill request), it shall terminate the Write Replace procedure and return a WRITE-REPLACE-FAILURE message with appropriate cause value.

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For <u>HELP</u> on L	using	this form, se	e bottom o	of this pag	ge or l	look at th	e pop-up text	over the # sy	mbols.
Proposed change	affec	ts:)SIM	ME/UE		Radio Ad	ccess Network	Core N	letwork X
Title: #	Co	rrection of th	ne usage of	f Write-R	eplace	e Failure	message		
Source: #	R-V	WG3							
Work item code: ₩	S TE	l					Date: ೫	February 20	02
Category: ¥	Use Deta	one of the for F (correction A (correspond B (addition of C (functional D (editorial n illed explanation ound in 3GPP	n) nds to a corr of feature), I modification nodification) ons of the a	rection in a n of featur bove cate	re)		2	R99 the following re (GSM Phase 2 (Release 1996 (Release 1997 (Release 1998 (Release 1999 (Release 4) (Release 5))))
Reason for change	e: #		own Old Se	erial Num	iber IE	E is recei	ved by RNC i	of RNC in the on WRITE-REF	
Summary of chan	ge: Ж	form CBC i be terminat value shall Impact Ana specificatio This CR ha	s clarified s ed and WF be returned lysis: Impa n (same re s [isolated	o that it o RITE-REF d to CBC oct assess lease): impact] v	clearly PLACE sment	y incates E-FAILUI t towards te previou	that Write Re RE message the previous us version of t	<i>I Number</i> IE is palce procedu with appropria version of the he specification ticular case is	ire shall te cause on (same
		changed. T	his CR has be conside	an impa	ict und	der proto	col and functi	onal point of v ects only the e	iew. The
			received l					the unknown o imcompatibl	
Clauses affected:	ж	8.2.3							
Other specs affected:	X	X Other c Test sp	ore specific ecifications pecificatior	6	ж	TS 25.4	419 v4.3.0 RE	EL-4 CR92	
Other comments:	ж								

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G_Specs/CRs.htm</u>. 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 <u>ftp://ftp.3gpp.org/specs/</u> 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

8.2 Write-Replace

8.2.1 General

The purpose of this Write-Replace procedure is to broadcast new information or replace a message already broadcast to a chosen Service Area(s).

8.2.2 Successful Operation

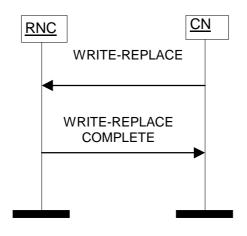


Figure 1: Write-Replace Procedure: Successful Operation

The CN shall initiate the procedure by sending a WRITE-REPLACE message to the RNC.

The presence of a *New Serial Number* IE will indicate that this is a new broadcast. The presence of both the *Old Serial Number* IE and a *New Serial Number* IE will indicate that this message is a replacement of an existing broadcast.

The RNC will initiate broadcasting of a new message or replace a message already broadcast as requested to the service areas as indicated in the *Service Areas List* IE.

The RNC shall uniquely identify the CBS message by the *Message Identifier* IE together with the serial number in the *New Serial Number* IE and the *Service Areas List* IE.

The RNC shall perform the broadcast according to the value of the Category IE as follows:

- The Category IE, if given in the WRITE-REPLACE message, shall be treated as follows:
 - 1. If the value of *Category* IE is indicated as "High Priority", the RNC shall perform the broadcast immediately;
 - 2. If the value of *Category* IE is indicated as "Background", the RNC shall perform the broadcast when no other broadcast message indicated as "High Priority" or "Normal";
 - 3. If the value of *Category* IE is indicated as "Normal", the RNC shall perform the broadcast according to the *Repetition Period* IE.
- If the *Category* IE is not given in the WRITE-REPLACE message, the RNC shall perform the broadcast as the same category indicated as "Normal".

The RNC shall pass the Data Coding Scheme IE transparently to the radio interface protocol.

The RNC shall pass the Broadcast Message Content IE Transparently to the radio interface protocol.

The RNC shall broadcast the message frequently according to the value of the *Number of Broadcasts Requested* IE. If the value is set to "0", the RNC shall broadcast the message until the CN requests otherwise.

Upon receipt of the WRITE-REPLACE message the RNC shall respond using the WRITE-REPLACE COMPLETE message containing a *New Serial Number* IE indicating that resources are available as requested for the Service Area(s) specified and a *Number of Broadcasts Completed List* IE to indicate the number of times the old broadcast message has been successfully broadcast to the particular Service Area(s).

If the WRITE-REPLACE message sent from the CN:

- contained a New Serial Number IE but not an Old Serial Number IE, the Number of Broadcasts IE within the Number of Broadcasts Completed List IE is set to "0" for each included Service Area in the corresponding WRITE-REPLACE COMPLETE message.
- contained both the *New Serial Number* IE and the *Old Serial Number* IE, an entry is made in the *Number of Broadcasts* IE in the *Number of Broadcasts Completed List* IE for each included Service Area in the corresponding WRITE-REPLACE COMPLETE message.

8.2.3 Unsuccessful Operation

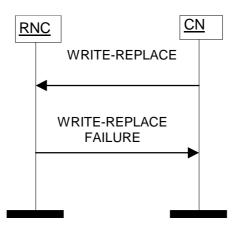


Figure 2: Write-Replace Procedure: Un-Successful Operation

If the RNC cannot allocate all the resources requested for the Service Area(s) specified in the WRITE-REPLACE message, then the RNC shall return a WRITE-REPACE FAILURE message to the CN. A list of Service Area(s) where the requested resources are unavailable and appropriate cause value shall be provided in this WRITE-REPLACE FAILURE message in the *Failure List* IE.

This WRITE-REPLACE FAILURE message may also include those Service Area(s) where the requested resources were available and shall indicate in the *Number of Broadcasts Completed List* IE those Service Area(s) which completed the request.

If the WRITE-REPLACE message sent from the CN:

- contained a *New Serial Number* IE but not an *Old Serial Number* IE, the *Number of Broadcasts* IE within the *Number of Broadcasts Completed List* IE is set to '0' for each included Service Area in the corresponding WRITE-REPLACE FAILURE message.

- contained both the *New Serial Number* IE and the *Old Serial Number* IE, an entry is made in the *Number of Broadcasts* IE in the *Number of Broadcasts Completed List* IE for each included Service Area in the corresponding WRITE-REPLACE FAILURE message.

- contained both the *New Serial Number* IE and the *Old Serial Number* IE, but if the *Old Serial Number* IE is unknown to RNC (i.e. it can not execute the kill request), it shall terminate the Write Replace procedure and return a WRITE-REPLACE-FAILURE message with appropriate cause value.

Tdoc R3-020627

3GPP TSG-RAN-WG3 Meeting #27 Orlando, USA, 18th – 22nd February 2002

	СНА	NGE REQ	UEST		CR-Form	n-v5
^ж 25	5.419 CR 90	ж геv	1 [#]	Current vers	^{ion:} 4.3.0 [#]	
For <u>HELP</u> on using	this form, see bottor	m of this page or	look at the	e pop-up text	over the # symbols.]
Proposed change affect	c <i>ts:</i>	ME/UE	Radio Ac	cess Network	Core Network	X
Title: ೫ Mi	smatch the type of s	ome IE between	25.419 ar	nd 25.324		
Source: % R-	WG3					
Work item code: ೫ <mark>⊤</mark> Е	31			Date: ೫	Feb-2002	
Deta	a <u>one</u> of the following ca F (correction) A (corresponds to a c B (addition of feature C (functional modificat D (editorial modificat ailed explanations of th ound in 3GPP <u>TR 21.9</u>	correction in an ea), ation of feature) ion) e above categorie		2 R96 R97 R98 R99 R99 REL-4	Rel4 the following releases: (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5)	
Reason for change: ₩	 Some IEs between 25.419 and 25.324 are mismatch and therefore should be aligned. For example, the Data Coding Scheme IE is to identify the alphabet or coding employed for the message characters and it is transparent to the RNC. However, the current 25.419 specifies it as INTEGER(0255) as if the RNC shal interprete the meaning of the value. Therefore this type of Data Coding Scheme IE in 25.419 shall be corrected to align the one in 25.324, i.e. BIT STRING (size(8)). The correction is also applied to Serial Number IE. There are also other two IEs i.e. Message Identifier IE and Broadcast Message Content IE are specified as OCTET STRING while they are specified as BIT STRING in 25.324. 					
Summary of change: ೫	Change the type of IE, Broadcast Mess	Data Coding Sc sage Content IE	heme IE, to BIT STI	Serial Numbe RING to align	r IE, Message Idenfifi the 25.324.	fier
Consequences if % not approved:	release) because it	t towards the pre ted impact] with change <u>s</u> the <u>en</u> other IEs, altho type of the data. t: pact under [proto e considered isol	fer from the vious verse the previo <u>coding of 1</u> ugh data 1 	the CN to the U sion of the spe us version of the broadcast type was char of view. use the chan	JE. ecification (same the specification (sam <u>message content</u> nged, will result in the	

Clauses affected:	# 9.2.2, 9.2.3, 9.2.15, 9.2.19, 9.3.4
Other specs affected:	X Other core specifications X 25.419 CR89 R99 Test specifications 0&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.

9.2.1 MessageType

Message Type IE uniquely identifies the message being sent. It is mandatory for all messages.

IE/GROUP NAME	PRESENCE	RANGE	IE Type and	Semantics Description
Message Type				
>Procedure Code	M		ENUMERATED (Write- Replace, Kill, Load Status Enquiry, Message Status Query, Reset, Restart Indication, Failure Indication, Error Indication ,)	
>Type of Message	М		ENUMERATED (Initiating Message, Successful Outcome, Unsuccessful Outcome, Outcome)	

9.2.2 Broadcast Message Content

Broadcast Message Content IE is sent from the CN to the RNC containing user information i.e. the message, and will be broadcast over the radio interface.

IE/GROUP NAME	PRESENCE	RANGE	IE Type and	Semantics Description
Broadcast Message Content	М		OCTET STRING (<u>11246)BIT STRING</u> (<u>19968)</u>	

NO IMPACT SUBCLAUSE ARE NOT SHOWN

9.2.3 Serial Number

Serial Number IE is a 16-bit integer which identifies a particular message from the source and type indicated by the Message Identifier and is altered every time the message with a given Message Identifier is changed.

IE/GROUP NAME	PRESENCE	RANGE	IE Type and	Semantics Description
Serial Number	0		INTEGER (16) <u>BIT</u> STRING(16)	

NO IMPACT SUBCLAUSE ARE NOT SHOWN

9.2.15 Data Coding Scheme

Data Coding Scheme IE is sent from the RNC to the CN and identifies the alphabet or coding employed for the message characters and message handling at the UE (it is passed transparently from the CN to the UE).

IE/GROUP NAME	PRESENCE	RANGE	IE Type and	Semantics Description
Data Coding Scheme	М		INTEGER (0255)BIT	
-			STRING(8)	

9.2.19 Message Identifier

Message Identifier IE is set by the CN, transfer to the UE by the RNC.

IE/GROUP NAME	PRESENCE	RANGE	IE Type and Reference	Semantics Description
Message Identifier	M		OCTET STRING (SIZE(2))<u>BIT</u> STRING(16)	This IE is set by the CN, transfer to the UE by the RNC, the RNC needs not to understand what is the meaning of the value but shall treat it as a identifier of a message. The Message Identifier is defined in [11]

NO IMPACT SUBCLAUSE ARE NOT SHOWN

9.3.4 Information Element Definitions

```
____
-- Information Element Definitions
____
SABP-IEs {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) sabp (3) version1 (1) sabp-IEs (2) }
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
IMPORTS
   maxRadio-Resource-Loading-List,
   maxFailure-List,
   maxNumber-of-Broadcasts-Completed-List,
   maxNrOfErrors,
   maxService-Areas-List,
   maxNrOfLevels,
   id-MessageStructure,
   id-TypeOfError
FROM SABP-Constants
   Criticality,
   ProcedureCode,
   TriggeringMessage,
   ProtocolIE-ID
FROM SABP-CommonDataTypes
   ProtocolExtensionContainer{},
   SABP-PROTOCOL-EXTENSION
FROM SABP-Containers;
-- A
Available-Bandwidth
                       ::= INTEGER (0..20480)
-- bits/sec
```

-- B

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```
Broadcast-Message-Content ::= OCTET STRING (SIZE (1..1246))BIT STRING (SIZE (1..9968))
-- This IE is sent from the CN to the RNC containing user information i.e.
-- the message.
-- C
Category ::= ENUMERATED {
    high-priority,
    background-priority,
    normal-priority,
    default-priority,
    . . .
Cause
                        ::= INTEGER {
    parameter-not-recognised
                                                         (0),
    parameter-value-invalid
                                                         (1),
    valid-CN-message-not-identified
                                                         (2),
    service-area-identity-not-valid
                                                         (3),
    unrecognised-message
                                                         (4),
    missing-mandatory-element
                                                         (5),
    rNC-capacity-exceeded
                                                         (6),
    rNC-memory-exceeded
                                                         (7),
    service-area-broadcast-not-supported
                                                         (8),
    service-area-broadcast-not-operational
                                                         (9),
    message-reference-already-used
                                                         (10),
    unspecifed-error
                                                         (11),
    transfer-syntax-error
                                                         (12),
    semantic-error
                                                         (13),
    message-not-compatible-with-receiver-state
                                                         (14),
    abstract-syntax-error-reject
                                                         (15),
    abstract-syntax-error-ignore-and-notify
                                                         (16),
    abstract-syntax-error-falsely-constructed-message
                                                         (17)
\{(0..255)\}
Criticality-Diagnostics
                                 ::= SEQUENCE {
    procedureCode
                            ProcedureCode
                                                     OPTIONAL,
    triggeringMessage
                            TriggeringMessage
                                                     OPTIONAL,
    procedureCriticality
                                 Criticality
                                                     OPTIONAL,
    iEsCriticalityDiagnostics
                                     CriticalityDiagnostics-IE-List OPTIONAL,
                            ProtocolExtensionContainer { {CriticalityDiagnostics-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
CriticalityDiagnostics-ExtIEs SABP-PROTOCOL-EXTENSION ::= {
    . . .
CriticalityDiagnostics-IE-List ::= SEQUENCE (SIZE (1..maxNrOfErrors)) OF
    SEQUENCE {
        iECriticality
                            Criticality,
        iE-ID
                            ProtocolIE-ID,
```

```
CR page 7
```

```
repetitionNumber
                                 RepetitionNumber0
                                                          OPTIONAL,
        iE-Extensions
                                 ProtocolExtensionContainer { { CriticalityDiagnostics-IE-List-ExtIEs } } OPTIONAL,
        . . .
    }
CriticalityDiagnostics-IE-List-ExtIEs SABP-PROTOCOL-EXTENSION ::= {
        ID id-MessageStructure
                                     CRITICALITY ignore
                                                             EXTENSION MessageStructure
                                                                                              PRESENCE optional } |
        ID id-TypeOfError
                                     CRITICALITY ignore
                                                              EXTENSION TypeOfError
                                                                                              PRESENCE mandatory },
    . . .
MessageStructure ::= SEQUENCE (SIZE (1..maxNrOfLevels)) OF
    SEQUENCE {
        iE-ID
                                ProtocolIE-ID,
        repetitionNumber
                                RepetitionNumber1
                                                          OPTIONAL.
                                 ProtocolExtensionContainer { {MessageStructure-ExtIEs} } OPTIONAL,
        iE-Extensions
        . . .
    }
MessageStructure-ExtIEs SABP-PROTOCOL-EXTENSION ::= {
    . . .
-- D
Data-Coding-Scheme
                            ::= INTEGER (0...255)BIT STRING (SIZE (8))
-- E
-- F
Failure-List ::= SEQUENCE (SIZE (1..maxFailure-List)) OF Failure-List-Item
Failure-List-Item ::= SEQUENCE {
    service-area-identifier
                                 Service-Area-Identifier,
    cause
                             Cause,
                             ProtocolExtensionContainer { {FailureListItemIE-ExtIEs} } OPTIONAL,
        iE-Extensions
        . . .
FailureListItemIE-ExtIEs SABP-PROTOCOL-EXTENSION ::= {
. . .
-- G
-- H
-- I
```

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-- J

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```
-- K
-- L
-- M
Message-Identifier ::= OCTET STRING (SIZE (2))BIT STRING (SIZE (16))
-- N
New-Serial-Number
                                ::= Serial-Number
Number-of-Broadcasts-Completed-List ::= SEQUENCE (SIZE (1..maxNumber-of-Broadcasts-Completed-List)) OF
   Number-of-Broadcasts-Completed-List-Item
Number-of-Broadcasts-Completed-List-Item ::= SEQUENCE {
    service-area-identifier
                                Service-Area-Identifier,
                                    INTEGER (0..65535),
    number-of-broadcasts-compl
    number-of-broadcasts-compl-info Number-Of-Broadcasts-Completed-Info
                                                                                OPTIONAL,
                        ProtocolExtensionContainer { {NoOfBroadcastsCompletedListItemIE-ExtIEs} } OPTIONAL,
    iE-Extensions
        . . .
NoOfBroadcastsCompletedListItemIE-ExtIEs SABP-PROTOCOL-EXTENSION ::= {
. . .
Number-Of-Broadcasts-Completed-Info
                                      ::= ENUMERATED {
    overflow,
    unknown,
    . . .
                                    ::= INTEGER {
Number-of-Broadcasts-Requested
    broadcast-indefinitely (0)
} (0..65535)
-- O
Old-Serial-Number
                                ::= Serial-Number
-- P
-- Q
-- R
Radio-Resource-Loading-List ::= SEQUENCE (SIZE (1..maxRadio-Resource-Loading-List)) OF
    Radio-Resource-Loading-List-Item
Radio-Resource-Loading-List-Item ::= SEQUENCE {
```

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```
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```

```
service-area-identifier
                                Service-Area-Identifier,
    available-bandwidth
                            Available-Bandwidth.
                        ProtocolExtensionContainer { {RadioResourceLoadingListItemIE-ExtIEs} } OPTIONAL,
    iE-Extensions
        . . .
RadioResourceLoadingListItemIE-ExtIEs SABP-PROTOCOL-EXTENSION ::= {
. . .
ļ
Recovery-Indication ::= ENUMERATED {
    data-lost,
    data-available
RepetitionNumber0
                            ::= INTEGER(0..255)
RepetitionNumber1
                            ::= INTEGER(1..256)
Repetition-Period
                            ::= INTEGER (1..4096)
-- Each unit represents a repetition of one second to a maximum of
-- once per 4096 seconds (~1 hour).
-- S
Serial-Number
                           ::= INTEGER (0..65535)BIT STRING (SIZE (16))
Service-Area-Identifier ::= SEQUENCE {
                                OCTET STRING (SIZE (3))
    pLMNidentity
                    -- Digits 0 to 9, two digits per octet.
                    -- Each octet encoded 0000 to 1001.
                                                                      _ _
                    -- 1111 used as filler
                    -- Bit 4 to 1 of octet n encoding digit 2n-1.
                                                                      _ _
                    -- Bit 8 to 5 of octet n encoding digit 2n.
                                                                      _ _
                    -- The PLMNidentity consists of 3 digits from MCC
                                                                           _ _
                    -- followed by either a filler plus 2 digits
                                                                      --
                    -- from MNC (in case of 2 digit MNC) or 3 digits --
                    -- from MNC (in case of 3 digit MNC).
                                                                      -- .
    lac
                    OCTET STRING (SIZE (2))
                    -- 0000 and FFFE not allowed
                                                                      -- ,
    sac
                    OCTET STRING (SIZE (2))
-- **TODO** The IE type for these parameters is not known as yet
Service-Areas-List ::= SEQUENCE (SIZE (1..maxService-Areas-List)) OF Service-Area-Identifier
```

-- т

TypeOfError ::= ENUMERATED {
 not-understood,

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missing,

} ...

- -- U
- -- V
- -- W
- -- X
- --
- -- Y

END

3GPP TSG-RAN-WG3 Meeting #27 Orlando, USA, 18th – 22nd February 2002

	(CHANGE R	EQUEST		CR-Form-v5
ж <mark>2</mark>	<mark>5.419</mark> CR	<mark>89</mark> жг	ev <mark>1</mark> [#]	Current versior	^{a:} 3.7.0 [#]
For <u>HELP</u> on using	g this form, see	bottom of this pag	ge or look at the	e pop-up text ov	ver the # symbols.
Proposed change affe	ects:	SIM ME/UE	Radio Aco	cess Network	Core Network X
Title: ដ M	lismatch the ty	be of some IE bety	ween 25.419 an	d 25.324	
Source: % R	-WG3				
Work item code: 🕷 🕇	El			Date: ೫ F	⁻ eb-2002
De	 <u>one</u> of the follow F (correction) A (correspond B (addition of C (functional of D (editorial model) 	<i>modification of featu</i> <i>odification)</i> ns of the above cate	re)	2 (G R96 (R R97 (R R98 (R R99 (R R99 (R REL-4 (R	R99 a following releases: ISM Phase 2) release 1996) release 1997) release 1998) release 1999) release 4) release 5)
Basson for changes	P Somo IEc br	twoop 25 410 and	1 25 224 aro mic	match and the	refere should be
Reason for change: * Some IEs between 25.419 and 25.324 are mismatch and therefore should be aligned. For example, the Data Coding Scheme IE is to identify the alphabet or coding employed for the message characters and it is transparent to the RNC. However, the current 25.419 specifies it as INTEGER(0255) as if the RNC shal interprete the meaning of the value. Therefore this type of Data Coding Scheme IE in 25.419 shall be corrected to align the one in 25.324, i.e. BIT STRING (size(8)). The correction is also applied to Serial Number IE. There are also other two IEs i.e. Message Identifier IE and Broadcast Message Content IE are specified as OCTET STRING while they are specified as BIT STRING in 25.324.					
Summary of change: a	Change the line is the lin the line is the line is the line is the line is	type of Data Codir It Message Conter	ng Scheme IE, S nt IE to BIT STR	Serial Number I RING to align the	E, Message Idenfifier e 25.324.
Consequences if an an an approved:		approved, it would be transparently /sis:			
	Impact assest release):	ssment towards th	e previous vers	ion of the speci	fication (same
	release) bec IE,(Note that	ause it changes th	ne <u>encoding of the although data to</u>	<u>he broadcast m</u>	e specification (same lessage content ed, will result in the
	The impact [impact: an impact under [can] be considere tion] namely the ti	d isolated becau	use the change	affects [one]

Clauses affected:	# 9.2.2, 9.2.3, 9.2.15, 9.2.19, 9.3.4
Other specs affected:	X Other core specifications X 25.419 CR90 Rel4 Test specifications 0&M Specifications
Other comments:	¥

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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.
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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.

9.2.1 MessageType

Message Type IE uniquely identifies the message being sent. It is mandatory for all messages.

IE/GROUP NAME	PRESENCE	RANGE	IE Type and	Semantics Description
Message Type				
>Procedure Code	M		ENUMERATED (Write- Replace, Kill, Load Status Enquiry, Message Status Query, Reset, Restart Indication, Failure Indication, Error Indication ,)	
>Type of Message	M		ENUMERATED (Initiating Message, Successful Outcome, Unsuccessful Outcome, Outcome)	

9.2.2 Broadcast Message Content

Broadcast Message Content IE is sent from the CN to the RNC containing user information i.e. the message, and will be broadcast over the radio interface.

IE/GROUP NAME	PRESENCE	RANGE	IE Type and	Semantics Description
Broadcast Message Content	М		OCTET STRING (11246)BIT STRING (19968)	

NO IMPACT SUBCLAUSE ARE NOT SHOWN

9.2.3 Serial Number

Serial Number IE is a 16-bit integer which identifies a particular message from the source and type indicated by the Message Identifier and is altered every time the message with a given Message Identifier is changed.

IE/GROUP NAME	PRESENCE	RANGE	IE Type and	Semantics Description
Serial Number	0		INTEGER (16) <u>BIT</u> STRING(16)	

NO IMPACT SUBCLAUSE ARE NOT SHOWN

9.2.15 Data Coding Scheme

Data Coding Scheme IE is sent from the RNC to the CN and identifies the alphabet or coding employed for the message characters and message handling at the UE (it is passed transparently from the CN to the UE).

IE/GROUP NAME	PRESENCE	RANGE	IE Type and	Semantics Description
Data Coding Scheme	Μ		INTEGER (0255)BIT	
-			STRING(8)	

9.2.19 Message Identifier

Message Identifier IE is set by the CN, transfer to the UE by the RNC.

IE/GROUP NAME	PRESENCE	RANGE	IE Type and Reference	Semantics Description
Message Identifier	M		OCTET STRING (SIZE(2))<u>BIT</u> STRING(16)	This IE is set by the CN, transfer to the UE by the RNC, the RNC needs not to understand what is the meaning of the value but shall treat it as a identifier of a message. The Message Identifier is defined in [11]

NO IMPACT SUBCLAUSE ARE NOT SHOWN

9.3.4 Information Element Definitions

```
____
-- Information Element Definitions
____
SABP-IEs {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) sabp (3) version1 (1) sabp-IEs (2) }
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
IMPORTS
   maxRadio-Resource-Loading-List,
   maxFailure-List,
   maxNumber-of-Broadcasts-Completed-List,
   maxNrOfErrors,
   maxService-Areas-List,
   maxNrOfLevels,
   id-MessageStructure,
   id-TypeOfError
FROM SABP-Constants
   Criticality,
   ProcedureCode,
   TriggeringMessage,
   ProtocolIE-ID
FROM SABP-CommonDataTypes
   ProtocolExtensionContainer{},
   SABP-PROTOCOL-EXTENSION
FROM SABP-Containers;
-- A
Available-Bandwidth
                       ::= INTEGER (0..20480)
-- bits/sec
```

-- B

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```
Broadcast-Message-Content ::= OCTET STRING (SIZE (1..1246))BIT STRING (SIZE (1..9968))
-- This IE is sent from the CN to the RNC containing user information i.e.
-- the message.
-- C
Category ::= ENUMERATED {
    high-priority,
    background-priority,
    normal-priority,
    default-priority,
    . . .
Cause
                        ::= INTEGER {
    parameter-not-recognised
                                                         (0),
    parameter-value-invalid
                                                         (1),
    valid-CN-message-not-identified
                                                         (2),
    service-area-identity-not-valid
                                                         (3),
    unrecognised-message
                                                         (4),
    missing-mandatory-element
                                                         (5),
    rNC-capacity-exceeded
                                                         (6),
    rNC-memory-exceeded
                                                         (7),
    service-area-broadcast-not-supported
                                                         (8),
    service-area-broadcast-not-operational
                                                         (9),
    message-reference-already-used
                                                         (10),
    unspecifed-error
                                                         (11),
    transfer-syntax-error
                                                         (12),
    semantic-error
                                                         (13),
    message-not-compatible-with-receiver-state
                                                         (14),
    abstract-syntax-error-reject
                                                         (15),
    abstract-syntax-error-ignore-and-notify
                                                         (16),
    abstract-syntax-error-falsely-constructed-message
                                                         (17)
\{(0..255)\}
Criticality-Diagnostics
                                 ::= SEQUENCE {
    procedureCode
                            ProcedureCode
                                                     OPTIONAL,
    triggeringMessage
                            TriggeringMessage
                                                     OPTIONAL,
    procedureCriticality
                                 Criticality
                                                     OPTIONAL,
    iEsCriticalityDiagnostics
                                     CriticalityDiagnostics-IE-List OPTIONAL,
                            ProtocolExtensionContainer { {CriticalityDiagnostics-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
CriticalityDiagnostics-ExtIEs SABP-PROTOCOL-EXTENSION ::= {
    . . .
CriticalityDiagnostics-IE-List ::= SEQUENCE (SIZE (1..maxNrOfErrors)) OF
    SEQUENCE {
        iECriticality
                            Criticality,
        iE-ID
                            ProtocolIE-ID,
```

```
CR page 7
```

```
repetitionNumber
                                 RepetitionNumber0
                                                          OPTIONAL,
        iE-Extensions
                                 ProtocolExtensionContainer { { CriticalityDiagnostics-IE-List-ExtIEs } } OPTIONAL,
        . . .
    }
CriticalityDiagnostics-IE-List-ExtIEs SABP-PROTOCOL-EXTENSION ::= {
        ID id-MessageStructure
                                     CRITICALITY ignore
                                                             EXTENSION MessageStructure
                                                                                              PRESENCE optional } |
        ID id-TypeOfError
                                     CRITICALITY ignore
                                                              EXTENSION TypeOfError
                                                                                              PRESENCE mandatory },
    . . .
MessageStructure ::= SEQUENCE (SIZE (1..maxNrOfLevels)) OF
    SEQUENCE {
        iE-ID
                                ProtocolIE-ID,
        repetitionNumber
                                RepetitionNumber1
                                                          OPTIONAL.
                                 ProtocolExtensionContainer { {MessageStructure-ExtIEs} } OPTIONAL,
        iE-Extensions
        . . .
    }
MessageStructure-ExtIEs SABP-PROTOCOL-EXTENSION ::= {
    . . .
-- D
Data-Coding-Scheme
                            ::= INTEGER (0...255)BIT STRING (SIZE (8))
-- E
-- F
Failure-List ::= SEQUENCE (SIZE (1..maxFailure-List)) OF Failure-List-Item
Failure-List-Item ::= SEQUENCE {
    service-area-identifier
                                 Service-Area-Identifier,
    cause
                             Cause,
                             ProtocolExtensionContainer { {FailureListItemIE-ExtIEs} } OPTIONAL,
        iE-Extensions
        . . .
FailureListItemIE-ExtIEs SABP-PROTOCOL-EXTENSION ::= {
. . .
-- G
-- H
-- I
```

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```
-- J
-- K
-- L
-- M
Message-Identifier ::= OCTET STRING (SIZE (2))BIT STRING (SIZE (16))
-- N
New-Serial-Number
                                ::= Serial-Number
Number-of-Broadcasts-Completed-List ::= SEQUENCE (SIZE (1..maxNumber-of-Broadcasts-Completed-List)) OF
   Number-of-Broadcasts-Completed-List-Item
Number-of-Broadcasts-Completed-List-Item ::= SEQUENCE {
    service-area-identifier
                                Service-Area-Identifier,
                                    INTEGER (0..65535),
    number-of-broadcasts-compl
    number-of-broadcasts-compl-info Number-Of-Broadcasts-Completed-Info
                                                                                OPTIONAL,
                        ProtocolExtensionContainer { {NoOfBroadcastsCompletedListItemIE-ExtIEs} } OPTIONAL,
    iE-Extensions
        . . .
NoOfBroadcastsCompletedListItemIE-ExtIEs SABP-PROTOCOL-EXTENSION ::= {
. . .
Number-Of-Broadcasts-Completed-Info
                                      ::= ENUMERATED {
    overflow,
    unknown,
    . . .
                                    ::= INTEGER {
Number-of-Broadcasts-Requested
    broadcast-indefinitely (0)
} (0..65535)
-- O
Old-Serial-Number
                                ::= Serial-Number
-- P
-- Q
-- R
Radio-Resource-Loading-List ::= SEQUENCE (SIZE (1..maxRadio-Resource-Loading-List)) OF
    Radio-Resource-Loading-List-Item
Radio-Resource-Loading-List-Item ::= SEQUENCE {
```

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```
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```

```
service-area-identifier
                                Service-Area-Identifier,
    available-bandwidth
                            Available-Bandwidth.
                        ProtocolExtensionContainer { {RadioResourceLoadingListItemIE-ExtIEs} } OPTIONAL,
    iE-Extensions
        . . .
RadioResourceLoadingListItemIE-ExtIEs SABP-PROTOCOL-EXTENSION ::= {
. . .
l
Recovery-Indication ::= ENUMERATED {
    data-lost,
    data-available
RepetitionNumber0
                            ::= INTEGER(0..255)
RepetitionNumber1
                            ::= INTEGER(1..256)
Repetition-Period
                            ::= INTEGER (1..4096)
-- Each unit represents a repetition of one second to a maximum of
-- once per 4096 seconds (~1 hour).
-- S
Serial-Number
                           ::= INTEGER (0..65535)BIT STRING (SIZE (16))
Service-Area-Identifier ::= SEQUENCE {
                                OCTET STRING (SIZE (3))
    pLMNidentity
                    -- Digits 0 to 9, two digits per octet.
                    -- Each octet encoded 0000 to 1001.
                                                                      _ _
                    -- 1111 used as filler
                    -- Bit 4 to 1 of octet n encoding digit 2n-1.
                                                                      _ _
                    -- Bit 8 to 5 of octet n encoding digit 2n.
                                                                      _ _
                    -- The PLMNidentity consists of 3 digits from MCC
                                                                           _ _
                    -- followed by either a filler plus 2 digits
                                                                      _ _
                    -- from MNC (in case of 2 digit MNC) or 3 digits --
                    -- from MNC (in case of 3 digit MNC).
                                                                      -- .
    lac
                    OCTET STRING (SIZE (2))
                    -- 0000 and FFFE not allowed
                                                                      -- ,
    sac
                    OCTET STRING (SIZE (2))
-- **TODO** The IE type for these parameters is not known as yet
Service-Areas-List ::= SEQUENCE (SIZE (1..maxService-Areas-List)) OF Service-Area-Identifier
```

-- T

TypeOfError ::= ENUMERATED {
 not-understood,

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CR page 10

missing,

} ...

- -- U
- -- V
- -- W
- -- X
- -- Y

END

3GPP TSG-RAN-WG3 Meeting #27 Orlando, USA, 18th – 22nd February 2002

		CHANGE	REQUEST	-	CR-Form-v5
æ	25.419 CR	88	≭rev <mark>1</mark> ^೫	Current version	4.3.0 [#]
For <u>HELP</u> on us	sing this form, se	e bottom of this	page or look at th	ne pop-up text ove	er the # symbols.
Proposed change a	affects:)SIM ME/	UE Radio A	ccess Network X	Core Network X
Title: ೫	ASN.1 take pre	ecedence if contr	adiction between	ASN.1 and tabula	ar
Source: #	R-WG3				
Work item code: ℜ	TEI			<i>Date:</i>	eb-2002
Category: ⊮	 <i>F</i> (correction <i>A</i> (correspo <i>B</i> (addition <i>C</i> (functional <i>D</i> (editorial 	nds to a correction of feature), I modification of fe modification) ions of the above o	in an earlier releas ature)	2 (GS re) R96 (Re R97 (Re R98 (Re R99 (Re REL-4 (Re	el4 following releases: SM Phase 2) elease 1996) elease 1997) elease 1998) elease 1999) elease 4) elease 5)
Reason for change	ENUMERA ASN.1. The Moreover, ASN.1 and other proto and NBAP.	TED(Available, I e contradiction sh There is no desc tabular, the ASN cols such as RA the same rule n	Lost), however it i nall be corrected. ription to specify to 1.1 shall take preci NAP, RNSAP. <u>To</u>	s ENUMERATED that if there is cor cedence, this wou align SABP with in subclause 9.1	O{Lost, Available} in Intradiction between Id different from RANAP, RNSAP .1. As protocols for
Summary of chang	correspond contradiction the ASN.1 presence of Change the	ling ASN.1 defini on between the ta shall take preced f conditional les, e order of the val	tion is presented	in section 9.3. In ection 9.1 and the the definition of c r format shall take dication IE of tab	case there is ASN.1 definition, onditions for the e precedence.
Consequences if not approved:	misunderst Impact Ana Impact ass release): <u>From the fo</u> version of t <u>However, a</u>	anding when<u>duri</u> lysis: essment towards <u>prmal point of vie</u> he specification	(same release) be he Reason For C	n. sion of the specif <u>non</u> isolated impa ecause it specifies	ication (same ct] with the previous

	Only if it has impact: This CR has an impact under [protocol] point of view. The impact [can not] be considered isolated because the change affects [more than one] [system function].
	 # 9.1.1, 9.2.16 # X Other core specifications # 25.419 CR87 R99
affected:	Test specifications O&M Specifications
Other comments:	¥

How to create CRs using this form:

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

9 Elements for SABP Communication

9.1 Message Functional Definition and Content

9.1.1 General

Section 9.1 presents the contents of SABP messages in tabular format. The corresponding ASN.1 definition is presented in section 9.3. In case there is contradiction between the tabular format in section 9.1 and the ASN.1 definition, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional IEs, where the tabular format shall take precedence.

NOTE: The messages have been defined in accordance to the guidelines specified in [10].

For each message there is, a table listing the signalling elements in their order of appearance in the transmitted message.

9.1.2 Message Contents

9.1.2.1 Presence

All information elements in the message descriptions below are marked mandatory, optional or conditional according to table 3.

Abbreviation	Meaning
М	IE's marked as Mandatory (M) will always be included in the
	message.
0	IE's marked as Optional (O) may or may not be included in the
	message.
С	IE's marked as Conditional (C) will be included in a message only if
	the condition is satisfied. Otherwise the IE is not included.

Table 3: Meaning of abbreviations used in SABP messages

9.1.2.2 Criticality

Each Information Element or Group of Information Elements may have a criticality information applied to it. Following cases are possible.

Abbreviation	Meaning
_	No criticality information is applied explicitly.
YES	Criticality information is applied. This is usable only for non- repeatable IEs
GLOBAL	The IE and all its repetitions together have one common criticality information. This is usable only for repeatable IEs.
EACH	Each repetition of the IE has its own criticality information. It is not allowed to assign different criticality values to the repetitions. This is usable only for repeatable IEs.

9.1.2.3 Range

The Range column indicates the allowed number of copies of repetitive IEs/IE groups.

9.2.15 Data Coding Scheme

Data Coding Scheme IE is sent from the RNC to the CN and identifies the alphabet or coding employed for the message characters and message handling at the UE (it is passed transparently from the CN to the UE).

IE/GROUP NAME	PRESENCE	RANGE	IE Type and	Semantics Description
Data Coding Scheme	М		INTEGER (0255)	

9.2.16 Recovery Indication

Recovery Indication IE is used to indicate whether the CN related data was lost or is still available.

IE/GROUP NAME	PRESENCE	RANGE	IE Type and	Semantics Description
Recovery Indication	0		ENUMERATED (<u>Lost,</u> Available , Lost)	

9.2.17 Criticality Diagnostics

The *Criticality Diagnostics* IE is sent by the RNC or the CN when parts of a received message have not been comprehended or were missing, or if the message contained logical errors. When applicable, it contains information about which IEs that were not comprehended or were missing.

For further details on how to use the Criticality Diagnostics IE, see annex A.

NOT AFFECTED PART ARE NOT SHOWN

3GPP TSG-RAN-WG3 Meeting #27 Orlando, USA, 18th – 22nd February 2002

	CHANGE	REQUEST	-	CR-Form-v5
æ	25.419 CR 87	жrev <mark>1</mark> ^ж	Current version:	3.7.0 [#]
For <u>HELP</u> on us	ing this form, see bottom of this	s page or look at th	ne pop-up text ove	er the # symbols.
Proposed change a	ffects: ೫ (U)SIM ME	/UE Radio A	ccess Network X	Core Network X
Title: ¥	ASN.1 take precedence if con	tradiction between	ASN.1 and tabula	ar
Source: #	R-WG3			
Work item code: %	TEI		Date: ೫ Fe	eb-2002
Category: ₩	F Use <u>one</u> of the following categories F (correction) A (corresponds to a correction B (addition of feature), C (functional modification of in D (editorial modification) Detailed explanations of the above be found in 3GPP <u>TR 21.900</u> .	n in an earlier releas ēeature)	2 (GS R96 (Re R97 (Re R98 (Re R99 (Re REL-4 (Re	99 following releases: SM Phase 2) Iease 1996) Iease 1997) Iease 1998) Iease 1999) Iease 4)
Reason for change	The current 25.419 the Re ENUMERATED(Available, ASN.1. The contradiction s Moreover, There is no des ASN.1 and tabular, the AS other protocols such as R/ and NBAP, the same rule lu,lur and lub shall have the	Lost), however it i shall be corrected. cription to specify t N.1 shall take prec NAP, RNSAP. <u>To</u> needs to be added	s ENUMERATED that if there is con cedence, this wou align SABP with in subclause 9.1.	V{Lost, Available} in Itradiction between Id different from RANAP, RNSAP .1. As protocols for
Summary of chang	Section 9.1 presents the c corresponding ASN.1 defin contradiction between the the ASN.1 shall take prece presence of conditional les Change the order of the va ENUMERATED(Lost, Ava	nition is presented tabular format in se edence, except for s, where the tabula alue in Recovery In	in section 9.3. In e ection 9.1 and the the definition of co r format shall take idication IE of tab	case there is ASN.1 definition, onditions for the precedence.
Consequences if not approved:	# If this is not approved, the misunderstanding when due			night lead to
	Impact Analysis:			
	Impact assessment toward release):	Is the previous ver	sion of the specifi	cation (same
	From the formal point of viversion of the specification However, as mentioned in RAN-WG3 Specification ru	(same release) be the Reason For C	ecause it specifies	s a new rule.
	Only if it has impact:			
	This CR has an impact un	der [protocol] point	of view.	

	The impact [can not] be considered isolated because the change affects [more than one] [system function].		
Clauses affected:	% 9.1.1, 9.2.16		
Other specs affected:	X Other core specifications % 25.419 CR88 Rel4 Test specifications 0&M Specifications		
Other comments:	¥		

How to create CRs using this form:

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.
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9 Elements for SABP Communication

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IE/GROUP NAME	PRESENCE	RANGE	IE Type and	Semantics Description
Data Coding Scheme	М		INTEGER (0255)	

9.2.16 Recovery Indication

Recovery Indication IE is used to indicate whether the CN related data was lost or is still available.

IE/GROUP NAME	PRESENCE	RANGE	IE Type and	Semantics Description
Recovery Indication	0		ENUMERATED (<u>Lost,</u> Available , Lost)	

9.2.17 Criticality Diagnostics

The *Criticality Diagnostics* IE is sent by the RNC or the CN when parts of a received message have not been comprehended or were missing, or if the message contained logical errors. When applicable, it contains information about which IEs that were not comprehended or were missing.

For further details on how to use the Criticality Diagnostics IE, see annex A.

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3GPP TSG-RAN-WG3 Meeting #27 Orlando, USA, 18th – 22nd February 2002

			CHA	NGE R	EQ	UEST	•			CR-Form-v5
¥	25	<mark>.419</mark> (CR <mark>86</mark>	жr	ev	- *	Current vers	sion:	4.3.0	ж
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 X										
Title: ೫	Se	<mark>rvice exp</mark>	ected from t	<mark>he transpo</mark>	rt laye	ər				
Source: #	R-	WG3								
Work item code: अ	TE	I .					<i>Date:</i>	Feb	<mark>o-2002</mark>	
Category: ¥	Deta	F (correc A (corres B (addition C (function D (editor ailed expla	e following cat stion) sponds to a co on of feature), onal modification ial modification nations of the GPP <u>TR 21.90</u>	prrection in a tion of featur on) above cate	re)		Release: % Use <u>one</u> of 2 e) R96 R97 R98 R99 REL-4 REL-5	the fo (GSN (Rele (Rele (Rele (Rele (Rele		
Reason for change	Reason for change: # In the current 25.419, it is describing in sequence delivery of FP PDU is expected from the service of transport layer. Since the lu for broadcast domain does not have FP(Frame Protocol), the current description is not true.									
Summary of chang	ge:		vice expecte o "in sequen					equer	nce delive	ry of FP
Consequences if not approved:	*	misunde Impact A Impact a release) This CR release) transpor Only if it This CR The imp	Analysis: Analysis: assessment : has [isolate because it because it t layer. : has impact: has an imp act [can] be	hen inplem towards the d impact] v change the act under [j considered	e prev with th targe protoo	ion. vious vers ne previou et object o col] point ated beca	and therefore sion of the sp us version of of the service of view. ause the chan sequence del	ecifica the sp expe	ation (san becificatio cted from fects [one	ne n (same the
Clauses affected:	ж	6								
Other specs affected:	ж	Test	er core spec t specificatio /I Specificati	ns	ж	25.419	CR85 R99			
Other comments:	ж									

How to create CRs using this form:

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

5 Services provided by SABP

- During normal operation the CN (CBC) initiates all message transfer and query operations. The RNC responds to the message transfer and query operations initiated by the CBC.
- The RNC will open the connection only in case an error (Failure Indication Procedure) or recovery (Restart Indication Procedure) is to be reported.
- The initiator of a connection is responsible for the termination of the connection.

6 Services expected from the Transport layer

Following service is expected from the transport layer:

- in sequence delivery of FP PDU Signalling data[6].

7 Functions of SABP

The SABP has the following functions:

- Message Handling. This function is responsible for the broadcast of new messages, amend existing broadcasted messages and to stop the broadcasting of specific messages.
- Load Handling. This function is responsible for determining the loading of the broadcast channels at any particular point in time.
- Reset. This function permits the CBC to end broadcasting in one or more Service Areas.
- Error Handling. This function allows the reporting of general error situations, for which function specific error messages have not been defined.

These functions are implemented by one or several SABP elementary procedures described in the following clauses.

3GPP TSG-RAN-WG3 Meeting #27 Orlando, USA, 18th – 22nd February 2002

	CHANGE REQUEST	CR-Form-v5					
¥		Current version: 3.7.0 [#]					
		5.7.0					
For <u>HELP</u> 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 Acc	cess Network X Core Network X					
Title: \$	Service expected from the transport layer						
Source: ៖	R-WG3						
Work item code: 🖁	TEI	Date: 윎 Feb-2002					
Category: ३	 F Use <u>one</u> 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 <u>TR 21.900</u>. 	Release: #R99Use one of the following releases: 2(GSM Phase 2)0R96(Release 1996)R97(Release 1997)R98(Release 1998)R99(Release 1999)REL-4(Release 4)REL-5(Release 5)					
Reason for change: # In the current 25.419, it is describing in sequence delivery of FP PDU is expected from the service of transport layer. Since the lu for broadcast domain does not have FP(Frame Protocol), the current description is not true. Summary of change: # The service expected from transport is changed from "in sequence delivery of FP PDU" PDU " to "in sequence delivery of Signalling data "							
Consequences if not approved:	 If this is not approved, the 25.419 is not clear a misunderstanding when inplementation. Impact Analysis: Impact assessment towards the previous version release): This CR has [isolated impact] with the previous release) because it change the target object of transport layer. Only if it has impact: This CR has an impact under [protocol] point on The impact [can] be considered isolated becaus [system function] namely the object of the in set 	on of the specification (same s version of the specification (same the service expected from the of view.					
Clauses affected:	ж <mark>6</mark>						
Other specs affected:	X Other core specifications X 25.419 C Test specifications O&M Specifications X	CR86 Rel4					
Other comments:	ж						

How to create CRs using this form:

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

5 Services provided by SABP

- During normal operation the CN (CBC) initiates all message transfer and query operations. The RNC responds to the message transfer and query operations initiated by the CBC.
- The RNC will open the connection only in case an error (Failure Indication Procedure) or recovery (Restart Indication Procedure) is to be reported.
- The initiator of a connection is responsible for the termination of the connection.

6 Services expected from the Transport layer

Following service is expected from the transport layer:

- in sequence delivery of FP PDU Signalling data[6].

7 Functions of SABP

The SABP has the following functions:

- Message Handling. This function is responsible for the broadcast of new messages, amend existing broadcasted messages and to stop the broadcasting of specific messages.
- Load Handling. This function is responsible for determining the loading of the broadcast channels at any particular point in time.
- Reset. This function permits the CBC to end broadcasting in one or more Service Areas.
- Error Handling. This function allows the reporting of general error situations, for which function specific error messages have not been defined.

These functions are implemented by one or several SABP elementary procedures described in the following clauses.

Tdoc R3-020623

3GPP TSG-RAN-WG3 Meeting #27 Orlando, USA, 18th – 22nd February 2002

			CHA	NGE R	EQU	IES	Г			CR-Form-v5
¥	25	<mark>.419</mark>	CR <mark>84</mark>	жľ	ev	1 ^೫	Current	version:	4.3.0	ж
For HELP on using this form, see bottom of this page or look at the pop-up text over the # symbols.										
Proposed change	Proposed change affects: # (U)SIM ME/UE Radio Access Network X Core Network X									
Title: ¥	Co	rrection	n of the word	l <mark>ing of maxin</mark>	<mark>num va</mark> l	ue				
Source: #	<mark>R-۱</mark>	NG3								
Work item code: ₩	tE	I					Date	e:	b-2002	
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Reason for change	0.0	The er	urrent OF 44			4 .			ation in an	darta
ineason for chang	C. 00	make In tabu 9.2.6), (subcla	the specificate ular the rang <i>Number of</i> ause 9.2.12	ation unambi e is 1 to <ma Broadcasts and Radio 1 those all ha</ma 	guity. axnoofS Comple Resour	SAI> fo ted Lis ce Loa	r Service A st IE (subcl ding List IE	A <i>reas Li</i> s ause 9.2	s <i>t</i> IE (Subo 2.10), <i>Fail</i> u	lause <i>ire List</i> IE
Summary of chang	ge: ೫	The w below:		e maxumum	value o	f the ra	ange in AS	N.1 are	chanage a	is shown
		1.Serv	vice Areas L	ist IE is chan	ige from	n maxS	Service-Are	eas-List	to maxnoo	fSAI
				dcasts Comp leted-List to				rom max	Number-c	of-
		3.Failu	<i>ure List</i> IE is	change from	n maxFa	ailure-l	_ist to max	noofSAI		
			io Resource maxnoofSAI	Loading Lis	<i>t</i> IE is c	hange	from maxF	Radio-Ro	esource-Lo	pading-
Consequences if not approved:	ж		is not appro <u>luring</u> inplen	ved, the diffe	erent wo	ording	may lead to	o misuno	derstandin	g
		Impac	t Analysis:							
		Impac releas		nt towards th	e previo	ous ve	rsion of the	e specifio	cation (san	ne
		(same	release) be ange its valu	solated i mpa cause <u>it </u> cha ue in ASN.1.	nges <u>or</u>	<u>ly the</u>	wording of	maximu	um value a	nd does
		Only if	f it has impac	÷						
		This C	R has an im	pact under [function	nal] po	int of view.			

	The impact [can] be considered isolated because the change affects [one] [system function] namely the meaning of maximum value in ASN.1.							
Clauses affected:	¥ 9.3.4, 9.3.5							
Other specs affected:	 Cher core specifications Test specifications O&M Specifications Call Specifications 							
Other comments:	¥							

How to create CRs using this form:

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

9.3.4 Information Element Definitions

```
_ _
-- Information Element Definitions
SABP-IEs {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) sabp (3) version1 (1) sabp-IEs (2) }
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
IMPORTS
  maxRadio-Resource-Loading-List,
  -maxFailure-List,
 maxNrOfErrors,
   maxService-Areas-ListmaxnoofSAI,
   maxNrOfLevels,
   id-MessageStructure,
   id-TypeOfError
FROM SABP-Constants
   Criticality,
   ProcedureCode,
   TriggeringMessage,
   ProtocolIE-ID
FROM SABP-CommonDataTypes
   ProtocolExtensionContainer{},
   SABP-PROTOCOL-EXTENSION
FROM SABP-Containers;
-- A
Available-Bandwidth
                  ::= INTEGER (0..20480)
-- bits/sec
-- B
Broadcast-Message-Content ::= OCTET STRING (SIZE (1..1246))
-- This IE is sent from the CN to the RNC containing user information i.e.
-- the message.
-- C
Category ::= ENUMERATED {
   high-priority,
   background-priority,
   normal-priority,
   default-priority,
   . . .
}
                    ::= INTEGER {
Cause
                                                  (0),
   parameter-not-recognised
   parameter-value-invalid
                                                  (1),
   valid-CN-message-not-identified
                                                  (2),
   service-area-identity-not-valid
                                                  (3),
   unrecognised-message
                                                  (4),
   missing-mandatory-element
                                                  (5),
                                                  (6),
   rNC-capacity-exceeded
   rNC-memory-exceeded
                                                  (7),
                                                  (8),
   service-area-broadcast-not-supported
   service-area-broadcast-not-operational
                                                  (9),
   message-reference-already-used
                                                  (10),
```

```
unspecifed-error
                                                            (11),
      transfer-syntax-error
                                                             (12),
      semantic-error
                                                            (13),
      message-not-compatible-with-receiver-state
                                                            (14),
                                                            (15),
      abstract-syntax-error-reject
      abstract-syntax-error-ignore-and-notify
                                                            (16),
      abstract-syntax-error-falsely-constructed-message (17)
  } (0..255)
  Criticality-Diagnostics ::= SEQUENCE
procedureCode ProcedureCode
triggeringMessage TriggeringMessag
                                  ::= SEQUENCE {
                                                       OPTIONAL,
      procedureCriticality Criticality
                                                       OPTIONAL.
      procedureCriticality Criticality OPTIONAL,
iEsCriticalityDiagnostics CriticalityDiagnostics-IE-List OPTIONAL,
      iE-Extensions ProtocolExtensionContainer { {CriticalityDiagnostics-ExtIEs} } OPTIONAL,
      . . .
  }
  CriticalityDiagnostics-ExtIEs SABP-PROTOCOL-EXTENSION ::= {
      . . .
  }
  CriticalityDiagnostics-IE-List ::= SEQUENCE (SIZE (1..maxNrOfErrors)) OF
      SEQUENCE {
          iECriticality
                               Criticality.
          iE-ID
                               ProtocolIE-ID,
          repetitionNumber
                               RepetitionNumber0
                                                            OPTIONAL,
                                  ProtocolExtensionContainer { {CriticalityDiagnostics-IE-List-ExtIEs}
          iE-Extensions
  } OPTIONAL,
          . . .
      }
  CriticalityDiagnostics-IE-List-ExtIEs SABP-PROTOCOL-EXTENSION ::= {
      { ID id-MessageStructure
                                      CRITICALITY ignore
                                                                EXTENSION MessageStructure
                                                                                                  PRESENCE
  optional }|
      {    ID id-TypeOfError
                                      CRITICALITY ignore
                                                                EXTENSION TypeOfError
                                                                                                  PRESENCE
  mandatory },
      . . .
  }
  MessageStructure ::= SEQUENCE (SIZE (1..maxNrOfLevels)) OF
      SEQUENCE {
          iE-ID
                                   ProtocolIE-ID,
          repetitionNumber
                                  RepetitionNumber1
                                                           OPTIONAL,
          iE-Extensions
                                   ProtocolExtensionContainer { {MessageStructure-ExtIEs} } OPTIONAL,
          . . .
      }
  MessageStructure-ExtIEs SABP-PROTOCOL-EXTENSION ::= {
  }
  -- D
  Data-Coding-Scheme
                             ::= INTEGER (0..255)
  -- E
  –– F
Failure-List ::= SEQUENCE (SIZE (1..maxFailure-ListmaxnoofSAI)) OF Failure-List-Item
  Failure-List-Item ::= SEQUENCE {
      service-area-identifier
                                   Service-Area-Identifier,
                               Cause,
      cause
          iE-Extensions
                               ProtocolExtensionContainer { {FailureListItemIE-ExtIEs} } OPTIONAL,
          . . .
  }
  FailureListItemIE-ExtIEs SABP-PROTOCOL-EXTENSION ::= {
  }
  -- G
```

-- H -- I

```
-- J
  -- K
  -- L
  -- M
  Message-Identifier ::= OCTET STRING (SIZE (2))
  -- N
  New-Serial-Number
                                  ::= Serial-Number
  Number-of-Broadcasts-Completed-List ::= SEQUENCE (SIZE (1.. maxnoofSAImaxNumber-of-Broadcasts-
  Completed-List)) OF
     Number-of-Broadcasts-Completed-List-Item
  Number-of-Broadcasts-Completed-List-Item ::= SEQUENCE {
      service-area-identifier Service-Area-Identifier,
      number-of-broadcasts-completed
                                         INTEGER (0..65535),
      number-of-broadcasts-completed-info Number-Of-Broadcasts-Completed-Info
                                                                                      OPTIONAL.
      iE-Extensions
                        ProtocolExtensionContainer { {NoOfBroadcastsCompletedListItemIE-ExtIEs} }
  OPTIONAL,
  }
  NoOfBroadcastsCompletedListItemIE-ExtIEs SABP-PROTOCOL-EXTENSION ::= {
  ...
}
  Number-Of-Broadcasts-Completed-Info
                                        ::= ENUMERATED {
     overflow,
     unknown,
      . . .
  }
  Number-of-Broadcasts-Requested
                                    ::= INTEGER {
     broadcast-indefinitely (0)
  } (0..65535)
  -- 0
                     ::= Serial-Number
  Old-Serial-Number
  -- P
  -- Q
  -- R
Radio-Resource-Loading-List ::= SEQUENCE (SIZE (1..maxRadio Resource Loading ListmaxnoofSAI)) OF
      Radio-Resource-Loading-List-Item
  Radio-Resource-Loading-List-Item ::= SEQUENCE {
     service-area-identifier Service-Area-Identifier,
available-bandwidth Available-Bandwidth,
      iE-Extensions ProtocolExtensionContainer { {RadioResourceLoadingListItemIE-ExtIEs} }
  OPTIONAL,
          . . .
  }
  RadioResourceLoadingListItemIE-ExtIEs SABP-PROTOCOL-EXTENSION ::= {
  }
  Recovery-Indication ::= ENUMERATED {
     data-lost,
     data-available
  }
  RepetitionNumber0
                            ::= INTEGER(0..255)
                              ::= INTEGER(1..256)
  RepetitionNumber1
```

```
::= INTEGER (1..4096)
 Repetition-Period
 -- Each unit represents a repetition of one second to a maximum of
 -- once per 4096 seconds (~1 hour).
 -- S
 Serial-Number
                           ::= INTEGER (0..65535)
 Service-Area-Identifier ::= SEQUENCE {
                               OCTET STRING (SIZE (3))
     pLMNidentity
                    -- Digits 0 to 9, two digits per octet.
                                                                  _ _
                    -- Each octet encoded 0000 to 1001.
                                                                   _ _
                    -- 1111 used as filler
                                                                  _ _
                    -- Bit 4 to 1 of octet n encoding digit 2n-1.
                                                                  _ _
                    -- Bit 8 to 5 of octet n encoding digit 2n.
                    -- The PLMN identity consists of 3 digits from MCC
                    -- followed by either a filler plus 2 digits
                                                                 --
                    -- from MNC (in case of 2 digit MNC) or 3 digits --
                                                                  -- ,
                    -- from MNC (in case of 3 digit MNC).
     lac
                    OCTET STRING (SIZE (2))
                    -- 0000 and FFFE not allowed
                                                                  -- ,
                    OCTET STRING (SIZE (2))
     sac
 }
  -- **TODO** The IE type for these parameters is not known as yet
Service-Areas-List := SEQUENCE (SIZE (1...maxService-Areas-ListmaxnoofSAI)) OF Service-Area-
 Identifier
 -- T
 TypeOfError ::= ENUMERATED {
    not-understood,
     missing,
     . . .
 }
 -- U
 -- V
 -- W
 -- X
 -- Y
 END
            Common Definitions
 9.3.5
                     ******
  __ ***********
  _ _
  -- Common definitions
  _ _
 SABP-CommonDataTypes {
 itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
 umts-Access (20) modules (3) sabp (3) version1 (1) sabp-CommonDataTypes (3) }
 DEFINITIONS AUTOMATIC TAGS ::=
 BEGIN
 Criticality
               ::= ENUMERATED { reject, ignore, notify }
               ::= ENUMERATED { optional, conditional, mandatory }
 Presence
 ProcedureCode
                    ::= INTEGER (0..255)
 ProtocolExtensionID ::= INTEGER (0..65535)
 ProtocolIE-ID
                  ::= INTEGER (0..65535)
```

TriggeringMessage ::= ENUMERATED {initiating-message, successful-outcome, unsuccessful-outcome, unsuccessful-outcome}

END

9.3.6 Constant Definitions

```
_ _
-- Constant definitions
SABP-Constants {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) sabp (3) version1 (1) sabp-Constants (4) }
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
-- Elementary Procedures
id-Write-Replace
                              INTEGER ::= 0
                         INTEGER ::= 1
id-Kill
id-Load-Status-Enquiry INTEGER ::= 2
id-Message-Status-Query INTEGER ::= 3
id-Restart-Indication INTEGER ::= 4
id-Reset INTEGER ::= 5
id-Failure-Indication INTEGER ::= 6
id-Error-Indication
                              INTEGER ::= 7
_ _
-- IEs
_ _
 INTEGER ::= 0
id-Broadcast-Message-Content
                              INTEGER ::= 1
id-Category
id-Cause
                         INTEGER ::= 2
id-Criticality-Diagnosti-

id-Data-Coding-Scheme INTEGER ::= +

id-Failure-List INTEGER ::= 5

id-Message-Identifier INTEGER ::= 6

INTEGER ::= 7

INTEGER ::= 7

INTEGER ::= 7
id-Number-of-Broadcasts-Completed-List INTEGER ::= 8
id-Number-of-Broadcasts-Requested
                                             INTEGER ::= 9

      INTEGER ::=

      INTEGER ::=

id-Repetition-Period
                             INTEGER ::= 14
id-Serial-Number
                               INTEGER ::= 15
id-Service-Areas-List
id-MessageStructure
                                   INTEGER ::= 16
id-TypeOfError
                                   INTEGER ::= 17
-- Extension constants
_ _
_ _
-- Lists
 maxRadio-Resource-Loading-List INTEGER := 65535
maxFailure-List
                               INTEGER ::= 65535
```

maxNumber-of-Broadcasts-Completed-ListINTEGER::=65535maxNrOfErrorsINTEGER::=256maxService-Areas-ListmaxnoofSAIINTEGER::=65535

maxProtocolExtensions	INTEGER ::= 65535
maxProtocolIEs	INTEGER ::= 65535
maxNrOfLevels	INTEGER ::= 256

END

Tdoc R3-020622

3GPP TSG-RAN-WG3 Meeting #27 Orlando, USA, 18th – 22nd February 2002

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ж	25	<mark>.419</mark>	CR	83	жr	rev	1 [#]	€ C	urrent vers	sion:	3.7.0	ж
For <u>HELP</u> on	using	this for	m, see	e bottom	of this pa	ge or	look at	the p	oop-up text	over	the ¥ syr	mbols.
Proposed change	e affec	ts: ¥	(U)	SIM	ME/UE		Radio	Acce	ess Networ	k <mark>X</mark>	Core Ne	etwork X
Title:	₩ <mark>Co</mark>	rrectior	<mark>n of the</mark>	e wordin	<mark>g of maxin</mark>	<mark>num v</mark>	alue					
Source:	₩ <mark>R-</mark>	NG3										
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Deesen for shore	مە	The	urropt	05 440 k		unalar	arita a ad	aioh o			tion in or	dor to
Reason for chang	је: њ	make In tabu 9.2.6) (subcl	the sp ular the , <i>Numl</i> ause 9	ecification e range i ber of Br 9.2.12) a	on unambi is 1 to <ma roadcasts</ma 	iguity. axnoo Comp Resou	fSAI> f leted L urce Lo	for Se ist IE	ervice Area (subclaus g List IE (S	as Lisi e 9.2.	t IE (Subo 10), <i>Failu</i>	lause <i>ire List</i> IE
Summary of char	nge: ¥	The w below		of the n	naxumum	value	of the	range	e in ASN.1	are c	hanage a	is shown
		1.Ser	vice Ar	eas List	IE is chan	nge fro	om max	Serv	rice-Areas-	List to	maxnoo	fSAI
					asts Comp ed-List to				nange from	maxl	Number-o	of-
		3.Faild	ure Lis	tIE is ch	nange from	n max	Failure	-List	to maxnoo	fSAI		
			lio Res maxno		oading Lis	t IE is	chang	e fror	m maxRad	io-Re	source-Lo	bading-
Consequences if not approved:	ж			approve inpleme		erent w	vording	g may	lead to m	isund	erstanding	g
		Impac	t Analy	ysis:								
		releas	e):						n of the sp			
		(same not ch ASN.1	e releas <u>iange i</u> I	se) beca ts value	use <u>it c</u> ha	nges	only the	e wor	us version rding <u>of ma</u> aning of th	ximu	<u>n value a</u>	nd does
				impact: an impa	act under [functi	onalle	oint c	of view			
		I NIS (K nas	an Impa	act under [uncti	onal] p	oint c	N VIEW.			

	The impact [can] be considered isolated because the change affects [one] [system function] namely the meaning of maximum value in ASN.1.								
Clauses affected:	¥ 9.3.4, 9.3.5								
Other specs affected:	 Cher core specifications Cost specifications Cost specifications Cost Specifications Cost Specifications 								
Other comments:	#								

How to create CRs using this form:

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

9.3.4 Information Element Definitions

```
_ _
-- Information Element Definitions
SABP-IEs {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) sabp (3) version1 (1) sabp-IEs (2) }
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
IMPORTS
  maxRadio-Resource-Loading-List,
  -maxFailure-List,
 maxNrOfErrors,
   maxService-Areas-ListmaxnoofSAI,
   maxNrOfLevels,
   id-MessageStructure,
   id-TypeOfError
FROM SABP-Constants
   Criticality,
   ProcedureCode,
   TriggeringMessage,
   ProtocolIE-ID
FROM SABP-CommonDataTypes
   ProtocolExtensionContainer{},
   SABP-PROTOCOL-EXTENSION
FROM SABP-Containers;
-- A
Available-Bandwidth
                  ::= INTEGER (0..20480)
-- bits/sec
-- B
Broadcast-Message-Content ::= OCTET STRING (SIZE (1..1246))
-- This IE is sent from the CN to the RNC containing user information i.e.
-- the message.
-- C
Category ::= ENUMERATED {
   high-priority,
   background-priority,
   normal-priority,
   default-priority,
   . . .
}
                    ::= INTEGER {
Cause
                                                  (0),
   parameter-not-recognised
   parameter-value-invalid
                                                  (1),
   valid-CN-message-not-identified
                                                  (2),
   service-area-identity-not-valid
                                                  (3),
   unrecognised-message
                                                  (4),
   missing-mandatory-element
                                                  (5),
                                                  (6),
   rNC-capacity-exceeded
   rNC-memory-exceeded
                                                  (7),
                                                  (8),
   service-area-broadcast-not-supported
   service-area-broadcast-not-operational
                                                  (9),
   message-reference-already-used
                                                  (10),
```

```
unspecifed-error
                                                            (11),
      transfer-syntax-error
                                                             (12),
      semantic-error
                                                            (13),
      message-not-compatible-with-receiver-state
                                                            (14),
                                                            (15),
      abstract-syntax-error-reject
      abstract-syntax-error-ignore-and-notify
                                                            (16),
      abstract-syntax-error-falsely-constructed-message (17)
  } (0..255)
  Criticality-Diagnostics ::= SEQUENCE
procedureCode ProcedureCode
triggeringMessage TriggeringMessag
                                  ::= SEQUENCE {
                                                       OPTIONAL,
      procedureCriticality Criticality
                                                       OPTIONAL.
      procedureCriticality Criticality OPTIONAL,
iEsCriticalityDiagnostics CriticalityDiagnostics-IE-List OPTIONAL,
      iE-Extensions ProtocolExtensionContainer { {CriticalityDiagnostics-ExtIEs} } OPTIONAL,
      . . .
  }
  CriticalityDiagnostics-ExtIEs SABP-PROTOCOL-EXTENSION ::= {
      . . .
  }
  CriticalityDiagnostics-IE-List ::= SEQUENCE (SIZE (1..maxNrOfErrors)) OF
      SEQUENCE {
          iECriticality
                               Criticality.
          iE-ID
                               ProtocolIE-ID,
          repetitionNumber
                               RepetitionNumber0
                                                            OPTIONAL,
                                  ProtocolExtensionContainer { {CriticalityDiagnostics-IE-List-ExtIEs}
          iE-Extensions
  } OPTIONAL,
          . . .
      }
  CriticalityDiagnostics-IE-List-ExtIEs SABP-PROTOCOL-EXTENSION ::= {
      { ID id-MessageStructure
                                      CRITICALITY ignore
                                                                EXTENSION MessageStructure
                                                                                                  PRESENCE
  optional }|
      {    ID id-TypeOfError
                                      CRITICALITY ignore
                                                                EXTENSION TypeOfError
                                                                                                  PRESENCE
  mandatory },
      . . .
  }
  MessageStructure ::= SEQUENCE (SIZE (1..maxNrOfLevels)) OF
      SEQUENCE {
          iE-ID
                                   ProtocolIE-ID,
          repetitionNumber
                                  RepetitionNumber1
                                                           OPTIONAL,
          iE-Extensions
                                   ProtocolExtensionContainer { {MessageStructure-ExtIEs} } OPTIONAL,
          . . .
      }
  MessageStructure-ExtIEs SABP-PROTOCOL-EXTENSION ::= {
  }
  -- D
  Data-Coding-Scheme
                             ::= INTEGER (0..255)
  -- E
  –– F
Failure-List ::= SEQUENCE (SIZE (1..maxFailure-ListmaxnoofSAI)) OF Failure-List-Item
  Failure-List-Item ::= SEQUENCE {
      service-area-identifier
                                   Service-Area-Identifier,
                               Cause,
      cause
          iE-Extensions
                               ProtocolExtensionContainer { {FailureListItemIE-ExtIEs} } OPTIONAL,
          . . .
  }
  FailureListItemIE-ExtIEs SABP-PROTOCOL-EXTENSION ::= {
  }
  -- G
```

-- H -- I

```
-- J
  -- K
  -- L
  -- M
  Message-Identifier ::= OCTET STRING (SIZE (2))
  -- N
  New-Serial-Number
                                  ::= Serial-Number
  Number-of-Broadcasts-Completed-List ::= SEQUENCE (SIZE (1.. maxnoofSAImaxNumber-of-Broadcasts-
  Completed-List)) OF
     Number-of-Broadcasts-Completed-List-Item
  Number-of-Broadcasts-Completed-List-Item ::= SEQUENCE {
      service-area-identifier Service-Area-Identifier,
      number-of-broadcasts-completed
                                         INTEGER (0..65535),
      number-of-broadcasts-completed-info Number-Of-Broadcasts-Completed-Info
                                                                                      OPTIONAL.
      iE-Extensions
                        ProtocolExtensionContainer { {NoOfBroadcastsCompletedListItemIE-ExtIEs} }
  OPTIONAL,
  }
  NoOfBroadcastsCompletedListItemIE-ExtIEs SABP-PROTOCOL-EXTENSION ::= {
  ...
}
  Number-Of-Broadcasts-Completed-Info
                                        ::= ENUMERATED {
     overflow,
     unknown,
      . . .
  }
  Number-of-Broadcasts-Requested
                                    ::= INTEGER {
     broadcast-indefinitely (0)
  } (0..65535)
  -- 0
                     ::= Serial-Number
  Old-Serial-Number
  -- P
  -- Q
  -- R
Radio-Resource-Loading-List ::= SEQUENCE (SIZE (1..maxRadio Resource Loading ListmaxnoofSAI)) OF
      Radio-Resource-Loading-List-Item
  Radio-Resource-Loading-List-Item ::= SEQUENCE {
     service-area-identifier Service-Area-Identifier,
available-bandwidth Available-Bandwidth,
      iE-Extensions ProtocolExtensionContainer { {RadioResourceLoadingListItemIE-ExtIEs} }
  OPTIONAL,
          . . .
  }
  RadioResourceLoadingListItemIE-ExtIEs SABP-PROTOCOL-EXTENSION ::= {
  }
  Recovery-Indication ::= ENUMERATED {
     data-lost,
     data-available
  }
  RepetitionNumber0
                            ::= INTEGER(0..255)
                              ::= INTEGER(1..256)
  RepetitionNumber1
```

```
::= INTEGER (1..4096)
 Repetition-Period
 -- Each unit represents a repetition of one second to a maximum of
 -- once per 4096 seconds (~1 hour).
 -- S
 Serial-Number
                           ::= INTEGER (0..65535)
 Service-Area-Identifier ::= SEQUENCE {
                               OCTET STRING (SIZE (3))
     pLMNidentity
                    -- Digits 0 to 9, two digits per octet.
                                                                  _ _
                    -- Each octet encoded 0000 to 1001.
                                                                   _ _
                    -- 1111 used as filler
                                                                  _ _
                    -- Bit 4 to 1 of octet n encoding digit 2n-1.
                                                                  _ _
                    -- Bit 8 to 5 of octet n encoding digit 2n.
                    -- The PLMN identity consists of 3 digits from MCC
                    -- followed by either a filler plus 2 digits
                                                                 --
                    -- from MNC (in case of 2 digit MNC) or 3 digits --
                                                                  -- ,
                    -- from MNC (in case of 3 digit MNC).
     lac
                    OCTET STRING (SIZE (2))
                    -- 0000 and FFFE not allowed
                                                                  -- ,
                    OCTET STRING (SIZE (2))
     sac
 }
  -- **TODO** The IE type for these parameters is not known as yet
Service-Areas-List := SEQUENCE (SIZE (1...maxService-Areas-ListmaxnoofSAI)) OF Service-Area-
 Identifier
 -- T
 TypeOfError ::= ENUMERATED {
    not-understood,
     missing,
     . . .
 }
 -- U
 -- V
 -- W
 -- X
 -- Y
 END
            Common Definitions
 9.3.5
                     ******
  __ ***********
  _ _
  -- Common definitions
  _ _
 SABP-CommonDataTypes {
 itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
 umts-Access (20) modules (3) sabp (3) version1 (1) sabp-CommonDataTypes (3) }
 DEFINITIONS AUTOMATIC TAGS ::=
 BEGIN
 Criticality
               ::= ENUMERATED { reject, ignore, notify }
               ::= ENUMERATED { optional, conditional, mandatory }
 Presence
 ProcedureCode
                    ::= INTEGER (0..255)
 ProtocolExtensionID ::= INTEGER (0..65535)
 ProtocolIE-ID
                  ::= INTEGER (0..65535)
```

TriggeringMessage ::= ENUMERATED {initiating-message, successful-outcome, unsuccessful-outcome, unsuccessful-outcome}

END

9.3.6 Constant Definitions

```
_ _
-- Constant definitions
SABP-Constants {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) sabp (3) version1 (1) sabp-Constants (4) }
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
-- Elementary Procedures
id-Write-Replace
                             INTEGER ::= 0
id-Load-Status-Enquiry INTEGER ::= 2
id-Message-Status-Query INTEGER ::= 3
id-Restart-Indication INTEGER ::= 4
id-Reset INTEGER ::= 5
id-Failure-Indication INTEGER ::= 6
id-Error-Indication
                             INTEGER ::= 7
_ _
-- IEs
_ _
 INTEGER ::= 0
id-Broadcast-Message-Content
                              INTEGER ::= 1
id-Category
id-Cause
                         INTEGER ::= 2
id-Criticality-Diagnosti-

id-Data-Coding-Scheme INTEGER ::= +

id-Failure-List INTEGER ::= 5

id-Message-Identifier INTEGER ::= 6

INTEGER ::= 7

INTEGER ::= 7

INTEGER ::= 7
id-Number-of-Broadcasts-Completed-List INTEGER ::= 8
id-Number-of-Broadcasts-Requested
                                            INTEGER ::= 9

      INTEGER ::=

      INTEGER ::=

id-Repetition-Period
                             INTEGER ::= 14
id-Serial-Number
                               INTEGER ::= 15
id-Service-Areas-List
id-MessageStructure
                                   INTEGER ::= 16
id-TypeOfError
                                   INTEGER ::= 17
-- Extension constants
_ _
_ _
-- Lists
 maxRadio-Resource-Loading-List INTEGER := 65535
maxFailure-List
                               INTEGER ::= 65535
```

maxNumber-of-Broadcasts-Completed-ListINTEGER::=65535maxNrOfErrorsINTEGER::=256maxService-Areas-ListmaxnoofSAIINTEGER::=65535

maxProtocolExtensions	INTEGER ::= 65535
maxProtocolIEs	INTEGER ::= 65535
maxNrOfLevels	INTEGER ::= 256

END

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ж	25.419 CR 82 # rev - ^{# Current version:} 4.3.0 [#]
For <u>HELP</u> on u	sing this form, see bottom of this page or look at the pop-up text over the $#$ symbols.
Proposed change a	nffects: # (U)SIM ME/UE Radio Access Network X Core Network X
Title: ¥	Correction of the value "Default" in category IE
Source: ೫	R-WG3
Work item code: Ж	TEI Date: % Feb-2002
Category: ₩	ARelease: #Rel4Use one of the following categories:Use one of the following releases:F (correction)2A (corresponds to a correction in an earlier release)R96B (addition of feature),R97C (functional modification of feature)R98D (editorial modification)R99D tetailed explanations of the above categories canREL-4be found in 3GPP TR 21.900.REL-5
Reason for change	 make the specification unambiguity. The use of the values of <i>Category</i> IE is specified in Write Replace procedure text (subclause 8.2.2). However, the usage of the its value "default" in subclause 9.2.7 is unclear. It has been described in Write Replace procedure that when the <i>Category</i> IE is not present, the RNC shall perform the broadcast as the same category as "Normal", therefore it is thought that the value "Default" is useless in any case
Summary of chang Consequences if not approved:	 The "default" in Category IE is made clear that it shall not be used If this is not approved, the 25.419 is not clear and therefore it might lead to misunderstanding when inplementation. Impact Analysis: Impact assessment towards the previous version of the specification (same release): This CR has [isolated impact] with the previous version of the specification (same release) because current specification is not clear enough to have implementation. ONLY if there is impact: This CR has an impact under [protocol] point of view. The impact [can] be considered isolated because the change affects [one] [system function] namely the Category of the broadcast message.
Clauses affected: Other specs affected:	# 9.2.7 # X Other core specifications # 25.419 CR81 R99 Test specifications 0&M Specifications

Other comments: %

How to create CRs using this form:

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

9.2.5 New Serial Number

New Serial Number IE enables identification of a new message for broadcast to be identified, and is altered every time the message is changes. The format of this IE is defined in subclause 9.2.3.

IE/GROUP NAME	PRESENCE	RANGE	IE Type and	Semantics Description
New Serial Number	0		9.2.3	

9.2.6 Service Areas List

The *Service Areas List* IE identifies a sequence of one or more Service Areas to which the message(s) apply. The *Service Areas List* IE must include at least one Service Area.

IE/GROUP NAME	PRESENCE	RANGE	IE Type and	Semantics Description
Service Areas List		1 to <maxno of SAI></maxno 		
>Service Area Identifier	М		9.2.11	

Range bound	Explanation		
MaxnoofSAI	Maximum no. of SAI in Service Areas List. Value is 65535		

9.2.7 Category

Category IE is sent from the CN to the RNC, and is used to indicate the priority of the message.

IE/GROUP NAME	PRESENCE	RANGE	IE Type and	Semantics Description
Category	0		Enumerated (High Priority, Background, Normal, Default)	This IE contains the broadcast priority of the message. <u>The value "Default" shall</u> not be used.

9.2.8 Repetition Period

Repetition Period IE is sent from the CN to the RNC and indicates the periodicity of message broadcasts.

IE/GROUP NAME	PRESENCE	RANGE	IE Type and	Semantics Description
Repetition Period	М		INTEGER (14096)	Range is 1 to 4096 where each unit will represent a repetition of one second to a maximum of once per ~1 hour